PDR
Turkish Psychological Counseling and Guidance Association
Central Office

TURKISH PSYCHOLOGICAL COUNSELING AND GUIDANCE JOURNAL

March - Vol: 14 / Issue: 72

Turkish Psychological Counseling and Guidance Journal

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From the Editor

Dear Readers,

We are very pleased to present you the articles in the 72nd issue, contributed by respected researchers from various universities and research centers. The Turkish Psychological Counseling and Guidance Journal aims to share the latest research and developments in the field of counseling and guidance, and to promote scholarly interaction in this area.

The waiting period for the articles published in this issue varies between 2 and 13 months, with the average publication time being 8.5 months. From time to time, researchers who submit articles complain about their articles being published late. Every researcher undoubtedly wants his/her article to be published as soon as possible. One of the two most important factors that determine the publication time of an article is the review speed of the referees, and the other is the time spent by the author(s) to complete the corrections and resubmit them to the journal, if corrections are given. Our academicians who serve as referees have a great responsibility in the rapid publication of articles sent to our journal. We would like to express our gratitude to our referees who accepted the duty of refereeing among their busy schedules and evaluated it quickly. However, although we send articles to many academicians for evaluation, we receive positive responses from only a small portion of them. Surely, reviewing is a difficult and time consuming work. But declining to review extends the time taken to obtain an evaluation as we need to contact again other people. At the same time, it may often take long before we receive the referee commends. Just as our referees would want their own articles to be published as soon as possible, we would kindly ask them to consider the same when undertaking their referee duty. We think that if our referees would be able to sacrifice a bit more of their valuable time and return their commends earlier, we can reduce our article publication time from 8.5 months to 6 months.

We owe thanks to many people for the publication of this issue. We extend our sincere thanks to the authors for their valuable contributions to this journal. Their research has significantly enriched the field of psychological counseling and guidance. We would also like to extend our gratitude to our valuable reviewers for their dedicated work and insightful feedback. Without your contributions, our journal would not have reached this level of excellence.

My final thanks go to the editorial team and the editing, page-setting and technical support team. They worked carefully in the selection process of the articles in this issue, striving to enhance the quality and diversity of our journal.

We hope that the studies presented in this issue will be beneficial to practitioners, academics, and policymakers in the field of psychological counseling and guidance. We look forward to your constructive criticisms and feedback.

Thank you for your interest and support in our journal.

Best regards,

Prof. Dr. Metin PİŞKİN
Editor-In-Chief

RESEARCH ARTICLE

Opinions of Psychological Counselor and Guidance Teachers Taking Work in Earthquake Psychosocıal Support Works (Malatya Province Example)

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ABSTRACT

This study was carried out with psychological counselor/guidance teachers working within the scope of psychosocial support services in the earthquake region of Malatya in 2020. The research was carried out by using the phenomenological design, one of the qualitative research models, with the focus group interview method. 11 psychological counselors/guidance teachers participated in the study. During the interview, video and audio recordings were taken and the interviews were deciphered. Content analysis method was used to analyze the findings. When the findings of the study were examined, it was revealed that the motivation of the participants to provide psychosocial support services was prior experience and encouragement. Encouragement; In the title, the support and experience of the Guidance and Research Center Directorate (RAM), attending the coordination meeting and communicating with colleagues are mainly included. Findings were obtained that the participants did not feel professionally competent before starting psychosocial support activities. However, towards the end of the studies, there are also findings regarding the development of professional competence. It was found as the most extraordinary event that some of the relatives of the people who died due to the earthquake found solace in death. Participants stated their expectations and suggestions regarding post-earthquake psychosocial support activities.

Although the occurrence of earthquakes, the existence of risk zones and their size can be predicted scientifically, earthquakes are assumed to be unpredictable in geophysics due to their nature. The most obvious consequences of sudden emergencies and disasters can be seen in cities with social, economic and physical losses or destruction. Disasters expose all factors of the sociological structure to extraordinary problems. Due to disasters, problems such as the negative impact of culture in the sociological structure, the deterioration of family relations, the increase in economic problems, the interruption of school and education, the decrease in sharing and the negative impact on mental health can be seen (Bak & Tang 1989; Geller, Jackson, Kagan et al. 1997; Öztan, Bolova, Özdemir, et al., 2019).

It can be said that earthquakes have a negative effect on mental health. This topic is DSM-IV-TR; In APA, (2003); trauma is characterized by two features: first, the individual experiences the threat of death or disruption of physical integrity as a result of impending death or serious injury; the second includes the

individual's intense fear reaction, helplessness or horror. Events caused by nature and technology, such as earthquakes or plane crashes, are considered less pathogenic than events consciously intended by people, such as sexual abuse or terrorist attack (Kröger, 2013).

If the natural or unnatural hard life phenomenon affects a large number of people, more than one damage and danger situation may arise. For example, a traffic accident on the highway, a clash of anger in a school, or a disaster such as a tsunami, flooding of a part of the city, unlike individual events, ordinary medical, psychosocial emergency aid and standard care are required in events that affect many segments of the society; affected victims, survivors, relatives, dependents of survivors, witnesses, missing persons are not sufficient to cope with the emergence. Therefore, psychosocial support studies are carried out very limited and with delays. Especially in some special cases, this situation is experienced in emergency support works because individuals who are generally affected by complex, damaging, danger and disaster situations are exposed to more stress. For this reason, the disruptions to be experienced should be communicated or explained to the affected people (Kröger, 2013)

Psychological First Aid (PFA) studies increase their importance in order to provide psychosocial support activities as soon as possible and to expand their scope after a disaster or a difficult life event. PFA is a modularly designed professional assistance process aimed at reducing the initial stress caused by traumatic events offered to children, adolescents, adults and families immediately after a disaster or terrorism. Psychological first aid supports short- and long-term adaptation and coping with events. Psychological first aid principles and techniques are based on four basic standards. These;

1. Consistent scientific study of post-traumatic risk and resilience,
2. Applicable in the field,
3. Suitable for all development levels of life,
4. It is presented flexibly according to the characteristics of the culture.

Studies conducted within the framework of PFA do not foresee that all survivors of disasters or difficult life events will develop serious mental health problems or long-term difficulties in recovery. It is thought that survivors and others affected by such events will experience a wide variety of reactions. E.g; physical, psychological, behavioral and spiritual reactions are some of them. With some of these responses, coping interventions can be adapted to help recovery with the compassionate support of disaster response teams (Brymer, Taylor, Escudero, Jacobs, Kronenberg, Macy, Mock, Payne, Pynoos, & Vogel, 2012).

Individuals providing intervention services in PFA also take precautions for people who are different in the general demographic structure. As an approach, particular attention is paid to the characteristics of the individual demographic groups, for example people with mental disabilities or immigration backgrounds. They are considered flexible and culturally sensitive. The stages of the process are presented below (Kröger, 2013).

Overview of psychological first aid
1- Communicate appropriately
2- Provide short-term comfort and security
3- Stabilize if necessary
4- Find out their current needs and concerns
5- Offer practical help
6- Build social support
7- Provide information on how to deal with events
8- Communicate with those who provide social support and psychosocial support.

Psychosocial support studies should be initiated as soon as possible after a difficult life. One of the difficult life events is the earthquake and what happened after the earthquake. It is known that Turkey and its surroundings are in the earthquake zone. When the database of Boğaziçi University Kandilli Observatory is examined, the number of earthquakes in our country and its surroundings in 2019 is 16,074. The average number of earthquakes per day for 2019 is 44. When we look at the data of 2020, the number of earthquakes in our country has reached 31,970 with an increase of 98.89% compared to the previous year. In 2020, the average daily number of earthquakes increased to 87. It is also known that destructive earthquakes have increased in recent years around Malatya and Elazığ ("Boğaziçi University Kandilli Observatory", 2021).

Post-earthquake work is undertaken primarily by the Disaster and Emergency Management Presidency (AFAD) and the Turkish Red Crescent, as well as the Ministry of Health, the Ministry of Family and Social Services (ASHB), the Ministry of Youth and Sports (GSP), and the Ministry of National Education (MEB). Especially the studies to be carried out with students and their families are under the responsibility of the Ministry of National Education. In the post-earthquake psychosocial support studies in Turkey, the 1999 AD was the great Marmara earthquake. From 1999 to 2021, MEB carried out many studies and developed psychosocial support activities to be implemented in schools or after disasters. Most recently, a new program on psychosocial studies was prepared in 2019 ("MEB", 2021).

After the Elazig/Malatya and Izmir earthquakes in 2020, the Ministry of National Education has also developed programs to be implemented according to the region. Despite the fact that MEB attaches great importance to post-disaster psychosocial support activities, psychosocial support activities could actually be started on 28/01/2020 even in the most heavily affected regions in Malatya after the Elazig/Sivrice-centered earthquake of 24/01/2020. "What did the psychological counselors and guidance teachers who work in the Malatya earthquake region experience within the scope of psychosocial support activities? What were the effects during and after the studies?" The questions are the main subject of the research.

Method

The phenomenological pattern model, one of the qualitative methods, was adopted as the research method. The phenomenological pattern describes the existing phenomenon in detail. It deals with the meanings and concepts that people create, how they perceive the world and the events that occur in the world, and how they experience it (Merriam, 2013; Tanrıöğen, 2012). In this study, it is aimed to explore the problem through the opinions and experiences of psychological counselors and guidance teachers, to comprehend the basic phenomenon in detail, and to express the research questions broadly of the experiences of the general participants. The phenomenological design is a method that allows collecting data based on the discourse of a small number of people, describing the data using text analysis, analyzing them according to themes, and interpreting the findings in a broader sense (Creswell, 2013).

Data Collection Tool

Qualitative research provides an in-depth analysis of the answers of the participants at the micro level, in other words, the reasons for the phenomenon. Focus group interviews, which are qualitative research methods that provide more sincere and accurate information, are the source of making maximum use of group dynamics. Volunteer participants allow more sincere and accurate information to be obtained. (Kumral, 2010).

When the literature is examined, it is seen that focus group interviews are not really a new method. Focus group discussions, which emerged in the 1930s as an alternative to interviews; Social researcher Robert Merton (1941), Metron and Kendal (1946), and Fiske and Kendall (1956) used focus group interviews on many specific research topics. In the focus group interview, the emotions and thoughts in the minds of the participants are influenced by each other, allowing a rich flow of information. According to Kreuger (1994), the purpose of the focus group interview is not to generalize or make sense of it. The main thing here is to reveal how the participants perceive the researched phenomenon. Since focus group interviews are made up of volunteers and volunteers, they eliminate the risk of involuntary participation in studies (Cokluk, Yılmaz, & Oğuz, 2011).

In this study, focus group interview was used as a data collection tool for in-depth analysis of existing cases. There are four basic methods that can be used in collecting data in qualitative research: focus group interview, observation, interview and document review (Yıldırım & Şimşek, 2006). According to Byers and Wilcox (1988) 8-12 people, 6-10 people according to MacIntosh (1981), 4-9 people according to Kitzinger (1995), according to Goss and Leinbach. According to (1996) 15 people, according to Morgan (1997) 6-12 people, and according to Edmunds (2000) 8-10 people. Although there are different opinions about the number of participants, generally these studies should be carried out with a small number of participants. This number also varies between 4 and 10 people on average. According to Edmunds (2000), if the group has more than 10 people, the dynamics of the group may decrease, the interaction between the participants may lose its effect and the control of the group may become more difficult.

Data Collection

Pre-observation was made by the researcher at schools and institutions for the application place, and Malatya teacher's house VIP meeting room was decided as the most suitable place. The application date and time were determined as a result of the preliminary interviews conducted with the participants by obtaining the necessary permission and appointment from Malatya teacher's house. The focus group meeting was conducted face-to-face in November 2020. Apart from one excuse (Covid-19), 11 psychological counselors and guidance teachers participated in the study. Due to the nature of the focus group interview, incomprehensible questions about the interview topics were asked with similar expressions, and a minimal incentive method was used to obtain in-depth data from the participant. Data were recorded by the researcher with audio, video recording and note-taking method. The application took a total of 1 hour 47 minutes 27 seconds.

Analysis of Data

The audio and video data obtained in the research were converted into text and content analysis was carried out. In focus group interviews, recordings are usually made with audio and video recording devices (video). Because the recordings made with video cameras not only make it easier to determine who said what, but also provide information about the facial expressions of the participants (Britten, 1995; Mays & Pope, 1995). The transcript of the interview was written from the audio and video recordings taken. The coding method was used for the content analysis of the data obtained from the transcript. By categorizing the data, sub-themes were formed from similar views and themes were formed from sub-themes. As a result of the analysis, a total of 5 themes were obtained (Saldana 2019 trans. Tüfekçi, Şad and Akcan).

Irritability

1- The study is limited to the opinions of psychological counselors and guidance teachers working in the Malatya earthquake region within the scope of psychosocial support activities.

2- The study is limited to the opinions of 11 psychological counselors and guidance teachers who participated in the focus group interview.

Results

In this section, the findings obtained as a result of the analysis of the data are given. As a result of the analysis of the findings obtained by the focus group interview method, 5 themes were created. The themes obtained are; motivation, professional competence, psychosocial support activities, extraordinary events and suggestions are presented in the tables below. The sub-themes that make up the theme are given in the left column of the table, and the categorizations that make up the relevant sub-theme are given on the right of each sub-theme. The categories that make up the sub-themes and the frequencies that show the whole sub-theme are also indicated in the table.

Table 1. Motivation

Sub-Themes	Opinions	f	af
Inner Voice	Responsibility	25	
	Helpfulness	19	60
	Children	16	
Incentive	RAM	6	
	Colleagues	5	15
	Coordination meeting	3	
	Media	1	
Experience	Psychosocial	12	12

RAM: Rehberlik ve Araştırma Merkezi Müdürlüğü/ Directorate of Guidance and Research

In Table 1, the opinions of the psychological counselors and guidance teachers involved in psychosocial support services in the Malatya earthquake region regarding their motivation to participate in and help the specified studies are shown. Accordingly, three sub-headings were mentioned within the theme of "motivation". The titles obtained are "inner voice", "incentive" and "experience" from the most mentioned to the least mentioned. It is understood that the motivation sources of the majority of the participants to participate

in the studies are internal voices. In addition, it can be said that pre-experiences and the support and encouragement of colleagues from RAM have an impact on motivation to participate in studies.

Sub Theme "inner voice"; Some excerpts from the opinions expressed regarding the inner voice are presented below.

Participant Woman (KK2): Children.

Participant Male (KE3): Isn't it a little bit about conscientious accounting and the emergence of our heart sound?

KK5: *Yes guys. I voluntarily joined the Ministry of Family and Social Policies after the National Education. There, one of the social workers told me: "Sir, don't you have a job? You came here again in this snow and winter cold." That's what they said. So they found me strange. I said, I don't have any financial interests, I don't have any expectations. Go sit in your warm house, you know, we went on the weekend, we went during the week. You go to the mountains and hills as a pleasure to me there, you know, from his point of view, but my motivation was very different, we encountered this a lot.*

Sub Theme "incentive"; Some sample quotations from the opinions expressed on the formation of the incentive title are as follows:

KK1: *The RAM director called, after the earthquake had passed, to say there is a meeting tomorrow. So what can be done? For example, I just looked at the news. Where was the situation, how did it happen, what was the severity? After that, we all followed it on the news, and we were called all night by our manager to see what could be done. That's why we were always in touch with friends, until the morning anyway. After the meeting in the morning, the framework was created. We continued after that.*

KE3: *We are necessary, when that message came, I woke up at half past eight in the morning. I went to bed late, saw the (RAM director) WhatsApp message, looked at the clock, it was probably nine o'clock for the meeting.*

KE9: *I saw that KE10 was there too, I said, "If KE10 exists, I'm in".*

KE10: *So, we had very serious feelings there, after that, was it the night of that day, was it day or was it after? My KK2 teacher or KK6 teacher probably shared it in the Whatsapp group. Like a volunteer work, I said to myself: "If I'm going to be a support there, I should definitely be there."*

Sub-Theme "experience"; Below are some sample quotes from what was shared.

KK5: *I had previously worked with victims of terrorism in Diyarbakır within the scope of psychosocial support services.*

KK6: *We, as RAM Staff, know that we are automatically a part of this job, as you said, we already prepared ourselves psychologically and all our friends were conscious of going to this task. We assigned the regions by sharing them among us in turn.*

KE7: *Getting the psychosocial practitioner training shortly before the earthquake made us ready to go to the field. It was very nice.*

Table 2. Professional Competence

Sub-Themes	Opinions	f	af
Insufficient	Inexperience	16	16
Partially Sufficient	Supervision	14	14

According to Table 2, psychological counselors and guidance teachers mostly feel inadequate in terms of professional competence before they start their psychosocial support services in the earthquake zone. Afterwards, it is seen that opinions are expressed that they have become partially sufficient as a result of the support received from their colleagues.

Sub Theme "insufficient"; Some sample quotes from the participants are as follows:

KK10: *I did not feel very competent, let me tell you from the beginning. I received an education again, but I have never worked in such an environment.*

Sub Theme "partially sufficient"; Some excerpts from the views on the subject are as follows:

KE7: *So, after the shock of the first day is over, things start to settle down.*

KE10: *If I remember correctly that day, I sent a message to either my K4 teacher or my X teacher. We made a preliminary briefing with him, we supported each other. Afterwards, I looked and I think that I became sufficient in the process. Then he realized, at least being around the kids, helping, doing things with them was productive. Yes, let me tell you, I started my sentences in the first question like this, what should I do? I went there unknowingly, not feeling strong. Yes, I felt the same power afterwards, but there was something about it, I guess we shared it in that process.*

Table 3. Psychosocial Support Activities

Sub-Themes	Opinions	f	af
Activities	PFA/Basic Interventions	26	
	Game/Warm-up events	21	55
	Tent / Artisan visit	5	
	Crisis Intervention	3	
Productivity	Formation of positive feedback	39	
	Children's smile	4	
	Expectation formation	4	51
	Speechless child speech	2	
	Reluctant children wanting to participate	2	
Planning	Highlighting events	10	
	School grades	9	
	People of all age groups	5	
	Priority children	4	
	Task distribution	4	
	Physical facilities	4	50
	Determine the number of children/divide into groups	4	
	Getting information from local administrators	4	
	Preparation impossible for some situations	3	
	Getting information from families	2	
	Planning for the disadvantaged	1	

Table 3 shows the sub-themes and opinions of the psychological counselors and guidance teachers regarding the psychosocial support activities they carry out in the Malatya earthquake region. Psychological counselors and guidance counselors, although very close to each other in terms of psychosocial support services, mentioned "activities, productivity and planning" from the most to the least mentioned.

Sub Theme "activities"; Some of the opinions of the participants are:

KK1: *We gave priority to some basic applications. Safe place work was very, very essential, especially for children. Safe ground work was one of the most basic activities. We did breathing exercises and even brought balloons to the children, did activities about inflating the balloons and moving them and drinking the water. This allowed the children a little more to both integrate and express themselves.*

KK5: *In Pütürge, we toured tents, tents, house to house, and tradesmen. We even came across one of my students there, we sat there and toured the tents. There was this, adults know that we are not alone, it was nice for them to feel that.*

KE7: *Together with my teacher KE4, we said on the last day that we should go out to a field and see a field. There was an old aunt and her daughter, my teachers had seen them before. Sharing something with that family together, making a small touch in their life, makes people feel comfortable, comforting, conscientiously,*

you know, maybe a tiny bit of salt in the soup, but feeling that someone is a partner in their own pain, being able to establish a bond, is refreshing. . While we were traveling from there, we came across a middle-aged person, about 45-50 years old. He came and showed his house 30 meters away, he said, "My memories are destroyed here." "I got married here," he said. "My first child was born here," he said. He started to cry loudly. When he leaned on my teacher's or other man's shoulder, tears fell like beads.

KK1: *Actually, our priority was of course the children. Because we went on behalf of National Education, but we all contacted and communicated with adults. We were in all of them. We already chose the activities when we first went. What can we do in the first place, which ones would be more appropriate? We focused on a few activities and after seeing the conditions of those activities, we chose the most basic activities from the main activities.*

Sub Theme "productivity"; Some excerpts from the views of the participants are below.

KK1: *Actually, they had an expectation after they were informed. After seeing the positive things they experienced and felt there, will you come tomorrow? We heard this a lot, for example, will you come next week?*

KK5*: We brought clowns with the children, for example, they had a lot of fun with them. Clown painting, face painting, these entertained the children and made their families happy. In fact, a parent said: "Days later, I remembered that my child's face was smiling so much and smiling so much. So he was having fun as if there was no earthquake." said.*

KE7: *We even had a student, he came to the first practice with his father. He does not leave the father, he never leaves the first day's event. His father came and sat next to me. He did the activities with his father. When the second day comes, you can leave it to your father, you can go, he stayed with us. Now the child could go out without his father. Then we heard his story. The child under the blanket is in the earthquake. There is no father at home. The father also has such a concern, when he is a guest, while the father is in their own house, during the earthquake, the quilts fall and the child stays under the quilts.*

SubTheme "planning"; Some excerpts from the opinions are presented below.

KK1: *Especially about safe place and balance. Even popping that balloon was important to them, popping it after playing. Because they are very sensitive to noise. They had to acquire a habit in the game, both for him and as a balance, we tried to choose activities for this purpose, and I believe we saw the benefits.*

KK5: *We, I, worked with all groups in both National Education and Family and Social Policies in everything. We saw all the groups in Preschool, Elementary School.*

KE7: *When we went with our friends, we divided them into groups, you know, how many children are there? We got a number of it. Then we decided how to share. We divided up a preschool group, a primary school group, a middle school group, and high school friends as a group, and being at the Teacher's House was an advantage. There we immediately planned how to arrange it in a way that suits us and we divided it.*

Table 4. Unusual Event

Sub-Themes	Opinions	f	af
Most thought provoking	Traumatic/Economic issues	14	
	Residents of heavily damaged houses	8	27
	Farewell/Separation ceremony	5	
Most unusual event	Consolation in death	10	13
	Perception of the future when an earthquake occurs	3	

When we look at Table 4, opinions about the extreme experiences experienced by the psychological counselors and guidance teachers during the psychosocial support activities are seen. Psychological counselors and guidance teachers mostly mentioned the "most thought-provoking event" and then "the most extraordinary event".

Sub Theme "most thought provoking"; Some examples of the statements made by psychological counselors and guidance teachers are as follows:

KK1: *We did the activities on Friday, we will come back here again. We say to the children, when we say goodbye to that week. This week is over, here the children are asking, "Will you come again?". Since the planning is not clear with us, we would like to come. Even if we are not going to come, we say that other friends will come. Here they say you are the bride. Then they started kissing, hugging, seeing one of them, they all started coming.*

KE7: *The chip of the wealth, the basic needs this time after the life is saved, here is "Where will I stay?". Someone bought a cow and said, "The cow is dying in the barn, what am I going to do now?" He says, "I had six thousand liras," he says, "I bought an animal now, aha," and says, "An animal died before it was paid for." One feels a little bit there, he felt the need for economic weakness. In the meantime, you want expectation from the thing; You know, the closest place to reach out here, a strong state, when you feel that power, people feel relief when they feel that warmth. The best thing to reach is food. Kızılay brings the food there right away, it is very nice. Here's a little bit of housing stuff if it could be arranged?*

KK8: *Something made me think, there was a two-storey house on the way to visit the region. You know, it was so impossible to get into and life will still go on inside the man. The adobe house was in a hurry to save the things I had done last year, to save the food for its animals. Because the hand has to, if you blow it, it will be destroyed. It was really sad because the animals' food is inside, the winter firewood is inside, "I just got my pimapens done, if I build a new house man I have to save him.". Man, I'm always here, he made me very sad.*

KE9: *Mother and daughter live in a village behind the university, her daughter has graduated from university, the house is in ruins, she says, "The girl has no job, they don't give a house." It was something like that, it was a very derelict family and they had no one when I went before. How do those traveling people determine, but headmen are very effective in these works.*

Sub Theme "most unusual event"; Below are some excerpts from the opinions of psychological counselors and guidance teachers on the subject.

KK5: *Let me tell you, while we were going from house to house with my K4 teacher, my teacher X, the house where the parents and their children were staying was destroyed, both of them passed away. They were saying about the family: "Good thing he passed away! she was suffering more than her husband." like and they talked about family drama, a very traumatic family picture. You know, people were sad that they passed away, but at the same time they found such consolation and said that they passed away while hugging each other, that's how I remember it. The wife was not at home that evening. You know how people found solace, "Is there any consolation in death?" I thought at first. This gave me a little chill. In the end, yes, death is very comforting to him because those people will not come, but they say that the deceased said a few days before this event: "I wish I could die even if something happens!". Yes, they told about it; this was on my mind, and the kid is small.*

First of all, I said, was it salvation for that person? Really, I thought so too because he has a very difficult life. Nutrition can't even afford food. He has a disobedient family because his neighbors in the teacher's house told his details. He was constantly exposed to violence, I shuddered, really, but seriously, then I said that there were things that I could not understand because it affected me a lot, but I said, but at least I said this, but maybe I don't know, it will sound strange to you, "I'm glad that person and the child both died together." I said. Because if the child stays, the other parent is irresponsible, who will take care of it? I thought of that at the time. Because who would take care of this child? A little bit of this me. And then I said that there was a bad situation like rejoicing in the death of a person, but I don't think it's cruelty that there is no one to take care of that child. At least I thought something happened, he became an angel. Maybe in a beautiful place in the sight of Allah. In this way, I found solace. This is what happened because the person who passed away said a few days ago, "I wish I could die!" but he was praying like that. Neighboring women said a sincere prayer in prayers. Was his prayer accepted? Now, it's different. Shall I be happy or sad; What can i say? There are the neighboring women who tell the details, I didn't know what to say to them. If I say anything now, they'll look weird because I'm already in a mess. This event was very strange.

KK1: *Actually, there were many extraordinary events for me, be it children or adults. Let me tell you one. There was a little girl who said, "Teacher, can I say something in your ear?" said. "Subject to." I said, "You can tell." I said. Maybe I have told this to many friends, it affected me. "Will you come if there is another earthquake?" said. I mean, I felt really different there, I felt bad. Because a small child wants you to come,*

but when there is an earthquake, there is a perception that they will come. That was one of them, really, I still have it in my mind right now.

Table 5. Suggestions

Sub-Themes	Opinions	f	af
Training Psychological Counselor	Be prepared for crisis/trauma	6	
	Team trainings should also be constantly updated.	6	
	Knowing more warm-up activities	5	23
	Training from experienced PD	5	
	Education support of MEB and RAMs	1	
Management	Must be Ministries/Provincial-Coordination	13	
	Association/Foundation/Private Centers are harmful	4	19
	Your help was so sad	1	
	MEB was better organized	1	
Visibility	Not focusing too much on visuals	9	
	Statistics/Number should not be focused on	3	
	Taking a picture as if doing an event	3	18
	It should be a quality touch, not a number.	2	
	The studies are not ad-oriented	1	
Psychosocial Support Activities	Only PD should work with students	4	
	We saw the benefit of MEB-Psychosocial	4	
	Increased demands for psychosocial in schools	2	
	PS was nice for students and families	1	14
	Online studies should be used	1	
	There are things to be done in terms of mental health	1	
	There is more to be done	1	
Follow-up	Earthquake damage tracking	5	
	Follow up through Demarch	2	9
	Those who do not have a Psychological Counselor	2	
Equipment	psychosocial attire	6	
	Ministry of PS Materials/RAM	1	8
	Having a psychosocial support tent	1	
Self Criticism	PD Reluctance/Shyness	7	7
Thanks	Team/Work oriented	6	7
	To the Minister of Education	1	
Permanence	Continuation of work in the field	6	6
Reasons for Not Participating	PD Anxiety/Not knowing what to do	3	4
	PD Supporting own family	1	
Ensuring Participation	PD MEB/RAM Encouragement	2	2

*MEB: Milli Eğitim Bakanlığı/ Ministry of Education, PD: Psikolojik Danışman/ Psychological Counselor, PS: Psikososyal/ Psychosocial

In Table 11, the titles related to the "last words" theme formed in the focus group meeting are given. The sub-themes formed from the most mentioned to the least mentioned by the participants; "psychological counselor and guidance teacher training", "management", "visibility", "psychosocial support activities", "follow-up", "equipment", "self-criticism", "thanks", "permanence ", "reasons for not participating" and " ensuring participation".

Sub-Theme "psychological counselor and guidance teacher training"; Some sample quotes from the participants' views on the subject are presented below.

KE7: *Definitely, the studies to be done before, the studies to be done after, even the online studies about it, which we have just talked about, have a side that empowers people tremendously. In terms of mental health, one feels nervous when we go to the market all the time.*

KK8: *More education.*

KK6: *Yes, our own trainings.*

KE10: *I think we are now. This should be continued. I guess my KK1 teacher has a lot of work to do. Renewable of course. New content can be produced.*

KE9: *Now, maybe there is, I don't know, but a ready team should be formed for this. There will be one person in the first place, you create such a commission affiliated to the Provincial Directorate of National Education, then create a commission in charge of the districts, and then from time to time, you said new names to these friends, or training is given to new names. In other words, when there is a situation, God forbid, that team should be able to go there in an organized way. So it should not be collected later. That team must exist ready-made and their training must be updated.*

KE3: *Actually, sir, there is a District Psychosocial Team, a Provincial Psychosocial Team, each district has a psychosocial team.*

KK2: *You also have schools.*

KE3: *Actually, there is.*

KE10: *Actually, for example, meeting once a month or two months to update the trainings, I don't know, is it possible? Is there any?*

KE3: *For example, there are three people in total in our district, right? So we meet at least three times a year.*

KK1: *District commission?*

KE3: *As a commission, yes.*

Sub Theme "management"; Below are some sample excerpts from what was said by psychological counselors and guidance teachers on the subject.

KE10: *We are a strong country in terms of this plus what can be done, many things could have been delivered in a more planned and organized manner. As my KE9 teacher mentioned, it was nothing to be cluttered there. I think we were a little more organized again. I think there were serious problems in other parts. What can we do about it? I don't know him but.*

Sub Theme "visibility"; Some excerpts from the views expressed are as follows:

KK5: *There is a situation that bothers me, I don't know if it bothered you? Photographing… I don't know, you may not agree, either in the Ministry of Family and Social Policies or in National Education. Let's always share a photo, so I felt pressure on me. I don't have to prove to anyone that I went there. I'm there anyway, even if the ministry sees it or not, I went there voluntarily. This is not only National Education, but also the Ministry of Family and Social Policies, the Ministry of Health, we participated in related studies. Photograph, photo, number.*

KE10: *Let's shoot while the ministry is doing something, while it is giving out brochures.*

KK5: *Yes, in every sense, the thing that bothers me is this: The man is crying there or the child is worried, sad, we are in trouble with photography. You know, the number is the number, of course, I say that it is normal for the ministry to ask for numbers, but the important thing is that even if it touches five people, it is a quality woven, rather than a mere show touch to five hundred people. You know, these things came to me a little, I was disturbed.*

KE9: *They asked for numbers or something from every place we went.*

KK1: *But there is also a situation where people from other institutions come to our events and have their photos taken.*

KK5: *Well, there was a cengo game. A teacher had brought it. There was a doctor, there was a nurse, and it was said, "You should come as if you were playing cengo". Yes exactly; it made me a little bit, it bothered me.*

KE10: *Let me summarize it as follows; You know, I was given a certificate of success with my KK2 teacher, I will say the words I said to the Battalgazi District MEB Director when the certificate of achievement was given. A little more advertising-oriented work seemed to be planned there.*

Sub Theme "psychosocial support activities"; Some excerpts from the opinions expressed on the subject are as follows:

KE7: *There are a few things that caught my attention, after the earthquake. Turkey is a country with such traumas that there was an avalanche, the flood disaster in Giresun... We see the benefits of psychosocial studies within the ministry throughout the country. Demands started to increase at school, too, people bring their children in this sense, which is good. When the school opens, the psychosocial work is very, very good for both the guidance service, the teachers and the families. In terms of my own ministry, taking these trainings allowed us to go to the field ready. It was very nice.*

KE3: *We saw the benefit.*

KE7: *As a profession, we all have a technique in our minds about what to do throughout the country, whether in İzmir or in other regions.*

KE3: *Actually, it's not a chore.*

Sub Theme "follow-up"; Some sample quotes from the opinions expressed by psychological counselors and guidance teachers on the subject are as follows:

KE4: My teacher, my teacher KK5 does not want to say it, but we still follow them. There was Sister Z in the tent, fifteen days later the weather condition showed very low -3 -4 or something. Those headmens have phones, but there are two headmens in Doğanyol. I called them, take that mother and daughter to the mosque. There was a beautiful mosque with floor heating, there are heaters both in the pull-out floor and under the carpet. "Ok." he said, he took it. He doesn't say anything in KK5, he follows the students, helps them with books or something. So our bond is a little bit emotional.

Sub Theme "equipment"; Some of the opinions expressed regarding the equipment sub-theme are presented below.

KE7: *I agree about the teams. We have two RAMs throughout the province. I think one of the things that can be done here is the RAMs in terms of materials - after all, we are state institutions, each of us puts our hands in our pockets - it is a separate situation, but the ministry's preparation for this beforehand makes our work much easier, it makes the field of action easier.*

Sub Theme "self-criticism"; Some sample quotes from the points mentioned about the subject of self-criticism are as follows:

KE3: Are there 400 psychological counselors in Malatya?

KK6: Yes.

KE3: There are 425 of them. It caught my attention when I was asked to volunteer for the first time, and it has attracted the attention of many. As a guidance teacher, I would like to consider it as our own self-criticism. Not many volunteers because there is, after all, but I was in the Yesilyurt region. People we know may have jobs, but people were shy and did a little more. I wish there were more volunteers, we are in this business, I wish there were more. Here, my teacher is shy.

Sub Theme "thank you"; Some excerpts from what was said about the subject of "acknowledgment" are presented below.

KK6: *Thank you.*

KE4: *This team was good.*

KE7: *Friends from Battalgazi RAM; Let it be my teacher KK11, my teacher KK2, you as a researcher, my teacher KK1... Especially since you organized the organization in a good way, the RAM director reached all of us on the first day, and at the top, for his compliments to Professor Ziya for making us proud and honoring the work done there. I thank them. I hope we come together in pain, I hope we can do it together in a nice way without experiencing too much pain in other works.*

Sub Theme "permanence"; Below are some excerpts from the opinions expressed on the subject.

KE7: *You know, this will ensure continuity, but in times of crisis, the ministry or other ministries need an organization at the point of working in the field.*

KK10: *I also expressed an opinion on the continuation of the work in this field. Likewise, are we equipped enough to write that content about it, of course? I don't know, but there are definitely people who can do this in the headquarters and it should be done. At least, I am giving an example regarding this in a certain period of time. For these students, these studies could have been continued at certain periods for six months and a year. Many of our children's schools do not have a guidance counselor, even if there is, was it in Doğanyol if I remember correctly? Here was one.*

Sub Theme "reasons for not participating"; Some of the opinions expressed on the subject are as follows:

KE3: *Here, my teacher is shy.*

KK10: *We are in the earthquake zone after all, including his wife and children.*

Sub-Theme "ensuring participation"; Some sample excerpts from the opinions expressed regarding the encouragement of "psychological counselors and guidance teachers to participate in psychosocial support services" are presented below.

KE7: *We have about 400 colleagues. There are trainings we have received. It can be warm-up activities by determining our needs, intervention studies, group studies that we can create with our friends based on our experiences.*

Discussion and Comment

In this section, after the 6.8 magnitude Elazığ/Sivrice centered earthquake dated 24/01/2020, the focus group meeting was conducted with the psychological counselors and guidance teachers who participated in the studies carried out by the Provincial Psychosocial Support Services Crisis Intervention Team on behalf of the Ministry of National Education in the regions most affected by the earthquake in Malatya province. As a result, the findings were discussed and interpreted within the framework of **5 themes** (motivation, professional competence, psychosocial support aktivities, extraordinary events and suggestions).

Motivation to Participate in Activities

It is understood from the findings of the research that when psychological counselors and guidance teachers have to participate in psychosocial support services in the earthquake region after the earthquake, their primary feelings are benevolence. Help is the use of one's own strengths and possibilities for the benefit of another. Helping people facing extraordinary difficulties is a value that every individual in society should have. Helping without waiting for a return, encouraging people to help each other, not forgetting the help, behaving well, that is, loving and helping people are the indicators of the value of goodness (Ulukan, 2021). It is understood that psychological counselors listen to their inner voices and participate in the work with the feelings of benevolence without any self-interest. It is thought that the professional support services, which are the characteristics of the psychological counseling profession, and the sense of benevolence that should be found in every person overlap.

From the findings of the research, it was determined that the motivation sources for psychological counselors and guidance teachers to participate in the studies are encouragement and preliminary experiences. The support and experience of RAM in the theme of encouragement; Participating in the coordination meeting and communicating with colleagues are intense. Here, it is seen that psychological counselors and guidance teachers need consultation. It is understood that if the necessary consultation is provided to the psychological counselors and guidance teachers, they are motivated to participate in the studies. When the contribution of the consultation services received to the process was questioned in a study called "Examination of the Consultation Needs, Resources and Quality of Consultation Services Received by the Employees of the Guidance and Psychological Counseling Unit in Schools" conducted in 2019; school counselors made evaluations as "positive" and "positive but insufficient". 75% of school counselors stated that consultation

resources contribute positively to solving their problem situations. It is also stated that there are many studies emphasizing the positive aspect of the subject (Güneşlice & Yıldırım, 2019).

It turns out that the motivation sources for psychological counselors to participate in activities are encouragement and prior experience. The support and experience of RAM, participation in the coordination meeting and communication with colleagues are heavily involved in the theme of encouragement. Here, it is understood that psychological counselors need consultation and are motivated when the necessary consultation is provided.

Professional Competence

Under the conditions stated above, psychological counselors and guidance teachers do not primarily feel competent before starting psychosocial support services in the earthquake zone. Afterwards, as a result of the table encountered in the earthquake region, results were obtained in the direction of surviving the first shock and providing integration to the situation. In addition, it is understood that due to the applied studies carried out, the proficiency increased in the process and the psychological counselors and guidance teachers who did not work in a similar environment before received support from their experienced colleagues. In order for psychological resilience, which is defined as the integration and coping skills of individuals in the face of any negativity, to occur, there must be a risk phenomenon. In a compilation study conducted by Gizir (2007), risk factors were investigated and a triple classification definition of risk factors as individual, environmental and family was made. According to the study, one of the many risk factors is natural disasters. Attachment style and psychological resilience are factors that protect the psychological health of the individual who is faced with a real threat situation such as an earthquake. The findings of the study conducted with adults who survived the earthquake in Bem, Iran in 2003, show that there is a positive relationship between secure attachment and psychological health, and a negative relationship between anxious and avoidant attachment and psychological health (Karaırmak & Güloğlu, 2014).

Psychosocial Support Activities

In the process, it is seen that activities related to the psychosocial support services carried out with the support and supervision provided by experienced psychological counselors and guidance teachers, efficiency is achieved and studies on planning are carried out. Activities carried out within the scope of psychosocial support services are PFA/Basic interventions, game/warm-up activities, tent/tradesman visits and crisis intervention. It is understood that the studies carried out are aimed at all layers of society, primarily children.

There may be situations that cause suffering in different ways such as fire, accident, war, violence between individuals, sexual violence and natural disasters. In addition to the fact that everyone is affected by such situations in one way or another, each individual can be affected and react differently. The majority of people may feel inability to make sense of what happened, intense surprise, insecurity, or uncertainty. Unusual feelings of fear and anxiety may be dominant, as well as feelings such as inability to feel anything or introversion. The intensity of these reactions may vary from person to person. Individuals have dominant aspects and abilities that will help them cope with the difficulties in their lives. However, some individuals may be easily hurt and need extra support in a crisis situation. Especially children and the elderly, those with physical or mental disability, groups that may be the target of discrimination or violence are at risk and may need additional assistance (Özgür, 2014).

Here, it should be known what psychological first aid is or not. Psychological first aid; Psychological counseling is not forcing individuals to describe their feelings and reactions, although it includes analyzing the events that happen to individuals, ordering time and events, being ready to listen to the lives of individuals and only professionals do. Psychological first aid is a more effective alternative to psychological interpretation intervention. There are five basic elements of providing psychological first aid services. Activities such as effective communication, gathering information about preparation and situation, psychological first aid principles (watch, listen, connect), terminating aid and those in need of special help are carried out in psychological help service studies (Erdur-Baker, 2014; Juen, Herzog, Stickler, Stippl, P. & Kratzer, 2015).

Positive feedbacks were generated as a result of the studies, the faces of the children who were dull at first were smiling, there was an expectation from the psychological counselors and guidance teachers for the continuation of the studies, the child who did not speak after the earthquake started to talk again as a result of the studies carried out, and the children who were shy about participating in the activities in the first place wanted to participate in the activities voluntarily in the process. are the most obvious findings regarding the efficiency of their work. Observation of the effectiveness of the studies played an encouraging role in the planning of new activities. In this context, psychological counselors/guides teach the most appropriate activities, planning studies for all school levels, including people from all age groups, giving priority to children, distribution of tasks, evaluation of physical opportunities, determining the number of children/creating groups, getting information from local administrators, It is understood that they plan and carry out the studies by taking into account the factors such as getting information from families and planning for the disadvantaged. The focus of psychosocial support services counseling is the recognition of limitations and burdens and the development of problem solving skills. In addition, there are opinions that planning is impossible for some situations, no matter how much planning is done (Tivissen, 2015).

Psychosocial support services are directly related to individual psychological and social well-being, to the individual himself and to his life, and to the community. Different possible inhibitory needs of both parties i.e. individual side's social demands, norms, values etc. Contradictions and incompatibilities (motivation, ability to act, subjective needs, interests and goals) are taken into account. The psychosocial perspective focuses on individual and social coping options for the burdens that may arise if the different motivations on both sides cannot be reconciled. The psychosocial counseling process is initially characterized by the emotional relief that the client experiences by describing their problematic situation. "With the help of communication and the knowledge and skills of counselors, psychosocial studies bring cause-effect relationship cyclicality to individuals who need support. This is the ability to distinguish between social needs and norms and the individual's own needs and motivations. Moreover, in psychosocial support studies, clients are not distracted from the problems or are denied. It is essential for them to face contradictions and conflicts and acquire the skills to adapt to them (Tivissen, 2015).

Unusual Event

Extraordinary experiences experienced by psychological counselors and guidance teachers during psychosocial support services; It is divided into two as the most thought-provoking and the most extraordinary event. The traumatic experiences, the economic problems of the earthquake victims, the earthquake survivors who had to stay at home with severe damage, and the farewell speeches and separation ceremonies at the end of the studies emerged as the phenomena that preoccupied the psychological counselors and guidance teachers the most. Finding consolation in death and the perception of "they will come when there is an earthquake" are among the most extraordinary findings. "Will you come again when there is an earthquake?" discourses are examples of the most extraordinary phenomenon.

Natural disasters or the studies carried out after the earthquake, which is the subject of the research, have affected the psychological counselors who actually carry out psychosocial support activities in many subjects, especially the effects of the earthquake phenomenon on all individuals. When the results were examined, psychological counselors thought about the obligations of people affected financially and psychologically by the earthquake, especially traumatic/economic problems, and saying goodbye to them. In addition, the planning process to increase the efficiency of the studies is another issue that occupies the minds of psychological counselors.

The fact that some of the relatives of the people who died in the earthquake found solace in death is the most extraordinary event mentioned by psychological counselors. As there are many forms of birth and life, numerous forms of death are mentioned today. The fact that the phenomenon of death is highly diversified is probably our perception of death and the way we meet death. The similarity of the reaction to death by all cultural communities in the world is an effort to fill the void and loss created in the life of the individual or individuals who have lost. In reality, what death is or what it is not, will continue to remain unknown as those who have left do not/will not return. The anxieties and fears created by this obscurity are the guiding and repulsive source of both individual and social context in the processes of making sense of death. It is widely

accepted that the gap or loss caused by death is tried to be filled with myths, beliefs, religious practices and cultural themes (Sağır, 2017).

When the literature is examined, a father who lost his son at a young age due to a chronic illness makes the following statement about consolation; "Consolation and inconsolability go hand in hand. Consolation cannot be removed from the cause of the disease. In this case, it reveals the inconsolable situation for the incurable disease. However, pain as a symptom of a disease can be controlled with drugs and made bearable. Thus, effective painkillers become my source of consolation. Much more painful than inability to be consoled is consolation." In other words, it is the closing of the mourners to sources of consolation ("Sterben", 2021). As a result of the studies carried out within the framework of psychosocial support studies in the Malatya earthquake area, the information obtained from the literature on "consolation in death", which was stated as the most extraordinary event by the majority of psychological counselors and guidance teachers, shows that people are looking for reasons that will provide consolation, even though the uncertainty and coldness of death are taken into account. reveals. Therefore, it can be said that consolation is sought even in the most unfavorable event of death.

Recommendations for Psychosocial Support Activities

It is understood that the expectations and suggestions of the psychological counselors participating in the post-disaster psychosocial support studies offer a wide spectrum. Different topics such as "Psychological Counselor Training", "Management", "Visibility", "Psychosocial Support Studies", "Follow-up", "Equipment" and "Continuity" were mentioned. As Psychological Counselor Education, findings have emerged that preparation for crisis and trauma situations, more warm-up activity training, continuous updating of the trainings of psychosocial support teams, training from experienced psychological counselors and training should be given by MEB and RAM experts.

In terms of management, issues such as ensuring coordination between ministries and in the province, psychosocial support services provided by associations or foundations or private centers may be harmful, and aid materials are scattered. It was also emphasized that MEB was better organized in psychosocial support studies. In the theme of visibility, attention was drawn to not focusing on excessive visuals, not focusing on statistics or numbers, taking pictures as if they were doing an event, focusing on quality touch rather than numbers, and not focusing on advertising. When the literature is examined, it is pointed out that psychological counselors are given responsibilities in schools other than the job description. Although a psychological counselor and guidance teacher are appointed at each level, many public schools do not even have a psychological counselor and guidance teacher staff. Giving non-duty responsibilities to the few existing guidance teachers means that they cannot perform their professional duties, which they have difficulty in training, as they should (Özmen & Kabapınar, 2019).

In the title of psychosocial support services studies, opinions were obtained that only psychological counselors and guidance teachers should work with students, that the benefits of MEB-Psychosocial support studies are seen, and that the demands for psychosocial support activities in schools increase. Plus, it was emphasized that the earthquake victims should be followed up, that there could be follow-up through the headmen, and that schools that do not have psychological counselors should also be followed. Opinions were expressed that psychosocial clothing should be used as equipment, the materials to be used in psychosocial support activities should be provided by the ministry or RAM, and the MEB-Psychosocial support tent should be established. Results were obtained in the direction of continuing the studies on the continuity of the studies in the field.

In addition, the last thing that the psychological counselors and guidance teachers wanted to add regarding the evaluation of their work was taken. Psychological counselors and guidance teachers expressed opinions as "Self-Criticism" that psychological counselors and guidance teachers act reluctantly and shyly about participating in the works in the earthquake zone. Regarding this situation, the reasons for not participating are also mentioned. Accordingly, it was stated that psychological counselors and guidance teachers experienced anxiety due to the feeling of not knowing what to do and were hesitant to participate in studies to support their own families as reasons for not participating. Psychological counselors and guidance teachers are stated in the statements to ensure their participation in possible post-traumatic psychosocial support services. In order to

facilitate participation in psychosocial support activities, attention was drawn to the encouragement of MoNE/RAM by consensus. Finally, thanks are given. Thanks for the focus group meeting, thanks to the team, and finally, thanks to the Honorable Minister of National Education Professor Doctor Ziya Selçuk for personally praising the psychological counselors working in the Malatya earthquake region with a certificate of achievement.

Conclusion & Recommendations

In this section, a general evaluation of the research results has been made. With the research, after the 6.8 magnitude Elazığ/Sivrice centered earthquake dated 24/01/2020, the opinions expressed on the psychosocial support services activities were revealed by the psychological counselors and guidance teachers working in the MEB-Provincial Psychosocial Crisis Prevention and Intervention Team in the Malatya earthquake region. In addition, opinions, suggestions and requirements regarding the experiences and studies gained by the psychological counselors and guidance teachers were also found. In this context, suggestions were made to increase the efficiency of psychosocial support services to be carried out in the future.

Results

1. When psychological counselors and guidance teachers have to participate in psychosocial support services in the earthquake region, their primary feeling is benevolence,
2. Psychological counselors and guidance teachers are encouraged to participate in the studies and have prior experience,
3. As an incentive, RAM's support, experience, participation in the coordination meeting and communication with colleagues are intensely involved,
4. Before starting psychosocial support services in the earthquake zone, psychological counselors and guidance teachers did not feel professionally competent,
5. The first shock was overcome as a result of the picture encountered in the earthquake region,
6. Integration into the situation is ensured in the process,
7. Due to the applied studies carried out, the competencies have increased in the process,
8. Psychological counselors and guidance teachers, who have not worked in a similar environment before, receive support from their experienced colleagues,
9. In the process, activities related to the psychosocial support services carried out with the support and supervision provided by experienced psychological counselors and guidance teachers, efficiency is achieved and studies on planning are carried out,
10. The activities carried out within the scope of psychosocial support services are PFA/Basic interventions, game/warm-up activities, tent/tradesman visits and crisis intervention,
11. The studies carried out are aimed at all layers of society, primarily children,
12. Positive feedbacks are formed as a result of the studies,
13. The faces of children who are dull at first are smiling,
14. There is an expectation from the psychological counselors and guidance teachers for the continuation of the studies,
15. The child, who did not speak after the earthquake, started to speak again as a result of the studies carried out,
16. At the end of the studies, the farewell speeches and separation ceremonies affected the psychological counselors and guidance teachers,
17. The perception of "they will come when there is an earthquake" has shaken the psychological counselors and guidance teachers deeply,
18. Some of the relatives of the people who died in the earthquake find solace in death,
19. Preparing for crisis and trauma situations,
20. More warm-up activity training,
21. Continuously updating the trainings of psychosocial support teams,
22. Receiving training from experienced psychological counselors and providing trainings by MEB and RAM experts,
23. Ensuring coordination between ministries and in the province as an administration,
24. Psychosocial support services provided by associations or foundations or private centers may be harmful,
25. Aid materials are scattered,

26. MEB is better organized in psychosocial support services,
27. In the theme of visibility, not focusing on excessive visuals,
28. Not focusing on statistics or numbers,
29. Not taking pictures as if you are doing an event,
30. Focus on quality touch, not numbers
31. The studies are not advertising-oriented,
32. Within the scope of psychosocial support services, students and only psychological counselors and guidance teachers should work,
33. The benefits of MEB-Psychosocial support activities are seen and the demands for psychosocial support activities in schools have increased,
34. Following up earthquake victims,
35. It can be followed through headmen,
36. Schools that do not have psychological counselors should also be followed,
37. It should have psychosocial clothes as equipment,
38. Providing the materials to be used in psychosocial support activities by the ministry or RAM,
39. Establishment of MEB-Psychosocial support tent,
40. Ensuring the continuity of the studies,
41. Counselors and guidance teachers are reluctant and hesitant to participate in the work in the earthquake zone as "Self-Criticism",
42. The reasons for not participating are that psychological counselors and guidance teachers experience anxiety due to the feeling of not knowing what to do and they are hesitant to participate in studies to support their own families,
43. MEB/RAM should be encouraged to facilitate participation in psychosocial support activities,
44. Results were obtained for the focus group meeting, thanks to the team, and finally, thanks to Ziya Selçuk, Minister of National Education, for personally praising the psychological counselors working in the Malatya earthquake region with a certificate of achievement.

Suggestions

In the light of the findings of the thesis study, suggestions are presented below to the Higher Education Institution (YÖK), MEB, Disaster Coordination, psychological counselors and scientific researchers in order to make more effective interventions against difficult life votes.

Higher Education Institution (YÖK). Suggestions for the training of psychological counselors who will participate in psychosocial support services in undergraduate education are as follows:

1. Giving training to psychological counselors and guidance teachers about psychosocial support services by expert academicians in the theoretical and applied fields,
2. Universities - MEB/RAM cooperation; Providing academic support to coordination meetings, courses and practices,
3. Universities and ASPB, AFAD, Kızılay etc. protocols between institutions. Providing academic support to studies. Enabling PCG undergraduate students to observe in disaster rehearsals,
4. Including activities such as warming up, breathing, relaxation exercises in the program during undergraduate education and teaching them practically,
5. Ensuring that individual or group studies are carried out by expert academicians for the treatment of secondary traumas of psychological counselors and guidance teachers working within the scope of Psychosocial Support Services.

MEB. Recommendations regarding the continuation of the Ministry's activities for psychosocial support before and after a disaster or difficult life are as follows:

1. Providing advanced complementary trainings to psychological counselors and guidance teachers on psychosocial support activities in cooperation with relevant institutions and organizations,
2. Advanced teaching of warm-up, relaxation, breathing and physical activities to psychological counselors and guidance teachers,

3. Supporting volunteerism,
4. Providing the necessary tools and equipment to be used in post-disaster psychosocial support studies (event materials, clothing, tents, etc.),
5. Orientation of psychological counselors and guidance teachers to individual or group work after all studies are completed in order to provide psychological treatment.

Disaster Coordination. Suggestions for presenting all activities to be carried out after a difficult life in a more effective, efficient and accessible way are as follows:

1. Aid activities for earthquake victims should be carried out more carefully,
2. The aid of central local governments and non-governmental organizations should be coordinated,
3. The task sharing of institutions such as the Ministry of Health, ASPB, MEB, AFAD, Ministry of Youth and Sports in psychosocial support activities should be clearer,
4. Working with students and families, psychological counselors and guidance teachers in psychosocial support activities,
5. Prevention of psychosocial support services provided by non-experts sent from centers such as associations or foundations.

ASPB: Aile ve Sosyal Politikalar Bakanlığı/ Ministry of Family and Social Policie

AFAD: İçişleri Bakanlığı Afet ve Acil Durum Yönetimi Başkanlığı/ Ministry of Interior Disaster and Emergency Management Presidency

Psychological Counselor. About the realization of the work to be carried out before and after the difficult life with professional competence and professionalism without hesitation;

1. To follow the literature on psychosocial support studies,
2. Participating in educational and academic studies related to psychosocial support activities,
3. Receiving consultation from the RAM regarding psychosocial support activities,
4. After participating in psychosocial support activities, it is recommended to participate in individual or group activities for psychological resilience.

Researchers. Suggestions for scientific research to be conducted on the psychosocial support needs offered within the context of a difficult life or natural disaster are as follows:

1. Opinions of psychological counselors and guidance teachers working in the earthquake area, or individual interviews or group studies on secondary trauma,
2. Conducting research on the subject of secondary trauma or opinions on psychosocial support services with psychological counselors and guidance teachers assigned involuntarily in the earthquake area,
3. To conduct research on the subject of secondary trauma or opinions on those who take part in psychosocial support studies from other institutions and organizations,
4. Conducting research on the opinions of non-PDR graduates working in the earthquake zone or on the subject of secondary trauma,
5. Conducting research with other public/civil society employees working in the earthquake area and opinions on psychosocial support services or secondary trauma,
6. Conducting research on secondary trauma or opinions about the work with psychological counselors and guidance teachers who took part in post-earthquake psychosocial support studies in Elazig and Izmir,
7. Conducting research on secondary trauma, life satisfaction, motivation level and satisfaction levels of professionals participating in psychosocial support activities.

PDR: Psikolojik Danışma ve Rehberlik/ Psychological Advice & Guidance

References

Bak, P., & Tang, C. (1989). Earthquakes as self-organized critical phenomena. Journal of Geophysical Research, 94, 15635–15637.

Boğaziçi University, Kandilli Observatory and Earthquake Research Institute. (2021). Annual earthquake maps. Retrieved June 24, 2021, from http://www.koeri.boun.edu.tr/sismo/2/deprem-verileri/yillik-deprem-haritalari/

Britten, N. (1995). Qualitative interviews in medical research. *British Medical Journal, 311*, 251–253.

Brymer, M., Taylor, M., Escudero, P., Jacobs, A., Kronenberg, M., Macy, R., Mock, L., Payne, L., Pynoos, R., & Vogel, J. (2012). *Psychological first aid for schools: Field operations guide* (2nd ed.). National Child Traumatic Stress Network.

Byers, P.Y., & Wilcox, J.R. (1988). *Focus groups: An alternative method of gathering qualitative data in communication research*. Paper presented at the 74th Annual Meeting of the Speech Communication Association, New Orleans, LA, November 3–6, 1988.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.

Çokluk, Ö., Yılmaz, K., & Oğuz, E. (2011). Nitel Bir Görüşme Yöntemi: Odak Grup Görüşmesi, *Kuramsal Eğitimbilim, 4* (1), s. 97-98

Earthquake. (2020). Retrieved September 18, 2020, from https://deprem.aku.edu.tr/deprem/

Edmunds, H. (2000). The Focus Group Research Handbook. McGraw-Hill

Eisterer, A. (2020). Störungsniveaus und ihre Bedeutung für die Krisenintervention in akuttraumatischen Situationen. *Springer Fachmedien Wiesbaden GmbH, ein Teil von Springer Nature , Z Psychodrama Soziom* 19, 133–146.

Erdur-Baker, Ö. (2014). Psikolojik İlk Yardım: Saha Çalışanları İçin Rehber. Türk Psikolojik Danışma ve Rehber Derneği Yayınları.

Geller, R.J., Jackson, D.D., Kagan, Y.Y. & Mulargia F. (1997). Earthquakes cannot be predicted, *Science, 275*, 1616–1623

Goss, J.D. & Leinbach, T.R. (1996). Focus groups as alternative research practice, *Area, 28*(2), 115–123.

Güneşlice, A., & Yıldırım, T. (2019). Okullardaki Rehber ve Psikolojik Danışma Birimi Çalışanlarının Konsültasyon İhtiyaçları, Kaynakları ve Aldıkları Konsültasyon Hizmetlerinin Niteliğinin İncelenmesi, Okul Psikolojik Danışmanlığı Dergisi, 2(2), 156.

Juen, B., Herzog, G., Stickler, M., Stippl, P. & Kratzer, D. (2015). *Psychische Erste Hilfe Handbuch,* Österreichisches Rotes Kreuz.

Karaırmak, Ö. ve Güloğlu, B. (2014). Deprem Deneyimi Yaşamış Yetişkinlerde Bağlanma Modeline Göre Psikolojik Sağlamlığın Açıklanması, *Çukurova Üniversitesi Eğitim Fakültesi Dergisi, 43(2)*, 3-4

Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *British Medical Journal, 311*, 299–302.

Kröger, C. (2013). *Psychologische Erste Hilfe*. Hogrefe Verlag.

Kumral, O. (2010). Nitel çalışmalarda odak grup görüşmesi, *Çağdaş Eğitim Dergisi, 35*(374), 17.

MacIntosh, J. (1981). Focus groups in distance nursing education. *Journal of Advanced Nursing, 18*(12), 1981–1985.

Mays, N., & Pope, C. (1995). Rigour and qualitative research. *British Medical Journal, 311*, 109–112.

Merriam, S. (2013). *Nitel araştırma desen ve uygulama için bir rehber*. Nobel Yayıncılık.

Ministry of National Education (MEB). (2021). Renewal of psychosocial support programs project. Retrieved June 24, 2021, from https://orgm.meb.gov.tr/www/icerik_goruntule.php?KNO=1258

Morgan, D.L. (1997). *Focus Groups As Qualitative Research*. SAGE.

Özgür, E.B. (2014). *Psikolojik İlk Yardım: Saha Çalışanları İçin Rehber.* Türk Psikolojik Danışma ve Rehber Derneği, Atalay Matbaacılık.

Özmen, Z.K., & Kabapınar, Y. (2019). The Perspective of Guidance and Psychological Counselling Department and Pedagogical Formation Education Certificate Program Students on Their Profession and Their Professional Competence: A Mixed Method Study. *Erciyes Journal of Education, 3*(1), 62.

Öztan, M.O., Bolova, G., Özdemir, T., Sayan, A., Elmalı, F., & Köylüoğlu, G. (2019). Üçüncü Basamak Bir Hastanedeki Pediyatrik Travma Hastalarının Değerlendirilmesi ve Travma Şiddetini Öngören Faktörlerin Saptanması. *İzmir Dr. Behçet Uz Çocuk Hastanesi Dergisi, 9*(1), 17-22.

Sağır, A. (2017). Ölüm Sosyolojisi (2nd ed.). Phoenix Yayınevi.

Saldana, J. (2019). *Nitel araştırmacılar için kodlama el kitabı* (Şad Tüfekçi & Akcan, Trans.). Pegem Akademi Yayıncılık.

Sterben. (2021). Find comfort. Retrieved May 20, 2021, from https://www.sterben-trauern-hoffen.de/trost-finden

Tanrıöğen, A. (2012). *Bilimsel Araştırma Yöntemleri*. Anı Yayıncılık.

Tivissen, J.G. (2015). *Psychosoziale Beratung: Zwischen psychotherapeutischen Grundideen und eigenen Entwicklung*. Diplomica Verlag GmbH.

Ulukan, H. (2021). Pandemi Sürecinde Uzaktan Eğitim Veren Beden Eğitimi Öğretmenlerinin Yardımseverlik ve Diğerkâmlık Düzeyleri Arasındaki İlişkinin İncelenmesi. *Turkish Studies Education, 16*(2), 1177-1178.

Yıldırım, A., & Şimşek, H. (2006). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* (6th ed.). Seçkin Yayıncılık.

REVIEW ARTICLE

Psychological Counseling Model Proposal for Reducing Violence in Emergency Services

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ABSTRACT

Violence is destructive and abrasive for patients and their relatives as well as for healthcare workers. Violence, which leads to various emotional and physical injuries, job dissatisfaction, and absenteeism, causes fatal mistakes and has a negative impact on service quality. On the other hand, the patient and his relatives may be anxious, nervous, sensitive or inclined to show anger behavior due to the situation they are in. These summarized reasons can bring the healthcare worker and patient, who should be on the same side, and their relatives face to face. However, healthcare professionals and patients share a common goal and have to act together. Accordingly, it is thought that when the causes of violence are eliminated for both groups, violence will decrease to a large extent. In this context, efforts should be made to identify and eliminate the psychological and social reasons that lead people to act aggressively in order to prevent violence in the emergency room. The proposed model aims to build a bridge of compassion between healthcare workers and patients and their relatives, while also providing psychological support to healthcare workers and patients and their relatives, training healthcare workers in communication, compassion, empathy and emotion management, and teaching stress-reducing techniques to prevent violence in emergency services. Various search engines were used in the literature search. The search terms were determined as "violence in an emergency", "causes of violence", "prevention of violence" and "violence in health", but studies involving environmental risk management and security measures were excluded.

Violence against healthcare workers is a common occurrence and emergency departments are particularly vulnerable due to several internal factors. Violence in health institutions is defined as "verbal or physical attack by anyone who poses a risk or threat to the patient, their relatives or health workers" (Magnavita & Heponiemi, 2012). It is known that the health sector is among the sectors most exposed to violence. Despite this, researchers seem to have not yet discovered statistically significant, universally applicable risk reduction methods. While some of the researches try to measure the problem and identify the perpetrators and victims, some focus on measures to ensure a safer workplace for healthcare workers (Phillips, 2016). However, taking strict security measures in health care or social service environments is not welcomed and increases the possible risk for health workers (Pınar & Pınar, 2013). On the other hand, studies focusing on other interventions to reduce violence are finding a standard solution. They could not put forward a clear model or view on the issue. The aim of this review is to investigate and synthesize the evidence on the following questions to demonstrate the

necessity of psychological services and to propose a psychological counseling-oriented model to prevent violence in the emergency department.

1. What are the psychological, cultural and social reasons that lead to violence in the emergency department?

2. Which reasons lead to violence for patients and their relatives in the emergency room?

3. Which reasons increase tension for healthcare professionals in the emergency room?

4. Apart from taking security measures, what efforts have been made to prevent violence in emergency rooms?

5. Are there any studies that include psychological services for healthcare professionals and patients and their relatives for the management of violence in emergency rooms?

In the search strategy and study selection, the literature review was conducted using various search engines and search terms, and studies addressing security measures to prevent violence in the emergency room were excluded.

Emergency Violence and Its Causes

Emergency services; it is an environment where people work under intense stress and tension, where there are cases that require urgent intervention, injuries, and patients with high risk. Working conditions, shifts and workloads of physicians and health workers in emergency services are another factor that increases stress and tension. This situation reduces the empathy and tolerance of employees (Pai et al., 2015). On the other hand, the tiredness and boredom caused by the long working and shift hours of the health care workers can cause communication problems with the patients and their relatives, and sometimes they are exposed to violence. The lack of experience in coping with aggressive behavior, communicating with patients and crisis management, and inadequacy in communication skills training are among the other reasons for the increase in violence against healthcare professionals. The population of a study aiming to reveal the causes of violence against healthcare professionals from the perspective of society consists of residents of Istanbul. It is cross-sectional and descriptive. July 2018 - August 2018- Questionnaire method was used as a data collection tool. Conclusion: According to the participants, the most important reasons for violence are the ill-treatment of the patients, respectively, and the lack of care by the healthcare professionals. The lowest reason is that the healthcare professionals are inexperienced. Another result is that, according to the participants, the violence applied to health workers was expressed as a great injustice (Fener & Aydıntuğ, 2019). In one study, 973 violence studies in national and international publications for emergency room nurses between January 2010 and February 2015 were reviewed and 12 publications that met the inclusion criteria were evaluated. It was determined that the rates of violence applied to nurses working in the emergency department were generally high, that the nurses were exposed to verbal violence at the highest rate (91.6%), and the violence was mostly applied by the relatives of the patients (84.9%). The length of waiting period was shown as 19.5% as the reason for violence. It was determined that nurses who were exposed to violence experienced the most anger (Kahya et al., 2016).

Violence cases that were reported as Code White in Izmir Dokuz Eylul University Practice and Research Hospital were investigated and analyzed in terms of variables related to workplace violence. 88 male and 72 female health workers in 160 cases of violence reported between 2015 and 2017 were included in the study. The findings showed that 86.9% of employees were exposed to verbal violence, 13.1% to physical violence, 57.5% to threats and 71.3% to swearing. Moreover; In emergency services, verbal violence is more common, "waiting time" factor causes more verbal violence, "legal/inappropriate patient requests" causes more physical violence, female aggressors cause more verbal violence and male aggressors cause more physical violence. It has been determined that they are opened (Devebakan, 2018). Studies on violence in the field of health revealed that emergency services and 112 emergency medical teams carry the highest risk (Şahin et al., 2011; Doğanay, 2014; Akbaş et al., 2016).

Worried patients and their relatives may perceive the prolongation of the treatment as a late intervention due to examinations and consultations. It is the place where cases requiring emergency intervention, injuries and high risk patients are located. Emergency workers, patients and their relatives are under high levels of tension

and stress. Strict security measures are not welcome in healthcare or social service environments and increase the potential risk for healthcare workers (Pınar & Pınar, 2013).

Studies have revealed the existence of environmental and organizational risk factors related to the causes of violence by health personnel. In particular, it has been reported that the organizational and structural environment quality is not in line with the expectations of the patients and/or their relatives, waiting times and the lack of information on the delivery of the emergency services, disappointing expectations of the patients and/or family members, and communication difficulties between healthcare professionals and patients (Cannavò et al., 2017; Cinti et al.,2018). In addition, injustice in workplace task distribution and performance evaluation, widespread gossip in the workplace, problems in subordinate-superior relations arising from the hierarchical structure, patient dissatisfaction and fear of complaint were found to be the leading stress factors for healthcare workers (Boyacı et al., 2014).

The Effect of Violence on Health Workers

Emergency departments are high-risk settings for workplace violence, but interventions to prevent violence and prepare staff are not yet consistently implemented and their effectiveness is often uncertain. In addition, psychological support is required for those who feel stressed in the ED or report that they are under stress after the attack. All healthcare professionals need to be trained to be mindful of their colleagues when workplace violence occurs; In fact, aggressive workers often suffer from feelings of fear, anger, guilt, irritation, and helplessness. These sequelae, as reported by the literature, can reduce the empathy capacity of healthcare workers and sometimes cause burnout (D'Ettorre et al., 2018). Workplace violence causes stress, depression, anxiety, fatigue, job dissatisfaction and absenteeism (Çağatay, 2022). In a study conducted in Taiwan; It has been determined that workplace violence faced by nurses has negative effects on nurses in terms of physical, psychological, social, personal and professional work life (Han et al., 2017). A study conducted in the People's Republic of China showed that violence negatively affects the psychology of employees, increases stress, decreases sleep quality, and significantly affects doctors' assessment of their own health (Sun et al., 2017).

Exposure to violence can lead to emotionalization; sadness, reduced well-being, low self-esteem, depression, fear, powerlessness, lower job satisfaction and even suicidal ideation. Frustration, negative attitudes towards work, loss of working days, activity or work restrictions, dismissal, job change and even suicide are serious complications of the profession (Swain & Gale, 2014). The incidence of occupational accidents and absenteeism negatively affect the job satisfaction and service quality of employees (Edward et al.,2014; Pai et al., 2015). According to the information provided by Sağlık-Sen (2013), 81.9% of health workers reported that they were afraid of violence during working hours, and 39% of those who felt this fear were health workers who had not been directly exposed to violence.

Studies to Prevent Violence

Violence against healthcare workers is estimated to affect 95% of employees and is seen as a significant problem for healthcare organizations. Current interventions aim to manage rather than prevent or minimize violence. In a study conducted to identify and discuss the perceptions of Emergency Department nurses regarding the perpetrators of occupational violence and aggression, the results showed that attention in preventing violence in the emergency department should be focused on developing interventions to reduce violence from violent individuals rather than equipping employees with tools to manage violence (Spelten, et al., 2022). In a study on violence and instigators in emergency departments, verbal violence ranked first among the 26 articles examined, while family members ranked first as instigators (Aljohani, et al., 2021). Studies to prevent violence mostly focus on education programs when environmental interventions and security measures are excluded. One study used a quasi-experimental design to evaluate the effectiveness of delivering an education program on workplace violence to 315 nurses using web-based programs. The results of the study showed that the classroom-based program can have a positive effect on increasing knowledge acquisition among nurses (Martinez, 2016).

Worked with six hospitals, using an action research model to evaluate violence prevention and response management. Ninety-seven people, collecting information from employees, managers and patients; attended one of the twelve focus groups. In order to collect data on the focus group questions, themes related to the intervention were determined in the pre-attack, during the attack and post-attack time periods. As a result, it was agreed that violence in emergency services is an important issue and that interventions to reduce workplace violence are needed for emergency services workers, visitors and patients. These interventions are; interpersonal skills of all staff members, personal safety emphasizing aggression management and prevention, and continuous assessment of violence risk. It was stated that the training should be given by experts in accordance with the content, new staff should be trained and informed about the procedures, and regular refresher training should be continued for all staff members (Gates et al., 2011).

A research study was conducted to determine nurses' perceptions of the factors that cause violence and aggression in the emergency room. Using a qualitative approach, 12 nurses working in the emergency room at one of the Irish hospitals were interviewed. Participants cited waiting times and lack of communication as contributing factors to aggression. Triage and the emergency room were rated as the areas where aggression was most likely, and it was emphasized that the key recommendations from the study findings were all related to communication. In addition to the information guides and video tapes of the patients' emergency room procedures, the study also emphasized the appointment of a communication officer to the emergency department and consideration of communication training for the emergency room personnel (Angland et al., 2014). In a study, communication skills were considered as the focal point in coping with aggressive behaviors. All interventions have progressed from the general to the specific, including the theoretical aspects of communication and aggression, basic communication styles, and how to deal with crises (Baby et al., 2019).

In a study aiming to summarize the evidence on violence prevention interventions in emergency departments, a systematic review was conducted and studies between January 2010 and May 2021 were considered. Interventional and observational studies reporting behavioral, organizational, or environmental interventions among healthcare professionals working in hospital emergency departments were included in the study. A total of fifteen studies were included, eleven of which addressed behavioral interventions (classroom, online, or coeducational programs) on tension reduction skills, violent person management, or self-defense techniques. In addition, four studies included organizational and environmental interventions. Most studies have shown that interventions have a positive impact in the form of reducing violence or improving how staff cope with violent situations (Wirth et al., 2021).

Healthcare professionals must learn to recognize cues that patients are escalating into violence and to become familiar with the various options for appeasing agitated patients. If sedation is not successful, physical restraint may be necessary (Tadros &Kiefer, 2017). However, any psychological intervention, if used alone and without contemporary intervention to various external contributors, will result in an unstable and inefficient effect over time. For example, improving employee mental health will not necessarily improve relationships in the workplace if a direct intervention is not applied to the relationship. This may be due to the fragmentation of the ability to interact and integrate, rather than to a particular selectivity of the interventions or to identify various symptoms at the behavioral level of one of the stressors. Workplace violence/stress issue needs to be addressed urgently in order to evaluate the mental health consequences for health workers even after a certain period of time (Zafar et al., 2015).

It has been suggested that strategies for reducing violence should take into account the needs of patients and their relatives, both in the emergency room and in the waiting room, and that such strategies should be multifaceted. It has been emphasized that it is important for the strategies to include the education of patients and their relatives and healthcare professionals who apply to the emergency department, and to receive support from the management in order to respond to reports of violence (Morphet et al., 2014). The common point of the studies carried out is the necessity of providing training to health workers and other personnel in order to improve their knowledge, attitudes and skills in preventing or controlling verbal and physical violence (Hills et al., 2015).

It is necessary for them to be aware of how to protect their colleagues. Training should cover the management of aggressive behavior and how attacks can be prevented (OSHA, 2016) and should also include detailed information on how and where employees should report such incidents. Crisis prevention intervention training should focus on behaviors that may lead to a crisis, responding effectively to behaviors that prevent the situation from escalating, using verbal and nonverbal techniques to prevent the spread of hostile behavior, and coping with individual fears (CPI, 2017). Communication skills can be developed with an effective training and effective communication; It has been shown in many studies that it can have a positive effect on the treatment results, the safety of healthcare workers, doctor-patient harmony, patient and patient relatives' satisfaction, and the efficiency obtained from the applied medical intervention (Swain & Gale, 2014; Boissy et al., 2016).

Conceptual Framework

Being exposed to violence is a serious problem for healthcare workers. In addition to socioeconomic reasons, deficiencies in the healthcare system and some legal gaps, social, cultural and psychological reasons, lack of communication between healthcare workers and patients or their relatives and differences in perception also have an important place among the causes of violence (Nart & Aslan, 2023).

In addition to crisis management and disaster-related triage services, the role of clinical psychologists in medical emergencies is expanding (Rosser, 2008) and there is a long-standing interest in the intersection of mental and physical health in emergency medicine. This is because the emotional responses of patients and their relatives to mental or acute physical symptoms can be as varied as the symptoms of the reason for their arrival in the emergency department. Relatives may experience fear and anxiety due to uncertainty about what will happen to their patients and may express these feelings by showing unwarranted anger towards healthcare professionals. It is stated that this situation may pave the way for violence in the emergency room and therefore, there is a need for officers who will take care of the patient's family and calm them down. It is argued that these officials can be social workers as well as religious officials, and while conveying information about the patient to the patient's relatives, they can also provide support for them to express their feelings easily (Moudatsou et al.,2020).

On the other hand, similarly, anxiety, fear, fatigue, malaise and irritability can also be experienced by overburdened health professionals (Kerasiotis & Motta, 2004). In this context, it is recommended to provide psychological support to health professionals to create a healthy working environment, stress reduction programs, career change counseling, and individual debriefing following death experiences. Psychological services recommended for patients include psychological assessments (e.g. mental status examinations, suicide risk assessment, danger to others assessments), assistance in adapting to critical medical conditions (e.g. psychoeducation on illness management), individual and family counseling. Such psychological services have been shown to have many potential benefits for emergency room patients, their relatives and healthcare professionals (Kwok et al., 2013). In the Living Room, a community crisis intervention center that offers individuals in crisis an alternative to receiving services in the emergency department, psychological counselors, psychologists, social workers, psychiatric nurses, and peer counselors work in the Living Room. The staff have been shown to greatly improve outcomes for people in crisis as they fulfill the need to talk to someone who truly understands the person in crisis (Heyland et al., 2013).

In a study conducted with 520 people who brought their relatives to Akdeniz University Hospital Adult Emergency Department, it was revealed that informing patients and their relatives about the patient's condition and the empathic approach of healthcare professionals towards patients reduced the incidents of violence (Bingöl & İnce, 2021). In another study it was stated that providing effective information to patients and their relatives waiting to receive health services in emergency services gives confidence to patients, increases satisfaction by reducing stress and anxiety and paves the way for health worker-patient interaction and effective health service delivery (Corbett et al., 2000). Numerous studies have focused on the role of social work before, during and after an emergency and have shown that social workers can act as cultural liaisons, effective

communicators, emergency workers and mental health practitioners, collaborating with other disciplines and researchers for this work (Kamrujjaman et al., 2023). The direct service of a psychologist in emergency departments is presented as a new and rare area of professional practice. Data collected from 281 patients, 150 medical staff and 44 relatives over an eighteen-month period in a large public hospital in Hong Kong showed that interventions for patients and family members focused on crisis management, diagnostic assessment, psychoeducation and counseling on long-term adjustment to medical illness (Kwok et al., 2013).

A study proposing a multidimensional intervention model for the prevention and management of violence and stress in health addresses the importance of early recognition of psychological disorders in health workers and the effectiveness of interventions to improve worker health and reduce sick leave. The study demonstrates the importance of treatment and psychological support for those who report feeling stressed or experiencing violence and for anyone at risk of stress. This is because exposure to or fear of violence affects the quality of life of health workers and reduces the quality of care they provide to patients, with a higher risk of errors, accidents and absenteeism in the workplace (Cannova & Fioravanti, 2018).

In a study, it was revealed that violence in emergency departments was frequently experienced between 24:00-08:00 and during shifts, approximately half of the healthcare personnel had been exposed to violence before, verbal violence ranked first, physical violence ranked second, followed by emotional violence and sexual harassment in the last place. The reasons leading to violence in the emergency department were stated as impatient waiting of patients, lack of healthy communication with healthcare professionals and insufficient personnel (Aydemir et al., 2020).

In a study conducted on exposure to violence among health care workers working in emergency services, 198 health care personnel took part. While 90.4% of the employees stated that they were exposed to verbal violence and 23.2% to physical violence, the most common feelings of anger and disengagement from work were determined in the employees. The rates of receiving psychological support in those exposed to violence were found to be very low (Cenk & Karahan, 2019).

In a study aiming to determine the knowledge and skills of nurses working in emergency departments to manage patients with psychological distress, 307 nurses working in emergency departments were asked to determine their knowledge and skills for the management of patients with psychological distress in emergency departments through a questionnaire. The results showed that nurses had high levels of knowledge about psychological distress management but low levels of skills (Mansory & Mohammed, 2022). However, psychological counselors in emergency services can play an active role in relieving the psychological distress experienced by patients and their relatives. Although most of those who seek help from a counselor are clients without significant psychological disorders, counselors can work in a variety of settings such as hospitals and medical centers, academic institutions, prisons, schools, business/industry, public health, etc. and with people of all ages (e.g. children and adolescents, adults and the elderly). Counselors help people adapt to or make changes in their lifestyles. They help individuals and groups in areas related to personal well-being, interpersonal relationships, work, leisure, health and crisis management. They may practice independently or work with clinical psychologists, child psychologists or as academic advisors.

Risk Factors Causing Violence in Emergency Services

Table 1. Risk Factors Causing Violence in Emergency Services

RISK FACTORS CAUSING VIOLENCE IN EMERGENCY SERVICES

RISK FACTORS FOR PATIENTS AND RELATIVES

Expectations of patients and their relatives
- Priority request for intervention
- Intense interest
- Intense compassion
- Satisfactory Information
- Empathy during intervention

The emotional state of the patient and his/her relatives
- Irritable mood
- Patient loss leads to anger and healthcare professionals are blamed
- The patient's relative undertakes to advocate for the patient's rights
- Perceived delay in intervention
- Negative perception towards

Individual Factors
- Being prone to violence
- Alcohol or substance abuse
- Personality disorders
- Psychiatric problems
- Mental health disorders
- Impaired cognition
- Anxiety and agitation

Risk-increasing factors
- Giving "bad news" about diagnosis or prognosis
- Encountering people with whom you have a grudge in the emergency room

RISK FACTORS FOR HEALTH PROFESSIONALS

Risk factors for health workers
- Inability to provide satisfactory attention to patients and their relatives
- Inability to understand the feelings of patients and their relatives/lack of empathy and compassion
- Communication problems
- Giving priority to medical intervention and neglecting psychological support
- Ignoring the patient's relative
- Current negative emotional state
- Inability to cope with situational crises
- Lack of knowledge of potential signs of violence
- Reluctance to comply with social rules of conduct
- Failure to recognize potential violent behavior
- Showing a distant attitude towards the patient
- Lack of training on aggression management

Psychological Counseling Focused Model Team and Its Features

Counseling-oriented model proposal centers on the establishment of a psychological counseling unit in emergency services. The unit includes psychologists, social workers, mental health nurses, technical staff and assistant staff. Below is a summary of the knowledge, skills and competencies of the team that will work in the unit regarding health services, as well as information on their areas of duty.

Psychological Counselor. Psychological Counseling was defined by the American Psychological Counseling Association (1997) as the application of the principles of psychology, development and mental health, personal and professional development, well-being and pathology of the person, with cognitive, behavioral, affective and interactive intervention methods. Psychological counseling, as a profession, aims to provide individuals with the skills to adapt to different conditions and to effectively cope with the problems encountered. In addition, psychological counselors' high levels of emotional intelligence mean that they can provide more effective counseling services (Degerli & Odacı, 2020). In a study, psychological counselor candidates stated that PDR programs provide self-knowledge and development, as well as the qualifications and individual skills required by the profession, since it is a human-oriented profession (Demirtas-Zorbaz and Ulas, 2015). Accordingly, it can be said that psychological counseling service has the potential to be useful in recognizing and calming negative emotions such as stress, anxiety, depression and anger of patients and their relatives with various personality traits and behaviors before they turn into actual behavior. Hackney and Cormier (2008) talked about the open-mindedness of the psychological counselor and stated that being open-minded is an indispensable element of a sincere and sincere communication. Therefore, even if the client's feelings, thoughts and behaviors are different from his/her own feelings, thoughts and behaviors, the counselor can adapt to these feelings, thoughts and behaviors and communicate effectively with many different clients, including individuals who are not accepted by society or who are considered aggressive.

Jennings and Skovholt (1999) defined that counselors as experts who constantly research, benefit from their experiences, attach importance to cognitive structure, have a high level of empathy, are mentally healthy and mature, are aware of their feelings and thoughts, have strong relationship skills, are open to working together and use their relational skills in treatment.

Volungis and Goodman (2017), on the other hand, concluded in their study that high-level counseling skills improve the relationship between the counselor-client, reduce the violent behaviors of the clients, and contribute to the more adaptive behaviors of the clients. Accordingly, since psychological counselors are equipped with empathic listening and advanced communication skills to respond appropriately to the expectations of patients and their relatives, they can reconcile the parties, help identify danger stimuli and take precautions, conduct case studies, monitor signs of violence and create corrective measures. In addition psychological counselors can act to compensate for the inability of doctors and nurses to pay sufficient attention to patients and their relatives due to workload and stress and to alleviate the burden of healthcare professionals. They can also provide psychological support to healthcare professionals, provide training on understanding and healthy communication with the patient and, can be a very important part of the emergency response team.

Psychologist. Considered as the science of behavior and mental processes, psychology emphasizes education and knowledge about lifespan development, learning, motivations, experiences, emotions, cognition, social behavior and attitudes, personality, etc., as well as how biological, behavioral and social factors affect health and disease. also tries to understand. Accordingly, as behavioral health providers, psychologists play an important role in understanding how biological, behavioral, and social factors influence health and disease. In addition, psychologists are trained to recognize how behavioral and cognitive functions change, the factors that contribute to these changes, and how these dysfunctions are diagnosed and treated. They are therefore trained and skilled in using a variety of psychological, psychodiagnostic and psychotherapeutic techniques that help individuals function and influence their behavior in a variety of settings and roles (Wahass, 2005). In this regard, it is among the professions directly involved in the field of health services. Interpersonal and communication skills are particularly important in the delivery of mental health services, as the patient-staff relationship is an important determinant of patient outcome. Since the education of psychologists includes the

teaching and training of psychological skills, they play an important role in the psychological counseling unit in the application of psychological well-being strategies and psychotherapies, as well as communication with patients and their relatives (Twining, 2005).

Social Worker. Medical social workers can reduce the time healthcare professionals spend with patients by making visible the psychological conditions in various areas that lead to disease in the field of health. Additionally, it can produce various projects to correct the social, economic and cultural conditions that lead to the disease. Social workers can play an important role in solving the problems experienced by health professionals with their communication skills and empathy skills within the healthcare team (Uçan et al., 2015). Social workers are an important bridge that enables information exchange between the treatment team and the patient and his family. As a professional, he plays an important role in minimizing or preventing the effects of psycho-social and economic factors that negatively affect the patient and his family's adaptation to the disease and treatment. He also works to ensure that patients and their relatives are appropriately informed and psycho-socially supported. Accordingly, the social worker will be an important member of the psychological counseling unit (Özbesler, 2013).

Psychiatric Nurses. Research shows that many patients present to emergency departments for mental health needs. Similarly, people with various addictions may also present to the emergency department. This highlights the need to utilize physician assistants, social workers and psychiatric nurses as liaisons in the emergency department to provide mental health services to patients (Malwitz, 2017). Nurses working in the emergency department should have the skills to evaluate patients with mental problems in physical, mental and psychosocial terms, to identify the risks of patients harming themselves or others, to protect and care for patients at risk. Since psychiatric nurses are trained in this regard, they can communicate effectively with such patients (Büyükbayram & Engin, 2018).

Other Staff. Teamwork is essential in the delivery of health services and this work requires a multidisciplinary perspective. In this context, other members of the psychological counseling unit also play a role in the operation of the service to be provided. Accordingly, a nurse and auxiliary service personnel must also be present in the psychological counseling unit.

Psychological Counseling Oriented Model Suggestion

The psychological counseling-oriented model proposal created by the researcher based on the literature focuses on the establishment of a psychological counseling unit in emergency services. This study confirms the importance of implementing an intervention model that includes the prevention of workplace violence and stress. The proposed counseling-focused model; It includes services in five areas. These are; 1) Establishing and managing the psychological counseling unit. 2) Guiding the establishment of healthy communication between patients, relatives and health workers. 3) Providing psychological support to all personnel working in the emergency department. 4) Planning continuous trainings to be given to health workers and 5) Providing psychological support to patients and their relatives.

Table 2. Risk Factors Causing Violence in Emergency Services

DUTIES OF THE PSYCHOLOGICAL COUNSELING UNIT	
• Providing psychological support to patients and their relatives who apply to the emergency department • Taking part in informing patient relatives • To support the patient's relative during and after the death news to be given to the patient's relative. • Anticipating and reporting threats or violence • Preventing and resolving conflict between patients, their relatives and healthcare professionals • Minimizing anxiety by communicating with patient relatives at regular intervals • Supporting the communication between the doctor and the patient's relative • Taking part in ensuring and limiting communication with aggressive individuals in private areas	• Calming down people who are upset, angry, angry, threatening and abusive • Provide emergency crisis intervention • Reporting physical attacks and threats with their reasons • Performing therapeutic communication with the agitated patient • Providing psychological support to healthcare professionals who encounter or witness violent behavior. • Developing techniques and strategies that focus on coping with the stress of patients and their relatives in emergency situations • Managing the negative consequences following violent incidents • Providing training to employees in the emergency department

⇩

Evidence from various parts of the world supports the effective role of training in reducing violence among healthcare professionals. These trainings help reduce the impact and frequency of violence and improve patient-provider interactions in healthcare institutions (Deans, 2004; Oostrom & van Mierlo, 2008; Swain & Gale, 2014; Heckemann et al., 2015). Studies have shown that effective communication skills and educational interventions are useful strategies, especially in preventing aggression by patients and their relatives (Gerdtz et al., 2013).

⇩

BASIC ELEMENTS OF THE EDUCATION AND TRAINING TO BE PROVIDED BY THE PSYCHOLOGICAL COUNSELING UNIT	
• Social rules of conduct • Active listening • Empathetic communication • Emergency violence risk factors and early warning signs for aggression • Communicating effectively with patients and visitors • Emotion management	• Managing aggressive behavior • Conflict resolution • Communicating without violence • Strategies to prevent exposure to violence • Potentially violent patient behavior • Behaviors that may trigger patient violence • Coping with stress

⇩

APPLICATION METHOD
In addition to didactic training, case-based scenarios will be created and computer-based simulation training will be repeated at regular intervals.

Functioning of Psychological Counseling Model

A team consisting of psychological counselors, psychologists, social workers, communication specialist, psychiatric nurse and auxiliary staff will work in the psychological counseling unit. In the proposed model, patients and their relatives who come to the emergency department will directly apply to the Psychological Counseling Unit and will be welcomed by the unit staff, and the application process of the patients and their relatives will begin with the patient admission. At this stage, the functional role of the psychological counseling unit team is as follows: a) It makes a good start in the application with the patient and their relatives. b) It ensures prioritization among patients requiring cooperation for the management of the process. c) It ensures that the needs of the patient's relatives are met within the available resources. d) It deals with patients with

violent tendencies and ensures that the process goes smoothly and creates a bridge between the healthcare professional and the patient.

In the second stage, unit staff accompany the patient and also accompany the patient's relatives. This stage is the phase of calming both the patient and the patient's relative and making them feel safe. Showing the necessary attention and compassion to the patients and their relatives in the first and second stages and providing information about the process will reduce the emotional burden of the patients and their relatives and ensure that these stages, where violence is most common, pass smoothly.

In the third stage, while the patient and the healthcare worker are contacted, the patient's relatives, if any, will be kept in a suitable environment to provide psychological support, their behavior will be monitored and taken under control. During this process, security guards working in the psychological counseling unit will not wear any promotional clothing and will serve as part of the unit. For this purpose, it may be preferred that the personnel responsible for security be a psychological counselor trained in martial arts, especially Aikido, which includes non-violent communication, or a security officer who has received this training.

The fourth step will be to ensure that the team in the psychological counseling unit is with both the patient and his/her relatives in separate rooms during and after the treatment process and that the individuals are constantly informed about the procedures. This process will contribute to the positive feelings of patients and their relatives towards healthcare professionals, as well as mutual satisfaction and patient-employee cooperation. At this stage, patients and their relatives will not feel alone and will be able to remain more calm as they will be provided with the necessary support and care. On the other hand, the team member next to the patient will contribute to the doctor's focus on the treatment process by meeting the patient's communication needs and will play an active role in establishing healthy communication between the doctor and the patient.

The fifth phase is the phase where emergency psychological support and planned training activities for emergency healthcare workers and other personnel working in the emergency department are continued, continuing with all stages from the beginning and taking place after the process. The presence of an established psychological support and education team in emergency departments will ensure that staff and patients feel safe, ensure continuity in education and the availability of psychological support when needed. It will also encourage continuous feedback at this stage and encourage measures to be taken to prevent problems before they arise. The following is a fable for the operation of a psychological counseling unit to be established in the emergency room and the stages are briefly summarized.

Figure 1. Functioning of Psychological Counseling Model
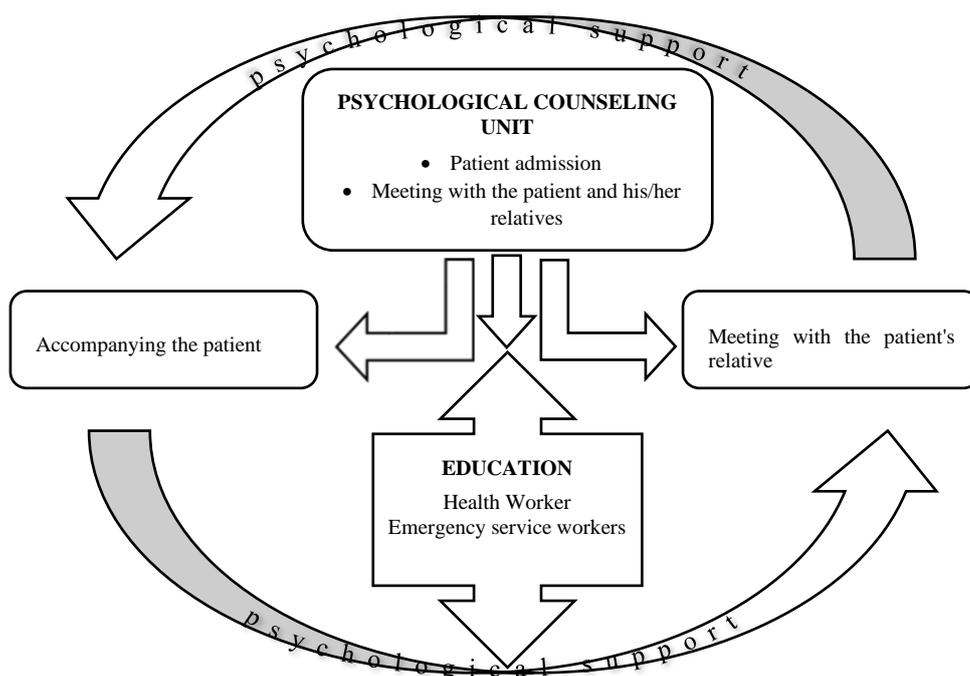
Conclusion

Violence against healthcare providers is included in the literature as an important problem in both developed and developing countries. While this problem causes healthcare workers to fear exposure to violence, it negatively affects job performance and reduces sensitivity to health needs in emergency situations. This situation may lead to patient expectations not being met sufficiently and may be effective in increasing violent incidents. On the other hand, healthcare professionals' difficulty in managing emotions in high-stress environments and their lack of sufficient skills in healthy communication strategies may also be effective in the onset of violence. When harassment, threatening, provocative language and signs of agitation are detected by patients and their relatives in the emergency department, intervention must be initiated quickly. For this, emergency workers should be encouraged to be aware of such evidence and warn others. For this, a multidisciplinary team is needed to determine what phenomena the emergency healthcare organization should pay attention to regarding violence prevention and management strategies. In addition, it is necessary to determine the causes of violence and take precautions for each of these reasons in order to prevent violence in the emergency department, reduce the harm to medical personnel and ensure normal medical order in emergency departments. In this context, it is important to identify risk factors for violence.

Violence is destructive and abrasive for health workers as well as for patients and their relatives. Continuous anxiety, emotional or physical injuries of employees who do not feel safe due to the pressure of violence; It leads to job dissatisfaction, absenteeism, and this situation causes serious fatal mistakes and has a negative impact on service quality. Healthcare professionals and patients mutually share a common goal and must act together. However, the reasons outlined may bring these two groups, which should be on the same side, against each other. Accordingly, it is possible to think that when the causes of violence are eliminated for both groups, violence will decrease to a large extent.

Security measures are necessary to respond to violence in the emergency, but it should be much more important to focus on the psychological and social reasons that lead people to act aggressively and to try to eliminate them in order to prevent violence from occurring. There have been studies focusing on how aggression should be managed in the healthcare field and mostly in hospital settings. Although these studies often include communication skills training and demonstrate the benefits of appropriate training, it may be that not everything learned is transferable to clinical situations and that the training provided may not fully meet the needs of different staff groups and work environments. Therefore, it can be said that studies will be limited in achieving the desired results. In this context, the inadequacy of methodologically sound studies and the questionability of generalizing the findings of studies conducted in hospital settings to community settings necessitate better designed studies focusing on reducing violence and aggression in health.

Suggested model; includes taking preventive measures against the psychological and social causes of violence in the center and placing this center in the emergency service. Accordingly, psychological counseling and guidance services will serve as the starting point of the emergency department. The aim is to make the first contact with the professionals of the psychological counseling unit in the emergency services and to prevent violence by applying the professional competencies of the psychological counselors at the highest level. It is important as a model that is compatible and highly applicable.

References

Akbaş, M., Boz, A., Dursun, A., Çetin, S., & Kılıçaslan, A. (2016). Determination of Exposure Status to Violence of 112 Employees and Their Behavior Towards Violence. *E-Journal of Dokuz Eylul University Nursing Faculty*, *9*(3), 93–100.

Aljohani, B., Burkholder, J., Tran, Q. K., Chen, C., Beisenova, K., & Pourmand, A. (2021). Workplace violence in the emergency department: a systematic review and meta-analysis. *Public Health*, *196*, 186–197. https://doi.org/https://doi.org/10.1016/j.puhe.2021.02.009

American Counseling Association. (1997). Definitions of professional counseling and professional counseling specialty. Alexandria, VA: Author.

Angland, S., Dowling, M., & Casey, D. (2014). Nurses' perceptions of the factors which cause violence and aggression in the emergency department: A qualitative study. *International Emergency Nursing*, *22*(3), 134–139. https://doi.org/10.1016/j.ienj.2013.09.005

Aydemir, İ., Rabia, Ü., & Aydoğan, A. (2020). According to the emergency room staff the reasons for violence. *Journal of Istanbul Faculty of Medicine*, *83*(1), 60–68.

Baby, M., Gale, C., & Swain, N. (2019). A communication skills intervention to minimise patient perpetrated aggression for healthcare support workers in New Zealand: A cluster randomised controlled trial. *Health & Social Care in the Community*, *27*(1), 170–181. https://doi.org/10.1111/hsc.12636

Bingöl, S., & İnce, S. (2021). Factors influencing violence at emergency departments: Patients' relatives' perspectives. *International Emergency Nursing*, *54*, 100942. https://doi.org/10.1016/j.ienj.2020.100942

Boissy, A., Windover, A. K., Bokar, D., Karafa, M., Neuendorf, K., Frankel, R. M., Merlino, J., & Rothberg, M. B. (2016). Communication Skills Training for Physicians Improves Patient Satisfaction. *Journal of General Internal Medicine*, *31*(7), 755–761. https://doi.org/10.1007/s11606-016-3597-2

Boyacı, K., Şensoy, F., Beydağ, K. D., & Kıyak, M. (2014). Stress and Stress Management in Health Institutions. *Procedia - Social and Behavioral Sciences*, *152*, 470–475. https://doi.org/10.1016/j.sbspro.2014.09.233

Büyükbayram, A., & Engin, E. (2018). Acil psikiyatrik bakım ve ruh sağlığı triyajı. *Psikiyatri Hemşireliği Dergisi*, *9*(1), 61–67.

Cannavò, M., & Fioravanti, M. (2018). A model of multidimensional intervention for the prevention and management of violence and stress in emergency department healthcare professionals. *Senses and Sciences*, *5*(4).

Cannavo, M., Fusaro, N., Colaiuda, F., Rescigno, M., & Fioravanti, M. (2017). Studio preliminare sulla presenza e la rilevanza della violenza nei confronti del personale sanitario dell'emergenza. *Clin Ter*, *168*(2), e99-112.

Cenk, S. C., & Karahan, S. (2019). Acil servis çalışanlarında şiddete maruz kalma durumunun incelenmesi. *Acıbadem Üniversitesi Sağlık Bilimleri Dergisi*, *3*, 493–499.

Cinti, M. E., Cannavo, M., & Fioravanti, M. (2018). Stress at work: development of the Stress Perception Questionnaire of Rome (SPQR), an ad hoc questionnaire for multidimensional assessment of work related stress. *La Clinica Terapeutica*, *169*(3), e114–e119.

Corbett, S. W., White, P. D., & Wittlake, W. A. (2000). Benefits of an informational videotape for emergency department patients. *The American Journal of Emergency Medicine*, *18*(1), 67–71. https://doi.org/10.1016/S0735-6757(00)90053-6

Cormier, L. S., Nurius, P., & Osborn, C. J. (2009). *Interviewing and change strategies for helpers: Fundamental skills and cognitive behavioral interventions*. Brooks/Cole, Cengage Learning.

CPI-Crisis Prevention Intervention. (2017). Nonviolent crisis intervention. Retrieved from https://www.crisisprevention.com/Blog/August-2017/A-Safe-Work-Environment-Starts-With-You

Çağatay, H. T. (2022). Sağlıkta Şiddet. In Z. Öztürk (Ed.), *Sağlık Yönetiminde Çağdaş Gelişmeler* (pp. 67–86). Nobel Yayıncılık.

Deans C. (2004). The effectiveness of a training program for emergency department nurses in managing violent situations. *Australian Journal of Advanced Nursing, 21*(4), 17-22. PMID: 18646649.

Değerli, F.İ., & Odacı, H. (2020). Effect of an Emotional Intelligence Training Program Developed for Prospective Psychological Counselors on Psychological Counseling Skill Levels. *Journal of Rational-Emotion&Cognitive-Behavior Therapy*, 38, 568–578 (2020). https://doi.org/10.1007/s10942-020-00352-5

Demirtas-Zorbaz, S., & Ulas, O. (2015). Views of Psychological Counselor Candidates About *Psychological Counseling and Guidance Education. Procedia - Social and Behavioral Sciences,* 186, 1298–1301. https://doi.org/10.1016/j.sbspro.2015.04.198

D'Ettorre, G., Pellicani, V., Mazzotta, M., & Vullo, A. (2018). Preventing and managing workplace violence against healthcare workers in Emergency Departments. *Acta Bio-Medica: Atenei Parmensis*, *89*(4-S), 28–36. https://doi.org/10.23750/abm.v89i4-S.7113

Devebakan, N. (2018). Workplace Violence In Health Care Organızations and Evaluation of "Code White" Application In Dokuz Eylul University Application and Research Hospital. *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *23*(2), 383–399. https://dergipark.org.tr/en/pub/sduiibfd/issue/52999/703454

Doğanay, İ. (2014). Alo 113-beyaz kod: acil sağlık hizmetlerinde çalışan sağlık personelinin yaşadığı şiddet olgusu ve çözüm önerileri. *Sağlık Akademisyenleri Dergisi*, *1*(2), 136–140.

Edward, K., Ousey, K., Warelow, P., & Lui, S. (2014). Nursing and aggression in the workplace: a systematic review. *British Journal of Nursing*, *23*(12), 653–659. https://doi.org/10.12968/bjon.2014.23.12.653

Fener, E., & Aydıntuğ, N. (2019). Evaluation of the causes of violence in health sector from community perspective. *J Int Social Res*, *12*, 1272–1282.

Gates, D., Gillespie, G., Smith, C., Rode, J., Kowalenko, T., & Smith, B. (2011). Using Action Research to Plan a Violence Prevention Program for Emergency Departments. *Journal of Emergency Nursing*, *37*(1), 32–39. https://doi.org/10.1016/j.jen.2009.09.013

Geoffrion, S., Hills, D. J., Ross, H. M., Pich, J., Hill, A. T., Dalsbø, T. K., Riahi, S., Martínez-Jarreta, B., & Guay, S. (2020). Education and training for preventing and minimizing workplace aggression directed toward healthcare workers. *Cochrane Database of Systematic Reviews*, *9*. https://doi.org/10.1002/14651858.CD011860.pub2

Gerdtz MF, Daniel C, Dearie V, Prematunga R, Bamert M, & Duxbury J. (2013). The outcome of a rapid training program on nurses' attitudes regarding the prevention of aggression in emergency departments: a multi-site evaluation. *International Journal of Nursing Studies. 50*(11), 1434-1445. https://doi.org/10.1016/j.ijnurstu.2013.01.007

Gopalakrishna, G., & Malwitz, K. (2017). Impact of psychiatric nurses in a liaison role on mental health care in emergency room: A systemic review. *Current Psychiatry Reviews*, *13*(1), 65–71.

Hackney, H., & Cormier, S. (2008). Psychological counseling principles and techniques: Psychological help process handbook (T. Ergene, & S. Aydemir Sevim, Trans.). In *Ankara: Mentis Publishing.(Original work published 1987)*.

Han, C.-Y., Lin, C.-C., Barnard, A., Hsiao, Y.-C., Goopy, S., & Chen, L.-C. (2017). Workplace violence against emergency nurses in Taiwan: A phenomenographic study. *Nursing Outlook*, *65*(4), 428–435. https://doi.org/10.1016/j.outlook.2017.04.003

Heckemann B, Zeller A, Hahn S, Dassen T, Schols JM, Halfens RJ. (2015). The effect of aggression management training programmes for nursing staff and students working in an acute hospital setting. *A narrative review of current literature. Nurse Education Today. 35*(1): 212-219. https://doi.org/10.1016/j.nedt.2014.08.003

Heyland, M., Emery, C., & Shattell, M. (2013). The Living Room, a community crisis respite program: Offering people in crisis an alternative to emergency departments. *Global Journal of Community Psychology Practice*, *4*(3), 1–8.

Jennings, L., & Skovholt, T. M. (1999). The cognitive, emotional, and relational characteristics of master therapists. *Journal of Counseling Psychology*, *46*(1), 3–11. https://doi.org/10.1037/0022-0167.46.1.3

Kahya, B., Çetin, Ç., & Cebeci, F. (2016). Acil Servis Hemşirelerine Yönelik Şiddet: Sistematik Derleme. *Firat Tip Dergisi*, *21*(4).

Kamrujjaman, M. D., Demetriou, C., Cuartas Álvarez, T., & Castro Delgado, R. (2023). The Role of Social Work for Emergency Medical Services (EMS): A Systematic Review. *Prehospital and Disaster Medicine*, *38*(5), 628–635. https://doi.org/10.1017/S1049023X23006143

Kerasiotis, B., & Motta, R. W. (2004). Assessment of PTSD symptoms in emergency room, intensive care unit, and general floor nurses. *International Journal of Emergency Mental Health*, *6*(3), 121–133. http://europepmc.org/abstract/MED/15481474

Kwok, W. O., Tori, C. D., & Rainer, T. H. (2013). New roles for psychologists in medical settings: Direct services in a Hong Kong Accident and Emergency Department. *Open Journal of Medical Psychology*.

Magnavita, N., & Heponiemi, T. (2012). Violence towards health care workers in a Public Health Care Facility in Italy: a repeated cross-sectional study. *BMC Health Services Research*, *12*, 1–9.

Malwitz, G.G. (2017). Impact of Psychiatric Nurses in a Liaison Role on Mental Health Care in Emergency Room: A Systemic Review. *Current Psychiatry Reviews, 13*, 65-71.

Mansory, B. K. A. A. J. Al, & Mohammed, Q. Q. (2022). Assessment of nurses' knowledge about management of psychiatric patients in emergency unit. *International Journal of Health Sciences*, *6*(S2 SE-Peer Review Articles), 720–726. https://doi.org/10.53730/ijhs.v6nS2.5086

Martinez AJS. (2017). Implementing a Workplace Violence Simulation for Undergraduate Nursing Students: A Pilot Study. *J Psychosoc Nursung Mental Health Service 55*(10): 39-44. https://doi.org/10.3928/02793695-20170818-04

Morphet, J., Griffiths, D., Plummer, V., Innes, K., Fairhall, R., & Beattie, J. (2014). At the crossroads of violence and aggression in the emergency department: perspectives of Australian emergency nurses. *Australian Health Review*, *38*(2), 194–201. https://doi.org/10.1071/AH13189

Moudatsou M, Stavropoulou A, Philalithis A, Koukouli S. (2020) The Role of Empathy in Health and Social Care Professionals. *Healthcare Basel* 30. 8(1): 26. https://doi.org/10.3390/healthcare8010026

Nart, A., & Aslan, M. (2023). Coping with the Problems and Violence Experienced by Nurses After Violence in Emergency Services. *Gevher Nesibe Journal of Medical & Health Sciences*, *8*(1 SE-Articles), 69–74. https://doi.org/10.5281/zenodo.7601036

OSHA-Occupational Safety and Health Administration. (2016). *Guidelines for preventing workplace violence for health care and social service workers.* US Department of Labor.

Oostrom JK & van Mierlo H. (2008). An evaluation of an aggression management training program to cope with workplace violence in the healthcare sector. *Research Nursing & Health*. *31*(4), 320-328. https://doi.org/10.1002/nur.20260 PMID: 18228608.

Özbeşler, C. (2013). Hasta Yaşam Kalitesinde Tıbbi Sosyal Hizmet Uygulamalarının Önemi. *Tıbbi Sosyal Hizmet Dergisi*, *0*(2), 6–12. https://dergipark.org.tr/en/pub/tshd/issue/52278/684021

Pai, D. D., Lautert, L., Souza, S. B. C. de, Marziale, M. H. P., & Tavares, J. P. (2015). Violence, burnout and minor psychiatric disorders in hospital work. *Revista Da Escola de Enfermagem Da USP*, *49*, 457–464.

Pedersen, P. B. (1991). Multiculturalism as a generic approach to counseling. *Journal of Counseling & Development*, *70*(1), 6–12.

Phillips, J. P. (2016). Workplace violence against health care workers in the United States. *New England Journal of Medicine*, *374*(17), 1661–1669.

Pınar, T., & Pınar, G. (2013). Healthcare workers and workplace violence. *Türk Silahlı Kuvvetleri, Koruyucu Hekimlik Bülteni*, *12*(3), 315–326.

Ratts, M. J., Singh, A. A., Nassar-McMillan, S., Butler, S. K., & McCullough, J. R. (2016). Multicultural and Social Justice Counseling Competencies: Guidelines for the Counseling Profession. *Journal of Multicultural Counseling and Development*, *44*(1), 28–48. https://doi.org/10.1002/jmcd.12035

Rosser, B. R. S. (2008). Working as a psychologist in the Medical Reserve Corps: Providing emergency mental health relief services in Hurricanes Katrina and Rita. *Professional Psychology: Research and Practice*, *39*(1), 37–44. https://doi.org/10.1037/0735-7028.39.1.37

SAĞLIK-SEN (Health and Social Workers Union) (2013) Health Workers Violence Survey. http://www.sagliksen.org.tr/cdn/uploads/gallery/pdf/fbda8576fd0d6d6de70f52f76b914672.pdf. Accessed June 21, 2021.

Savi Çakar, F. (2017). Psikolojik danışmada yetkinlik/yeterlilik. *Meslek Etiği ve Yasal Konular Içinde*, 157–173.

Solorzano, M. A. J. (2016). Managing Workplace Violence With Evidence-Based Interventions: A Literature Review. *Journal of Psychosocial Nursing and Mental Health Services*, *54*(9), 31–36. https://doi.org/10.3928/02793695-20160817-05

Spelten, E., Thomas, B., O'Meara, P., van Vuuren, J., & McGillion, A. (2020). Violence against Emergency Department nurses; Can we identify the perpetrators? *PLOS ONE*, *15*(4), e0230793. https://doi.org/10.1371/journal.pone.0230793

Sun, T., Gao, L., Li, F., Shi, Y., Xie, F., Wang, J., Wang, S., Zhang, S., Liu, W., Duan, X., Liu, X., Zhang, Z., Li, L., & Fan, L. (2017). Workplace violence, psychological stress, sleep quality and subjective health in Chinese doctors: a large cross-sectional study. *BMJ Open*, *7*(12), e017182. https://doi.org/10.1136/bmjopen-2017-017182

Swain, N., & Gale, C. (2014). A communication skills intervention for community healthcare workers reduces perceived patient aggression: A pretest-postest study. *International Journal of Nursing Studies*, *51*(9), 1241–1245. https://doi.org/10.1016/j.ijnurstu.2014.01.016

Şahin, B., Gaygısız, Ş., Balcı, F. M., Öztürk, D., Sönmez, M. B., & Kavalcı, C. (2011). Violence Against Auxiliary Emergency Health Personnel. *Turkish Journal of Emergency Medicine*, *11*(3), 110–114.

Tadros A, & Kiefer C. (2017) Violence in the Emergency Department: A Global Problem. *Psychiatr Clin North Am*.40(3), 575-584. https://doi.org/10.1016/j.psc.2017.05.016

Twining, C. (2005). The role of the clinical psychologist. *Psychiatry*, *4*(2), 90–92.

Uçan, G., Çalım, S. İ., & Yıldırım, Ş. (2015). Sosyal Hizmet Uzmanlarının Sağlık İletişimi Alanındaki Rol ve Fonksiyonları. *Celal Bayar Üniversitesi Sağlık Bilimleri Enstitüsü Dergisi, 2(*4), 91-100. https://dergipark.org.tr/en/pub/cbusbed/issue/22333/239315

Volungis, A. M., & Goodman, K. (2017). School violence prevention: Teachers establishing relationships with students using counseling strategies. S*age Open, 7(*1). https://doi.org/10.1177/2158244017700460

Wahass, S. H. (2005). The role of psychologists in health care delivery. *Journal of Family and Community Medicine*, *12*(2).

Wirth, T., Peters, C., Nienhaus, A., & Schablon, A. (2021). Interventions for Workplace Violence Prevention in Emergency Departments: A Systematic Review. In *International Journal of Environmental Research and Public Health, 18*(16), 8459. https://doi.org/10.3390/ijerph18168459

Zafar, W., Khan, U. R., Siddiqui, S. A., Jamali, S., & Razzak, J. A. (2016). Workplace violence and self-reported psychological health: coping with post-traumatic stress, mental distress, and burnout among physicians working in the emergency departments compared to other specialties in Pakistan. *The Journal of Emergency Medicine*, *50*(1), 167–177.

RESEARCH ARTICLE

The Mediator Role of Rejection Sensitivity Between Perceived Maternal Narcissism and Self-disclosure in Romantic Relationship

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ABSTRACT

The first aim of the study is to evaluate the relationship between self-disclosure in romantic relationships, rejection sensitivity and perceived maternal narcissism. The second one is to examine the mediating role of rejection sensitivity between perceived maternal narcissism and self-disclosure in romantic relationships. The Sociodemographic Data Form, the Level of Self-Disclosure in Romantic Relationship Scale (LSRRS), the Rejection Sensitivity Questionnaire (RSQ), and the Perceived Maternal Narcissism Scale (PMNS) were given to the participants. The analysis was done using the SPSS 25 program. The data were analyzed using regression analysis and Pearson correlation analysis. The study's results suggest that rejection sensitivity mediates the relationship between perceived maternal narcissism and each narcissistic trait perceived by the mother and self-disclosure in romantic relationships. It has been determined that traits of the mother with a narcissistic personality may cause rejection sensitivity in interaction with the child, and this can negatively affect the self-disclosure towards the romantic partner of the adult.

Being raised by a parent with narcissistic personality traits can have negative impacts on the child's life and cause permanent damage in adult life (Cusack, 2017; Määttä et al., 2020). Children with narcissistic mothers may be seen by their mothers as an extension of themselves (Wetzel & Robins, 2016). In such a relationship, the child can develop a belief that he/she should realize his/her mother's emotional needs and demands and meet them (Sukenick, 2001; Alpay, 2020). The fact that narcissistic parents interact with their children emotionally distant and with a low level of empathy can also reinforce this belief (Leggio, 2018; Alpay, 2020).

Rapoport (2005) states that parents with high narcissistic characteristics state that when their demands and needs are not met by their children, parents may arouse guilt in their children and punish them. Apter (2012) states that the child who feels unsuccessful in the face of the demands of the narcissistic mother may not be able to build his confidence in establishing close relationships on a solid basis and may experience a similar feeling of failure and inadequacy in his other relationships. The level of parental acceptance during childhood can either help or hinder a person's psychological adjustment, as well as either aggravate or lessen their anxiety about being intimate with other people (Arayıcı-İyiaydın et al., 2023). The experiences of the child in interaction with the caregiver and the messages they perceive, shaping individuals' beliefs about themselves and others, can also be an effective factor in the development of romantic relationships among adults (Xia et al., 2018; Jamison & Lo, 2021; Başçelik et al., 2022). Furthermore, it is stated that a child's negative experiences in their parent-child connection are linked to a decrease in their pleasant interactions with their

romantic partner (McCarthy & Maughan, 2010; Jamison & Lo, 2021). In this regard, it is thought that the effects of the relationships of mothers with narcissistic personality traits with their children in adult life may also manifest in the child's romantic relationships.

The narcissistic mother may try to use her child to meet her unsatisfied desires and show approval to the child to the extent that she meets them; she may conditionally give interest and love to the child (Rappoport, 2005; Määttä et al., 2020). Conditional love given by parents increases rejection sensitivity (Downey et al., 1997; Faraji & Sucu, 2021). In addition, it is stated that the first rejection experiences may affect the future social interactions of the person (Özen & Güneri, 2018), and the adult's sensitivity to rejection may have an impact on their love relationships (Downey & Feldman, 1996; Faraji & Sucu, 2021). Experiencing intense feelings and the need for closeness in romantic relationships may cause a stronger sensitivity to rejection in these relationships (Özen & Güneri, 2018). Individuals who have high rejection sensitivity have some difficulties about trusting o their partner (Sommerfeld & Shechory Bitton, 2020). They also feel more lonely and perceive higher degrees of relationship threat (Nowland et al., 2018). Besides, it is stated when individuals have higher degrees of rejection sensitivity, they tend to have higher levels of intimacy fear (Faraji ve Tezcan, 2023).

Parents with narcissistic personality traits may display an exploitative, controlling, and omnipotent attitude in their relations with their children (Wetzel & Robins, 2016). Authoritarian parental attitude is regarded as a critical element in the growth of rejection sensitivity (Özen & Güneri, 2018). However, Díez et al. (2019) state that perceived parental control is associated with avoidant and anxious behavior in adult romantic relationships. In light of this information, it is thought that the individual's perceived maternal narcissism and the anxiety and expectation of rejection may lead to dysfunctional expectations and evasion in intimate relationships, and this may affect the self-disclosure (SD) towards one's romantic partner. The aim of this study is to examine the mediating role of rejection sensitivity between perceived maternal narcissism and SD in romantic relationships and to evaluate the relationship between these three variables. The findings might be beneficial to show how previous relationships' shadow falls in today's relationships and show the importance of selecting psychotheraphical interventions for beliefs about rejection and insecurities about SD to help with conflicts in romantic relationships of adults.

Method

Participants

Relational screening was the model employed in this investigation. The adults in Turkey make up the study universe. Random sampling was used to choose the study's sample. There were 417 participants in all, 226 women (54.2%) and 191 men (45.8%), who voluntarily took part in the study and lived in Istanbul in 2022. Of the participants of the study, 141 (33.8%) were between the ages of 18-21, 143 (34.3%) were between the ages of 22-25, 57 (13.7%) were between the ages 26-30, 76 (18.2%) were 31 and over, 45 (10.8%) perceived their income as low, 323 (77.5%) perceived their income as moderate, 49 (11.8%) perceived their income as high. Of the participants of the study, 207 (49.6%) of mothers were primary school graduates, 118 (28.3%) were high school graduates, 81 (19.4%) were undergraduates, and 11 (2.6%) were postgraduates.

Data Collection Tools

Sociodemographic Data Form. According to the study's objectives, the researchers developed the sociodemographic data form. It includes items that aim to question the age, gender, and educational degree of the participants and their mothers.

Perceived Maternal Narcissism Scale (PMNS). The Perceived Maternal Narcissism Scale (PMNS) consists of 32 items and was created by Alpay (2020) in order to measure the narcissistic features (control-manipulation, criticism-accusation, empathy deficiency, grandiosity pretentiousness and parentification-exploitation) perceived by the mother. For the entire scale, the Cronbach α value was. 94 (Alpay, 2020). In this study, it was found to be.95 for the total score, .90 for the empathy deficiency subscale, .85 for the grandiosity pretentiousness subscale, .88 for the criticism-accusation subscale, .84 for the control-manipulation subscale, .75 for the parentification-exploitation subscale.

Level of Self-disclosure in Romantic Relationship Scale (LSRRS). The scale was developed by Doğruyol & Uzun (2019) to measure adult individuals' levels of SD in romantic relationships. It consists of a total of 4 sub-dimensions and 25 items: openness, communication, sexual intimacy, and affection. The openness sub-dimension represents the person's openly sharing the situations about himself with his partner; the communication sub-dimension represents the communication of the person with the partner; the sexual intimacy sub-dimension represents the sexual intimacy with the partner, and the affection sub-dimension represents the emotional intimacy with the partner. The Cronbach α value of the scale was reported as .94 (Doğruyol & Uzun, 2019). In this study, it was found to be.95 for the total score, .94 for openness, .88 for communication, .85 for sexual intimacy, and .80 for affection.

The Rejection Sensitivity Questionnaire (RSQ). The scale was created to determine the rejection sensitivity levels of individuals, is a single-factor scale (Downey & Feldman, 1996). The entire scale was adapted to Turkish by Erözkan (2004). The 18 items on the scale are intended to measure the anxiety experienced by individuals in interpersonal relationships in the face of rejection and their expectations about rejection. There is no reverse item in the scale. The total score of scale is between 18-108. The Cronbach α value of the scale was reported as .83 (Erözkan, 2004). In this study, it was found to be.was .92 for the total score.

Procedure

Initially, the scale information and required permissions were acquired. The research then began following the ethical committee of Istanbul Aydın University's approval. The measurement instruments, as well as the directions, were delivered to the people who voluntarily participated in the study via online platforms and face-to-face. No personal data was collected from the subjects.

Data Analysis

The analysis was done using the SPSS 25 program. The normal distribution assumption, which is the first step in the analysis, was examined. The scale's and its subscales' kurtosis and skewness values were checked. Using the kurtosis and skewness coefficients, this assumption was evaluated. The normal distribution assumption satisfied because both of these coefficients fall within the -2 + 2 range (Leech et al., 2013). PROCESS 3.5 was used to examine intermediary roles.

Results

Within the scope of the second aim of the study, the mediating role of rejection sensitivity (RS) in the relationship between level of self-disclosure in romantic relationship (LSRR) and perceived maternal narcissism (PMN) was examined. Table 1-6 presents the results of the regression analysis.

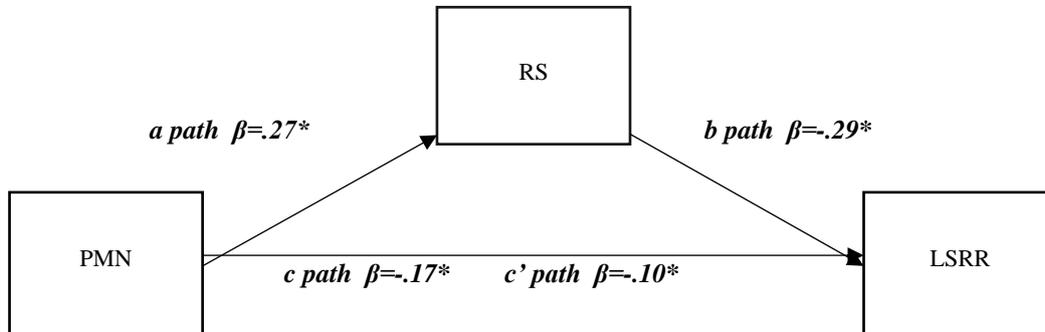**Table 1.** Findings on the Mediator Role of the RS in the PMN to the LSRR

Model		R	R^2	B	SH	B	t	P	Lower Bound	Upper Bound
1	(Constant)	.29	.03	108.22	2.82		38.39	0.000	102.68	113.76
	PMN			-0.16	0.05	-0.17	-3.59	0.000	-0.25	-0.07
2	(Constant)	.36	.09	117.49	3.20		36.69	0.000	111.20	123.78
	PMN			-0.10	0.05	-0.10	-2.11	0.036	-0.19	-0.01
	RS			-0.25	0.05	-0.27	-5.51	0.000	-0.34	-0.16
	Indirect Effect (Mediator)			0.01	0.00				0.01	0.02

*p<0.05 PROCESS 3.5

After analyzing the data in Table 1, it came to light that in the first model, the independent variable of the PMN accounted for 3% of the variance in the dependent variable score of the LSRR. RS was included as an independent variable in the model during the second phase. It was shown that the RS independent variable accounted for 6% of the variation in the dependent variable score's LSRR. It was determined, according to the findings, that the independent variables of the PMN and the RS accounted for %9 of the variance in the LSRR dependent variable score. The beta value of the PMN's independent variable dropped from -.17 to -.10 after the RS was added as an independent variable in the second phase. After using 95% confidence interval options

from the Bootstrapping analysis and 5000 resampling options, the bottom and higher limits did not contain 0 in the result, so controlling this fall in beta value. Based on an evaluation of the mediator role analysis data, it was concluded that partial mediation occurred.

Figure 1. Beta Coefficients of the Mediator Role of the RS in the Prediction of to the PMN to the LSRR
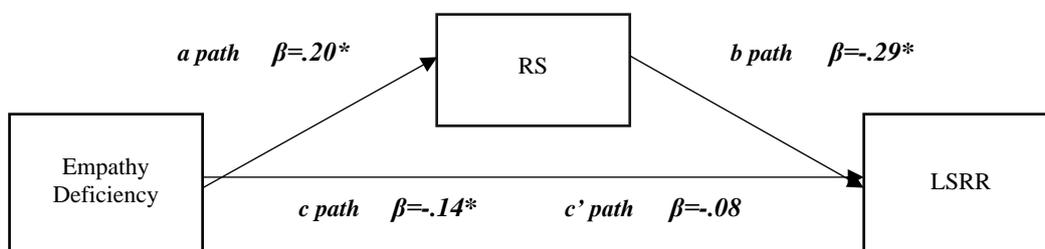

*p<0.05

Table 2. Findings on the Mediator Role of the RS in the Prediction of the Empathy Deficiency to the LSRR

Model		R	R²	B	SH	B	T	p	Lower Bound	Upper Bound
1	Constant	.14	.02	104.84	2.41		43.42	0.000*	100.09	109.59
	Empathy Deficiency			-0.47	0.17	-0.14	-2.78	0.006*	-0.80	-0.14
2	Constant	.30	.09	116.06	3.02		38.47	0.000*	110.13	121.99
	Empathy Deficiency			-0.28	0.17	-0.08	-1.66	0.098	-0.60	0.05
	RS			-0.26	0.05	-0.28	-5.83	0.000*	-0.35	-0.18
	Indirect Effect (Mediator)			-0.19	0.07				-0.34	-0.08

*p<0.05 PROCESS 3.5

After analyzing the data in Table 2, it came to light that in the first model, the independent variable of empathy deficiency accounted for 2% of the variance in the score of the dependent variable of the LSRR. The RS mediator variable was incorporated into the model in the second stage. It was seen that the RS mediator variable accounted for 7% of the variance in the score of the LSRR dependent variable. It was observed that empathy deficiency and variables accounted for 9% of the variance in the score of the dependent variable of the LSRR. In the second stage, with the addition of the RS mediator variable, the beta value of the empathy deficiency independent variable decreased from-.14 to -.8. This difference in beta value was found to be significant since the lower and upper limits of the total non-direct effect did not include zero. According to this result, it is determined that there is full mediation.

Figure 2. Beta Coefficients of the Mediator Role of the RS in the Empathy Deficiency to the LSRR
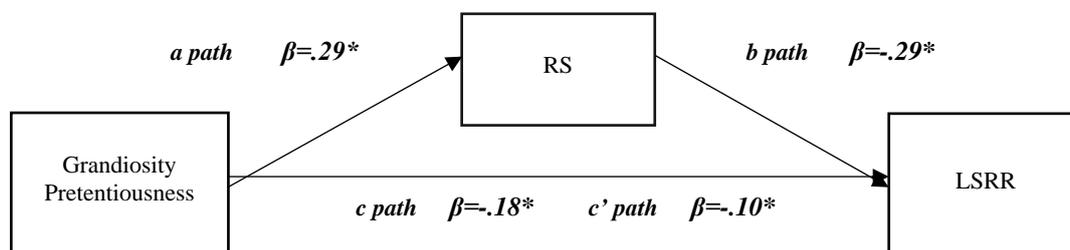

*p<0.05

Table 3. Findings on the Mediator Role of the RS in the Prediction of the Grandiosity Pretentiousness to the LSRR

Model		R	R^2	B	SH	B	T	p	Lower Bound	Upper Bound
1	Constant	.18	.03	106.41	2.32		45.79	0.000*	101.85	110.98
	Grandiosity Pretentiousness			-0.77	0.21	-0.18	-3.63	0.000*	-1.19	-0.35
2	Constant	.31	.09	116.17	2.87		40.42	0.000*	110.52	121.82
	Grandiosity Pretentiousness			-0.43	0.21	-0.10	-2.02	0.044*	-0.86	-0.01
	RS			-0.25	0.05	-0.27	-5.45	0.000*	-0.34	-0.16
	Indirect Effect (Mediator)			-0.34	0.10				-0.54	-0.17

*p<0.05 PROCESS 3.5

After analyzing the data in Table 3, it came to light that in the first model, the independent variable grandiosity pretentiousness accounted for 3% of the variance in the score of the dependent variable LSRR. The RS mediator variable was incorporated into the model in the second stage. It was seen that the RS mediator variable accounted for 6% of the variance in the LSRR dependent variable score. It was observed that grandiosity, pretentiousness, and RS variables accounted for 9% of the variance in the score of the dependent variable LSRR. In the second stage, with the addition of the RS mediator variable, the beta value of the grandiosity pretentiousness independent variable decreased from -.18 to -.10. This difference in beta value was found to be significant since the lower and upper limits of the total non-direct effect did not include zero. According to this result, it is determined that there is partial mediation.

Figure 3. Beta Coefficients of the Mediator Role of the RS in the Grandiosity Pretentiousness to the LSRR

*p<0.05

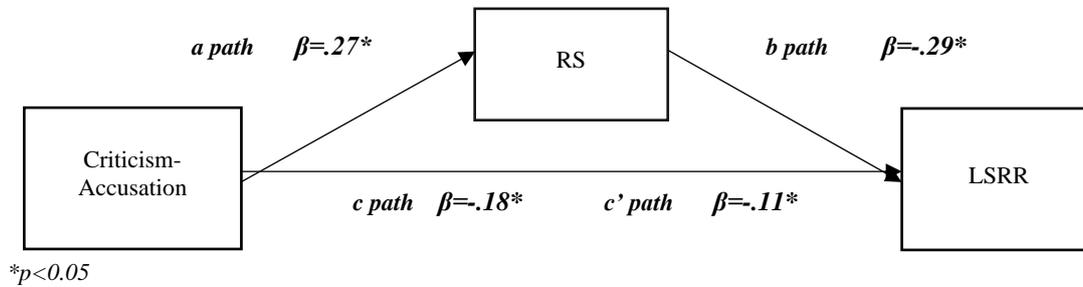**Table 4.** Findings on the Mediator Role of the RS in the Prediction of the Criticism-Accusation to the LSRR

Model		R	R^2	B	SH	B	T	p	Lower Bound	Upper Bound
1	Constant	.18	.03	106.32	2.23		47.64	0.000*	101.93	110.70
	Criticism-Accusation			-0.57	0.15	-0.18	-3.76	0.000*	-0.87	-0.27
2	Constant	.31	.09	116.34	2.84		41.03	0.000*	110.77	121.92
	Criticism-Accusation			-0.34	0.15	-0.11	-2.25	0.025*	-0.64	-0.04
	RS			-0.25	0.05	-0.26	-5.45	0.000*	-0.34	-0.16
	Indirect Effect (Mediator)			-0.23	0.07				-0.37	-0.11

*p<0.05 PROCESS 3.5

After analyzing the data in Table 4, it came to light that in the first model, the independent variable of criticism-accusation accounted for 3% of the variance in the score of the dependent variable of the LSRR. The RS mediator variable was incorporated into the model in the second stage. It was seen that the RS mediator variable accounted for 6% of the variance in the score of the dependent variable of the LSRR. Criticism-accusation and RS variables accounted for 9% of the variance in the score of the dependent variable of the LSRR. In the

second stage, with the addition of the RS mediator variable, the beta value of the independent variable of criticism-accusation decreased from -.18 to -.11. This difference in beta value was found to be significant since the lower and upper limits of the total non-direct effect did not include zero. According to this result, it is determined that there is partial mediation.

Figure 4. Beta Coefficients of the Mediator Role of the RS in the Criticism-Accusation to the LSRR


a path β=.27   RS   b path β=-.29*

Criticism-Accusation   LSRR

c path β=-.18   c' path β=-.11*

*p<0.05

Table 5. Findings on the Mediator Role of the RS in the Prediction of the Control-Manipulation to the LSRR

Model	R	R^2	B	SH	B	t	p	Lower Bound	Upper Bound
Constant	.10	.01	103.74	2.68		38.70	0.000*	98.47	109.01
1 Control-Manipulation			-0.40	0.20	-0.10	-2.03	0.043*	-0.78	-0.01
Constant	.30	.09	115.36	3.22		35.82	0.000*	109.03	121.69
Control-Manipulation			-0.20	0.19	-0.05	-1.05	0.292	-0.58	0.17
2 RS			-0.27	0.05	-0.29	-6.00	0.000*	-0.36	-0.18
Indirect Effect (Mediator)			-0.20	0.07				-0.35	-0.08

*p<0.05 PROCESS 3.5

After analyzing the data in Table 5, it came to light that in the first model the independent variable of control-manipulation accounted for 1% of the variance in the score of the dependent variable of the LSRR. The RS mediator variable was incorporated into the model in the second stage. It was seen that the RS mediator variable explained 8% of the variance in LSRR dependent variable score. Control-manipulation and RS variables accounted for 9% of the variance in the score of the dependent variable of the LSRR. In the second stage, with the addition of the RS mediator variable, the beta value of the control-manipulation independent variable decreased from -.10 to -.5. This difference in beta value was found to be significant since the lower and upper bounds of the total non-direct effect do not include zero. According to this result, it is determined that there is full mediation.

Figure 5. Beta Coefficients of the Mediator Role of the RS in the Control-Manipulation to the LSRR


a path β=.17   RS   b path β=-.29*

Control-Manipulation   LSRR

c path β=-.10   c' path β=-.05*

*p<0.05
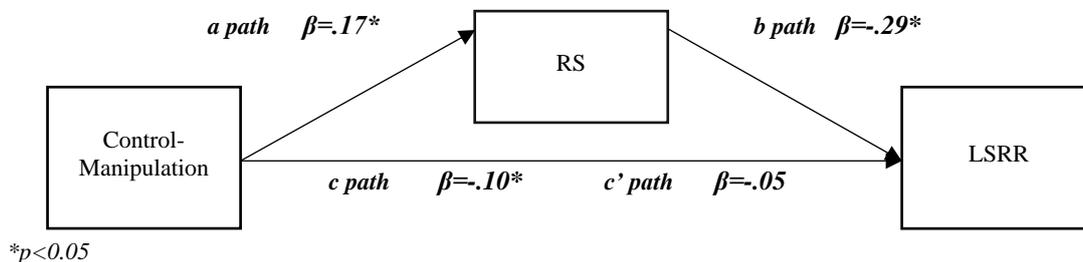
Table 6. Findings on the Mediator Role of the RS in the Prediction of the Parentification-Exploitation to the LSRR

Model	R	R²	B	SH	B	t	p	Lower Bound	Upper Bound
Constant	.13	.02	105.29	2.63		40.05	0.000*	100.12	110.45
1 Parentification-Exploitation			-0.74	0.28	-0.13	-2.70	0.007*	-1.28	-0.20
Constant	.31	.09	116.64	3.18		36.68	0.000*	110.39	122.89
Parentification-Exploitation			-0.46	0.27	-0.08	-1.72	0.085	-0.99	0.06
2 RS			-0.27	0.05	-0.28	-5.89	0.000*	-0.35	-0.18
Indirect Effect (Mediator)			-0.28	0.10				-0.50	-0.11

p<0.05 PROCESS 3.5

After analyzing the data in Table 6, it came to light that in the first model the independent variable of parentification-exploitation accounted for 2% of the variance in the score of the dependent variable of the LSRR. The RS mediator variable was incorporated into the model in the second stage. It was seen that the RS mediator variable accounted for 7% of the variance in the LSRR dependent variable score. Parentification-exploitation and RS variables accounted for 9% of the variance in the score of the dependent variable of the LSRR. In the second stage, with the addition of the RS mediator variable, the beta value of the parentification-exploitation independent variable decreased from -.13 to -.8. This difference in beta value was found to be significant since the lower and upper limits of the total non-direct effect did not include zero. According to this result, it is determined that there is full mediation.

Figure 6. Beta Coefficients of the Mediator Role of the RS in the Parentification-Exploitation to the LSRR
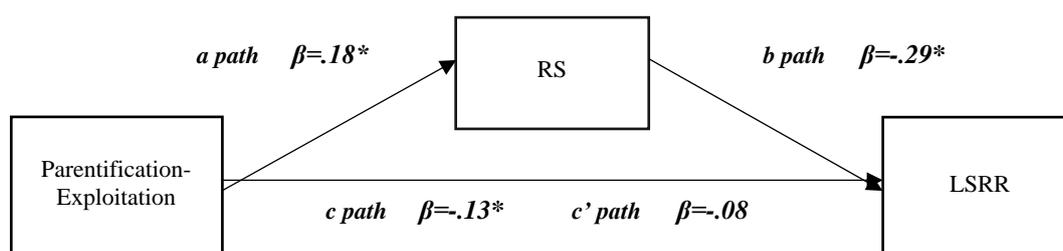
p<0.05

Discussion

This study attempted to assess the mediating role of rejection sensitivity between perceived maternal narcissism and SD in romantic relationships and to evaluate the relationship between these three variables. Based on the study's findings, rejection sensitivity acted as a moderator between perceived maternal narcissism and LSRR. Similarly, Faraji and Sucu (2021) stated that negative experiences in the person's relationship with the caregiver may result in rejection sensitivity, which can lead to disruptive effects in romantic relationships. People who are more vulnerable to rejection typically report lower levels of perceived partner satisfaction, lower levels of closeness and relationship satisfaction, a higher risk of intimate partner violence (victimization-recurrence), higher levels of relationship concerns and conflict, jealousy, and lower levels of SD behaviors, according to Mishra and Allen's (2023) meta-analyses. These findings show that in the interaction between the mother, who has a narcissistic personality, and her child, the rejection experiences of the child may also manifest in adulthood, and this may affect the adult's SD in a romantic relationship.

The current study found that rejection sensitivity plays a mediating role between perceived maternal criticism-accusation and the LSRR. Kazmaz and Epli (2022) showed a negative significant relationship between perceived maternal hostility/aggression, indifference/neglect, and openness, communication, and affection in the romantic relationship. Jamison and Lo (2021) stated that the perceived lack of love and approval from the parent is particularly influential in shaping romantic development. Trak (2016) states that as the attention and

closeness people receive from their parents decreases, their fear of not being able to receive the necessary support from romantic partners when needed increases. The results of this study indicate that openness, communication, affection, and the two perceived maternal narcissistic traits—empathy deficiency and control manipulation—have a negative and substantial association with one another. It was also discovered that openness, effect, communication, and rejection sensitivity have a substantial negative association.

The narcissistic parent may not be able to respond empathetically to the child's needs. Additionally, when their needs are not adequately met by the child, they may respond to the child with responses such as blaming, emotional withdrawal, and negative criticism (Rappoport, 2005). At this point, it may be possible for the child to think that the empathy he cannot get from the mother with narcissistic personality traits he will not be able to get from his romantic partner in adulthood. He might feel that if he talks about his wishes and needs, his partner may give negative answers, like his mother does. Therefore, he may avoid revealing himself.

Results of the study indicated that rejection sensitivity plays a mediating role between perceived maternal parentification-exploitation and the LSRR. Parentification is viewed as a form of relational trauma in which parents' self-absorbed demands are satisfied at the expense of the children's own needs for security, validation, support, and self-assurance (Schorr& Goldner, 2023). Unsuitable expectations of parents who parentificate their children cause children to feel inferior, which prevents them from developing a strong, independent sense of self (Goldner et al., 2019; Goldner et al., 2021). Therefore it can cause a tendency to hesitating about SD in romantic relationship. Likewise, Baggett et al. (2015) declare that individuals who had parentification experiences have less relationship satisfaction and more insecurity. Similarly, Goldner et al. (2019) found that rejection sensitivity has a full mediative role in parentification and impaired intimacy.

Findings obtained from the results of the current research show that rejection sensitivity plays a mediating role between perceived maternal grandiosity, pretentiousness, empathy deficiency, control manipulation, and LSRR. A mother with narcissistic characteristics may approach the child's feelings and needs with a low level of empathy and can try to provide omnipotence and control over the child (Rappoport, 2005; Wetzel & Robins, 2016). Çardak et al. (2012) state that children of parents with authoritarian attitudes have higher rejection sensitivity than other children. Şar et al. (2020) show overprotection and overcontrol as categories of childhood trauma in the Turkish Childhood Trauma Questionnaire. Mahoney et al. (2016) stated that parents with narcissistic personality traits see their children as extensions of themselves and do not fulfill their parenting roles; they state that as a result of this, an insecure attachment pattern may develop in the child. People with low trust in their romantic partners can open themselves up to their partners less easily (Sprecher & Hendrick, 2004). Children of narcissistic mothers are raised in an environment where they hear things like men cause problems in life and that she is the only person they can rely on, and they carry an internal fear of their current partner turning into a mother (Lyons et al., 2023). Díez et al. (2019) showed that perceived parental control is associated with avoidance and anxiety in adult romantic relationships. When in a romantic relationship, it's stated that those with high rejection sensitivity exhibit higher anxiety and avoidance (Hafen et al., 2014). The mother, who displays narcissistic personality traits, tries to control the child's behavior according to her own desires and needs and gives the child's love and approval only when these wishes and needs are met. It is thought that the repetitive experience of this situation may create a rejection sensitivity in the adult individual against negative comments or unmet demands that may come from his romantic partner. In order to cope with this sensitivity of rejection, the person may not be open about himself to his romantic partner, hide his feelings, and avoid establishing physical or social intimacy. The finding from the current study that rejection sensitivity fully mediates the relationship between the emphaty deficiency and control manipulation and the SD in romantic relationship supports this assumption. Additionally, Giovazolias and Paschalidi (2022) stated rejection sensitivity could be adequate in the emergence of fear of closeness by increasing interpersonal anxiety and that maternal acceptance is a protective factor.

Conclusion

The role of rejection sensitivity in regulating the connection between perceived maternal narcissism and SD in romantic relationships was explored in this study. It has been determined that rejection sensitivity plays a mediation function between perceived maternal narcissism and SD in a romantic relationship. It has been determined that features of the mother with narcissistic personality traits such as empathy deficiency and

control-manipulation can create rejection sensitivity in interaction with the child, and this can negatively affect the SD towards the romantic partner of the adult. In light of these results, in psychotherapeutic interventions where the SD in romantic relationships is studied, it is thought that schema therapy methods such as parental restructuring for perceived maternal narcissism and cognitive techniques for the evaluation of negative automatic thoughts, intermediate beliefs, and core beliefs for rejection sensitivity will be beneficial.

Limitations & Future Studies

It is thought that future studies using the longitudinal method will provide the opportunity to evaluate more comprehensively the effect of the experiences that occur in the interaction between the child and the mother on romantic relationships in adulthood. However, it is recommended to include mothers who have been diagnosed with narcissistic personality disorder in future studies in order to be able to compare the perceived maternal narcissistic characteristics with healthy controls and to find the opportunity to compare the mother's narcissistic characteristics perceived by the child and the ones who determined by psychiatric evaluations.

References

Alpay, E. H. (2020). *The mediating role of self-criticism in the relationship between narcissistic characteristics perceived from the mother and psychopathology*. (Publication No. 624803) [Doctoral Thesis, Mersin University]. YOK National Thesis Center.

Apter, T. (2012). *Difficult mothers: Understanding and overcoming their power*. WW Norton & Company.

Aracı-İyiaydın, A., Toplu-Demirtaş, E., Akçabozan-Kayabol, N. B., & Rohner, R. P. (2023). All you fear is love: The roles of rejection by intimate others. *Personal Relationships*, *30*(2), 452-470. https://doi.org/10.1111/pere.12473

Baggett, E., Shaffer, A., & Muetzelfeld, H. (2015). Father–daughter parentification and young adult romantic relationships among college women. *Journal of Family Issues*, *36*(6), 760-783. https://doi.org/10.1177/0192513X13499759

Başçelik, E., Faraji, H., & Güler, K. (2022). *Psikanalitik kuram ve şema teorisi çerçevesinde annelerimiz babalarımız ve romantik ilişkilerimiz.* Nobel Yayın.

Cusack, T. A. (2017). *Under the skin of narcissistic kin: A thematic enquiry into the use of online blogs by adult children of perceived narcissists* (Doctoral dissertation, Queensland University of Technology).

Çardak, M., Sarıçam, H., Onur, M. (2012) Perceived parenting styles and rejection sensitivity in university students. *The Online Journal of Counselling and Education*, *1*(3), 57-69.

Díez, M., Sánchez-Queija, I., & Parra, Á. (2019). Why are undergraduate emerging adults anxious and avoidant in their romantic relationships? The role of family relationships. *PLOS ONE*, *14*(11). https://doi.org/10.1371/journal.pone.0224159

Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology*, *70*(6), 1327-1343. https://doi.org/10.1037//0022-3514.70.6.1327

Downey, G., Khouri, H., & Feldman, S. I. (1997). Early interpersonal trauma and later adjustment: The mediational role of rejection sensitivity. In D. Cicchetti & S. L. Toth (Eds.), *Developmental perspectives*

on trauma: Theory, research, and intervention (pp. 85–114). Rochester, NY: University of Rochester Press.

Downey, G., Mougios, V., Ayduk, O., London, B. E., & Shoda, Y. (2004). Rejection sensitivity and the defensive motivational system: Insights from the startle response to rejection cues. *Psychological Science*, *15*(10), 668–673. https://doi.org/10.1111/j.0956-7976.2004.00738.x

Erözkan, A. (2004). *Cognitive appraisal and coping with rejection-based vulnerability in romantic relationships.*. (Publication No. 147064) [Doctoral Thesis, Blacksea Technical University]. YOK National Thesis Center.

Faraji, H., Tezcan, A.E. (2023). Rejection sensitivity and fear of ıntimacy in ındividuals with and without borderline personality disorder. *Firat Medical Journal, 28*(4), 286-295.

Faraji, H., & Sucu, H. (25-26 Aralık, 2021). Yetişkin bireylerde ilk nesne ilişkileri ve reddedilme duyarlılığı. *I. Uluslararası Psikolojide Güncel Yaklaşımlar ve Araştırmalar Kongresi,* İstanbul.

Giovazolias, T., & Paschalidi, E. (2022). The effect of rejection sensitivity on fear of intimacy in emerging adulthood: A moderated-mediation model. *European Journal of Psychology Open, 81*(1), 1–12. https://doi.org/10.1024/2673-8627/a000019

Goldner, L., Jakobi, C. D., Schorr, S., Dakak, S., & Shawahne, N. (2021). Keep it quiet: Mother–daughter parentification and difficulties in separation–individuation shaping daughters' authentic/true self and self-silencing: A mediation model. *Psychoanalytic Psychology*, *39*(2), 165–174. https://doi.org/10.1037/pap0000352

Hafen, C. A., Spilker, A., Chango, J., Marston, E. S., & Allen, J. P. (2014). To accept or reject? the impact of adolescent rejection sensitivity on early adult romantic relationships. *Journal of Research on Adolescence*, *24*(1), 55–64. https://doi.org/10.1111/jora.12081

Harper, M.S., Dickson, J.W., Welsh, D.P. (2006). Self-silencing and rejection sensitivity in adolescent romantic relationships. *Journal Of Adolescent Health, 35*, 435-443. https://doi.org/10.1007/s10964-006-9048-3

Jamison, T. B., & Lo, H. Y. (2021). Exploring parents' ongoing role in romantic development: Insights from young adults. *Journal of Social and Personal Relationships, 38*(1), 84-102. https://doi.org/10.1177/0265407520958475

Johnson, M. D., & Bradbury, T. N. (2015). Contributions of social learning theory to the promotion of healthy relationships: Asset or liability? Journal of Family Theory & Review, *7*(1), 13–27. https://doi.org/10.1111/jftr.12057

Kazmaz A. N.& Epli H. (2022). Examining the relationship between perceived parental acceptance and rejection in adulthood and the level of self-disclosure in romantic relationships. *Gümüşhane Üniversitesi Sosyal Bilimler Dergisi, 13*(3), 1046-1056.

Leech, N., Barrett, K., & Morgan, G. A. (2013). *SPSS for ıntermediate statistics.* (2. Press). Lawrence Erlbaum Associates Inc. https://doi.org/10.4324/9781410616739

Leggio, J. N. (2018). *Mental health outcomes for adult children of narcissistic parents* (Doctoral Thesis), Adler University, Chicago.

Lyons, M., Brewer, G., Hartley, A. M., & Blinkhorn, V. (2023). "Never learned to love properly": A qualitative study exploring romantic relationship experiences in adult children of narcissistic parents. *Social Sciences*, *12*(3), 159. https://doi.org/10.3390/socsci12030159

Määttä, M., Maatta, K., Uusiautti, S., & Äärelä, T. (2020). " She does not control me anymore but I can hear her voice sometimes"-a phenomenographic research on the resilience perceptions of children who have survived from upbringing by a narcissistic parent. *European Journal of Education Studies*, *6*(12), 17-40 https://doi.org/10.5281/zenodo.3662420

Mahoney, D., Rickspoone, L. & Hull, J. C. (2016). Narcissism, parenting, complex trauma: The emotional consequences created for children by narcissistic parents. *The Practitioner Scholar: Journal of Counseling and Professional Psychology*, *5*(1). 45-59.

McCarthy, G., & Maughan, B. (2010). Negative childhood experiences and adult love relationships: The role of internal working models of attachment. *Attachment & Human Development*, *12*(5), 445–461. https://doi.org/10.1080/14616734.2010.501968

Mishra, M., & Allen, M. S. (2023). Rejection sensitivity and romantic relationships: A systematic review and meta-analysis. *Personality and Individual Differences*, *208*, 112186.

https://doi.org/10.1016/j.paid.2023.112186

Nowland, R., Talbot, R., & Qualter, P. (2018). Influence of loneliness and rejection sensitivity on threat sensitivity in romantic relationships in young and middle-aged adults. *Personality and Individual Differences*, *131*, 185-190. https://doi.org/10.1016/j.paid.2018.04.047

Rappoport, A. (2005). Co-narcissism: How we accommodate to narcissistic parents. *The Therapist*, *1*, 1-8.

Schorr, S., & Goldner, L. (2023). "Like stepping on glass": A theoretical model to understand the emotional experience of childhood parentification. *Family Relations*. *72*, 3029–3048https://doi.org/10.1111/fare.12833

Sommerfeld, E., & Shechory Bitton, M. (2020). Rejection sensitivity, self-compassion, and aggressive behavior: The role of borderline features as a mediator. *Frontiers in Psychology*, *11*, 44. https://doi.org/10.3389/fpsyg.2020.00044

Sprecher, S. ve Hendrick, S. S. (2004). Self-disclosure in intimate relationships: Associations with individual and relationship characteristics over time. *Journal of Social and Clinical Psychology, 23*(6), 857- 877. https://doi.org/10.1521/jscp.23.6.857.54803

Sukenick, J. M. (2002). *Narcissism and self-esteem in adolescent female models and the role of perceived parental narcissism* (Publication No. 3000390) [Doctoral Dissertation, New York University].

Şar, V., Necef, I., Mutluer, T., Fatih, P., & Türk-Kurtça, T. (2020). A revised and expanded version of the Turkish Childhood Trauma Questionnaire (CTQ-33): Overprotection-overcontrol as additional factor. *Journal of Trauma & Dissociation*, *22*(1), 35–51. https://doi.org/10.1080/15299732.2020.1760171

Şirvanlı Özen, D., & Güneri, F. K. (2018). Basic determinant of success of ınterpersonal relationship: Rejection sensitivity. *Current Approaches in Psychiatry*, 10(4), 444–459. https://doi.org/10.18863/pgy.360041

Trak, E. (2016). *The relationship between remembered parental involvement, adult attachment styles, and partner-related self-worth with romantic relationship and partner-themed obsessive compulsive disorder symptoms*. (Publication No. 449569) [Master Thesis, Hacettepe University]. YOK National Thesis Center.

Wetzel, E., & Robins, R. W. (2016). Are parenting practices associated with the development of narcissism? Findings from a longitudinal study of Mexican-origin youth. *Journal of Research in Personality, 63,* 84–94. https://doi.org/10.1016/j.jrp.2016.05.005.

Xia, M., Fosco, G. M., Lippold, M. A., & Feinberg, M. E. (2018). A developmental perspective on young adult romantic relationships: Examining family and individual factors in adolescence. *Journal of Youth and Adolescence, 47*(7), 1499–1516. https://doi.org/10.1007/s10964-018-0815-8.

RESEARCH ARTICLE

When Are You Going to Marry? Intention to Marry through the Lens of Theory of Planned Behavior and Self-Regulatory Focus

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ABSTRACT

What makes people to take important decisions in their lives, such as marriage? To answer this question, we relied on theory of planned behavior to examine the degree to which peoples' attitudes, subjective-norms, and behavioral control perceptions predict their intentions to marry. Furthermore, we used self-regulatory focus theory to examine whether such attitudes, norms, and perceptions could be partly explained by peoples' focus on pursuing-gains versus securing non-losses. We conducted a cross-sectional, web-based survey with a sample of 699 Turkish young adults (70.7% females; M_{age} = 24.89 years, SD = 4.31). The results of the structural equation modeling showed that promotion-focus positively and prevention-focus negatively related to perceived behavioral control, which in turn negatively related to intentions to marry. Intentions also related positively to attitudes but not to subjective-norms, which however related positively to promotion-focus and negatively to prevention-focus. Gender and age differences were also found. The results are discussed in light of the two theories.

Nowadays, young people decide to get married at an older and older age. For instance, the mean age of Europeans who first get married has now exceeded to 30 years of age (Eurostat, 2022). Likewise, the median age at first marriage in United States in 2020 was above 30 years for males and 28 years for females, approximately 6 years higher than that it was in 1980s (U.S. Census Bureau, 2022) and the same increase holds true for many other countries all over the world, including Türkiye. Specifically, in Türkiye, the mean age of the first marriage in 2021 was 28.1 years for males and 25.4 years for females, which was approximately 2 years higher than what it was in 2001 (TUİK, 2022).

Given that being in a partnership, typically through marriage, and having a child result in increased well-being (Kohler et al., 2005; Perelli-Harris et al., 2019), the implications of such a life-long decision for individuals' lives are obvious. Therefore, it is important to understand some of the psychological processes that may relate to people's intention to get married. In this study, we aimed to uncover some of the likely mechanisms that may lie behind intention to marry by relying to the theory of planned behavior (Ajzen, 1985; Bosnjak et al., 2020) and self-regulatory focus theory (Higgins, 2000; 1997). In particular, we examined in a cross-sectional model to what extent people's intentions to get married could be explained by means of the attitudes they hold towards marriage, the extent to which significant others encourage them to get married (i.e., subjective norms), and the degree to which they believe they have control over their own lives (i.e., perceived behavioral control) and whether such attitudes, subjective norms, and perceptions of behavioral control could be explained by

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people's propensity to focus on maximizing gains (promotion-focus) versus securing non-losses (prevention-focus). Further, we examined whether a similar pattern of relations would exist across two genders. Understanding what makes people take a decision to get married may be a useful hint for specialists, when they are asked to intervene to help people overcome their indecision to get married or later on when the couple confronts interrelationship conflicts.

Theory of Planned Behavior

The theory of planned behavior (TPB; Ajzen, 2020) tries to explain the forces that guide human behavior. According to TPB, the proxy of one's behavior is one's intention to act, which refers to people's plans and decisions to exhibit a desired behavior (Ajzen, 2020; Ajzen, 1985). In turn, intentions are thought to be determined by three factors, namely behavioral beliefs, normative beliefs, and control beliefs which are supposed to shape, respectively, people's attitudes, perceived subjective norms, and perceived behavioral control (Ajzen, 2020). Behavioral beliefs refer to individuals' beliefs about the likely implications (i.e., benefits or consequences) that a behavior might have in future (Ajzen, 2002). For example, a young woman who believes that a marriage sets a lot of obstacles in her wishful future career may shape negative attitudes towards marriage that will deter her from getting married in the close future. Perceived normative beliefs refer to the beliefs that one holds about what significant others expect from him or her and is thought to determine his or her subjective norms (Ajzen, 2020; Madden et al., 1992). For example, a young man who believes that his parents favor a marriage with his fiancée will hold positive subjective norms, something which may strengthen his intention to get married. Lastly, control beliefs reflect person's perceptions about the control they have over a situation (Ajzen, 2020; Hrubes et al., 2001). A young man who believes that he can cope with all the difficulties associated with marriage, will be characterized by high perceived control, and thus by strong intentions to get married.

The theory of planned behavior has been found to predict and explain a wide range of health-related behaviors such as substance use (Jalilian et al., 2020; Morell-Gomis et al., 2019; Morrison et al., 1998; Zhao et al., 2019), healthy eating (Grønhøj et al., 2012; Lim et al., 2020; Sogari et al., 2023), and weight loss (Schifter & Ajzen, 1985; Wykes et al., 2022). Moreover, it has been used to predict different kinds of behaviors and intentions such as seeking social support (Albarracin et al., 1997; Zhao et al., 2021), online shopping (George, 2004; Wang et al., 2022), and public transportation usage (Heath & Gifford, 2002; Warner et al., 2021). Moreover, these significant relations were stated in relatively recent reviews (Lareyre et al., 2021; Moore et al., 2022) and meta-analyses (e.g., Albarracin et al., 2001; Armitage & Conner, 2001; Hagger et al., 2022; Hirschey et al., 2020), as well as correlational (Jalilian et al., 2020; Simamora & Djamaludin, 2020) and longitudinal studies (Lee et al., 2020; Vankov et al., 2021). In addition, several intervention studies have shown that changing attitudes, subjective norms, and perceptions of behavioral control leads to subsequent change in intended behaviors (e.g., Hardeman et al., 2002; Zhao et al., 2019), including those ones that can have long-lasting implications such as condom use (Albarracin et al., 2001) or healthy eating (Grønhøj et al., 2012).

Given its usefulness in predicting people's intentions to act, a pertinent question is whether the theory of planned behavior could apply to the issue of intentions to marry. Examining individuals' marriage intention could help us understand the antecedents of such intentions and could provide worthful information for future intervention programs. Even though research on marriage intention is scarce, in one exception, Shahrabadi et al. (2017) tested the role of theory of planned behavior as a possible predictor of 192 Iranian university students' intention to marry. The results showed that all three constructs of the theory significantly predicted the marriage intention of the university students. Moreover, some previous research also provided indirect evidence for the applicability of theory of planned behavior in the marriage domain. Specifically, some research has shown that people who have higher subjective well-being (Yoo & Lee, 2019), plans, positive expectations, and favorable attitudes toward marriage hold higher intentions to marry and eventually they are more likely to marry (Cherlin, 2009).

Given these findings, we assume, in line with the theory of planned behavior (Ajzen, 1985; Bosnjak et al., 2020), that positive attitudes towards marriage, and supportive subjective norms and higher perceptions of behavioral control may explain greater intentions to marry. However, why some people may hold more positive attitudes or subjective norms towards marriage than others? Or why they may believe that they have higher

behavioral control over a future marriage than some others? To address this research question, we relied on self-regulatory focus (Higgins, 2000; 1997) and examined whether variation in people's attitudes, subjective norms, and perceptions of their behavioral control could be explained by their willingness to act (and thus maximizing gains) or their focus on avoiding committing mistakes. This issue is elaborated in the next section.

Self-Regulatory Focus Theory

According to the self-regulatory focus theory, individuals are inherently motivated to satisfy two fundamental needs, that of nurturance (i.e., growth) and that of security (i.e., protection) (Scholer et al., 2019). They use different strategies to accomplish these needs and that they experience different emotions when they do (or do not do) so (Higgins, 1997). The theory suggests a distinction in regulatory focus between nurturance-related regulation and security-related regulation. While nurturance-related regulation is characterized by a promotion-focus, security-related regulation is associated with a prevention-focus (Higgins, 2000; 1997). When individuals are promotion-focused, they act according to their growth, maximization, and development needs to attain their ideal selves. These individuals are more sensitive to the presence or absence of positive outcomes, and they mainly endorse an approach strategy to maximize gains. On the other hand, when individuals are prevention-focused, they act according to their security and safety needs to accomplish their ought selves (Brockner & Higgins, 2001). These individuals are more sensitive to the presence or absence of negative outcomes, and they mainly follow an avoidance strategy to secure non losses (Crowe & Higgins, 1997).

Despite this sharp distinction, research has pointed out that all people espouse both regulatory focus systems at some degree (Winterheld & Simpson, 2011) with some individuals however favoring more the promotion and others favoring more the prevention-focus (Manian et al., 2006). To illustrate, consider two people being in a romantic relationship. While a promotion-focused person might view this romantic relationship as an opportunity to further expand and solidify it (through marriage), a prevention-focused individual might take the very same relationship as a possible pitfall that he or she should cautiously proceed. While promotion-focused individuals will tend to exhibit a risky bias, their prevention-focused counterparts will tend to show more conservative bias (Higgins, 1997). Therefore, understanding the role of individual differences (e.g., being promotion- vs. prevention-focus) could explain respective differences in people's attitudes, subjective norms, and behavioral control perceptions, and eventually their intentions to a life-commitment goals.

Being promotion-focused has been found to be related to some outcomes such as cheerfulness (Idson et al., 2000) and more theoretical and comprehensive information processing (Förster & Higgins, 2005). On the other hand, being prevention-focused has been found to be related to certain outcomes such as more quiescence (Idson et al., 2000) and more actual, limited, and restricted information processing (Förster & Higgins, 2005). In addition, while promotion-focused individuals who perceive high support from their romantic partners report high relationship and personal well-being (Molden et al., 2009), prevention-focused individuals tend to evaluate their potential romantic partners less positively, as they are characterized by rejection sensitivity (Ayduk et al., 2003). Given these distinct patterns of relations, one may easily assume that promotion-focused people, as compared to prevention-focused ones, may be riskier and thus hold more positive attitudes towards marriage. They might form more positive subjective norms and might feel that have higher behavioral control over a will-be marriage. However, there is no evidence regarding these assumptions as no previous research has ever examined promotion-focus and prevention-focus along with the theory of planned behavior within the marriage literature. Therefore, we aimed to examine how peoples' promotion-focus and prevention-focus could explain their marriage intention by means of the three elements defining such intentions according to the theory of planned behavior; that is, attitudes, subjective norms, and perceived behavioral control.

The Present Study

We aimed to build on previous research in some important ways. Firstly, this study was among the first one that measures the marriage intention through the lens of the theory of planned behavior and the self-regulatory focus theory. Therefore, the present study will try to shed light on the marriage intention literature by examining the possible antecedents of it by relying on two theories. Secondly, this study was conducted in a non-Western context where marriage is considered a milestone in people's life (e.g., Yilmaz, 2016) and as men and women get married at a relatively younger age than their Western counterparts even though their age of

the first marriage gets increased throughout the years (Blakemore et al., 2005). Moreover, we used structural equation modeling to examine our hypotheses that allowed us to test our model by considering other possible direct relations (i.e., from promotion- or prevention-focus to intentions).

We aimed to examine to what extent marriage intention would be predicted by greater levels of promotion-focus and lower levels of prevention-focus by means of positive attitudes, favorable subjective norms, and higher behavioral control perceptions. Based on TPB, we hypothesized that higher behavioral control perceptions, favorable subjective norms, and positive attitudes would positively relate to marriage intention. Further, in the light of the self-regulatory focus theory, we hypothesized that promotion-focus would positively, and prevention-focus would negatively relate to attitudes, subjective norms, and behavioral control perceptions. Moreover, given that previous research shows that women have higher drive to marry compared to men especially in conservative or traditional cultures, such as that of Türkiye (Blakemore et al., 2005), we examined whether these associations would remain similar across males and females. We made no particular hypothesis regarding gender differences, given the lack of previous findings regarding this issue. In addition, because marriage intention increases with age (Thornton & Freedman, 1982), we considered participants' age by hypothesizing that age would positively predict attitudes, subjective norms, behavioral control perceptions, and eventually marriage intentions.

Method

Participants and Procedure

The sample consisted of 699 Turkish young adults. The mean age of participants was 24.89 years (SD = 4.31) and majority of them was female (70.7%). To assess attitudes, subjective norms, perceived behavioral control, and marriage intention, we adapted the necessary items according to the conceptual and methodological considerations being offered by Ajzen (2006). The items were translated into Turkish and then back translated by two independent groups of psychology professors according to the procedures described by Hambleton and De Jong (2003) and for the content validity of the measures, the translations were evaluated and negotiated by these experts and the final Turkish versions of the measures were created. After obtaining an approval to conduct the study from the ethics committee of the Hacettepe University (Approval number: 35853172/431-72), we invited young and single adults to fill out our online survey through social media. The participants were informed initially about the purpose of the study, the procedures to be followed, and they were assured about their anonymity and the confidentiality of their responses. After indicating their consent to participate, their age and gender, participants filled out the study measures.

Measures

Attitudes Towards Marriage. Attitudes were assessed through seven five-point semantic differential items adapted from the scale of Ajzen (2006). Specifically, after reading the stem item 'For me, the marriage is', participants rated to what extend marriage is not normal-normal, bad-good, unenjoyable-enjoyable, foolish-wise, unpleasant-pleasant, harmful-beneficial, and worthless-valuable. The Cronbach's alpha of the seven-item scale was found as .93 in the current study. The results of the Confirmatory Factor Analysis (CFA) showed that one-factor solution yielded a good fit for attitudes: S-Bχ2 (14, N = 699) = 50.16, p < .001, CFI = .983, SRMR = .022, RMSEA = .061 (90%-CI: .047, .075).

Subjective Norms. Subjective norms concerning marriage were assessed by means of the adapted items from the scale of Ajzen (2006). Using a five-point Likert type scale (1= '*totally disagree*'; 5= '*totally agree*') over four items (e.g., 'The people in my life whose opinions I value approves marriage'). The Cronbach's alpha of the four-item scale was found as .82 in the current study. The results of the CFA showed that one-factor solution yielded a good fit for subjective norms: S-Bχ2 (2, N = 699) = 26.23, p < .001, CFI = .974, SRMR = .035, RMSEA = .132 (90%-CI: .094, .174).

Perceived Behavioral Control. Perceived behavioral control was measured by three items adapted from the scale of Ajzen (2006); two items (e.g., 'It is mostly up to me whether or not to marry' and 'I am sure that whenever I decide I can marry') using a five-point Likert type scale (1= '*totally disagree*'; 5= '*totally agree*') and one item (e.g., 'How much control do you think you have over marriage') using five-point semantic

differential scale (1 = '*extremely low*'; 5= '*extremely high*'). The Cronbach's alpha of the three-item scale was found as .83 in the current study. The results of the CFA showed that one-factor solution yielded a perfect fit for perceived behavioral control: S-Bχ2 (3, N = 699) = 550.9, p < .001, CFI = 1.000, SRMR = .000, RMSEA = .000 (90%-CI: .000, .000).

Intentions. Participants' intentions about getting married were measured by two items that were adapted from the scale of Ajzen (2006) (e.g., 'I plan to marry within next 5 years'; 'I am thinking to marry within next 5 years') with endpoints labeled as definitely no and definitely yes. The Cronbach's alpha of the two-item scale was found as .76 in the current study. The results of the CFA showed that one-factor solution yielded a perfect fit for marriage intention: S-Bχ2 (1, N = 699) = 433.0, p < .001, CFI = 1.000, SRMR = .000, RMSEA = .000 (90%-CI: .000, .000).

Self-Regulatory Focus. Twelve six-point Likert type items (1= '*totally disagree*'; 6= '*totally agree*') that were taken from the Locomotion and Assessment Scales (Kruglanski et al., 2000) were used to measure participants' promotion- and prevention-focus. The Cronbach's alpha of the five-item locomotion scale that is purported to assess promotion-focus (e.g., 'I don't mind doing things even if they involve extra effort') was found as .58 in the current study. In addition, the Cronbach's alpha of the seven-item assessment scale that is assumed to assess prevention-focus (e.g., 'I spend a great deal of time taking inventory of my positive and negative characteristics') was found as .71. The results of the CFA showed that a one-factor solution yielded good fit for both scales: S-Bχ2 (5, N = 699) = 8.44, p = .133, CFI = .984, SRMR = .024, RMSEA = .034 (90%-CI: .000, .072) for promotion-focus and S-Bχ2 (14, N = 699) = 47.32, p < .001, CFI = .942, SRMR = .039, RMSEA = .058 (90%-CI: .042, .075) for prevention-focus.

Data Analyses

First, we performed the CFAs to verify the factor structure and item loadings of the scales translated and used in this study. Then, the descriptive statistics were computed and the Pearson's correlation coefficients among study variables were examined. As a preliminary analysis, we conducted a multivariate analysis of variance in order to examine gender differences. Next, we tested our main hypotheses across three models, one involving all the participants, one including only females, and a third one with males only. Moreover, we also examined whether the significant paths were invariant across gender. We tested our models through structural equation modeling (SEM) with six latent variables (i.e., promotion-focus, prevention-focus, attitudes, subjective norms, perceived behavioral control, and marriage intention). The latent variable of promotion-focus was defined by five items and prevention-focus was defined by seven items. Moreover, the latent variable of attitudes was defined by seven items, subjective norms by four items, perceived behavioral control by three items, and lastly marriage intention by two items. The goodness of fit of all three models was determined by CFI (close to .95), SRMR (lower than .05), and RMSEA (lower than .08) (Hu & Bentler, 1999). The analysis was performed using the lavaan software package for R (Rosseel, 2012).

Results

The results of the CFAs including fit indices of the scales and the standardized factor loadings of the scale items were presented in Table 1 and Table 2. As seen in Table 1, one-factor solutions yielded an adequate fit for all scales. Moreover, as seen in Table 2, with three exceptions in promotion-focus scale and two exceptions in prevention-focus scale, all the factor loadings of the scales exceeded the .50 threshold (Hair et al., 2009). Table 3 shows the means, standard deviations, and bivariate correlations of the measured variables of the study. As can be noticed, marriage intention was correlated positively with attitudes (r = .52, p < .01) and subjective norms (r = .24, p < .01) and negatively with perceived behavioral control (r = -.09, p < .05). Moreover, subjective norms were correlated positively with attitudes (r = .29, p < .01) and promotion-focus (r = .09, p < .05). Perceived behavioral control was correlated negatively with prevention-focus (r = -.11, p < .01) which was correlated positively with promotion-focus (r = .25, p < .01). Furthermore, age was correlated positively with subjective norms (r = .08, p < .05) and marriage intention (r = .15, p < .01), and negatively with prevention-focus (r = -.15, p < .01). Lastly, gender was correlated positively with attitudes (r = .08, p < .05) and negatively with perceived behavioral control (r = -.10, p < .05).

Table 1. Fit indices of the Confirmatory Factor Analyses of the Scales of the Study

Variables		N	$S\text{-}B\chi^2$	df	p	CFI	SRMR	RMSEA (90%-CI)
1.	Attitudes towards marriage	699	50.16	14	< .001	.983	.022	.061 (.047 - .075)
2.	Subjective norms	699	26.23	2	< .001	.974	.035	.132 (.094 - .174)
3.	Perceived behavioral control	699	550.9	3	< .001	1.000	.000	.000 (.000 - .000)
4.	Marriage intention	699	433.0	1	< .001	1.000	.000	.000 (.000 - .000)
5.	Promotion-focus	699	8.44	5	= .133	.984	.024	.034 (.000 - .072)
6.	Prevention-focus	699	47.32	14	< .001	.942	.039	.058 (.042 - .075)

Table 2. Standardized Item Loadings from CFA of the scales of the study.

Items for each scale	Item loadings
Attitudes towards marriage	
1. Item1	.79
2. Item2	.87
3. Item3	.77
4. Item4	.75
5. Item5	.89
6. Item6	.81
7. Item7	.78
Subjective norms	
1. Item1	.75
2. Item2	.85
3. Item3	.83
4. Item4	.54
Perceived behavioral control	
1. Item1	.79
2. Item2	.84
3. Item3	.72
Marriage intention	
1. Item1	.83
2. Item2	.73
Promotion-focus	
1. Item1	.48
2. Item2	.37
3. Item3	.50
4. Item4	.50
5. Item5	.48
Prevention-focus	
1. Item1	.35
2. Item2	.55
3. Item3	.66
4. Item4	.50
5. Item5	.56
6. Item6	.52
7. Item7	.43

Preliminary analyses showed statistically significant differences between males and females in the linear combination of the studied variables, Wilk's Λ = .965, $F(6, 692)$ = 4.14, p = .001, multivariate, η_p^2 = .035. The follow-up ANOVAs indicated that males (M = 3.88, SD = 0.96) differed from females (M = 3.71, SD = 0.90) in attitudes, $F(1, 697)$ = 5.00, p < .05, η_p^2 = .007, and females (M = 3.85, SD = 0.99) differed from males (M = 3.65, SD = 0.98) in perceived behavioral control, $F(1, 697)$ = 6.49, p < .05, η_p^2 = .009. Even though the effect sizes are small, these results provided further evidence about the necessity to test our hypotheses across the two genders.

**Table 3.** Descriptive Statistics and Bivariate Correlations of the Measured Variables of the Study ($N = 699$)

Variables	1	2	3	4	5	6	7	8
1. Age	-							
2. Gender	-.01	-						
3. Attitudes towards marriage	-.07	.08*	-					
4. Subjective norms	.08*	.03	.29**	-				
5. Perceived behavioral control	-.05	-.10*	-.01	.06	-			
6. Marriage intention	.15**	-.06	.52**	.24**	-.09*	-		
7. Promotion-focus	.03	-.02	.04	.09*	.06	.02	-	
8. Prevention-focus	-.15**	.02	-.03	-.02	-.11**	.01	.25**	-
M	24.89	-	3.76	4.15	3.79	0.65	4.21	3.63
SD	4.31	-	0.92	0.79	0.99	0.42	0.79	0.85

Note. * $p < .05$. ** $p < .01$. Gender was coded as 0 for females, 1 for males.

Main Analyses

We first examined the fit of the measurement model that included six latent variables (i.e., promotion-focus, prevention-focus, attitudes, subjective norms, perceived behavioral control, and marriage intention as defined through their respective indicators). The measurement model yielded a good fit for the full sample (S-Bχ^2 [336; $N = 699$] = 606.37, $p < .001$, CFI = .957, SRMR = .043, RMSEA = .034 [90%-CI: .030 - .038]), as well as the model that concerned females (S-Bχ^2 [336; $N = 494$] = 516.99, $p < .001$, CFI = .961, SRMR = .046, RMSEA = .033 [90%-CI: .028 - .038]), and males (S-Bχ^2 [336; $N = 205$] = 379.58, $p = .051$, CFI = .975, SRMR = .060, RMSEA = .025 [90%-CI: .006 - .036]). The same was true for the structural model in which age being included as a covariate. In particular, the model, shown in Figure 1, yielded good fit indices for the full sample (S-Bχ^2 [358; $N = 699$] = 642.57, $p < .001$, CFI = .956, SRMR = .042, RMSEA = .034 [90%-CI: .030 - .038]), as well as for females (S-Bχ^2 [358; $N = 494$] = 546.14, $p < .001$, CFI = .960, SRMR = .046, RMSEA = .033 [90%-CI: .027 - .038]), and males (S-Bχ^2 [358; $N = 205$] = 406.27, $p < .001$, CFI = .972, SRMR = .059, RMSEA = .026 [90%-CI: .009 - .037]).

Figure 1. The structural model of the study.
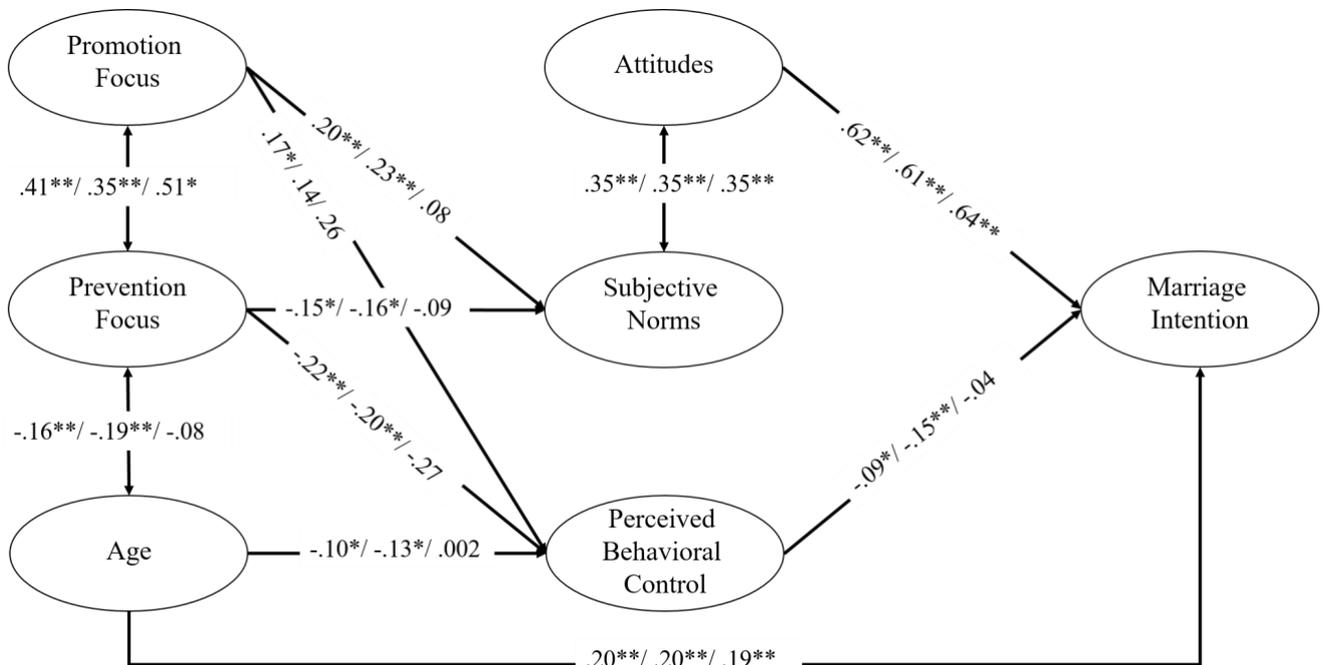
Note. First coefficient stands for all participants, second for females, and third for males. Only significant paths (at least one coefficient) were shown for the sake of clarity.
* $p < .05$. ** $p < .01$.

Specifically, the model involving all participants (see first set of coefficients in Figure 1) showed that marriage intention was predicted positively by attitudes ($B = .27$, $SE = .02$, $z = 12.39$, $\beta = .62$, $p < .001$) and age ($B = .02$, $SE = .01$, $z = 3.64$, $\beta = .20$, $p < .001$) and negatively by perceived behavioral control ($B = -.04$, $SE = .02$, $z = -2.15$, $\beta = -.09$, $p = .031$), which was predicted positively by promotion-focus ($B = .22$, $SE = .09$, $z = 2.48$, $\beta = .17$, $p = .013$) and negatively by prevention-focus ($B = -.37$, $SE = .11$, $z = -3.41$, $\beta = -.22$, $p = .001$) and age ($B = -.02$, $SE = .01$, $z = -2.30$, $\beta = -.10$, $p = .022$). In addition, although subjective norms failed to predict marriage intention, it is noteworthy that they were predicted positively by promotion-focus ($B = .19$, $SE = .07$, $z = 2.65$, $\beta = .20$, $p = .008$) and negatively by prevention-focus ($B = -.19$, $SE = .08$, $z = -2.32$, $\beta = -.15$, $p = .021$).

The female-model (see Figure 1, second set of coefficients) showed very similar paths, except the now nonsignificant path linking promotion-focus with perceived behavioral control ($B = .15$, $SE = .08$, $z = 1.87$, $\beta = .14$, $p = .061$). As for the male-model, it differed from the female model in various ways as it were only the paths linking marriage intention with attitudes ($B = .29$, $SE = .04$, $z = 7.36$, $\beta = .64$ $p < .001$) and age ($B = .02$, $SE = .01$, $z = 3.52$, $\beta = .19$, $p < .001$) that were statistically significant. Nevertheless, the findings concerning males should be interpreted with caution given the loss of statistical power due to the relatively small male subsample ($n = 205$). Given that the significant paths differed across gender, we conducted a test of gender invariance. Therefore, we tested two models: one baseline model (without any equality constraints across male and female groups) and one constrained model (imposing equality constraints to the regression paths across gender). Then, we compared the model fit of the constrained model with the fit of the baseline model using a chi-square difference test. The results showed that the difference between baseline and constrained models was not significant ($\Delta\chi^2$ [15] = 17.42, $p = .295$) which means that none of the hypothesized paths vary as a function of gender. Therefore, although some paths (namely, the path linking prevention- and promotion-focus with subjective norms and the path linking prevention-focus and age with perceived behavioral control) were statistically significant among females but not among males, they did not significantly differ (in terms of statistics) from each other.

Discussion

In the present study, we examined to what extent promotion- and prevention-focus could account for interpersonal differences in pro-marriage attitudes, subjective norms, and behavioral control perceptions which in turn could explain marriage intention. We tested this sequence of relations in a non-Western culture and whether it would remain invariant across males and females. The main findings were discussed around two main topics: First, the relation of attitudes, subjective norms, and perceived behavioral control to marriage intention and then to promotion-focus and prevention-focus.

Consistent with our first hypothesis and the theory of planned behavior (Ajzen, 2020), positive attitudes towards marriage positively predicted marriage intention in the full sample as well as in the model that included either males or females. This finding implies that when people have positive attitudes towards marriage, they may have more intention to get married, regardless of their gender. Moreover, consistent with the previous research, the more positive attitudes people hold, the stronger their intentions are about marriage (e.g., Armitage & Christian, 2003; Raymo et al., 2021). Although some studies suggest that these attitudes are gender dependent (Higgins et al., 2002), in our study we found a significant positive relation between attitudes and intentions for both genders, most likely because we specifically asked our participants their attitudes about marriage. A previous meta-analytic study showed that specific, rather than general attitudes, can accurately predict the respective intentions and eventually the respective behaviors (Kraus, 1995). Therefore, specifically asking participants' attitudes regarding marriage may explain why in our study the relation between marriage attitudes and marriage intention was positive, moderately strong, and quite consistent across the two genders.

On the other hand, contrary to our hypothesis and the relevant literature (Ajzen, 2020), we found that perceived behavioral control over marriage behavior negatively related to marriage intention both in all participants and female models. Although previous research suggests that as perceived behavioral control gets stronger, intention towards a specific behavior becomes stronger (Ajzen, 1985; 2002), it makes sense to think that this principle may not fully apply for behaviors such as marriage that imply lifelong commitment. As research

shows, people's internal perceptions of control are highly related to their interpretation of their own resources to initiate a specific behavior so this may somehow lead the behavior to be procrastinated (Bringle & Byers, 1997). As in our study, when individuals believe to have control over marriage behavior that is whenever they want, they can get married, they may be more likely to procrastinate the marriage behavior.

Another reason for finding negative relation between perceived behavioral control and marriage intention may be because of the fact that previous research were mostly held with transforming an undesired behavior or situation to a desired one such as heavy drinking (Stevens et al., 2022), weight loss (Chung & Fong, 2015; Schifter & Ajzen, 1985), dishonesty (Beck & Ajzen, 1991; Chudzicka-Czupała et al., 2016), unethical behaviors (Carpenter & Reimers, 2005; Chang, 1998), violations of traffic regulations (Dıaz, 2002), and cyberbullying (Auemaneekul et al., 2019; Pabian & Vandebosch, 2014). Unlike these studies, in the current study being single young adult could barely be understood as being in an undesired end-state and getting married may not necessarily imply getting into a positive end-state. Given that there is not much research on such type of intentions (Katz & Hill, 1958), these arguments remain as speculations. Therefore, further research is needed to make a more precise conclusion.

Although we hypothesized a positive association between subjective norms and marriage intention, we could not find a significant relation between these two constructs. This is in line with some previous research which has failed to support the link between subjective norm and intention (e.g., Johnston & White, 2003). In a meta-analysis, Armitage and Conner (2001) stated that the subjective norm construct has less predictive power than the attitudes for most of the measured behaviors. Indeed, the link between subjective norms and intention has been argued as the weakest link compared to the link between attitudes, perceived behavioral control, and intention (e.g., White et al., 1994). In this regard, subjective norm may not adequately capture the effect on intentions unless other factors such as cultural background, special population characteristics, or types of certain behavior are also considered (Johnston & White, 2003). Therefore, future research should also consider all these factors that may render the consistent the relation between subjective norms and behavioral intentions over and above positive attitudes and perceived behavioral control.

Moreover, consistent with our second hypothesis, we found a positive significant relation of promotion-focus to both subjective norms and to perceived behavioral control. Research shows that promotion-focus has been characterized by growth, development, accomplishment, ensuring gains, and making progress through a desired end (Förster et al., 2001). As such, it makes sense that the more people are promotion-focused, the more they perceive the marriage as a goal to be accomplished thereby adjusting subjective norms positively and perceiving themselves as having control over their own actions. In contrast, and consistent with our hypothesis, we found a negative relation of prevention-focus with subjective norms and perceived behavioral control. Previous research has shown that prevention-focus has been characterized by security, ensuring non-losses, and avoiding behaviors that mismatch with someone's goals or standards (Brockner & Higgins, 2001). Therefore, for prevention-focused people, marriage is seen as a life commitment goal that one should commit no mistake. As such it makes sense that prevention-focused people are more likely to interpret subjective norms less favorably and to perceive themselves as having low behavioral control over the situation.

Contrary to our expectations, we found that some significant paths linking the tested variables in female model were not significant for male model, except the link from marriage intention to attitudes and to age. This may be because of the low power of male sample compared to the female one, given that our test of gender invariance showed nonsignificant path differences between males and females. In any case, future research should consider equating the number of participants for each group to clearly discuss the significance and difference of the paths among two groups. Also, our research showed a positive relation between age and marriage intentions. This finding is consistent with the literature which has shown that people who get older, are more likely to form positive intentions towards marriage (Mahay & Lewin, 2007), something which seems particularly true for Turkish culture where early marriages were more prioritized even if the age of first and after divorce marriages is getting higher and higher over time for both men and women (AVESPB, 2015). However, age negatively predicted perceived behavioral control (but not among males). This may be because of the fact that while the number of possible mates is getting decreased throughout the time for females this may lead them to feel that they have less control over the marriage issue. This finding is consistent with the Turkish cultural value of judgement. The expected age of the marriage is always lower for females than males

(TUIK, 2016). Therefore, with age, even though females' intention to marry may be getting increased, their perception over marriage behavior may be getting decreased.

Limitations and Suggestions for Future Research

Although the current study is among the first ones which examine the role of both the theory of planned behavior and the self-regulatory focus theory at the same time to explain people's marriage intention, it has some limitations. First, because of the cross-sectional nature of the study, the significant paths just show relations and therefore no causal inferences can be made. Therefore, future research should use a longitudinal design to talk about the causal effects. Moreover, because of the unequal sample sizes among genders and the low power for the male sample, it remains unknown whether some the nonsignificant paths in the male model are due to lack of relation in the population or due to loss of statistical power. Therefore, future research needs to balance the number of male and female participants and further examine the path invariance. In addition, the Cronbach's alpha for promotion-focus scale was marginally acceptable that may be the source of nonsignificant results. Additionally, some further background information such as working status and living conditions (living apart from the family or living together) could be taken into account as well to give more information about the direction of the paths and may test for the moderating roles of these background variables. Therefore, future research may benefit from considering taking more demographic information. Lastly, given that age was a significant factor in determining the intentions to marriage, future studies may consider sampling various age groups and compare adult developmental periods in predicting marriage intentions as well as attitudes, subjective norms, and the perceived behavioral control of the participants.

Conclusion

Guided by the theory of planned behavior and the self-regulatory focus theory, the present tested the intervening roles of attitudes, subjective norms, and perceived behavioral control in relation between promotion- and prevention-focus and marriage intention. The results yielded that promotion-focus positively and prevention-focus negatively related to perceived behavioral control, which in turn negatively related to intentions to marry. Intentions also related positively to attitudes but not to subjective-norms, which however related positively to promotion-focus and negatively to prevention-focus. Moreover, this sequence of relations was tested in a non-Western culture by considering gender and age differences. The findings highlighted several potential factors that should be considered when planning to intervene in marriage-related intentions and anxieties. Understanding individuals' attitudes towards marriage, marriage-related norms, and the degree of control they have over marriage, as well as whether they are promotion- or prevention-focused, would provide valuable insights for therapists, counselors, or intervention researchers in planning suitable approaches tailored to the needs of each individual.

References

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, *2*(4), 314-324. https://doi.org/10.1002/hbe2.195

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Springer.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*(4), 665-683. https://doi.org/10.1111/j.1559-1816.2002.tb00236.x

Ajzen, I. (2006). Constructing a TPB questionnaire: Conceptual and methodological considerations. http://www.people.umass.edu/aizen/pdf/tpb.measurement.pdf

Albarracin, D., Fishbein, M., & Muchinik, E. G. (1997). Seeking social support in old age as reasoned action: Structural and volitional determinants in a middle-aged sample of Argentinean women. *Journal of Applied Social Psychology, 27*(6), 463-476. https://doi.org/10.1111/j.1559-1816.1997.tb00642.x

Albarracin, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological Bulletin, 127*(1), 142-161. https://doi.org/10.1037/0033-2909.127.1.142

Armitage, C. J., & Christian, J. (2003). From attitudes to behaviour: Basic and applied research on the theory of planned behaviour. *Current Psychology, 22*(3), 187-195. https://doi.org/10.1007/s12144-003-1015-5

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology, 40*(4), 471-499. https://doi.org/10.1348/014466601164939

Auemaneekul, N., Powwattana, A., Kiatsiri, E., & Thananowan, N. (2019). Investigating the mechanisms of theory of planned behavior on cyberbullying among Thai adolescents. *Journal of Health Research*, *34*(1), 42-55. https://doi.org/10.1108/JHR-02-2019-0033

AVESPB. (2015). *Marriage preferences in Turkey-April, 2015*. The Ministry of Family and Social Services, The General Directorate of Family and Community Services.

Ayduk, O., May, D., Downey, G., & Higgins, E. T. (2003). Tactical differences in coping with rejection sensitivity: The role of prevention pride. *Personality and Social Psychology Bulletin, 29*(4), 435-448. https://doi.org/10.1177/0146167202250911

Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of Research in Personality, 25*(3), 285-301. https://doi.org/10.1016/0092-6566(91)90021-H

Blakemore, J. E. O., Lawton, C. A., & Vartanian, L. R. (2005). I can't wait to get married: Gender differences in drive to marry. *Sex Roles, 53*, 327-335. https://doi.org/10.1007/s11199-005-6756-1

Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behavior: selected recent advances and applications. *Europe's Journal of Psychology*, *16*(3), 352-356. https://doi.org/10.5964/ejop.v16i3.3107

Bringle, R. G., & Byers, D. (1997). Intentions to seek marriage counseling. *Family Relations, 46*(3), 299-304. https://doi.org/10.2307/585128

Brockner, J., & Higgins, E. T. (2001). Regulatory focus theory: Implications for the study of emotions at work. *Organizational Behavior and Human Decision Processes, 86*(1), 35-66. https://doi.org/10.1006/obhd.2001.2972

Carpenter, T. D., & Reimers, J. L. (2005). Unethical and fraudulent financial reporting: Applying the theory of planned behavior. *Journal of Business Ethics*, *60*, 115-129. https://doi.org/10.1007/s10551-004-7370-9

Chang, M. K. (1998). Predicting unethical behavior: A comparison of the theory of reasoned action and the theory of planned behavior. *Journal of Business Ethics, 17*, 1825-1834. https://doi.org/10.1023/A:1005721401993

Cherlin, A. (2009). *Marriage, divorce, remarriage*. Harvard University Press.

Chudzicka-Czupała, A., Grabowski, D., Mello, A. L., Kuntz, J., Zaharia, D. V., Hapon, N., Lupina-Wegener, A., & Börü, D. (2016). Application of the theory of planned behavior in academic cheating research—cross-cultural comparison. *Ethics & Behavior*, *26*(8), 638-659. https://doi.org/10.1080/10508422.2015.1112745

Chung, L. M. Y., & Fong, S. S. M. (2015). Predicting actual weight loss: A review of the determinants according to the theory of planned behaviour. *Health Psychology Open*, *2*(1), 1-9. https://doi.org/10.1177/2055102914567972

Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes, 69*(2), 117-132. https://doi.org/10.1006/obhd.1996.2675

Dıaz, E. M. (2002). Theory of planned behavior and pedestrians' intentions to violate traffic regulations. *Transportation Research Part F: Traffic Psychology and Behaviour, 5*(3), 169-175. https://doi.org/10.1016/S1369-8478(02)00015-3

Eurostat. (2022). *Mean age at first marriage by sex*. https://ec.europa.eu/eurostat/databrowser/view/tps00014/default/table?lang=en

Förster, J., Grant, H., Idson, L. C., & Higgins, E. T. (2001). Success/failure feedback, expectancies, and approach/avoidance motivation: How regulatory focus moderates classic relations. *Journal of Experimental Social Psychology, 37*(3), 253-260. https://doi.org/10.1006/jesp.2000.1455

Förster, J., & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological Science, 16*(8), 631-636. https://doi.org/10.1111/j.1467-9280.2005.01586.x

George, J. F. (2004). The theory of planned behavior and internet purchasing. *Internet Research, 14*(3), 198-212. https://doi.org/10.1108/10662240410542634

Grønhøj, A., Bech-Larsen, T., Chan, K., & Tsang, L. (2012). Using theory of planned behavior to predict healthy eating among Danish adolescents. *Health Education, 113*(1), 4-17. https://doi.org/10.1108/09654281311293600

Hagger, M. S., Cheung, M. W. -L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology, 41*(2), 155–167. https://doi.org/10.1037/hea0001153

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis.* (7th ed.). Pearson Prentice Hall.

Hambleton, R. K., & De Jong, J. H. A. L. (2003). Advances in translating and adapting educational and psychological tests. *Language Testing, 20*, 127-134. https://doi.org/10.1191/0265532203lt247xx

Hardeman, W., Johnston, M., Johnston, D., Bonetti, D., Wareham, N., & Kinmonth, A. L. (2002). Application of the theory of planned behaviour in behaviour change interventions: A systematic review. *Psychology and Health, 17*(2), 123-158. https://doi.org/10.1080/08870440290013644a

Heath, Y., & Gifford, R. (2002). Extending the theory of planned behavior: Predicting the use of public transportation. *Journal of Applied Social Psychology, 32*(10), 2154-2189. https://doi.org/10.1111/j.1559-1816.2002.tb02068.x

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*(12), 1280–1300. https://doi.org/10.1037/0003-066X.52.12.1280

Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist, 55*(11), 1217–1230. https://doi.org/10.1037/0003-066X.55.11.1217

Higgins, L. T., Zheng, M., Liu, Y., & Sun, C. H. (2002). Attitudes to marriage and sexual behaviors: A survey of gender and culture differences in China and United Kingdom. *Sex Roles, 46*(3/4), 75-89. https://doi.org/10.1023/A:1016565426011

Hirschey, R., Bryant, A. L., Macek, C., Battaglini, C., Santacroce, S., Courneya, K. S., Walker, J. S., Avishai, A., & Sheeran, P. (2020). Predicting physical activity among cancer survivors: Meta-analytic path modeling of longitudinal studies. *Health Psychology*, *39*(4), 269–280. https://doi.org/10.1037/hea0000845

Hrubes, D., Ajzen, I., & Daigle, J. (2001). Predicting hunting intentions and behavior: An application of the theory of planned behavior. *Leisure Sciences, 23*(3), 165-178. https://doi.org/10.1080/014904001316896855

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*, 1-55. https://doi.org/10.1080/10705519909540118

Idson, L. C., Liberman, N., & Higgins, E. T. (2000). Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on hedonic intensity. *Journal of Experimental Social Psychology, 36*(3), 252-274. https://doi.org/10.1006/jesp.1999.1402

Jalilian, F., Mirzaei-Alavijeh, M., Ahmadpanah, M., Mostafaei, S., Kargar, M., Pirouzeh, R., Bahmani, D. S.,

& Brand, S. (2020). Extension of the theory of planned behavior (TPB) to predict patterns of marijuana use among young Iranian adults. *International Journal of Environmental Research and Public Health, 17*(6), 1981. https://doi.org/10.3390/ijerph17061981

Johnston, K. L., & White, K. M. (2003). Binge-drinking: A test of the role of group norms in the theory of planned behaviour. *Psychology & Health, 18*(1), 63-77. https://doi.org/10.1080/0887044021000037835

Katz, A. M., & Hill, R. (1958). Residential propinquity and marital selection: A review of theory, method, and fact. *Marriage and Family Living, 20*(1), 27-35. https://doi.org/10.2307/347359

Kohler, H.-P., Behrman, J. R., & Skytthe, A. (2005). Partner + children = happiness? The effects of partnerships and fertility on well-being. *Population and Development Review, 31*(3), 407-445. https://doi.org/10.1111/j.1728-4457.2005.00078.x

Kraus, S. J. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin, 21*(1), 58-75. https://doi.org/10.1177/0146167295211007

Kruglanski, A. W., Thompson, E. P., Higgins, E. T., Atash, M., Pierro, A., Shah, J. Y., & Spiegel, S. (2000). To "do the right thing" or to "just do it": locomotion and assessment as distinct self-regulatory imperatives. *Journal of Personality and Social Psychology, 79*(5), 793–815. https://doi.org/10.1037/0022-3514.79.5.793

Lareyre, O., Gourlan, M., Stoebner-Delbarre, A., & Cousson-Gélie, F. (2021). Characteristics and impact of theory of planned behavior interventions on smoking behavior: A systematic review of the literature. *Preventive Medicine*, *143*, 106327. https://doi.org/10.1016/j.ypmed.2020.106327

Lee, P. H., Kuo, S. Y., Ou, T. S., Lin, Y. K., Chi, M. J., Chen, S. R., Lin, P. C., & Lai, H. R. (2020). Predicting exercise intentions and behaviors of Taiwanese children in a longitudinal sample. *Journal of Pediatric Nursing*, *51*, e50-e56. https://doi.org/10.1016/j.pedn.2019.08.008

Lim, S. L., Teoh, C., Zhao, X., Umareddy, I., Grillo, V., Singh, S. S., & Khouw, I. (2020). Attitudes & beliefs that influence healthy eating behaviours among mothers of young children in Singapore: a cross-sectional study. *Appetite*, *148*, 104555. https://doi.org/10.1016/j.appet.2019.104555

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin, 18*(1), 3-9. https://doi.org/10.1177/0146167292181001

Mahay, J., & Lewin, A. C. (2007). Age and the desire to marry. *Journal of Family Issues, 28*(5), 706-723. https://doi.org/10.1177/0192513X06297272

Manian, N., Papadakis, A. A., Strauman, T. J., & Essex, M. J. (2006). The development of children's ideal and ought self-guides: Parenting, temperament, and individual differences in guide strength. *Journal of Personality, 74*(6), 1619-1646. https://doi.org/10.1111/j.1467-6494.2006.00422.x

Molden, D. C., Lucas, G. M., Finkel, E. J., Kumashiro, M., & Rusbult, C. (2009). Perceived support for promotion-focused and prevention-focused goals: Associations with well-being in unmarried and married couples. *Psychological Science, 20*(7), 787-793. https://doi.org/10.1111/j.1467-9280.2009.02362.x

Moore, J., Turner, L. W., Stellefson, M., & Chaney, B. H. (2022). Dental hygiene behaviors among young adults: A systematic review of surveys using the Theory of Planned Behavior (TPB). *American Journal of Health Education*, *53*(5), 312-324. https://doi.org/10.1080/19325037.2022.2100847

Morell-Gomis, R., Moriano, J. A., Laguía, A., Dias, P., & Lloret, D. (2019). Adolescents cannabis use intention: validating a theory of planned behavior questionnaire in four European countries. *Journal of Substance Use*, *24*(1), 66-72. https://doi.org/10.1080/14659891.2018.1510050

Morrison, D. M., Spencer, M. S., & Gillmore, M. R. (1998). Beliefs about substance use among pregnant and parenting adolescents. *Journal of Research on Adolescence, 8*(1), 69-95. https://doi.org/10.1207/s15327795jra0801_4

Pabian, S., & Vandebosch, H. (2014). Using the theory of planned behaviour to understand cyberbullying: The importance of beliefs for developing interventions. *European Journal of Developmental Psychology, 11*(4), 463-477. https://doi.org/10.1080/17405629.2013.858626

Perelli-Harris, B., Hoherz, S., Lappegård, T., & Evans, A. (2019). Mind the "happiness" gap: The relationship between cohabitation, marriage, and subjective well-being in the United Kingdom, Australia, Germany, and Norway. *Demography*, *56*(4), 1219-1246. https://doi.org/10.1007/s13524-019-00792-4

Raymo, J. M., Uchikoshi, F., & Yoda, S. (2021). Marriage intentions, desires, and pathways to later and less

marriage in Japan. *Demographic Research*, *44*, 67-98. https://doi.org/10.4054/demres.2021.44.3

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software, 48*, 1-36. https://doi.org/10.18637/jss.v048.i02

Schifter, D. E., & Ajzen, I. (1985). Intention, perceived control, and weight loss: An application of the theory of planned behavior. *Journal of Personality and Social Psychology, 49*(3), 843-851. https://doi.org/10.1037/0022-3514.49.3.843

Scholer, A. A., Cornwell, J. F. M., & Higgins, E. T. (2019). Regulatory focus theory and research: Catching up and looking forward after 20 years. In R. M. Ryan (Ed.), *The Oxford Handbook of Human Motivation* (pp. 47–66). Oxford University Press.

Shahrabadi, R., Karimi-Shahanjarini, A., Dashti, S., Soltanian, A., & Garmaroudi, G. (2017). Predictors of intention to marriage based on theory of planned behavior among university students in Iran. *Electronic Physician*, *9*(4), 4090-4095. https://doi.org/10.19082/4090

Simamora, T. P., & Djamaludin, M. D. (2020). Analysis of intention to buy cinema e-tickets among IPB students with Theory of Planned Behavior (TPB) approach. *Journal of Consumer Sciences*, *5*(1), 58-72. https://doi.org/10.29244/jcs.5.1.58-72

Sogari, G., Pucci, T., Caputo, V., & Van Loo, E. J. (2023). The theory of planned behaviour and healthy diet: Examining the mediating effect of traditional food. *Food Quality and Preference*, *104*, 104709. https://doi.org/10.1016/j.foodqual.2022.104709

Stevens, A. K., Boyle, H. K., Miller, M. B., Carey, K., Jackson, K. M., Barnett, N. P., & Merrill, J. E. (2022). A qualitative examination of intentions and willingness for heavy drinking among young adult high-intensity drinkers. *Psychology of Addictive Behaviors*, *36*(3), 236-242. https://doi.org/10.1037/adb0000708

Thornton, A., & Freedman, D. (1982). Changing attitudes toward marriage and single life. *Family Planning Perspectives, 14*(6), 297-303. https://doi.org/10.2307/2134600

TUIK. (2022). *Marriage and divorce statistics, 2021*. Turkish Statistical Institute, the General Directorate of Population and Citizenship Affairs. https://data.tuik.gov.tr/Bulten/Index?p=Evlenme-ve-Bosanma-Istatistikleri-2021-45568

U.S. Census Bureau. (2022). *Figure MS-2 Median age at first marriage: 1890 to present.* https://www.census.gov/content/dam/Census/library/visualizations/time-series/demo/families-and-households/ms-2.pdf

Vankov, D., Schroeter, R., & Twisk, D. (2021). Understanding the predictors of young drivers' speeding intention and behaviour in a three-month longitudinal study. *Accident Analysis & Prevention*, *151*, 105859. https://doi.org/10.1016/j.aap.2020.105859

Wang, X., Wong, Y. D., Chen, T., & Yuen, K. F. (2022). An investigation of technology-dependent shopping in the pandemic era: Integrating response efficacy and identity expressiveness into theory of planned behaviour. *Journal of Business Research*, *142*, 1053-1067. https://doi.org/10.1016/j.jbusres.2022.01.042

Warner, H. W., Björklund, G., & Andersson, J. (2021). Using a three-stage model of change to understand people's use of bicycle, public transport, and car. *Transportation Research Part F: Traffic Psychology and Behaviour*, *82*, 167-177. https://doi.org/10.1016/j.trf.2021.08.002

White, K. M., Terry, D. J., & Hogg, M. A. (1994). Safer sex behavior: The role of attitudes, norms, and control factors. *Journal of Applied Social Psychology, 24*(24), 2164-2192. https://doi.org/10.1111/j.1559-1816.1994.tb02378.x

Winterheld, H. A., & Simpson, J. A. (2011). Seeking security or growth: a regulatory focus perspective on motivations in romantic relationships. *Journal of Personality and Social Psychology, 101*(5), 935-954. https://doi.org/10.1037/a0025012

Wykes, T. L., Worth, A. S., Richardson, K. A., Woods, T., Longstreth, M., & McKibbin, C. L. (2022). Examining community mental health providers' delivery of structured weight loss intervention to youth with serious emotional disturbance: An application of the theory of planned behaviour. *Health Expectations*, *25*(5), 2056-2064. https://doi.org/10.1111/hex.13357

Yilmaz, I. (2016). *Muslim laws, politics and society in modern nation states: Dynamic legal pluralisms in England, Turkey and Pakistan*: Routledge.

Yoo, G., & Lee, S. (2019). The associations of national context and subjective well-being with marriage expectations among Korean, Chinese, and Vietnamese emerging adults. *Journal of Child and Family Studies*, *28*(7), 1998-2006. https://doi.org/10.1007/s10826-019-01427-3

Zhao, Y., Wang, H., Sun, D., Ma, D., Li, H., Li, Y., ... & Sun, J. (2021). Job satisfaction, resilience and social support in relation to nurses' turnover intention based on the theory of planned behaviour: A structural equation modelling approach. *International Journal of Nursing Practice*, *27*(6), e12941. https://doi.org/10.1111/ijn.12941

Zhao, X., White, K. M., & McD Young, R. (2019). A TPB-based smoking intervention among Chinese high school students. *Substance Use & Misuse*, *54*(3), 459-472. https://doi.org/10.1080/10826084.2018.1508298

RESEARCH ARTICLE

Fearful Attachment and Suicide Probability: The Mediating Role of Psychological Symptoms on Medical School Students

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ABSTRACT

The mediating role of psychological symptoms in the relationship between fearful attachment and suicide probability was examined. The data were obtained from 192 medical school students. Adult Attachment Styles Scale, Suicide Probability Scale, and Symptom Check List 90R were used to collect the data. Correlation analysis was utilized to examine the relationships between variables, and the mediating role was determined using the bootstrapping method. Findings showed significant relationships between fearful attachment, psychological symptoms, and suicide probability. Moreover, the fearful attachment was associated with increased psychological symptoms and suicide probability. Psychological symptoms were associated with increased suicide probability. Furthermore, psychological symptoms mediated the relationship between fearful attachment and suicide probability. Psychological symptoms are critical in the relationship between fearful attachment and suicide probability. The current research adds to our knowledge of suicide probability by investigating fearful attachment and psychological symptoms. Besides, it underlies and contributes to the antecedents of suicide probability.

Suicide is a common and preventable health problem worldwide. Many individuals die each year due to suicide. Suicide attempts may not result in death in some cases. According to a survey conducted in September 2022 (Suicide Prevention Now, 2022), 26 percent of adults in the United States had contemplated or committed suicide. Today's U.S. adults (59%) are somewhat familiar with suicide, either by knowing someone who committed suicide (33%), having conversations with someone who was contemplating suicide (26%), being concerned about someone who might have been thinking about committing suicide (24%), or by knowing someone who attempted suicide but did not succeed (24%). According to the Centers for Disease Control and Prevention (CDC, 2020) report, suicide is the 12th leading cause of death in the United States. Furthermore, World Health Organization ([WHO], 2021) has reported that approximately 703.000 people die by suicide every year. The second most common cause of death for young people (aged 15 to 29) is suicide. Data from developed countries have shown that the highest suicide rate is among university students (OECD, 2016). According to the 2019 data of the Turkish Statistical Institute (TUIK, 2022), in Turkey, 435.941 people died

in 2019, and 3.406 (0.7813%) of them were suicide deaths. The crude suicide rate has been increasing in the last four years (TUIK, 2020).

A study conducted by Acar (2009) has shown that based on 139 suicide cases admitted to the emergency service, the second highest age range was 15-24 (42 people, 30.22%). In terms of occupational group, mostly students committed suicide (26 people, 18.71%), and the third highest occupational group was health workers with 17 people. Similarly, examining suicide-related news from 2018 to 2019 in Turkey, İlhan and Akaslan (2019) reported that 38.4% of the individuals who committed suicide were students. In the study conducted by Gürhan et al. (2018), the suicide rate among students of medical faculties and nursing departments was 2.3%, while the rate of students with suicidal ideation was 13.1%. Due to these data, determining the risk factors that cause suicide and understanding the role of psychological processes is essential for the selected research group (i.e., medical school students) (Levi-Belz & Beautrais, 2016). From this point of view, medical faculty students are at intense risk in terms of suicide probability, both in terms of age range and occupational group. Therefore, the sample of the current study consisted of medical faculty students.

Because of the increasing incidence of suicide among physicians and medical school students in recent years, and the wide impact of these suicides on both their families and society, it becomes a must to examine the factors affecting the suicide probabilities of medical school students. Since doctors have high suicide probabilities (see Schernhammer, 2005; Ventriglio et al., 2020), it is thought that raising awareness by conducting studies during medical education can be effective in reducing suicide probabilities. Behind each attempt and suicide, there is a long-term fight for these people, as well as traumatizing events and sorrow among their loved ones. Finding the psychological mechanisms that may underlie suicidal ideation would be a particular area of focus given that suicide is one of the most terrible human actions (Levi-Belz et al., 2019b). Thus, this study aimed to determine the antecedents of suicide probability. In other words, the mediating role of psychological symptoms in the relationship between fearful attachment and suicide probability was examined.

Doctors who experience the physical and emotional stress that is common to their line of work are more likely to commit suicide. These situations could be made worse by emotional tiredness, a dearth of encouraging feedback, isolation at work, and inadequate support systems. Additionally, factors such as long hours, disrupted family relationships, poor work-life balance, as well as system and organizational politics, may magnify hazards (Ventriglio et al., 2020, p. 115). For this reason, it is important to examine the suicide probability of medical school students, since doctors are in a possible risk group for suicide. Although there are many factors that affect suicidal behavior, we focused on psychological symptoms and attachment styles in this study based on the literature review. Since psychopathology is an important risk factor for suicide (Gvion et al., 2015), and attachment styles are related to suicide attempts (Levi-Belz et al., 2013), these variables were included in the study. The rise in the suicide rate among doctors and medical students as well as the widespread effects of these suicides on both their families and society make it necessary to focus on this issue.

In general, it is possible to encounter news reporting suicide in the media. Regarding the medical profession, three news stories (i.e., the suicides of a doctor and two medical school students) have become the agenda in the Turkish media recently. These are the starting points of this study and underline the importance of this study. Therefore, it is essential to examine the probability of suicide among medical professionals. The details of these news stories are as follows:

> *"Assistant Doctor M. Y., from the Faculty of Medicine of Bursa Uludag University, left home in February 2021, saying that he was going to go skiing, and then he committed suicide after writing a letter explaining his predicament (Haberturk, 2022). In the letter he left behind, he said (NTV, 2022a), 'The irony is that I couldn't stand the fact that people couldn't stand each other. Those who insult each other, hurt each other and break each other's hearts for very simple reasons have driven me to despair. I don't want to deal with such people. The tyrants use their power to establish a kingdom of fear and make the weaker tremble, and nobody can do anything. Because it hurts you too. It walks over everybody…'.*

> *Similarly, the suicide note of E. K., a second-year student at the Faculty of Medicine of Elazig Fırat University, in January 2022 (BBC, 2022), shows that he could not spare time for other things in life because he was staying in a religious-based community dormitory and therefore committed suicide. He ended his*

life by jumping from the seventh floor of a building. He states that he was under pressure of the community dormitory, that he was psychologically tired and had no joy in living (NTV, 2022b).

Finally, A. H., fourth-year student at the Faculty of Medicine of Akdeniz University, was found dead in May 2022 at home. Police reported that the student had committed suicide (Milliyet, 2022)."

Regarding suicide behavior, De Leo et al. (2006) stated that although there is no clear definition of suicide, the essence of suicide behavior is clear: the conscious desire to die (Durkheim, 2005). WHO (2019) defines suicide as a complex problem that does not depend on a single cause. The dictionary meaning of suicide refers to taking action to end one's own life under the influence of mental and social reasons (TDK, 2022). According to Freud (1955), the death instinct coexists with the life instinct and exists in the unconsciousness of the individual. Klein (1997) also stated that people have a death instinct, and they are at war with this death instinct within themselves. The death instinct harms and destroys the individual. Therefore, to prevent this power from harming the individual, the death instinct is either hostility or aggression towards others, or it becomes sadism/masochism by combining with the life instinct (Freud, 1955). In suicide, it is seen that this power is directed to the individual and results in the individual's death.

The literature introduces different risk factors regarding the probability of suicide behavior. The present study considers adult attachment styles. According to Levi-Belz et al. (2013) the attachment patterns are one of the crucial elements that may contribute to the facilitation of serious suicide attempts. Besides, insecure attachment (i.e. fearful attachment) increases the risk for suicidal behavior (see Şenses Dinç et al., 2020). General characteristics of people with fearful attachment can be listed as follows: they generally describe other people as insecure and see themselves as worthless and unlovable (Bartholomew & Horowitz, 1991). According to Bartholomew and Horowitz's (1991) quadruple attachment model, individuals with fearful attachment are also those who fear intimacy and avoid social interaction. The literature argues that when the fearful attachment levels of the groups with high suicide probability and low probability are compared, the fearful attachment levels of the group with high suicide probability are significantly higher (Önen et al., 2017; Özer et al., 2015).

Levi-Belz et al. (2013) have reported that the relationship between insecure attachment styles and the fatality of suicide attempts was moderated by interpersonal conflicts. High degrees of mental pain that are exacerbated by interpersonal conflicts and insecure attachment patterns make up the psychological underpinnings behind suicide behavior. A person's ability to deal with interpersonal problems is compromised by insecure attachment orientations, which raises the risk of suicide. On the other hand, secure attachment functions as a protective factor. Moreover, attachment functions as a susceptibility or protective factor for suicidal thoughts and behaviors when it interacts with other psychological qualities in response to adverse life experiences (Levi-Belz et al., 2013). Based on these findings, only fearful attachment was considered among attachment styles in this study.

The other risk factors taken into consideration in the current study are psychological symptoms (namely, depression, paranoid ideation, and psychoticism). Depression is the most common psychological symptom (Patten et al., 2016) and is associated with mood reluctance, apathy, lack of pleasure, guilt, regret, worthlessness, and pessimism in the cognitive state. It is a mental disorder that includes decreased sexual desire, appetite, and sleep problems (Benazzi, 2006). APA (2013) defines depression as a decrease in general functionality, a depressed mood, and a decrease in pleasure. Paranoid thought can be defined as general distrust and doubt. Individuals with paranoid thoughts become defensive, cautious, and at the same time suspect that other people will harm them (Aggelidou & Georgaca, 2017). Psychoticism is about interpersonal relationships. Individuals with dominant psychotic traits become aggressive, cold, unsympathetic, insecure, selfish, and distant (Eysenck et al., 1985). Many studies have found positive and significant relationships between psychological symptoms and the probability of suicide (e. g., Çaynak & Kutlu, 2016). It can be stated that hopelessness and depression are risk factors for suicidal ideation and suicide attempt (Ribeiro et al., 2018). As a result of a study conducted on individuals who go to a university hospital due to suicide attempts in Eastern Turkey, the main cause of suicide is parental conflicts and, psychiatric and financial problems (Bork et al., 2021). Furthermore, one of the major causes of death among patients with schizophrenia is suicide (Koparal & Hocaoğlu, 2019). Studies on suicide attempts reported that 42% of 50 people who went to the hospital with

a suicide attempt in 2005 had paranoid thoughts (Yalvaç et al., 2014). Güleç (2016) stated that a paranoid patient should be considered risky for suicidal behavior. Moreover, in a study on the suicide tendency of young athletes, the youth were divided into two groups: high suicidality and low suicidality. The adolescents in the group with high suicidality were also found to have significantly higher scores of depression, paranoid ideation, psychoticism, problems in interpersonal relationships, and hostility than those in the group with low suicidality (Hussain et al., 2022).

Suicide is a sociological event that does not only affect the individual who commits suicide, but also affects the living environment, family, and society. This study is important in terms of revealing the factors that trigger suicide probability. It is thought that it should be taken as a basis in suicide prevention studies. It is expected to be a guide for field experts to decrease suicide cases by knowing the antecedents of suicide. Given that suicide is not a momentary act, but it starts with the relationships with the parents (i.e., attachment), and is related to the psychological symptoms, this study examines the model given in Figure 1.

Figure 1. The Model to be Examined in the Study.
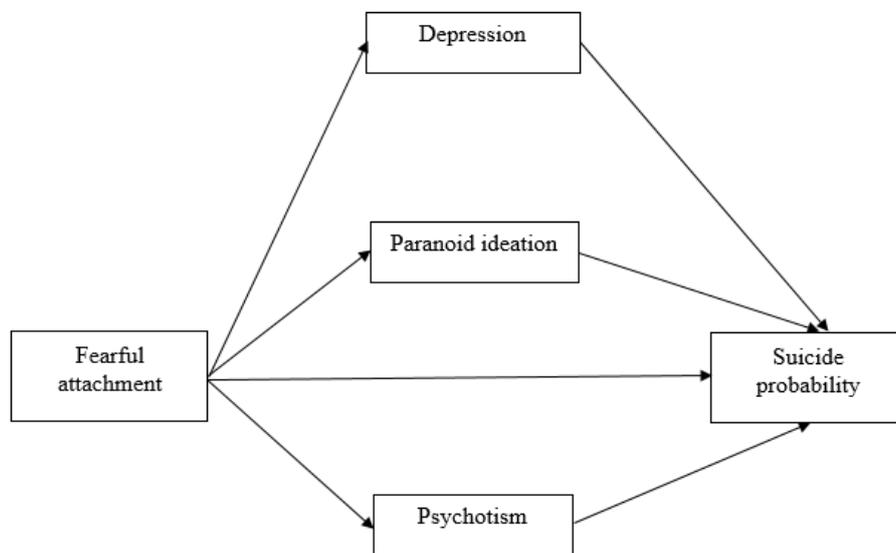
According to Figure 1, the following hypotheses are tested:

H1: Fearful attachment is significantly associated with psychological symptoms.

H2: Fearful attachment is significantly associated with suicide probability.

H3: Psychological symptoms are significantly associated with suicide probability.

H4: Psychological symptoms have a mediator role in the relationship between fearful attachment and suicide probability.

One of the factors that increases the chance of successful suicide is a prior suicide attempt. The concealing of this behavior frequently makes it more difficult to identify and manage suicide risk (Levi-Belz et al., 2019a). Thus, the purpose of this study was to shed insight on the psychological processes that may help medical school students disclose their suicidal thoughts.

Material and Methods

In this study, quantitative analysis techniques were used.

Participants

The population consisted of Faculty of Medicine students. The sample included medical students, who were selected randomly. Participants were 192 ($n_{female}= 107$, $n_{male}= 84$, one participant did not specify their gender) (141 face-to-face and 51 online [no statistically significant difference was found between the data collected

face-to-face and online]) volunteer medical students. The mean age of the participants was 22.58 and the age-related standard deviation was 1.76. The age range was between 19 and 37 years.

Data Collection Tools

Suicide Probability Scale. The scale was developed by Cull and Gill (1988) and adapted into Turkish by different researchers in Turkey. Previous adaptations were edited by Şahin and Batıgün (2000). In 2018, Durak-Batıgün and Hisli-Şahin carried out a review of the scale. It consists of 34 items and four factors (anger/impulsivity, social support/self-perception, hopelessness/loneliness, and suicide ideation). A 4-point Likert-type rating (1: sometimes – 4: always) was used. The highest score that can be obtained from the scale is 136 and the lowest score is 34. High scores on the scale indicate a high probability of suicide. Durak Batıgün and Hisli Şahin (2018) reported the internal consistency coefficients as follows: .71 (anger/impulsivity); .81 (social support/self-perception); .73 (hopelessness/loneliness) and .75 (suicide ideation). In this study, Cronbach's alpha for the whole scale was .83.

Adult Attachment Styles Scale. The scale was developed by Griffin and Bartholomew (1994) and adapted into Turkish by Sümer and Güngör (1999). Although the scale has 30 items, 18 items are used to measure four factors (secure, fearful, dismissive-avoidant, preoccupied). A 7-point Likert type rating (1: Does not describe me at all – 7: It describes me completely) was used. A high score from each factor indicates that the related attachment style is high. The highest score that can be obtained from fearful and preoccupied attachment is 28 and the lowest score is 4. The highest score that can be obtained from dismissive-avoidant and secure attachment is 35 and the lowest score is 5. In this study, the "fearful attachment" dimension of the adult attachment styles scale was used. According to the test-retest reliability analysis performed by Sümer and Güngör (1999), the reliability values ranged from .54 to .78. In this study, Cronbach's alpha for fearful attachment was .70.

Symptom Check List 90R (SCL-90-R). The check list was developed by Derogatis and Clearly (1977). The psychometric properties of the scale were examined by Kılıç (1987) and Dağ (1991) in Turkey. It consists of 90 items and ten dimensions (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid thought, psychoticism, guilt feelings, eating and sleep disorders). A Likert-type rating of 1: none to 5: extreme was used. In this study, "depression", "paranoid ideation" and "psychoticism" dimensions were used. The Cronbach's alpha internal consistency coefficient ranged from .77 to .90. In this study, the Cronbach's alpha for depression was .87; for paranoid ideation was .66 and for psychoticism was .80.

Demographic Information Form. A form developed by the researchers was used to obtain information about the demographic characteristics of the participants. This form includes information such as gender and age.

Data Analysis and Procedure

Data were collected both online (Google Forms) and face-to-face using convenience and snowball sampling methods between June and July 2022. The link of Google Forms was shared through online communication platforms (i.e., WhatsApp). Face-to-face data were collected in students' classrooms and in the library. The necessary ethical permissions (Number: e-60263016-050.06.04-159551) were obtained from the university's ethics committee, and the dean of the medical faculty was informed formally before applying the scales. Participation was voluntary, and a participant could leave the research at any time, without having to give a reason. The questionnaires took approximately 15 minutes to complete. The informed consent form clearly described the rights of the participants (e.g., participation in the study is voluntary, they can withdraw from the research at any time without any favorable consequences, the data obtained in the study will be used only within the scope of scientific study, and there are no identifying values that can link the information to the participant). Participants were not questioned about their personal information, and the data were examined anonymously. Participants were informed that there were no right or wrong answers to the questions in order to prevent socially acceptable responses. Skewness and kurtosis values were evaluated to examine whether the data set had a normal distribution. There exists normal distribution when these values are between -2 and +2 (Gravetter et al., 2020). As a result of the analysis, it was determined that in this study, the skewness and

kurtosis values were between +1 and -1. The skewness and kurtosis values confirmed normal distribution. There is no missing value in the data collected both online and face to face. Descriptive statistics and Pearson correlation analysis were performed as part of the preliminary analyses. To test mediation, the Hayes Process Macro (v 3.1) model was utilized using SPSS 25. The software created by Hayes and Preacher (2013) was utilized in conjunction with the bootstrapping method to test the mediating effect. The dependent variable of the study was suicide probability, while the independent variable was fearful attachment. On the other hand, the mediator variable was psychological symptoms (i.e., depression, paranoid ideation, and psychoticism) (see Figure 1).

Results

First, the relationships between the variables were examined and presented in Table 1.

Table 1. The relationships among the variables of the study.

Variables	N	M	S	1	2	3	4	5
1. Fearful Attachment	192	3.92	1.19	1	.43*	.49*	.32*	.45*
2. Depression	192	2.43	.76		1	.70*	.68*	.67*
3. Paranoid ideation	192	2.55	.73			1	.71*	.66*
4. Psychoticism	192	1.88	.67				1	.64*
5. Suicidal Probability	192	1.98	.41					1

*p < .01

Table 1 shows the significant correlations between the variables of the study. Fearful attachment is positively related to both psychological symptoms and suicide probability. Similarly, psychological symptoms are positively related to suicide probability.

Second, the findings of mediation analysis are given in Figure 2.

Figure 2. Observed mediation model.
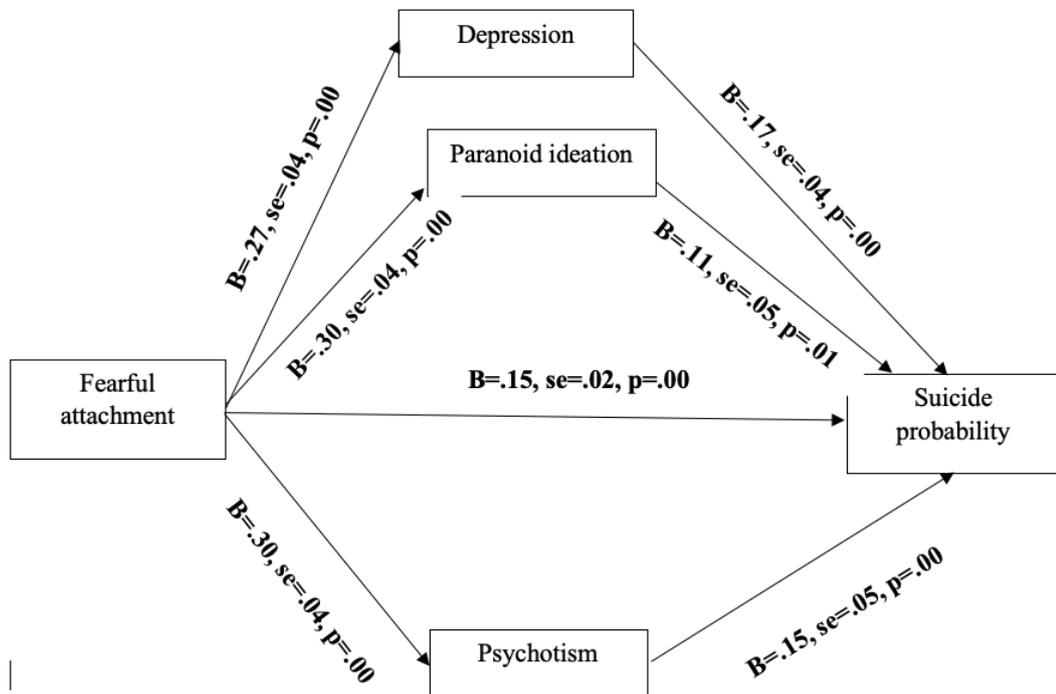

Figure 2 shows that fearful attachment is significantly (positive) related to depression ($\beta = 0.27$, $SE = 0.04$, $p < .05$), suggesting that individuals with higher score on fearful attachment are more likely to have depression;

fearful attachment is significantly related to paranoid ideation ($\beta = 0.30$, $SE = 0.04$, $p < .05$) suggesting that individuals with higher score on fearful attachment are more likely to have paranoid ideation; fearful attachment is significantly related to psychoticism ($\beta = 0.18$, $SE = 0.04$, $p < .05$), suggesting that individuals with higher on fearful attachment are more likely to have psychoticism. Furthermore, depression is significantly (positive) related to suicide probability ($\beta = 0.17$, $SE = 0.04$, $p < .05$), suggesting that individuals with higher score on depression are more likely to have a higher suicide probability. Paranoid ideation is significantly (positive) related to suicide probability ($\beta = 0.11$, $SE = 0.05$, $p < .05$), suggesting that individuals with higher score on paranoid ideation are more likely to have a higher suicide probability. Psychoticism is significantly (positive) related suicide probability ($\beta = 0.15$, $SE = 0.05$, $p < .05$), suggesting that individuals with higher score on psychoticism are more likely to have a higher suicide probability. Fearful attachment is significantly (positive) related to suicide probability ($\beta = 0.15$, $SE = 0.02$, $p < .05$), suggesting that individuals with higher score on fearful attachment are more likely to have higher suicide probability scores. The direct effects in the path model are reflected in these coefficients. It can be concluded that the group's indirect effect is zero because it falls between the lower and upper bounds of the 95% confidence range. When there is no "0" in the confidence intervals generated using this method, the mediating effect's importance is verified (Preacher & Hayes, 2008). Since the null, or zero, does not lie between the lower and upper ranges of the 95% confidence interval (LLCI-ULCI 0.0097-0.0868) we infer that the total effect of fearful attachment on suicidal probability ($\beta = 0.15$, $SE = 0.02$) is significantly different from zero (see Table 2). This model accounted for 20% of the variance of suicidal probability.

Table 2. Direct and total effects.

Fearful Attachment-Suicide Probability	β	SE	p	95% Confidence Interval	
				LLCI	ULCI
Direct efekt	.05	.02	.01	.0097	.0868
Total effect	.15	.02	.00	.1106	.1990

Discussion

This study aimed to test the mediating effect of psychological symptoms in the relationship between fearful attachment and suicide probability among medical school students. Overall, the results supported the mediating effect of psychological symptoms in the relationship between fearful attachment and suicide probability for Turkish medical school students and the hypothesized relationships between the variables.

Findings of the current study showed that fearful attachment was positively associated with suicide probability, suggesting that individuals with higher fearful attachment were more likely to attempt suicide. This result supports previous findings (see Kidd & Shahar, 2008; Nagra et al., 2016) reporting a relationship between fearful attachment and suicide probability. For example, in a study conducted with university students, Zeyrek et al. (2009) found a positive relationship between fearful attachment and suicide. Similarly, a study on high-risk psychiatric inpatients shows that only fearful attachment was found to be a significant predictor of suicidal behaviors after being discharged from the hospital (Li et al., 2017). Moreover, this finding shows the importance of the early relationship with parents (i.e., attachment) on suicide probability. Individuals with a fearful attachment style have low self-worth (Pistole, 1996) which is positively related to suicide behavior (Reinherz et al., 1995). Individuals with a high probability of suicide may have negative thoughts about themselves and problems in their close relationships. In these aspects, fearfully attached individuals and those with a high probability of suicide are similar to each other.

Fearful attachment is positively associated with psychological symptoms, suggesting that fearfully attached individuals experience more psychological symptoms. Various studies report a positive relationship between attachment styles and psychological symptoms (see Güvendiren, 2020; Mikulincer & Shaver, 2012; Uzbaş Uğur, 2021). Also, previous research shows a positive relationship between fearful attachment and depression (Gündüz, 2013; Güvendiren, 2020; Murphy & Bates, 1997); paranoid ideation (Pearce et al., 2017; Ponizovsky

et al., 2013), and psychoticism (Strand et al., 2015). Nevertheless, some studies indicate no significant relationship between fearful attachment and depression (e.g., Strand et al., 2015). Furthermore, psychological symptoms (depression [i.e., thinking negatively about oneself, being apathetic and hopeless], psychoticism [i.e., having problems in interpersonal relationships], and paranoid ideation [i.e., state of constant doubt]) share similar features with the fearfully attached individuals. Suspicion/fear predominates in individuals with fearful attachment, and therefore they may have problems in their interpersonal relationships, avoid social environments, and are similar to depressed individuals with these characteristics.

Furthermore, psychological symptoms are positively associated with suicide probability, indicating that individuals who experience more psychological symptoms are more likely to commit suicide. This finding shows the predictive effect of psychological symptoms on suicide probability. Likewise, Avcı et al. (2016) found that psychological symptoms could predict suicide. Other studies found a positive relationship between the probability of suicide and depression (see Gürhan et al., 2019; Gvion et al., 2015; O'Neill et al., 2021). Haynes and Marques (1984) examined the relationship between the possibility of suicide and paranoid thoughts among 29 individuals who committed suicide. The results showed that 66% of the participants had paranoid thoughts. Similarly, Freeman et al. (2011) stated that suicidal ideation could accompany paranoid thoughts. In another study, Lolas et al. (1991) investigated the relationship between suicide ideation and psychoticism by comparing individuals who attempted suicide and those who did not attempt suicide. According to the findings, psychoticism scores of individuals who attempted suicide were higher than the other group. Finally, Yıldız Miniksar et al. (2022) found a strong positive relationship between suicide ideation and psychoticism. These findings are important in that they consistently show that psychological symptoms are antecedent variables for suicide probability.

Lastly, psychological symptoms mediated the relationship between fearful attachment and suicide probability. Fearful attachment was associated with higher scores on psychological symptoms, and suicide probability. Psychological symptoms were associated with increased suicide probability. Upon reviewing the research on medical faculty students, no papers were reached that used psychological symptoms as mediator variables. Psychological symptoms are nonetheless taken into account as outcome factors in certain research (e.g., Hu et al., 2022; Kapikiran & Acun-Kapikiran, 2016; Shi et al., 2015).

This study is an original study in terms of its variables. Although studies have focused on attachment styles and suicide probability (e.g., Özer et al., 2015), psychological symptoms and suicide probability (e.g., Özer et al., 2015; Prinstein et al., 2000), and attachment styles and psychological symptoms (e.g., Uzbaş Uğur, 2021), no research has examined the mediating role of psychological symptoms in the relationship between fearful attachment and suicide probability. In the study conducted by Prinstein et al. (2000), depression played a mediating role in the relationship between family problems and suicidal ideation. Özer et al. (2015) found that the act of committing suicide was more frequent in patients with depression, who were fearfully attached. Uzbaş Uğur (2021) reported a direct positive effect between avoidant attachment and psychological symptoms. While sharing similar findings with the previous research, the current study provides an understanding of suicide probability by demonstrating for the first time that psychological symptoms mediate the relationship between fearful attachment and suicide probability. Furthermore, this study draws attention to the antecedents of suicide probability. Since the suicide rates are increasing, it is essential to know its antecedents, which is a strength of this study. This important role of psychological symptoms in the relationship between fearful attachment and suicide probability indicates that the study has implications in both academic and practical fields. Regarding academic research, more studies on psychological symptoms should be conducted to deepen our knowledge of the topic. Considering practice, suicide probability may decrease if psychologists, psychiatrists, and other mental health professionals pay attention to the psychological symptoms of the clients. It is recommended that the mental health of medical faculty students and doctors should be followed up at regular intervals. In this way, psychological support can be offered to individuals with high psychological symptoms.

The study is not free of limitations. First, we chose a cross-sectional design that provides data gathered over a predetermined period. For more information, longitudinal studies may be more appropriate. Secondly, there were no open-ended questions which could have yielded more detailed responses. Finally, the number of

participants in the study was limited because students had final exams and the upper classes had clinical internships during the data collection process.

Conclusion

The present study highlights the important role of psychological symptoms as a mediating variable in the relationship between fearful attachment and suicide probability. Given the whole findings reported above, we suggest that reducing the psychological symptoms is important in reducing the suicide probability. Therefore, it is recommended that authorities should consider psychological symptoms in reducing suicide attempts in their public communications.

Since attachment styles are one of the determinants of suicidal behaviour and early prevention reduces the likelihood of suicidal behaviour (Boroujerdi et al., 2019), parenting skills training and communication training can be provided to parents for early prevention. Screening studies on risky behaviours can be conducted among medical students every year.

Although attachment styles are relatively consistent structures, some studies (see Crowell et al., 2002; Dansby Olufowote et al., 2020; Davila et al., 1997) suggest that insecure attachment styles can be transformed into secure attachment styles. Considering the significant relationship of attachment styles with both suicide probability and psychological symptoms, it can be recommended that professionals working in the clinical field (i.e., clinical psychologists, psychiatrists, etc.) focus on insecure attachment styles to reduce both psychological symptoms as well as suicide probability.

The aforementioned studies (see O'Neill et al., 2021; Yıldız Miniksar et al., 2022) consistently have underlined a significant relationship between psychological symptoms and suicidal behavior. Therefore, to reduce the possibility of suicide, it is recommended to measure psychological symptoms at regular intervals, especially, in medical school students and in students who are generally identified as the risky age group.

References

Acar, A. (2009). *Investigation of suicide incidents received by emergency services in respect of socio-demographic aspects (Publication no: 267598)* [Master Thesis, Marmara University]. CoHE Thesis Center.

Avcı, D., Sabancıoğulları, S., & Yılmaz, F. T. (2016). Investigation of the relationship between suicide probability in inpatients and their psychological symptoms and coping strategies. *Neurosciences Journal*, *21*(4), 345-351. https://doi.org/10.17712/nsj.2016.4.20150727

Aggelidou, K., & Georgaca, E. (2017). Effective strategies for coping with paranoid thoughts: A qualitative investigation. *International Journal of Mental Health, 46*(3), 188–205. https://doi.org/10.1080/00207411.2017.1304075

American Psychiatric Association. (APA) (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association. https://doi.org/10.1176/appi.books.9780890425596

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: a test of a four-category model. *Journal of Personality and Social Psychology*, *61*(2), 226.

BBC. (2022). Enes Kara: Reactions following the suicide of a medical student in a religious community dormitory. Retrieved from https://www.bbc.com/turkce/haberler-turkiye-59952350

Benazzi, F. (2006). Various forms of depression, *Dialogues in Clinical Neuroscience, 8*(2), 151-161. https://doi.org/10.31887/DCNS.2006.8.2/fbenazzi

Bork, T., Turkoglu, A., Atesçelik, M., & Tokgözlü, O. (2021). Evaluation of risk factors for suicide attempts in Turkey's east: A five-year study. *Pakistan Journal of Medical Sciences*, *37*(2), 572-575. https://doi.org/10.12669/pjms.37.2.3092

Boroujerdi, F. G., Kimiaee, S. A., Yazdi, S. A. A., & Safa, M. (2019). Attachment style and history of childhood abuse in suicide attempters. *Psychiatry Research*, *271*, 1-7.

Cull, J. G., & Gill, W. S. (1988). *Suicide Probability Scale (SPS) Manual.* Western Psychological Services.

Çaynak, S., & Kutlu, Y. (2016). The psychological symptom, probability of suicide, and coping ways of a group of convict and detainee. *Anadolu Psikiyatri Dergisi*, *17*(2), 93-98. http://dx.doi.org/10.5455/apd.198596

CDC (2020). Suicide Data and Statistics for 2020. Retrieved from https://www.cdc.gov/suicide/suicide-data-statistics.html

Crowell, J. A., Treboux, D., & Waters, E. (2002). Stability of attachment representations: the transition to marriage. *Developmental Psychology*, *38*(4), 467-479. https://doi.org/10.1037//0012-1649.38.4.467

Dağ, İ. (1991). Reliability and validity of the Symptom Check List (SCL-90-R) for university students. *Türk Psikiyatri Dergisi, 2*(1), 5-12.

Dansby Olufowote, R. A., Fife, S. T., Schleiden, C., & Whiting, J. B. (2020). How can I become more secure?: A grounded theory of earning secure attachment. *Journal of Marital and Family Therapy*, *46*(3), 489-506. https://doi.org/10.1111/jmft.12409

Davila, J., Burge, D., & Hammen, C. (1997). Why does attachment style change? *Journal of Personality and Social Psychology, 73*(4), 826–838. https://doi.org/10.1037/0022-3514.73.4.826

De Leo, D., Burgis, S., Bertolote, J. M., Kerkhof, A. J., & Bille-Brahe, U. (2006). Definitions of suicidal behavior: lessons learned from the WHo/EURO multicentre Study. *Crisis*, *27*(1), 4–15. https://doi.org/10.1027/0227-5910.27.1.4

Derogatis, L. R., & Clearly, P. A. (1977). Confirmation of the Dimensional Structure of the SCL90: A Study in Construct Validation. *Journal of Clinical Psychology, 33*(4), 981-989. https://doi.org/10.1002/1097-4679(197710)33:4%3C981::AID-JCLP2270330412%3E3.0.CO;2-0

Durak-Batıgün, A., & Hisli-Şahin, N. (2018). Suicide Probability Scale: Revision, validity, and reliability. *Journal of Clinical Psychology Research, 2*(2), 52-64.

Durkheim, E. (2005). *Suicide: A Study in Sociology.* Routledge.

Eysenck, S. B. G., Eysenck, H. J., & Barrett, P. (1985). A revised version of the Psychoticism Scale. *Personality and Individual Differences*, *6*(1), 21–29. https://doi.org/10.1016/0191-8869(85)90026-1

Freeman, D., McManus, S., Brugha, T., Meltzer, H., Jenkins, R., & Bebbington, P. (2011). Concomitants of paranoia in the general population. *Psychological Medicine, 41*(5), 923-936. https://doi.org/10.1017/s0033291710001546

Freud, S. (1955). *The theory of the instincts.* The Modern Library.

Gravetter, F. J., Wallnau, L. B., Forzano, L. A. B., & Witnauer, J. E. (2020). *Essentials of Statistics for the Behavioral Sciences. 9th ed. Cengage Learning*. Cengage Learning.

Griffin, D., & Bartholomew, K. (1994). The metaphysics of measurement: The case of adult attachment. In Bartholomew, K., Perlman, D. (Eds.), *Attachment processes in adulthood: Advances in personal relationships* (Vol. 5, pp. 17–52). Jessica Kingsley Publishers.

Güleç, G. (2016). Psychiatric Disorders and Suicide. *Türkiye Klinikleri-Psikiyatri Özel Konular*, *9*(3), 21-25.

Gündüz, B. (2013). The Contributions of Attachment Styles, Irrational Beliefs and Psychological Symptoms to the Prediction of Cognitive Flexibility. *Educational Sciences: Theory & Practice, 13*(4), 2071-2085.

Gürhan, N., Meriç, M., Kaya, B., Turan, N. D., & Kabataş, E. (2018). Comparison of Suicide Probability and Problem-Solving Levels of Faculty of Medicine and Nursing Students According to Socio-demographic Variables, *Gümüşhane University Journal of Health Sciences*, *7*(1), 149-155.

Gürhan, N., Beşer, N. G., Polat, Ü., & Koç, M. (2019). Suicide risk and depression in individuals with chronic illness. *Community Mental Health Journal*, *55*(5), 840-848. https://doi.org/10.1007/s10597-019-00388-7

Güvendiren, H. (2020). *The relationship between the attachment styles and intolerance of uncertainty and psychic symptoms in seafarers* (Publication no: 623616) [Master Thesis, İstanbul Gelişim University]. CoHE Thesis Center.

Gvion, Y., Horesh, N., Levi-Belz, Y., & Apter, A. (2015). A proposed model of the development of suicidal ideations. *Comprehensive Psychiatry*, *56*, 93-102.

Habertürk. (2022). Doctor commits suicide in Bursa. Retrieved from https://www.haberturk.com/son-dakika-bursa-da-intihar-eden-doktor-mustafa-yalcin-in-veda-mektubu-ortaya-cikti-haberleri-2977469

Hayes, A. F., & Preacher, K. J. (2013). Conditional process modeling: Using structural equation modeling to examine contingent causal processes. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (pp. 219–266). IAP Information Age Publishing.

Haynes, R. L., & Marques, J. K. (1984). Patterns of suicide among hospitalized mentally disordered offenders. *Suicide and Life-Threatening Behavior*, *14*(2), 113-125. https://doi.org/10.1111/j.1943-278X.1984.tb00342.x

Hu, J., Wang, J., Li, D., Huang, X., Xue, Y., Jia, L., Zhang, Z., Wan, Y., Song, X., Wang, R., Fang, J., Sun, Y., & Zhang, S. (2022). Mediating effect of sleep disorder between low mental health literacy and depressive symptoms among medical students: the roles of gender and grade. *Frontiers in Psychiatry*, *13*, 818295.

Hussain, B., Khalily, M. T., & Khalily, M. A. (2022). Suicidal tendencies and psychiatric symptoms as consequence of anabolic androgenic steroid usage among athletes in District Rawalpindi. *Journal of the Pakistan Medical Association*, *72*(4), 616-619. https://doi.org/10.47391/JPMA.791

İlhan, R. S., & Akaslan, D. S. (2019). Sociodemographic Characteristics of Suicide Cases on Internet News. *Kriz Dergisi*, *27*(2), 71-78.

Kapikiran, S., & Acun-Kapikiran, N. (2016). Optimism and Psychological Resilience in Relation to Depressive Symptoms in University Students: Examining the Mediating Role of Self-Esteem. *Educational Sciences: Theory and Practice*, *16*(6), 2087-2110.

Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: The key role of self-esteem. *American Journal of Orthopsychiatry*, *78*(2), 163-172. https://doi.org/10.1037/0002-9432.78.2.163

Kılıç, M. (1987). *Değişik Psikolojik Arazlara Sahip Olan ve Olmayan Öğrencilerin Sorunları* (Publication no: 4518) [Doctoral Thesis, Hacettepe University] CoHE Thesis Center.

Klein, M. (1997). Envy And Gratitude And Other Works 1946-1963. Vintage Classics.

Koparal, B., & Hocaoğlu, Ç. (2019). Schizophrenia and Suicide; A Review. *Balıkesir Medical Journal*, *3*(3), 135-146. https://doi.org/10.33716/bmedj.622389

Levi-Belz, Y., & Beautrais, A. (2016). Serious suicide attempts: Toward an integration of terms and definitions. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 37*(4), 299–309. https://doi.org/10.1027/0227-5910/a000386

Levi-Belz, Y., Gavish-Marom, T., Barzilay, S., Apter, A., Carli, V., Hoven, C., Sarchiapone, M., & Wasserman, D. (2019). Psychosocial factors correlated with undisclosed suicide attempts to significant others: findings from the adolescence SEYLE study. *Suicide and Life-Threatening Behavior*, *49*(3), 759-773.

Levi-Belz, Y., Gvion, Y., & Apter, A. (2019). The psychology of suicide: From research understandings to intervention and treatment. *Frontiers in Psychiatry*, *10*, 214-218.

Levi-Belz, Y., Gvion, Y., Horesh, N., & Apter, A. (2013). Attachment patterns in medically serious suicide attempts: The mediating role of self-disclosure and loneliness. *Suicide and Life-Threatening Behavior*, *43*(5), 511-522.

Li, S., Galynker, I. I., Briggs, J., Duffy, M., Frechette-Hagan, A., Kim, H. J., Cohen, L. J., & Yaseen, Z. S. (2017). Attachment style and suicide behaviors in high risk psychiatric inpatients following hospital discharge: The mediating role of entrapment. *Psychiatry Research*, *257*, 309-314. https://doi.org/10.1016/j.psychres.2017.07.072.

Lolas, F., Gomez, A., & Suarez, L. (1991). EPQ-R and suicide attempt: The relevance of psychoticism. *Personality and Individual Differences*, *12*(9), 899-902. https://doi.org/10.1016/0191-8869(91)90178-E

Mikulincer, M., & Shaver, P. R. (2012). An attachment perspective on psychopathology. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA)*, *11*(1), 11–15. https://doi.org/10.1016/j.wpsyc.2012.01.003

Milliyet. (2022). Medical student found dead at home. Retrieved from https://www.milliyet.com.tr/gundem/evinde-olu-bulunan-tip-ogrencisinin-cenazesi-gozyaslari-icinde-alindi-6752919

Murphy, B., & Bates, G. W. (1997). Adult attachment style and vulnerability to depression. *Personality and Individual Differences*, *22*(6), 835-844. https://doi.org/10.1016/S0191-8869(96)00277-2

Nagra, G. S., Lin, A., & Upthegrove, R. (2016). What bridges the gap between self-harm and suicidality? The role of forgiveness, resilience, and attachment. *Psychiatry Research*, *241*, 78-82. https://doi.org/10.1016/j.psychres.2016.04.103

NTV. (2022a). Letter of Dr. Mustafa Yalçın, who committed suicide in Bursa, emerges. Retrieved from https://www.ntv.com.tr/turkiye/bursada-intihar-eden-doktor-mustafa-yalcinin-mektubu-ortaya-cikti,5H7wDgEs0E29oeKSN9wihg

NTV. (2022b). Medical student Enes Kara commits suicide in Elazığ. Retrieved from https://www.ntv.com.tr/turkiye/elazigda-tip-ogrencisi-enes-kara-intihar-etti,jtY5ZCN4MkaLms1_1YjwIQ

O'Neill, C., Pratt, D., Kilshaw, M., Ward, K., Kelly, J., & Haddock, G. (2021). The relationship between self-criticism and suicide probability. *Clinical Psychology & Psychotherapy*, *28*(6), 1445-1456. https://doi.org/10.1002/cpp.2593

Organization for Economic Co-operation and Development (OECD). (2016). *Education at A Glance 2016: OECD indicators*. OECD Publishing.

Önen, S., İnel, A., Biçer Kanat, B., Taymur, İ., & Eraybay, S. (2017). Comparison of Childhood Traumatic Experience and Attachment Styles among Patients Who Attempt Suicide with Drugs and the Healthy Control Group. *Bilişsel Davranışçı Psikoterapi ve Araştırmalar Dergisi*, *6*(2), 51-58. http://dx.doi.org/10.5455/JCBPR.244662

Özer, Ü., Yıldırım, E. A., & Erkoç, Ş. N. (2015). Relationship of Suicidal Ideation and Behavior to Attachment Style in Patients with Major Depression. *Archives of Neuropsychiatry*, *52*, 283-288. https://doi.org/10.5152/npa.2015.7459

Patten, S. B., Williams, J., Lavorato, D. H., Bulloch, A., Wiens, K., & Wang, J. (2016). Why is major depression prevalence not changing?. *Journal of Affective Disorders*, *190*, 93–97. https://doi.org/10.1016/j.jad.2015.09.002

Pearce, J., Simpson, J., Berry, K., Bucci, S., Moskowitz, A., & Varese, F. (2017). Attachment and dissociation as mediators of the link between childhood trauma and psychotic experiences. *Clinical Psychology & Psychotherapy*, *24*(6), 1304-1312. https://doi.org/10.1002/cpp.2100

Pistole, M. C. (1996). After love: Attachment styles and grief themes. *The Family Journal*, *4*(3), 199-207. https://doi.org/10.1177%2F1066480796043003

Ponizovsky, A. M., Vitenberg, E., Baumgarten-Katz, I., & Grinshpoon, A. (2013). Attachment styles and affect regulation among outpatients with schizophrenia: Relationships to symptomatology and emotional distress. *Psychology and Psychotherapy: Theory, Research, and Practice*, *86*(2), 164-182. https://doi.org/10.1111/j.2044-8341.2011.02054.x

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879-891.

Prinstein, M. J., Boergers, J., Spirito, A., Little, T. D., & Grapentine, W. L. (2000). Peer functioning, family dysfunction, and psychological symptoms in a risk factor model for adolescent inpatients' suicidal

ideation severity. *Journal of Clinical Child Psychology*, *29*(3), 392-405. https://doi.org/10.1207/S15374424JCCP2903_10

Reinherz, H. Z., Giaconia, R. M., Silverman, A. B., Friedman, A., Pakiz, B., Frost, A. K., & Cohen, E. (1995). Early psychosocial risks for adolescent suicidal ideation and attempts. *Journal of the American Academy of Child & Adolescent Psychiatry*, *34*(5), 599-611. https://doi.org/10.1097/00004583-199505000-00012

Ribeiro, J. D., Huang, X., Fox, K. R., & Franklin, J. C. (2018). Depression and hopelessness as risk factors for suicide ideation, attempts, and death: meta-analysis of longitudinal studies. *The British Journal of Psychiatry*, *212*(5), 279-286. https://doi.org/10.1192/bjp.2018.27

Schernhammer, E. (2005). Taking their own lives—the high rate of physician suicide. *New England Journal of Medicine*, *352*(24), 2473-2476.

Shi, M., Liu, L., Wang, Z. Y., & Wang, L. (2015). The mediating role of resilience in the relationship between big five personality and anxiety among Chinese medical students: a cross-sectional study. *PloS One*, *10*(3), e0119916.

Strand, J., Goulding, A., & Tidefors, I. (2015). Attachment styles and symptoms in individuals with psychosis. *Nordic Journal of Psychiatry*, *69*(1), 67-72. https://doi.org/10.3109/08039488.2014.929740

Suicide Prevention Now (Spetember, 2022). Public Perception of Mental Health and Suicide Prevention Survey Results. https://suicidepreventionnow.org/static/executive-summary-2022-9c5a59e0f8016f1803570b11cfd3cb29.pdf

Sümer, N., & Güngör, D. (1999). Psychometric evaluation of adult attachment measures on Turkish samples and a cross-cultural comparison. *Türk Psikoloji Dergisi, 14*(43), 71-106.

Şahin, N. H., & Batıgün, A. D. (2000). *Suicide Probability and Reasons for Living*. Unpublished Research.

Şenses Dinç, G., Çöp, E., Göker, Z., Şahin, M., Bilgili, D., Hekim, Ö., Dibek Mısıroğlu, E., Kurt, F., & Üneri, Ö. Ş. (2020). The Relationship Between Suicidal Behavior and Features of Mother Attachment in Adolescents. *Turkish Journal of Pediatric Disease*, *14*(1), 16-21. https://doi.org/10.12956/tchd.654301

Turkish Language Association (TDK). (2022). Current Turkish Dictionary. Retrieved August 16, 2022, from https://sozluk.gov.tr/

Turkish Statistical Institute (TUIK). (2020). Death and Cause of Death Statistics, 2019. Retrieved from https://data.tuik.gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2019-33710

Turkish Statistical Institute (TUIK). (2022). Suicide statistics for 2019. https://biruni.tuik.gov.tr/medas/?kn=115&locale=tr

Uzbaş Uğur, E. (2021). *The Relationship Between Attachment Styles, Self -Compassion, Coping Styles and Psychological Symptoms among University Students* (Publication no: 671687) [Master Thesis, Hacettepe University]. CoHE Thesis Center.

Ventriglio, A., Watson, C., & Bhugra, D. (2020). Suicide among doctors: A narrative review. *Indian Journal of Psychiatry*, *62*(2), 114-120.

World Health Organization (2019). Suicide in the world: global health estimates. Retrieved from https://apps.who.int/iris/handle/10665/326948.

World Health Organization (2021). Suicide worldwide in 2019; Global Health Estimates. Retrieved from https://www.who.int/publications/i/item/9789240026643

Yalvaç, H. D., Kaya, B., & Ünal, S. (2014). Personality disorders and some clinical variables in suicidal individuals, *Anadolu Psikiyatri Dergisi, 15*(1), 24-30. https://dx.doi.org/10.5455/apd.40634

Yıldız Miniksar, D., Kılıç, B., Kılıç, M., Miniksar, Ö. H., Topçu, Y., & Aydın, K. (2022). Evaluation of suicide probability in children and adolescents with epilepsy. *Pediatrics International*, *64*(1), e15130. https://doi.org/10.1111/ped.15130

Zeyrek, E. Y., Gençöz, F., Bergman, Y., & Lester, D. (2009). Suicidality, problem-solving skills, attachment style, and hopelessness in Turkish students. *Death Studies*, *33*(9), 815-827, https://doi.org/10.1080/07481180903142407

RESEARCH ARTICLE

Examination of Psychological Counselor Candidates' Views of Using Cognitive Behavioral Therapy (CBT) in Individual Psychological Counseling: A Q-Methodology Approach

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ABSTRACT

Individual Psychological Counseling Practicum is an applied course in which Guidance and Psychological Counseling undergraduate senior students have an opportunity to have a practical experience with an actual client in Turkey. In the course, the theoretical approaches chosen by the counselors and their views on this approach may affect their attitudes towards the practicum process and their experiences. Therefore, the current study aims to determine the opinions of guidance and psychological counseling senior students who took the course Individual Psychological Counseling Practicum about using Cognitive Behavioral Therapy in individual psychological counseling with the Q-methodology approach. For this purpose, 33 senior undergraduate students participated in the current study, taking the Individual Psychological Counseling Practicum-2 course in Atatürk University. The research utilized Q-statements crafted by the researcher along with a Q-sort comprising 18 sentences ranging from -3 to +3, facilitating forced placement, as the data collection instrument. Results showed that the opinions of the counselor candidates about the use of Cognitive Behavioral Therapy were gathered in a single dimension, which indicates a positive attitude.

Using Cognitive Behavioral Therapy (CBT) for Individual Psychological Counseling

Cognitive behavioral therapy (CBT) has been successfully used to treat many psychological problems, and many research results have proved its effectiveness. Research has used various methods to determine counselors' views on cognitive behavioral therapy. However, there are relatively few studies in which the opinions of counselor candidates about cognitive behavioral therapy are determined with the Q-methodology. This study tried to determine how many groups of counselor candidates' opinions about cognitive behavioral therapy were gathered during their undergraduate education.

Aaron Temkin Beck pioneered Cognitive Behavioral Therapy (CBT) in the 1950s, offering an effective approach to address various issues like phobias, panic attacks, sleep problems, anxiety disorders, and particularly depression (Sharf, 2015; Blom et al., 2015; El Alaoui et al., 2015; O'Donohue & Fisher, 2009). CBT posits that individuals evaluate events according to their thinking, leading to different emotional responses even in the same situations (O'Donohue & Fisher, 2009). It highlights the pivotal role of cognition

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in emotions, behaviors, and certain psychological disorders (Murdock, 2004; O'Donohue & Fisher, 2009). In other words, individuals' beliefs lead to different emotions and behaviors due to evaluating the events (O'Donohue & Fisher, 2009). As a result, individuals who experience the same event display different emotions and behaviors (Murdock, 2004; O'Donohue & Fisher, 2009).

CBT uses the ABC (A = Antecedents, B = Belief, C = Conclusion) method to solve clients' problems. Psychological counselors educate clients about how issues arise and how they perceive events that affect their emotions and behaviors. In addition, many cognitive and behavioral techniques such as directed exploration, Socratic questioning, evidence review, behavior experimentation, exposure, worst-case scenario, and down arrow technique are used to identify negative automatic thoughts and create alternative ideas. The counselor teaches the client how to use these techniques, and the client obtains information about these techniques in each session in therapeutic cooperation (Beck & Beck, 2011). In this context, the role of the counselor in CBT is didactic (Sharf, 2015). The counselor is like a teacher introducing the cognitive model and explaining how to use the techniques to the client.

In this approach, one aim is to teach the client to be a self-therapist. In this way, clients can apply the skills they learned in the sessions to different problems they experience daily, and it is tried to prevent the reoccurrence of the issues. In this case, clients can apply the techniques they participate in in the counseling environment to their life, revealing the change (Beck & Beck, 2011). Although the client is less active than the counselor, roles are shared equally (Murdock, 2004; Sharf, 2015).

In CBT, since the content of the sessions is structured, it is clear what will be studied in which session. It is a guiding factor for clients and counselors, encouraging learning and helping sessions to continue orderly. In addition, the sessions have a structured system of checking mood, checking last week, reviewing homework, setting the agenda, addressing current issues, setting new tasks, and summarizing. By following this system, clients also become aware of being their therapist (Beck & Beck, 2011).

Q-Methodology Approach in Views of Using CBT

Research has shown that the studies in which CBT was applied, and its effectiveness was demonstrated were primarily quantitative (López-López et al., 2019; Oud et al., 2019; Simon et al., 2019; Springer et al., 2018). In applying CBT to psychological problems, it is thought that the practitioner's attitudes towards using CBT in counseling sessions are also crucial for the success of the process. Studies conducted in this context have revealed that many characteristics of psychological counselors, such as personality traits, values and beliefs, and theoretical orientations, are an essential factor that determines the effectiveness of the practice process (Conte et al., 1991; Lambert & Ogles, 2004; Sandell et al., 2000; Sandell et al., 2007). Therefore, it can be said that determining the opinions of the students in undergraduate education and newly involved in the application process for psychological counseling will also affect the counseling process and the outputs of the process. By determining the negative attitudes of these students before they graduate from the education system, it may be possible to change their wrong perceptions before they start their professional lives. In this way, psychological counselors can become more willing to practice with more positive attitudes and make efforts to improve their competencies. Considering the contribution of the theoretical approach adopted in the psychological counseling process to improving the problems, it can be thought that the practitioner's views, attitudes, and beliefs towards that theoretical approach will also affect the implementation process. This view is supported by research conducted by Öz-Soysal et al. (2016) indicated that cognitive-behavioral, short-term solution-oriented, client-paced, family counseling, creative drama and psychodrama approaches were the most preferred approaches. This study also highlights the importance of why the participants used these approaches, which were suitable for the school environment, suitable for the high number of students, being behavior-oriented and concrete, making it possible to solve in a short time, and highlighting the positive aspects of individuals. At the same time, the fact that the participants have received training on these issues and their tendencies have also contributed to their preference for these approaches. Wilcockson (2022) examined the counselors' practices of CBT, and the results indicated five themes: processes in transition, ongoing processes reconciling roles, features retained from counseling practice and changed from counseling practice, and resisted and not adopted features of CBT. Contextually, counselors' views about the counseling process may

affect the psychological counseling process. So, researchers must indicate psychological counselors' views about psychological counseling theories and their distinct opinions about them. Therefore, it may be helpful for educators to determine the views and attitudes of counselor candidates about theoretical approaches and to turn possible negative attitudes into positive ones.

Early intervention studies for negative attitudes can be carried out by determining the attitudes and thoughts of students toward theoretical approaches. In addition, it can be said that it is essential to use the Q-methodology in determining how many groups the students' opinions are gathered in. Research results demonstrated that the Q-methodology effectively reveals counselor's opinions about the counseling process or theories. For example, Farrell et al. (2013) highlighted issues using the Q-methodology approach around the professional role and application of EMDR, its teaching and learning experience, clinical supervision, the importance of the therapeutic relationship, cultural sensitivity, and application of EMDR in Pakistan. Kealy et al. (2017) used the Q-methodology to explore clinicians' perspectives regarding the optimal psychotherapy process in treating pathological narcissism, a syndrome of impaired self-regulation. It revealed four components representing clinicians' perspectives on ideal therapy processes for narcissistic and non-narcissistic patients. Kreft (2017) explored the CBT therapist's views on acceptability, experiences, and barriers using both Q-methodology among fifteen trainees. Results indicated that one factor was extracted, and a second specificity factor was also identified. Weber (2020) examined to explore counselor viewpoints on the current stage of their theoretical orientation formation and find common viewpoints among counselors with the Q-methodology technique and found five distinct typologies. These results emphasize the importance of using the Q-methodology in determining the opinions of psychological counselors regarding psychological counseling theories and how many groups the opinions are collected in.

Because Q-methodology research combines the strengths of both quantitative and qualitative research methods and, in this respect, tries to eliminate some of the disadvantages of these researches (Karasu & Peker, 2019). Quantitative research requires a more significant number of participants than Q-methodology. In addition, the data collected with scales can generally be obtained through the participants' responses to the items. However, the Q-methodology has advantages in allowing fewer participants to obtain in-depth information and includes the quantitative method in the process (Donner, 2001). Simons (2013) also underlines that the most important advantage of Q-methodology is that it minimizes the researcher's bias on the findings. With the Q-methodology, it is also possible to reveal the differences of opinion among the individuals since it determines how many groups they are divided into on a particular subject (Farrell et al., 2013; Kealy et al., 2017; Kreft, 2017). These research results demonstrated that counselors view the counseling theories and some pathological problems and their opinions group of them. A content analysis of the cognitive-behavioral approach in psychological counseling showed that the studies in this field were mainly conducted using quantitative and experimental methods (Bengisoy et al., 2019). However, it was thought that the attitudes of counselor candidates about cognitive behavioral therapy, a method that has been successfully used in the treatment of many problems, should be determined with the Q-method. By determining the negative attitudes of counselor candidates early, educators may be able to change these attitudes into positive ones. In addition, determining the main elements that emerge in counselor candidates' ideas about this approach may also shed light on the studies to be organized for attitude change. In addition, the fact that this research is methodologically different from other studies on the subject in the literature is another factor that increases the originality of the research. In this context, this study aims to examine the views of psychological counseling and guide senior students on using CBT within the scope of individual counseling practices by using the Q-methodology. In this context, this research seeks answers to the following questions:

1. Do the students have a common opinion on using CBT in individual counseling?

2. What do students think about the use of CBT in individual counseling?

3. Which elements come to the fore when using CBT in individual counseling?

Method

Research Model

This research was designed following the Q-methodology approach. It was discussed in detail by the physicist and psychologist William Stephenson in 1953 (Stephenson, 1953). This method aims to determine individuals' similar and different opinions about any subject and to reveal the extent to which a limited number of participant groups adopt views. Q-methodology combines the robust features of quantitative and qualitative methods. In this method, the researcher prepares sentences of positive, negative, and neutral statements about a subject based on theoretical approaches. Then, the participants place the degree of agreement with these sentences on a string. In this way, it is aimed to determine whether the participants' opinions on that subject are united in a common theme and if there is a common theme, it is desired to determine what it is. In this respect, Q-methodology research uses principal component analysis in factor analysis studies in quantitative research. It focuses on an in-depth examination of subjective thoughts and attitudes as in qualitative research (Watts & Stenner, 2012). However, when the principal component analysis is used in the Q-methodology, it is the participants themselves, not the items, which are grouped. In other words, since the general tendencies of the participants about a subject are determined, the factors that emerge as a result of the principal components analysis are the participants' grouped states.

Q-methodology research consists of a four-stage process: 1. Generating Q-sentences, 2. Designing the Q-sort, 3. Identifying the participants, 4. Analysis and evaluation of the results. Previous research results, theoretical approaches, and expert opinions are used in creating Q-statements. In this context, a positive statement must also be prepared with a negative while preparing statements. Because the participants will agree with a statement, they will also have the possibility to agree on the contrary. Then, there is a need to design a q string in which the prepared q sentences will be placed. This string must have a box where each sentence must be placed. The Q-string can be either forced or free. Regarding the number of participants, a large group is unnecessary, as in quantitative research (Watts & Stenner, 2012). It is reported that the number of people can be between 25-75 (Memiş, 2020; Skelcher et al., 2013). A formula determines the significance of factors in Q-methodology studies. In this formula, the number of expressions is decisive. Accordingly, the significance level was determined in this study according to the formula (Sig. = $2.58*(1/\sqrt{n})$ = .61, n =18). It was set at .61 values with a factor loading of .61 and above were considered significant.

Ethical Approval

Before proceeding to the data collection phase of this study, ethical permission was obtained from the Atatürk University Educational Sciences Unit Ethics Committee on 30.03.2023, numbered 04/09.

Participants

A large participant group is not needed in Q-methodology research, as in quantitative analysis, since subjective perceptions are tried to be determined in these studies. (Watts & Stenner, 2012). This research was conducted on 33 undergraduate students who took the Guidance and Psychological Counseling Practicum-2 course in Atatürk University. We used a convenient sampling method to enable researchers to make the data collection process easy and economical (Özmen & Karamustafaoğlu, 2019). Fifty students took the Guidance and Psychological Counseling Practicum-2 course, but 33 students participated in the current research because of the voluntary participation and convenient sampling method. 24 female (%72.7) and 9 male (%27.3) students participated in the study. The mean age of the research sample is 22.6, and its standard deviation is 2.22.

Q-Sort

In this research, the forced Q-sort was used. In this type, participants must place a statement in each box. This allows participants to crystallize their views. The Q-sort of this study is identified in the forced distribution grid from - 3 to +3. In the boxes between -3 and +3, the participants have to place 2, 2, 3, 4, 3, 2, and 2 sentences in order. The placement of the sentences within a degree is equal to that of each other. In other words, every expression below -3 has the same significance level. The Q-sort used in the research is given in Figure 1 below:

Figure 1. The Q-Sort of This Study

Strongly disagree   **Strongly agree**

-3	-2	-1	0	1	2	3
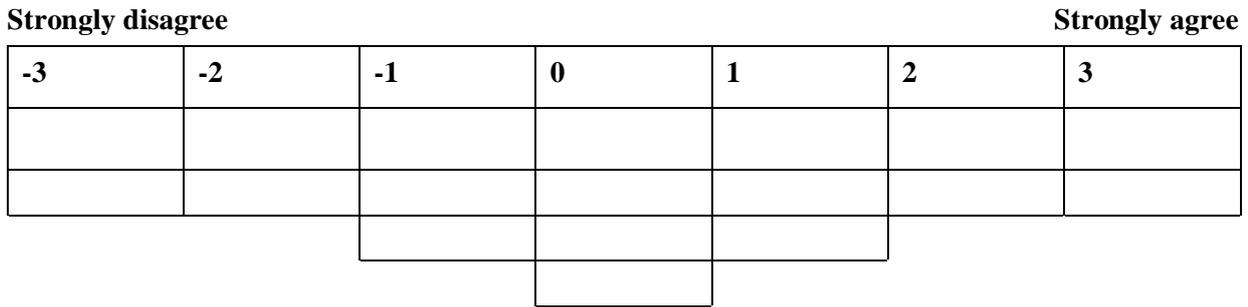
Q-Statements

We created Q-statements using theoretical explanations, research results, and expert opinions. In this context, we tried to include positive, negative, and neutral expressions for applying CBT in the context of the roles of the client and counselor, the number of sessions, the types of problems, and the techniques used in the individual counseling session structure. The Q-statements used in this study are given in Table 1:

Table 1. Q-Statements

Statement Number	Related Heading	Statements
1	Problem	CBT allows one to examine the client's problems in detail in counseling with the individual.
2	Model	CBT helps the client to better understand the ABC model by focusing on thoughts.
3	Roles	In CBT, the client is as active as the counselor.
4	Model	By introducing the cognitive model to the client, they can establish the link between emotion, thought, and behavior.
5	Time	An average of 8-10 sessions of CBT is acceptable.
6	Model	The client does not need to understand the cognitive model to solve their problems.
7	Therapy type	CBT offers the counselor a real individual counseling practice experience compared to other therapy schools.
8	Therapy type	The structured content of CBT guides the counselor and the client.
9	Model	Too much emphasis on thoughts is a disadvantage in CBT.
10	Therapy type	The problems of the client cannot be discussed in detail with CBT.
11	Problem	CBT is a theoretical approach that should be adopted for a specific mental problem.
12	Problem	With CBT, only some types of problems, such as anxiety, stress, and depression, can be addressed.
13	Time	Since it is not clear how many sessions of CBT y will last, this situation becomes a disadvantage for the counselor and the client.
14	Problem	CBT can be progressed even if there is no mental problem.
15	Roles	In CBT, the client's passive position relative to the counselor is a disadvantage.
16	Problem	With CBT, problems such as panic attacks, PTSD (post-traumatic stress disorder), grief, and personality disorders can also be addressed, as well as anxiety, stress, and depression.
17	Roles	CBT is a didactic therapy approach.
18	Therapy type	The fact that CBT is a structured therapy makes the process monotonous for the counselor and the client.

Procedure

After obtaining ethical permission to conduct the research, data collection tools were applied to the participants. For this purpose, the application was made to the students who voluntarily accepted to participate in the study among those taking the individual counseling practice course. During the data collection phase, the participants were briefly informed about the purpose of the study. It was stated that the data obtained from the participants would only be used for scientific purposes and that they could find it possible to answer the data collection tool whenever they wanted. Informed consent was obtained from the participants.

Statistical Analysis

Q-methodology research consists of a four-stage process: 1. Generating Q-sentences, 2. Designing the Q-sort, 3. Identifying the participants, 4. Analysis and evaluation of the results (Stone & Turale, 2015). Firstly, we generated the Q-statements regarding the related literature and research body. In the second stage, we determined the participants by selecting those taking the Individual Psychological Counseling Course-1, and then we collected the data. After the data collection phase, the answers received and the grades given by the students to the Q-statements were transferred to the PQ-Method program. After the analyses were performed, it was examined how many dimensions the participants' responses to the 18 items related to CBT were

grouped. For this, .61 was taken as the cut-off point. We used .61 as a cut-off; since were 18 items in the Q-statement, the cut-off point was determined as .61 according to the proposed formula, Sig. $= 2.58*(1/\sqrt{n}) =$ .61, n =18 (Demir & Kul, 2011). As a result, the items with the highest and lowest z-score values were ranked. The Z score and factor array values obtained after principal component analysis and factor rotation show the order in which most individuals in that factor choose an item. An increase in the Z score indicates a high preference level for an item in a factor. A z score approaching zero indicates that the participants prefer an item less. We used the z scores in the study because we intended to underly the highest and least preferred items. The study's qualitative data were analyzed in line with the answers given by the participants according to which item they placed at -3 or +3 in Q-sort. The item with the highest Z score indicates the item with which the participants agree at the highest level, while the item with the lowest Z score indicates the item with which they agree at the lowest level. The Z score was used in the study because there was a need to standardize the results obtained.

Results

Factor Loadings

In the study, principal component analysis and factor rotation method were used to examine whether the participants' agreement with the Q-statements regarding the use of CBT in individual counseling gathered on a common denominator, and the results are given in Table 2:

Table 2. Factor Loadings

Participant no	Factors							
	F1	F2	F3	F4	F5	F6	F7	F8
1	**0.8399X**	0.3292	-0.1957	0.0176	-0.0024	0.1190	-0.2505	-0.0649
2	**0.8610X**	-0.2167	0.1825	-0.0733	-0.1771	-0.1110	-0.0657	-0.1003
3	**0.7875X**	-0.2244	0.2966	-0.0284	-0.3213	-0.1148	-0.1868	-0.0673
4	0.5411	-0.0574	0.1831	-0.3591	**0.6693**	0.0467	0.0001	-0.2653
5	**0.7193X**	-0.4142	-0.1228	0.2086	0.1970	-0.1738	-0.1407	0.0472
6	**0.9064X**	-0.1133	0.2106	0.1873	-0.1264	0.0287	-0.0083	-0.1267
7	**0.7842X**	0.0178	0.4383	0.0990	-0.1173	0.3000	0.0236	-0.0104
8	**0.9064X**	-0.1133	0.2106	0.1873	-0.1264	0.0287	-0.0083	-0.1267
9	**0.9064X**	-0.1133	0.2106	0.1873	-0.1264	0.0287	-0.0083	-0.1267
10	0.4686	-0.2700	-0.1516	**0.5409**	0.4772	-0.0723	0.1133	0.2026
11	**0.7727X**	-0.3776	-0.3878	0.0844	0.0621	0.1270	-0.0930	-0.1030
12	**0.7952X**	-0.4743	0.1589	-0.0776	0.1241	-0.0723	-0.0008	0.0655
13	**0.8991X**	-0.0552	-0.1543	-0.0788	-0.2286	-0.0243	0.1635	-0.1066
14	**0.8808X**	-0.1781	-0.1232	-0.2343	0.0293	0.0979	0.0974	-0.0103
15	**0.7610X**	0.4023	-0.0233	0.1057	0.2546	-0.0558	0.2202	-0.1692
16	**0.8255X**	-0.3775	0.3078	0.0195	-0.0905	0.0069	0.0489	-0.0081
17	**0.8705X**	-0.2758	-0.0427	-0.3457	0.0071	-0.0463	0.0382	0.0063
18	**0.8019X**	-0.3444	-0.3282	-0.2017	0.0348	-0.1071	-0.0385	0.1585
19	**0.7818X**	0.4788	-0.1627	-0.2245	-0.0554	-0.1575	-0.0869	-0.0205
20	**0.7818X**	0.4788	-0.1627	-0.2245	-0.0554	-0.1575	-0.0869	-0.0205
21	**0.9131X**	-0.0712	-0.1631	-0.1712	0.0759	0.1155	0.1343	0.1667
22	**0.8689X**	-0.0430	-0.0019	-0.2943	-0.0080	-0.2341	-0.0972	-0.0521
23	0.6223	**0.6012**	0.3099	0.1385	0.0996	-0.1602	-0.1489	-0.0820
24	**0.7412X**	-0.0526	0.0806	0.3896	-0.1072	0.1478	0.1363	-0.1497
25	**0.8713X**	0.2223	0.1688	-0.2099	0.0696	-0.0170	0.0167	0.1866
26	0.6514	0.1475	-0.1740	-0.0434	-0.2396	0.0727	**0.6314**	-0.0071
27	**0.6457**	0.5397	0.3185	0.0940	0.0004	0.2729	-0.1717	0.1984
28	**0.7417X**	0.2521	-0.3251	0.2121	-0.2625	-0.2063	-0.1160	0.1800
29	0.4339	-0.0064	**0.6599**	-0.0202	0.1659	-0.2227	0.1093	0.4358
30	0.6261	-0.1410	-0.2372	-0.0514	0.0774	**0.5950**	-0.3150	0.1245
31	**0.6947X**	0.4274	-0.0685	0.1257	0.3886	0.0697	0.1140	-0.1334
32	**0.7993X**	0.2469	-0.2994	-0.0074	-0.1056	0.1863	0.1431	0.2521
33	**0.7199X**	0.0331	-0.4092	0.3543	0.0300	-0.3196	-0.1220	-0.0166
Eigenvalues	19.7698	2.9139	2.1772	1.4645	1.4186	1.0514	0.9188	0.7151
Expl. Var.	60	9	7	4	4	3	3	2

Table 2 demonstrates that 33 participants are gathered under eight factors. To determine which participant was collected under which factor according to the answers given by the participants to the items, the significant factor's value was marked with an X, taking into account the significance values of the factor loads of the items. This marking is performed automatically by the PQ-Method program. However, it was determined that the factor loads of some participants' agreement with the statements exceeded the significance value of .61 and took place in more than one factor. It is suggested that if there is less than a .10 difference between the significance values in determining the factor loads. When the participants are loaded on more than one factor, the sign of significance cannot be put, and factor rotation can be used. Therefore, a 10-degree rotation was made between factor 1 and factor 4. Accordingly, it was determined that 27 participants were included in the first factor and one participant in the second, third, fourth, fifth, sixth, and seventh factors. The fact that 27 out of 33 participants, 82% of the group, gathered in the first factor shows that the opinions of the participant group about the use of CBT are collected on a common denominator. It is seen that the first factor, which includes 27 participants, explains 60% of the total variance.

After determining the common denominator of the participants' views, the Z scores of the items are examined to determine which sentence is considered and preferred more. For this reason, the values containing the Z scores, which show the degree of approach to the answers given by the 27 participants gathered under the first factor, are given in Table 3:

Table 3. Z Scores of Statements, Order of İmportance of Statements, and Factor Arrays

Order of importance	Statements	Number of Statements	Z Scores	Factor Arrays
1	By introducing the cognitive model to the client, they can establish the link between emotion, thought, and behavior.	6	1.855	3
2	The problems of the client cannot be discussed in detail with CBT.	10	1.380	3
3	Too much emphasis on thoughts is a disadvantage in CBT.	9	0.949	2
4	With CBT, only some types of problems, such as anxiety, stress, and depression, can be addressed.	12	0.946	2
5	CBT is a theoretical approach that should be adopted for a specific mental problem.	14	0.777	1
6	Since it is not clear how many sessions of CBT will last, this situation becomes a disadvantage for the counselor and the client.	13	0.600	1
7	In CBT, the client's passive position relative to the counselor is a disadvantage.	15	0.542	1
8	The fact that CBT is a structured therapy makes the process monotonous for the counselor and the client.	18	0.515	0
9	CBT can be progressed even if there is no mental problem.	11	-0.004	0
10	CBT is a didactic therapy approach.	17	-0.051	0
11	CBT offers the counselor a real individual counseling practice experience compared to other therapy schools.	7	-0.243	0
12	In CBT, the client is as active as the counselor.	3	-0.429	-1
13	The structured content of CBT guides the counselor and the client.	8	-0.879	-1
14	With CBT, problems such as panic attacks, PTSD (post-traumatic stress disorder), grief, and personality disorders can also be addressed, as well as anxiety, stress, and depression.	16	-0.913	-1
15	An average of 8-10 sessions of CBT is acceptable.	5	-1.017	-2
16	The client does not need to understand the cognitive model to solve their problems.	4	-1.180	-2
17	In CBT, it is not mandatory to introduce the ABC model to the client.	2	-1.356	-3
18	CBT allows one to examine the client's problems in detail in counseling with the individual.	1	-1.491	-3

Table 3 demonstrates that the items the participants evaluate most positively and the statement with the highest Z score are *"By introducing the cognitive model to the client, they can establish the link between emotion, thought and behavior."* Table 3 also demonstrates that the item with the most negative and the lowest Z score is *"CBT allows to examine the client's problems in detail in counseling with the individual."* This results show that the participants believe that the client's understanding of the cognitive model helps them understand the

link of thought, emotion, and behavior and is effective in the progress of the counseling process. At the same time, they think that the client's problems are not examined in detail with CBT. These results show that the participants consider it a disadvantage that the number of sessions in cognitive behavioral therapy is not precise, the counselor is more active than the client, has a didactic aspect of the counseling process, and is a structured therapy type. In the current study, the participants should evaluate 18 items with positive, negative, and neutral content. Considering the order of importance and z scores, factor arrays show a similar distribution. These findings indicate that cognitive behavioral therapy has negative attitudes towards some aspects, such as the high number of sessions, the unclear process, the structured content, and the less active the client.

Qualitative Findings

In Q-methodology research, participants must explain why they wrote the items in -3 and +3 while placing them in the Q-sort. Accordingly, the opinions of the participants, including their approaches to the most and least preferred items, are as follows:

Participants' Reasons for Giving -3 to Statements

Participant 1

"I added statement 6 because the basis of the process is how thoughts affect behavior. Unless the cognitive model is explained, this link may not be understood by the client." (Statement 6)

"I added statement 15 because the client is active. In most of the process, the client's awareness and search for alternative ways are provided by being active." (Statement 15)

Participant 11

"The reason why I wrote the 6th statement is related to the fact that I think structuring in CBT is important. Because I think that it is necessary to understand the model in a process that appeals to cognition." (Statement 6)

"I write the 18th statement because I think that although CBT is a structured therapy, it has a certain flexibility." (Statement 18)

Participant 16

"The clients need to understand the cognitive model so that they can make sense of the process and do what needs to be done according to the cognitive model." (Statement 6)

"In CBT, the client's problems are detailed in the context of emotion, behavior, and thought." (Statement 10)

Participants' Reasons for Giving +3 to Statements

Participant 1

"I added 2nd statement. Because the ABC model used in cognitive behavioral therapy helps the client to distinguish and be aware of their emotions, thoughts, and behaviors, in this way, it becomes easier for us to see the client's automatic thoughts and alternative thoughts that they can create against them." (Statement 2)

"I added 4th statement. Because the methods and models used in cognitive behavioral therapy enable the counselor to be aware of their feelings, thoughts, and behaviors and to establish a connection between them." (Statement 4)

Participant 11

"The reason for writing the 6th statement is that I think that progress is made with homework in CBT, and since we aim at behavioral change by increasing the client's cognitive awareness, they should be able to learn to be their therapist and be active." (Statement 6)

"I wrote the 17th statement because I think that psychoeducation is frequently used in CBT and that it is an important feature of the client's orientation, guiding and instructive dimension." (Statement 17)

Participant 16

> *"The 4th statement manages to solve the problem by establishing the bond of emotion, thought, and behavior with the client. Thanks to the structured content, it is clear what will be done in which session."* (Statement 4)

> *"The fact that the process is structured prevents certain interventions from being made at certain times, thus preventing the case of being early or late."* (Statement 8)

Discussion

This study revealed that the opinions of counselor candidates about the use of CBT in counseling were gathered under a single factor. It was observed that 27 of the participants found the use of CBT effective in psychological counseling and had similar attitudes. These findings show that the participant group found CBT beneficial and had a typical attitude toward using it in individual counseling. However, participants had a negative attitude towards some elements, such as the number of CBT sessions, the role of the client-counselor, structured content, and the need to be short-lived. In CBT, it is recommended to use the cognitive model, which helps the sessions to continue and helps clients better understand the logic of the process (Beck & Beck, 2011). In studies using cognitive behavioral therapy, it is seen that counselors describe the cognitive model to the client in the first stages and establish its connection with the problem (Ateş & Arcan, 2018; Bilge et al., 2020; Dinç & Erden-Çınar, 2018; Örüm, 2021). In the current study, the participants stated that the client's understanding of the cognitive model is practical in continuing the counseling process and is effective in the client's better understanding of the process.

The findings showed that the high number of sessions and the inability to give clear information about the number of sessions to the client at the first stage were also factors that the participants negatively evaluated. This finding suggests that, since the participant group had the opportunity to work more in the school environment after graduation, they may have adopted short-term and solution-oriented approaches rather than long-term therapy approaches, considering the student density and problem types at school. It may have been effective in their negative attitude towards CBT, which is relatively long-lasting. Öz-Soysal et al. (2016) conducted a qualitative study on psychological counselors, it was seen that school counselors mostly preferred CBT and short-term and solution-oriented approaches, and they thought that the short-term approach was more functional in the school environment. In the current study, the participants considered an average of 8-10 sessions acceptable but still thought it an advantage to be shorter.

Another result of the current study indicated that the participants thought that the clients' problems were not discussed in detail with cognitive behavioral therapy and that they were only functional in issues such as depression, stress, and anxiety. This situation has contradictory aspects to CBT theoretical knowledge. At the same time, the participants thought focusing too much on the clients' thoughts with CBT was a disadvantage. However, cognitive and behavioral interventions can be used with CBT (Beck & Beck, 2011; Murdock, 2004). However, the participants may have considered this situation a disadvantage. Since cognitive interventions are usually the first element in structuring counseling sessions, they are handled over a relatively long time and are more resistant to change. While for behavioral interventions, the client can practice after the session, for cognitive interventions, a large part of the session may require a very intense session process and concentration to identify cognitions, examine them with evidence, rebut thoughts and create alternatives. In studies where cognitive behavioral therapy was used to improve various problems, psychological counselors emphasized the application process of cognitive techniques in sessions and gave behavioral techniques homework between sessions (Bilge et al., 2020; Örüm, 2021). It may have been considered a very tiring process for psychological counselors. Therefore, the participants may have regarded too much emphasis on ideas as a disadvantage.

As a result of the research, it was seen that another important factor by the participants was the roles of counselor and client. Since CBT is a structured and didactic approach (Türkçapar, 2018), it is an element that

requires the counselor to use his teaching identity. Ertekin et al. (2014) examined the myths and misconceptions about cognitive behavioral therapy among psychiatrists and psychiatry assistants. As a result of this research, 35 out of 140 participants revealed that they believed CBT was educational and that the therapist informed the patient in a didactic manner and taught him to think better. Wilcockson (2022) indicated that as psychological counselors find the structured aspect of CBT appropriate, the classification of personalization analysis for the client is revealed. Although it is known that CBT has a general framework, it should be changed according to the client's characteristics. This may mean being too directive for a psychological counselor who plans to progress more relationship, individual or solution-oriented. Therefore, the client's belief that they should be more active may have caused them to have a negative attitude.

Results also indicated that participants were less likely to prefer some items. Participants' attitudes were neutral on two items: *"CBT can be progressed even if there is no mental problem."* and *"CBT is a didactic therapy approach."* This result obtained in the research is an expected result. Because in the CBT approach, the counseling process is carried out within the context of a specific psychological problem. However, the participants were less likely to agree with the item *"CBT can be progressed even if there is no mental problem."* and that the counseling process would continue even if there were no significant psychological problems. This result shows that most of the participants think that there should be a significant psychological problem, such as depression, anxiety, or eating disorder, in the progression of the process, similar to the CBT theoretical approach.

Similarly, the z score of the participants who preferred *"CBT is a didactic therapy approach."* is close to zero. This result indicates that the participants found the role of the counselor in the CBT approach less instructive. Although psychological counselors actively use the role of the instructor in the use of some techniques or psychoeducation stages in the CBT approach, they also assume different roles in the process. In this respect, the participants may have thought that the CBT approach is not only a didactic approach and that the counselor has different roles in the process.

Conclusion and Recommendations

As a result of this research, which aimed to determine the opinions of counselor candidates on using the cognitive-behavioral approach in individual counseling with Q-methodology, it was determined that the participants' views were united on a common denominator. Accordingly, the findings show that the participants have some negative attitudes about the high number of sessions, the structured content, and the roles of the client-counselor. Therefore, it can be said that the participants need training and intervention studies to change these negative attitudes. Although CBT is a psychological counseling approach with proven effectiveness in many mental problems, its long duration, structured content, and roles have some disadvantages. Since most of the students who graduated from the field of guidance and psychological counseling in Turkey prefer to work in a school environment, individual counseling sessions with different theoretical orientations may be effective in improving their attitudes toward these psychological counselors, both during in-service training and during their undergraduate education. However, psychological counselors may encounter not only educational problems but also individuals with mental problems such as depression, anxiety, stress, and PTSD in the school environment. Therefore, practices can be carried out so that clients can develop positive attitudes about the use and necessity of CBT, which has proven effective in solving such problems.

Limitations

There are some limitations of this study, in which it was revealed that counselor candidates' views on cognitive-behavioral approach are united on a common denominator:

The number of female participants in this study is higher than that of male participants. Although this research does not focus on examining the differentiation of attitudes according to gender, a more balanced distribution can be achieved in future studies, and how attitudes differ by gender can be examined.

Since this study's findings show that counselors have negative attitudes toward issues such as the long application period of CBT and the relatively less active client, training programs can be given to counselor candidates to help them develop positive attitudes.

Conflict of interest. On behalf of all authors, the corresponding author states that there is no conflict of interest.

Data availability statement. The corresponding author's data supporting this study's findings are available upon reasonable request.

Ethics Approval and Consent to Participate: The ethics committee approval of the study was obtained from the Atatürk University Institute of Educational Sciences Educational Sciences Unit Ethics Committee on 30/03/2023 (Protocol no: 04/09).

References

Ateş, N., & Arcan, K. (2018). Panik bozuklukta bilişsel davranışçı terapi: bir olgu sunumu (Cognitive behavioral therapy in panic disorder: a case study). *AYNA Klinik Psikoloji Dergisi*, *5*(3), 61-78. https://doi.org/10.31682/ayna.468240

Beck, J. S., & Beck, A. T. (2011). *Cognitive behavior therapy.* Guilford Publication.

Bengisoy, A., Özdemir, M. B., Erkıvanç, F., Şahin, S., & İskifoğlu, T. Ç. (2019). Bilişsel davranışçı terapi kullanılarak yapılan araştırma makalelerinin içerik analizi 1997-2018 (The content analysis of the research articles about cognitivebehavioural therapy between 1997-2018). *Turkish Psychological Counseling and Guidance Journal*, *9*(54), 745-793.

Bilge, Y., Gül, E., & Birçek, N. I. (2020). Bir sosyal fobi vakasında bilişsel davranışçı terapi ve sanal gerçeklik kombinasyonu (Cognitive behavioral therapy and virtual reality combination in a case of social phobia). *Bilişsel Davranışçı Psikoterapi ve Araştırmalar Dergisi*, *9*(2), 158-165.

Blom, K., Tillgren, H. T., Wiklund, T., Danlycke, E., Forssén, M., Söderström, A., Johansson, R., Hesser, H., Jernelöv, S., & Lindefors, N. (2015). Internet-vs. group-delivered cognitive behavior therapy for insomnia: a randomized controlled non-inferiority trial. *Behaviour Research and Therapy, 70,* 47-55. https://doi.org/10.1016/j.brat.2015.05.002

Conte, H. R., Plutchik, R., Picard, S., & Karasu, T. B. (1991). Can personality traits predict psychotherapy outcome? *Comprehensive Psychiatry, 32*(1), 66-72. https://doi.org/10.1016/0010-440X(91)90071-J

Corey, G. (2015). *Theory and practice of group counseling.* Cengage Learning.

Demir, F. & Kul, M. (2011). Modern bir araştırma yöntemi Q Metodu (A modern research method Q Method). Adalet Yayınevi.

Dinç, S., & Erden-Çınar, S. (2019). Bilişsel davranışçı yaklaşıma dayalı grupla psikolojik danışma uygulamasının üniversite öğrencilerinin gelecek kaygıları ve yetkinlik inançları üzerine etkisi (The effect of cognitive behavioural group counselling on future anxiety and competence belief of university students). *E-Uluslararası Eğitim Araştırmaları Dergisi*, *10*(3), 15-28.

Donner, J. C. (2001). Using Q-sorts in participatory processes: An introduction to the methodology. *Social Development Papers,* 36, 24-49.

El Alaoui, S., Hedman, E., Kaldo, V., Hesser, H., Kraepelien, M., Andersson, E., Rück, C., Andersson, G., Ljótsson, B., & Lindefors, N. (2015). Effectiveness of Internet-based cognitive–behavior therapy for social anxiety disorder in clinical psychiatry. *Journal of Consulting and Clinical Psychology, 83*(5), 902-914. https://doi.org/10.1037/a0039198

Ertekin, E., Ergun, B. M., & Sungur, M. Z. (2015). Psikiyatristler ve psikiyatri asistanlarında bilişsel-davranışçı terapi hakkında mitler ve yanlış bilinenler (Misconceptions and myhts about cognitive-

behavioral therapy among psychiatrists and psychiatry residents). *Anatolian Journal of Psychiatry/Anadolu Psikiyatri Dergisi*, *16*(1), 60-64.

Karasu, M., & Peker, M. (2019). Q yöntemi: Tarihi, kuramı ve uygulaması (Q method: History, theory and application). *Türk Psikoloji Yazıları, 22*(43), 28-39. https://doi.org/10.31828/tpy1301996120181122m000003

Kealy, D., Goodman, G., Rasmussen, B., Weideman, R., & Ogrodniczuk, J. S. (2017). Therapists' perspectives on optimal treatment for pathological narcissism. *Personality Disorders: Theory, Research, and Treatment, 8*(1), 35–45. https://doi.org/10.1037/per0000164

Kreft, J. (2017). *An exploration of trainee high-intensity therapist's views of self-disclosure in clinical supervision using q-methodology and semi-structured interviews*. [Masters dissertation, University of Chester]. University of Chester Repository.

Lambert, M. J., & Ogles, B. (2004). The efficacy and effectiveness of psychotherapy. In, MJ Lambert (Ed.) *Bergin and Garfields handbook of psychotherapy and behavior change* (pp. 139-193). Wiley.

López-López, J. A., Davies, S. R., Caldwell, D. M., Churchill, R., Peters, T. J., Tallon, D., Dawson, S., Wu, Q., Li, J., & Taylor, A. (2019). The process and delivery of CBT for depression in adults: a systematic review and network meta-analysis. *Psychological Medicine, 49(*12), 1937-1947. https://doi.org/10.1017/S003329171900120X

Memiş, L. (2020). Kentsel aktörlerin sürdürülebilirlik algıları: q-metodoloji yöntemiyle bir araştırma (Sustainability perceptions of urban actors: a research with Q-Methodology method). *Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi*, *22*(1), 244-260.

Murdock, N. L. (2004). *Theories of counseling and psychotherapy: A case approach.* Pearson Education.

O'Donohue, W. T., & Fisher, J. E. (2009). *General principles and empirically supported techniques of cognitive behavior therapy.* John Wiley & Sons, Inc.

Oud, M., De Winter, L., Vermeulen-Smit, E., Bodden, D., Nauta, M., Stone, L., Van Den Heuvel, M., Al Taher, R., De Graaf, I., & Kendall, T. (2019). Effectiveness of CBT for children and adolescents with depression: A systematic review and meta-regression analysis. *European Psychiatry, 57,* 33-45. https://doi.org/10.1016/j.eurpsy.2018.12.008

Örüm, M. H. (2021). Obsesif-kompülsif bozukluğun ruminasyon ve temizlik alt boyutlarındaki bilişsel hataların bilişsel davranışçı tedavi ile değişimlerinin karşılaştırılması (Comparison of alterations of cognitive errors in rumination and cleaning dimensions of obsessive-compulsive disorder with cognitive behavioral treatment). *Kırıkkale Üniversitesi Tıp Fakültesi Dergisi*, *23*(3), 635-644.

Özmen, H., & Karamustafaoğlu, O. (2019). *Eğitimde araştırma yöntemleri (Research methods in education).* Pegem Akademi.

Öz-Soysal, F. S., Uz-Baş, A., & Aysan, F. (2016). Okul psikolojik danışmanlarının psikolojik danışma yaklaşımlarına ilişkin görüşleri (Views of school counselors on psychological counseling). *Türk Psikolojik Danışma ve Rehberlik Dergisi, 6*(46), 53-69.

PQ Method. (2023). Retrieved March 11, 2023, from http://schmolck.org/qmethod/

Sandell, R., Blomberg, J., Lazar, A., Carlsson, J., Broberg, J., & Schubert, J. (2000). Varieties of long-term outcome among patients in psychoanalysis and long-term psychotherapy: A review of findings in the stockho. *International Journal of Psycho-Analysis, 81*(5), 921-942.

Sandell, R., Lazar, A., Grant, J., Carlsson, J., Schubert, J., & Broberg, J. (2007). Therapist attitudes and patient outcomes: II. therapist attitudes influence change during treatment. *Psychotherapy Research, 17*(2), 196-204. https://doi.org/10.1080/10503300600608439

Sharf, R. S. (2015). *Theories of psychotherapy & counseling: Concepts and cases.* Cengage Learning.

Simon, N., McGillivray, L., Roberts, N. P., Barawi, K., Lewis, C. E., & Bisson, J. I. (2019). Acceptability of internet-based cognitive behavioural therapy (i-CBT) for post-traumatic stress disorder (PTSD): a systematic review. *European Journal of Psychotraumatology, 10*(1), 1646092. https://doi.org/10.1080/20008198.2019.1646092

Skelcher, C., Sullivan, H., Jeffares, S. (2013). Governing subjectivities: a Q methodology study. In: *Hybrid governance in european cities. understanding governance series.* Palgrave Macmillan, London. https://doi.org/10.1057/9781137314789_5

Springer, K. S., Levy, H. C., & Tolin, D. F. (2018). Remission in CBT for adult anxiety disorders: A meta-analysis. *Clinical Psychology Review, 61,* 1-8. https://doi.org/10.1016/j.cpr.2018.03.002

Stephenson, W. (1953). *The study of behavior; Q-technique and its methodology.* University of Chicago Press.

Stenner, P., & Watts, S. (2012). *Doing Q methodological research: Theory, method & interpretation.* Sage Publications Ltd

Stone, T., & Turale, S. (2015). Q methodology: An introduction. *Pacific Rim International Journal of Nursing Research, 19*(3), 183-186.

Türkçapar, M. H. (2018). *Bilişsel davranışçı terapi temel ilkeler ve uygulama (Basic principles and practice of cognitive behavioral therapy).* Epsilon Yayınevi.

Watts, S., & Stenner, P. (2007). Q methodology: the inverted factor technique. *The Irish Journal of Psychology*, *28*(1-2), 63-76. https://doi.org/10.1080/03033910.2007.10446249

Weber, B. W. (2020). *Counselor viewpoints on the formation of theoretical orientation*. Kansas State University. (Publication No. 28154971) Proquest dissertations & theses global.

Wilcockson, M. (2022). Conflicts of identity–How counsellors practice CBT 5 years post qualification. *Sciences*, *11*(2), 42-50. https://doi.org/10.11648/j.pbs.20221102.11

RESEARCH ARTICLE

The Mediating Role of Cognitive Flexibility in the Relationship between Intolerance of Uncertainty and Subjective Well-Being in High School Students during the COVID 19 Pandemic

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ABSTRACT

The COVID-19 pandemic brought some uncertain and new changes in life patterns. These changes have had psychological effects on high school students as well as in all age groups. This study aimed to examine the mediating role of cognitive flexibility between intolerance of uncertainty and subjective well-being in high school students during the COVID-19 pandemic. Participants of the study consisted of 437 high school students (234 females and 203 males) in Turkey. They completed measures of intolerance of uncertainty, cognitive flexibility, and adolescent subjective well-being. The hypothetical model developed in order to determine whether cognitive flexibility mediates in the relationship between intolerance of uncertainty and subjective well-being was tested through Structural Equation Modeling. The results of the study revealed that intolerance of uncertainty had a significant direct effect on subjective well-being. Cognitive flexibility partially mediated the association between intolerance of uncertainty and subjective well-being for the high school students during the COVID-19 pandemic. Practitioners can create psychoeducational programs to decrease intolerance of uncertainty and increase the cognitive flexibility levels of the students. The practitioners can apply these programs to high school students.

In the days when the world was preparing to meet the year 2020, it encountered the Coronavirus (COVID-19) pandemic that emerged in China. The pandemic affected many countries in a short time. From March 11, 2020, when the epidemic was declared as a global epidemic by the World Health Organization (WHO, 2023), 767 million people were infected and approximately seven million people died. In parallel with many countries, the spread of the pandemic could not be stopped in Turkey, and the virus was transmitted to approximately 17 million people and 101 thousand deaths occurred until May, 2023 (Republic of Turkey Ministry of Health. 2023; WHO 2023).

Many measures were taken both in other countries and in Turkey to reduce the risk of transmission of this virus. Some of these measures can be listed as the transition to distance education at all levels of education, the prohibition of citizens over 65 and under 20 from going out, street restrictions on weekends and official holidays, night curfews, closure of socialization areas such as movie theaters and restaurants. The measures

taken to prevent the transmission of the virus caused changes in the lifestyles of individuals, reduced their daily interactions and social relationships, and increased the feeling of loneliness (Zandifar & Badrfam, 2020). On the other hand, the fear, anxiety and stress levels of individuals also increased (Rajkumar et al., 2020). Some factors including the uncertainty of the disease, the lack of knowledge about the disease, the fear of people losing their loved ones, and feeling that they are not in control triggered the state of anxiety and fear about the epidemic (Brooks et al., 2020). In short, COVID-19 is not only a fatal disease, but also poses a serious risk to the mental health of the community (Duan & Zhu, 2020; Huang & Zhao, 2020).

High school students in adolescent period were also affected by these COVID-19 related negativities (Camacho-Zuniga et al., 2021). COVID-19 pandemic threatened the mental health of high school students (Williams et al., 2021). In epidemic situations, especially adolescents are at higher risk for poor mental health (Kar & Bastia, 2006). The COVID-19 pandemic and quarantine have affected adolescents' lives in different ways. As adolescents spend less time with family members, they improve a tendency to construct cliques and they start to spend time with their peers in these cliques. During this period, self-esteem further differentiates and, for most adolescents, increases. Academic performance, peer acceptance, and the larger social environment all influence self-esteem (Berk, 2018).

It is thought that long-term curfew, difficulties in adapting to distance education, not being able to meet face-to-face with friends, and conflicts with parents because of having to stay home for a long time may negatively affect the mental health of high school students. Throuhout the COVID 19 pandemic, many issues such as when the pandemic will end, whether a drug will be found, the nature of the mutated virus, and whether there will be possible new mutations have caused uncertainty. It has been predicted that the uncertainty brought about by the pandemic may be an important stress factor for all people and especially high school students.

Intolerance of Uncertainty

Uncertainty, which is defined as the uncertainty of the future and expectations about the future, creates negative psychological effects (Sarıcam et al., 2014). The predisposition to react emotionally, cognitively and behaviorally from a negative perspective to uncertain events and situations manifests itself as intolerance (Buhr & Dugas, 2002). Intolerance of uncertainty is defined as the dispositional fear that underlies emotional difficulties and causes anxiety when uncertainty is perceived intensely (Fergus, 2013). Individuals who have a high level of intolerance of uncertainty tend to perceive uncertainty as negative and threatening (Dugas et al., 2005). They tend to exaggerate the possibility of unexpected negative events when interpreting uncertain information (Yook et al., 2010).

It has been demonstrated that intolerance of uncertainty is the main component of common anxiety disorders (Dugas et al., 2005; Moris et al., 2016). In addition, intolerance of uncertainty is positively associated with depression (Butzer & Kuiper, 2008; Yok et al., 2010). It may play a greater role in the etiology of worry in adolescents (Lugas et al., 2012). Laugesen et al. (2003) examined the relation between worry and intolerance of uncertainty, negative problem orientation, positive beliefs about worry and cognitive avoidance among adolescents. They demonstrated that intolerance of uncertainty had the strongest association with worry scores, and intolerance of uncertainty was the most important variable in discriminating between moderate and high worriers. The characteristics of worry tend to change with age, going from more concrete concerns in childhood to abstract concerns in adolescence (Benctein et al., 1996). Furthermore, during adolescence, the individual tries to make plans and decisions for the future. Therefore, individuals may encounter uncertainties during adolescence. Bakioğlu et al. (2021) found the relationship between intolerance of uncertainty and some other negative effects, such as depression, anxiety, and stress during the COVID-19 pandemic. Intolerance to uncertainty during the COVID-19 pandemic negatively affects the subjective well-being of individuals (Satici et al., 2020).

Subjective Well-Being

Well-being represents positive emotions and positive social interactions as well as the absence of a disease or illness (Schueller, 2009). Subjective well-being refers to an individuals' evaluation of their life positively or negatively. Subjective well-being consists of positive affection, negative affection and life satisfaction (Diener, 2000). Subjective well-being occurs in the presence of life satisfaction, positive emotions and absence of negative emotions (Diener, 2006). It was demonstrated that there are four important factors affecting

adolescent subjective well-being: having supportive parents, being able to handle difficult tasks, experiencing positive life events, and being highly satisfied with relationships with important individuals (Park, 2004). COVID-19 pandemic is a negative life event and has caused a decline in individuals' subjective well-being (Zacher & Rudolph, 2020).

Cognitive Flexibility

Adolescents need to cope with biological changes related to maturing, developing a successful identity across many fields, get familiar with new environments, meet new people and achieve academic success. On the other hand, high school students have had to dealt with for a more livable life during the difficult pandemic period. It is thought that high school students in adolescence period may need cognitive flexibility to meet these demands successfully.

Cognitive flexibility, defined as the potential to switch from one thought to another, to adapt to different situations, or to look at different problems with multi-faceted strategies (Martin & Rubin, 1995), could be a skill that can contribute to the subjective well-being of the high school students. Cognitive flexibility emphasizes that the individual is flexible in the face of new situations, aware of alternative solution options and ways, and feels competent in these situations (Martin & Anderson, 1998; Martin & Rubin, 1995). Dennis and Vander Wal (2010) emphasized that cognitive flexibility is the ability of an individual to change their cognitions according to changing environmental conditions. They explained cognitive flexibility as the ability to perceive that there may be alternatives to situations that arise in life and human behavior, the tendency to control difficult situations and the ability to produce many solutions in order to solve difficult situations.

As can be understood from the definitions, cognitive flexibility is an important skill that enables an individual to be flexible in adapting to new situations. Cognitive flexibility is associated with goal-oriented behaviors including creativity, problem solving, and decision-making (Gabrys et al., 2018) and enables an individual to cope with crisis situations (Yildiz-Akyol & Boyaci, 2020). Because of these features, it is thought that cognitive flexibility may be a variable that affects well-being of high school adolescent students during the COVID-19 pandemic. Therefore, cognitive flexibility may play an important mediating role in the relationship between intolerance to uncertainty and subjective well-being.

The Current Study

High school students are one of the groups most affected by the measures taken to be protected against the COVID-19 pandemic. It is known that intolerance of uncertainty has the consequences of generalized anxiety (Dugas et al., 2005; Carleton et al., 2012), and depression (Carleton et al., 2012). Intolerance to uncertainty negatively affects individuals' level of happiness (Yildiz & Eldeleklioglu, 2021), and their well-being (Satici et al., 2020). It was found to be positively correlated with the level of cognitive flexibility (Yildiz & Eldeleklioglu, 2021).

In this context, the research has been deemed important in terms of aiming to provide information to interventions that will increase students' subjective well-being by evaluating the relationship between the level of intolerance of uncertainty and their well-being and whether cognitive flexibility has a mediating role in this relationship. In other words, this research has been deemed important in terms of providing evidence for preventive interventions that can be applied to prevent the possible unwanted psychological consequences of the COVID-19 outbreak. In addition, the study was thought to be important, as it was the first study to reveal the mediating role of cognitive flexibility between intolerance to uncertainty and well-being. For this purpose, an answer was sought to the following question: Does cognitive flexibility mediate the relationship between high school students' intolerance to uncertainty and their subjective well-being in the COVID-19 pandemic?

Method

Participants and Procedure

The study comprised of 437 high school students in Turkey. The participants were determined by using random sampling method. 234 (%53.55), of the participants are female 203 (56.45) are male and 184 (42.1%) of the participants are 9th grade, 80 (18.3%) 10th grade, 121 (27.7%) 11th grade, 52 (11%) 12th grade students. Prior

to the administration of data collection tools, the Informed Consent Form prepared by the researcher was sent to guardians of the participants. Guardians of the participants have read and approved this form. The data collection tools used in the study were sent to the participants via a link prepared by using Google Forms, and all the data were collected online. The study was approved by Local Ethics Committee.

Data Collection Tools

Intolerance of Uncertainty Scale. The Short Version of the Intolerance of Uncertainty Scale (IUS; Carleton et al., 2007) was used. IUS was adapted to Turkish by Sarıcam et al. (2014). This scale has 12 items and a 5-point Likert type. The total scores alter between 12 and 60, and an increase in scors indicates an increase in intolerance of uncertainty. The scale has two subscales named as prospective anxiety and inhibitory anxiety. Researchers have reported that the Turkish version is both acceptable and reliable (Sarıcam et al., 2014). In this study, IUS's Cronbach's alpha reliability coefficient has been found as 88.

Cognitive Flexibility Inventory. In order to measure the cognitive flexibility of participants, Cognitive Flexibility Inventory (CFI) was used. The scale was developed by Dennis and Vander Wal (2010) and was adapted to Turkish by Sapmaz and Dogan (2013). The CFI has 20-item 5-point Likert-type. The total points vary between 20 and 100 and the increase in scores indicates an increase in cognitive flexibility. Researchers showed that the Turkish version is both reliable and acceptable (Sapmaz & Dogan, 2013). In this study, Cronbach's alpha reliability coefficient of the scale has been found as 0.91.

Adolescent Subjective Well-being Scale. In order to measure the subjective well-being of participants, Adolescent Subjective Well-Being Scale (ASWBS) was used. The scale was developed by Eryilmaz (2009). It consists of 15 items and a 4-point Likert scale. The total scores alter between 15 and 60 and the increase in scores shows a stronger sense of subjective well-being. The scale has four subscales named as satisfaction from family relationships, positive emotions, satisfaction from relationships with important others, and life satisfaction. Researcher has reported that ASWBS is both acceptable and reliable (Eryilmaz, 2009). In this study, Cronbach's alpha reliability coefficient of the scale has been found as 0.87.

Data Analysis

The PROCESS macro for the SPSS (Model 4, Hayes, 2018) was conducted to analyses the model used to test mediating effect of cognitive flexibility in the relationship between intolerance of uncertainty and subjective well-being in high school students during the COVID 19 Pandemic. In the analysis 5000 bootstrap samples were conducted with confidence intervals of 95%. Since the confidence intervals do not comprise of zero, they may be concluded that they have statistical value (Hayes, 2018).

Results

Preliminary Analyses

Before proceeding with the analysis, the necessary assumptions were examined. It was observed that the skewness of the variables varied between -30 and 0.17, and kurtosis of the variables varied between -41 and -21. This analysis showed that normality criteria were met. In addition, the Durbin Watson value was found to be 1.96, the variance inflation factor values were found to be between 1.22 and 1.61, and the tolerance value was found to be between 0.62 and 0.82. As a result of these analyses, it was determined that there were no multicollinearity or residual problems and the assumptions were met.

The study analyzed the correlations and descriptive statistics of the variables. Correlations and descriptive statistics of the variables are given in Table 1. Intolerance of uncertainty and subjective well-being have a negative correlation (r=-.312) and cognitive flexibility (r=.167) is a negative one. On the other hand, the relation between cognitive flexibility and subjective well-being however is positive in nature (r=315).

Under this heading assumptions were also evaluated. The presence of multivariate normality in a data set can be ascertained by examining the normality, linearity, homoscedasticity for each one of the variables. Skewness and kurtosis values are studied in order to identify whether the variables in the data set have normal distribution. These values are expected to range between -1.5 and +1.5 (Tabachnik & Fidell, 2012). Furthermore, the absence of multiple linear relationship is one of the assumptions of structural equation

analysis. An intervariable relationship value of .90 and above is the sign of a multiple relationship issue (Tabachnick & Fidell, 2012).

Table 1. Correlation and descriptive statistics for the variables

Variables	1	2	3
1. Intolerance of Uncertainty	-		
2. Cognitive Flexibility	-.167**	-	
3. Subjective Well-Being	-.312**	.315**	-
Mean (x̄)	39.20	73.46	46.84
Standard Deviation (SD)	10.47	13.36	8.39
Skewness	-.319	-.111	-.595
Kurtosis	-.554	-.415	-.063

As you show in Table 1, all the variables analyzed in this study were found to have skewness values of -2 and +2. In addition, the correlation between the variables of the study were found as -.167, -.312 and 315 (p <.01). Consequently, no multiple relationship problem exists among the variables.

Hypothetical Model Analysis

First of all, it was examined whether the independent variable had a significant effect on the dependent variable. The analysis performed for this purpose is shown in Figure 1.

Figure 1. Regression analysis result regarding how intolerance of uncertainty predicts subjective well-being

Note; *p<.001
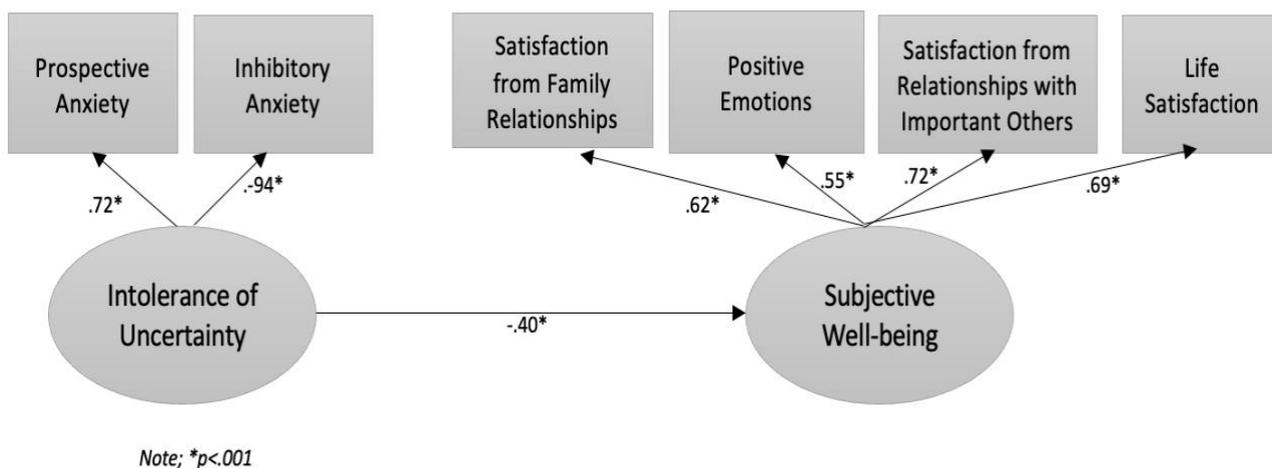
As it can be seen in Figure 1, the analysis revealed that subjective well-being is significantly predicted by intolerance of uncertainty (β=-.40. p<.001). Thus, it can be submitted that the first assumption stated by Baron and Kenny (1986) before testing mediation.

For mediation effect, the independent variable must have a significant effect on the mediator variable. In addition, when the mediator variable is included in the regression analysis with the independent variable, the effect of the independent variable on the dependent variable decreases or becomes meaningless, while the mediator variable must have a significant effect on the dependent variable (Baron & Kenny, 1986). In line with these suggestions, the mediating effect was tested and the hypothetical model regarding the mediating role is presented in Figure 2. As seen in the model in Figure 2, when cognitive flexibility, which is the mediator variable, is included in the hypothetical model, this effect decreases but still remains significant (β = -. 26, p <.001). Hence, cognitive flexibility showed a partial mediation between intolerance to uncertainty and subjective well-being.

Figure 2. Hypothetical model
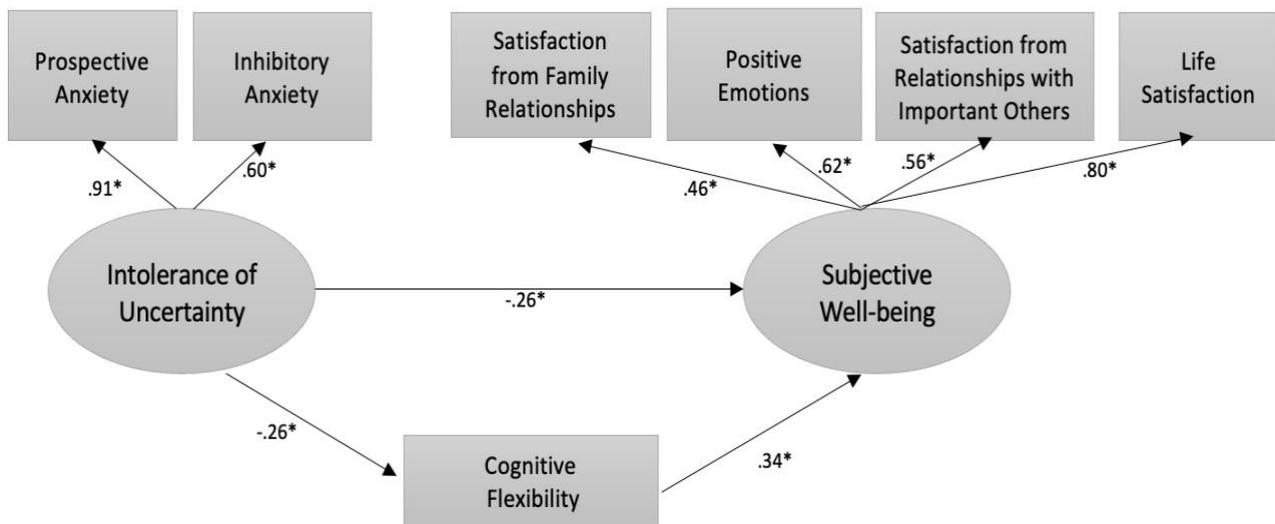
Note; *p<.001

As seen in the direct effects in Figure 2, intolerance of uncertainty predicted cognitive flexibility negatively (β = -. 26, p <.001). Cognitive flexibility predicted subjective well-being positively (β = .34, *p*<.001). The direct effect of intolerance of uncertainty on subjective well-being was -.40. When cognitive flexibility, which is the mediator variable, is included in the hypothetical model, this effect decreases but still remains significant (β = .- 26, p <.001). Therefore, cognitive flexibility showed a partial mediation between intolerance to uncertainty and subjective well-being.

When the fit indexes of the structural model are examined, it is seen that the result is 3.68 when Chi Square value is divided by degree of freedom. In addition, the goodness of fit indexes of the model were calculated as follows: GFI: .98, CFI: .96, AGFI: .94, NFI: .95 and RMSEA: .08. The values are within the range of good fitness values.

Table 2 below displays the bootstrapping coefficient, which was calculated by using 10.000 resampling method and shows whether the indirect effects of the partial mediation determined in the model are significant. The table also displays lower and upper bounds of 95% confidence intervals.

Table 2. Bootstrapping results

Indirect effects	Coefficient	SE	%95 Confidince interval		p
			Lower limit	Upper limit	
Intolerance of uncertainty → Cognitive flexibility →Subjective well-being	-.088	. 133	-.131	-.059	.000*

*Not: *p <.01*

Table 2 Bootstrapping results regarding the mediation of cognitive flexibility between intolerance of uncertainty and subjective well-being. In order to evaluate whether the indirect effect resulting from bootstrapping is significant, it is determined according to whether the mediator variable contains zero within the lower and upper limits of the 95% confidence interval of the point estimation. If the confidence intervals do not include zero, it is concluded that the indirect effect is significant (Shrout & Bolger, 2002). It can be seen Table 2 bootstrap analysis shows that partial mediation model is significant. Bootstrap confidence intervals do not include the upper and lower limits of zero. Therefore, the significance of the mediating effect of cognitive flexibility between intolerance of uncertainty and the subjective well-being was supported.

Discussion

The Covid 19 pandemic or other possible pandemics may continue to affect many people lives. It was thought that high school students were also affected by this pandemic mentally, and it was considered important to investigate the variables that affect the well-being levels of high school students. Therefore, this study aimed to investigate the relationship between the level of intolerance to uncertainty and well-being of high school students during the COVID-19 pandemic and whether cognitive flexibility has a mediating role in this relationship.

The results of the study revealed that high school students' intolerance of uncertainty negatively and significantly predicted cognitive flexibility. As high school students' intolerance to uncertainty levels increased, their cognitive flexibility levels decreased.

This finding of the study supported the findings of other studies (Demirtas & Yildiz, 2019; Yildiz & Eldeleklioğlu, 2020) that had revealed the negative relationship between intolerance of uncertainty and cognitive flexibility. To be cognitively flexible, one needs to focus his attention regularly on changing conditions. In addition, in order to adapt his behaviors to new conditions, the person needs to reconstruct his knowledge to interpret the new situation and new needs effectively (Canas et al., 2006). The COVID-19 outbreak has caused many changes in the lives of high school students. Many new situations such as applying the measures announced by official authorities to prevent the transmission of the virus, adapting to distance education, restricting contact with friends, having to spend longer time at home have entered the lives of high school students. These changes in the life styles of high school students required the restructuring of knowledge and behavior. This requirement, which occurs in uncertainty situations, emphasizes the cognitive flexibility feature.

Cognitive flexibility is the ability of an individual to adapt cognitive processing strategies to face new and unexpected conditions in the environment (Canas et al., 2003). Individuals with a high level of intolerance of uncertainty tend to exaggerate the possibility of unforeseen negative events when interpreting uncertain information (Yook et al., 2010). Therefore, it can be said that students who focus more on the negativities tend to exaggerate while interpreting these negativities. In other words, students with high levels of intolerance of uncertainty have low cognitive flexibility levels.

The results of the study revealed that high school students' cognitive flexibility positively and significantly predicts subjective well-being. As high school students' cognitive flexibility levels increase, their subjective well-being levels increase. In the literature cognitive flexibility is positively associated with happiness (Yildiz & Eldeleklioglu, 2021), psychological well-being (Cardom, 2016), well-being (Asici & İkiz, 2015; Fu & Chow, 2016, Koesten, et al., 2009); subjective well-being (Metzl, 2009). It is stated that individuals with high cognitive flexibility are better equipped to solve personal problems and cope with stress, and this increases mental and cognitive health (Koesten et al., 2009). Keith et al. (2015) stated that cognitive flexibility decreases the level of post-traumatic stress symptoms and that there are positive relationships between high level of cognitive flexibility and post-traumatic growth and optimistic expectations for the future. It is known that individuals with high level of cognitive flexibility look for more alternatives and feel themselves more competent while solving their problems (Dennis & Vander Wal, 2010). In this study, students with high levels of cognitive flexibility, who faced new situations during the COVID-19 outbreak, showed high levels of well-being.

According to the result of the study, cognitive flexibility has been mediated partially between intolerance of uncertainty and subjective well-being. In the literature, there is no study focusing on the mediation of cognitive flexibility between intolerance to uncertainty and subjective well-being levels. However, cognitive flexibility mediates the relationship between exposure to trauma and life satisfaction (Fu & Chow, 2016) and the relationship between hopelessness and perceived stress (Demirtas & Yildiz, 2019).

The COVID-19 pandemic is a stressful situation in life. It has also brought many uncertainties. Individuals with a high level of intolerance of uncertainty tend to consider situations involving uncertainty as sad and stressful situations and avoid uncertainty (Buhr & Dugas, 2002). Therefore, in this study, high school students

with a high level of intolerance to uncertainty may evaluate the COVID-19 pandemic as a sad and stressful situation and so they could not use appropriate coping strategies, in other words, they could not display cognitive flexibility. Because it is known that individuals who can evaluate stressful situations more effectively and use appropriate strategies show cognitive flexibility (Dennis & Vander Wall, 2010). Because it is known that individuals who can evaluate stressful situations more effectively and use appropriate strategies show cognitive flexibility (Dennis & Vander Wall, 2010). Individuals with cognitive flexibility consider the difficult situations they encounter as more manageable and can discover new ways. They can change the thoughts that force them to more harmonious ones (Gulum & Dag, 2012). Individuals with flexible cognitions may be easier to adapt to difficult life events (Keith et al., 2015). It is an expected result that individuals who adapt to difficult life events and have high cognitive flexibility have high levels of well-being. As a matter of fact, Koesten et al. (2009) founded that adolescents who are cognitively flexible are more competent in managing their personal problems and stressful experiences, and these characteristics increase their subjective well-being. Metzl (2009) also revealed that the effect of cognitive flexibility in predicting subjective well-being, which emerged as life satisfaction after Hurricane Katrina, and stated that subjective well-being of cognitive flexibility after an adverse event made an important contribution.

Limitations

This research has some limitations. First, the research data were collected through self-report scales. Using more than one method in data collection may be effective in reducing bias in answering questions. Secondly, the data were obtained only from high school students in Istanbul province. Therefore, the research may need to be repeated both in other provinces of Turkey and in other countries.

Suggestions

The result of the study revealed that cognitive flexibility mediated partially in the relationship between intolerance of uncertainty and subjective well-being in high school students. As the intolerance of uncertainty decreases, cognitive flexibility increases and as cognitive flexibility increases, subjective well-being increases. For this reason, some suggestions are included for practitioners, families, and researchers.

Practitioners should create psychoeducational programs that can decrease intolerance of uncertainty and increase the cognitive flexibility levels of students, and apply these programs to high school students. In this way, support and contribution would be made in terms of reducing intolerance of uncertainty and increasing cognitive flexibility. Thus, subjective well-being of high school students would increase.

Families may play a role in the development of cognitive flexibility. Therefore, organizing seminars where families are provided with theoretical information about cognitive flexibility and practical information about how to increase cognitive flexibility in adolescents can make an augmentation in adolescents' cognitive flexibility.

In the future, researchers should investigate what cognitive flexibility means in high school students and the factors that increase cognitive flexibility using qualitative research methods. For these purposes, researchers should use the Online Photovoice (OPV) method, which is among the qualitative research methods. Researchers also should use Online Photovoice method to understand what contributes to the students' subjective wellbeing and what cause intolerance to uncertainty and improve functional implications at individual, group, school and community levels.

References

Asici, E., & İkiz, F. E. (2015). A pathway to happiness: Cognitive Flexibility. *Mehmet Akif Ersoy University Journal of Education Faculty, 1*(35), 191-211.

Bakioğlu, F., Korkmaz, O., & Ercan, H. (2021). Fear of COVID-19 and positivity: Mediating role of intolerance of uncertainty, depression, anxiety, and stress. *International Journal of Mental health and Addiction, 19*, 2369-2382. https://doi.org/10.1007/s11469-020-00331-y

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173. https://doi.org/10.1037/0022-3514.51.6.1173

Bernstein, G. A., Borchardt, C. M., & Perwien, A. R. (1996). Anxiety disorders in children and adolescents: a review of the past 10 years. *Journal of the American Academy of Child & Adolescent Psychiatry, 35*, 1110–1119. https://doi.org/10.1097/00004583-199609000-00008

Berk, L.E. (2018). *Development Through the Lifespan* (7th. Ed.). Person.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet, 395*(10227), 912-920. https://doi.org/10.1016/S0140-6736(20)30460-8

Buhr, K., & Dugas M. J. (2002). The intolerance of uncertainty scale: Psychometric properties of the English version. *Behaviour Research and Therapy, 40*(8), 931- 45. https://doi.org/10.1016/S0005-7967(01)00092-4

Butzer, B., & Kuiper, N. A. (2006). Relationships between the frequency of social comparisons and self-concept clarity, intolerance of uncertainty, anxiety, and depression. *Personality and individual differences, 41*(1), 167-176. https://doi.org/10.1016/j.paid.2005.12.017

Camacho-Zuniga, C., Pego, L., Escamilla, J., & Hosseini, S. (2021). The impact of the COVID-19 pandemic on students' feelings at high school, undergraduate, and postgraduate levels. *Heliyon*, e06465. https://doi.org/10.1016/j.heliyon.2021.e06465

Canas, J., Quesada, J., Antoli, A., & Fajardo, I. (2003). Cognitive flexibility and adaptability to environmental changes in dynamic complex problem-solving tasks. *Ergonomics, 46*(5), 482-501. https://doi.org/10.1080/0014013031000061640

Canas, J. J., Fajardo, I., & Salmeron, L. (2006). Cognitive flexibility. *International Encyclopedia of Ergonomics and Human Factors, 1*, 297-301.

Cardom, R. D. (2016). *The Mediating Role of Cognitive Flexibility on the Relationship between Cross-Race Interactions and Psychological Well-Being* [Doctoral Dissertation, University of Kentucky]. University of Kentucky Repository. http://dx.doi.org/10.13023/ETD.2016.246

Carleton, R. N., Norton, M. P. J., & Asmundson, G. J. (2007). Fearing the unknown: A short version of the Intolerance of Uncertainty Scale. *Journal of Anxiety Disorders, 21*(1), 105-117. https://doi.org/10.1016/j.janxdis.2006.03.014

Carleton, R. N., Mulvogue, M. K., Thibodeau, M. A., McCabe, R. E., Antony, M. M., & Asmundson, G. J. (2012). Increasingly certain about uncertainty: Intolerance of uncertainty across anxiety and depression. *Journal of Anxiety Disorders, 26*(3), 468-479. https://doi.org/10.1016/j.janxdis.2012.01.01

Demirtas, A. S., & Yildiz, B. (2019). Hopelessness and perceived stress: the mediating role of cognitive flexibility and intolerance of uncertainty. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences*, 32(3), 259. https://doi.org/10.14744/DAJPNS.2019.00035

Dennis, J. P., & Vander Wal, J. S. (2010). The cognitive flexibility inventory: Instrument development and estimates of reliability and validity. *Cognitive Therapy and Research, 34*(3), 241-253. https://doi.org/10.1007/s10608-009-9276-4

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a nationalindex. *American Pschologist, 55*(1), 34-43. https://doi.org/10.1037/0003-066X.55.1.34

Diener, E. (2006). Guidelines for national indicators of subjective well-being and ill-being. *Journal of Happiness Studies, 7*(4), 397-404. https://doi.org/10.1007/s10902-006-9000-y

Duan, L., & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet. Psychiatry, 7*(4):300-2. https://doi.org/10.1016/S2215-0366(20)30073-0

Dugas, M. J., Schwartz, A., & Francis, K. (2004). Brief report: Intolerance of uncertainty, worry, and depression. *Cognitive Therapy and Research, 2*8(6), 835-842. https://doi.org/10.1007/s10608-004-0669-0

Dugas, M. J., Marchand, A. ve Ladouceur, R. (2005). Further validation of a cognitive- behavioral model of generalized anxiety disorder: Diagnostic and symptom specificity. *Journal of Anxiety Disorders, 19*, 329–343. https://doi.org/10.1016/j.janxdis.2004.02.002

Dugas, M. J., Laugesen, N., & Bukowski, W. M. (2012). Intolerance of uncertainty, fear of anxiety, and adolescent worry. *Journal of abnormal child psychology, 40,* 863-870. https://doi.org/10.1007/s10802-012-9611-1

Eryilmaz, A. (2009). Developing an adolescent subjective well-being scale. *The Journal of Turkish Educational Sciences, 7*(4), 975-989.

Fergus, T. A. (2013). A comparison of three self-report measures of intolerance of uncertainty: An examination of structure and incremental explanatory power in a community sample. *Psychological Assessment, 25*(4), 1322–1331. https://doi.org/10.1037/a0034103.

Fu, F., & Chow, A. (2016). Traumatic exposure and psychological well-being: the moderating role of cognitive flexibility. *Journal of Loss and Trauma*, 1-12. https://doi.org/10.1080/15325024.2016.1161428

Gabrys, R. L., Tabri, N., Anisman, H. & Matheson, K. (2018). Cognitive control and flexibility in the context of stress and depressive symptoms: the cognitive control and flexibility questionnaire. *Frontiers in Psychology, 9,* 1-19. https://doi.org/10.3389/fpsyg.2018.02219

Gülüm, I. V., & Dağ, I. (2012). The Turkish adaptation, validity and reliability study of the Repetitive Thinking Questionnaire and the Cognitive Flexibility Inventory. *Anatolian Journal of Psychiatry,13*(3), 216-223.

Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Research, 288*, 112954. https://doi.org/10.1016/j.psychres.2020.112954

Kar, N., & Bastia, B. K. (2006). Post-traumatic stress disorder, depression and generalised anxiety disorder in adolescents after a natural disaster: a study of comorbidity. *Clinical Practice and Epidemiology in Mental Health, 2*(1), 1-7. https://doi.org/10.1186/1745-0179-2-17

Keith, J., Velezmoro, R., & O'Brien, C. (2015). Correlates of cognitive flexibility in veterans seeking treatment for posttraumatic stress disorder. *The Journal of nervous and mental disease, 203*(4), 287-293. https://doi.org/10.1097/NMD.0000000000000280

Koesten, J., Schrodt, P., & Ford, D. J. (2009). Cognitive flexibility as a mediator of family communication environments and young adults' well-being. *Health Communication, 24*(1), 82-94. https://doi.org/10.1080/10410230802607024

Martin, M. M., & Anderson, C. M. (1998). The cognitive flexibility scale: Three validity studies. *Communication Reports, 11*(1), 1-9. https://doi.org/10.1080/08934219809367680

Martin, M. M., & Rubin, R. B. (1995). A new measure of cognitive flexibility. *Psychological Reports, 76*(2), 623-626. https://doi.org/10.2466/pr0.1995.76.2.623

Metzl, E. S. (2009). The role of creative thinking in resilience after Hurricane Katrina. *Psychology of Aesthetics, Creativity and the Arts, 3,* 112-123. https://doi.org/10.1037/a0013479

Morriss, J., Christakou, A., & Van Reekum, C. M. (2016). Nothing is safe: Intolerance of uncertainty is associated with compromised fear extinction learning. *Biological Psychology, 121*, 187–193. https://doi.org/10.1016/j.biopsycho.2016.05.001

Park, N. (2004). The role of subjective well-being ın positive youth development. The Annals of American Acedemy of Political and Social Science. 591,1, 25-39. https://doi.org/10.1177/0002716203260078

Republic of Turkey Ministiry of Health (2021). Turkey COVID-19 Patient Table. https://covid19.saglik.gov.tr

Rajkumar, R. P. (2020). COVID-19 and mental health: A Review of the existing literature. *Asian Journal of Psychiatry, 52*(1), 1-5. https://doi.org/10.1016/j.ajp.2020.102066

Sapmaz, F., & Dogan, T. (2013). Assessment of cognitive flexibility: Reliability and validity studies of Turkish version of the Cognitive Flexibility Inventory. *Ankara University, Journal of Faculty of Educational Sciences, 46*(1), 143-162. https://doi.org/10.1501/Egifak_0000001278

Sarıcam, H., Erguvan, F. M., Akın, A., & Akça, M. S¸. (2014). The Turkish short version of the Intolerance of Uncertainty (IUS-12) Scale: The study of validity and reliability. *Route Educational and Social Science Journal, 1*(3), 148–157.

Satici, B., Saricali, M., Satici, S. A., & Griffiths, M. D. (2020). Intolerance of uncertainty and mental wellbeing: Serial mediation by rumination and fear of covid-19. *International Journal of Mental Health and Addiction.* https://doi.org/10.1007/s11469-020-00305-0.

Schueller, S. M. (2009). Promoting wellness: Integrating community and positive psychology. *Journal Of Community Psychology, 37*(7), 922–937. https://doi.org/10.1002/jcop.20334

Shrout, E., & Patrick, N.B 2002. Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*(4), 422-445. https://doi.org/10.1037/1082-989X.7.4.422

Tabachnick B. G, Linda S., & Fidell. (2012). *Using multivariate statistics.* Pearson.

WHO (2023). WHO Coronavirus (COVID-19) Dashboard. Retrieved from https://covid19.who.int

Williams, M. L., Morse, B. L., DeGraffenried, W., & McAuliffe, D. L. (2021). Addressing stress in high school students during the COVID-19 pandemic. NASN school nurse, 36(4), 226-232. https://doi.org/10.1177/1942602X21993053

Yildiz-Akyol, E., & Boyaci, M. (2020). Cognitive flexibility and positivity as predictors of career future in university students. *Turkish Psychological Counseling and Guidance Journal, 10*(57), 297-320.

Yildiz, M., & Eldeleklioglu, J. (2021). The Relationship between Decision-Making and Intolerance to Uncertainty, Cognitive Flexibility and Happiness. *Eurasian Journal of Educational Research, 91*, 39-60. https://doi.org1/0.14689/ejer.2021.91.3

Yook, K., Kim, K. H., Suh, S. Y., & Lee, K. S. (2010). Intolerance of uncertainty, worry, and rumination in major depressive disorder and generalized anxiety disorder. *Journal of Anxiety Disorders, 24*(6), 623-628. https://doi.org/10.1016/j.janxdis.2010.04.003

Zacher, H., & Rudolph, C. W. (2020). Individual differences and changes in subjective wellbeing during the early stages of the COVID-19 pandemic. *American Psychologist, 76*(1), 50-62. https://doi.org/10.1037/amp0000702

Zandifar, A., & Badrfam, R. (2020). Iranian mental health during the COVID-19 epidemic. *Asian Journal of Psychiatry, 51*(101990). https://doi.org/10.1016/j.ajp.2020.101990

RESEARCH ARTICLE

Relations between Parenting Styles and Character Strengths in University Students

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ABSTRACT

From childhood onwards, parents are the first and most meaningful moral guides in a person's life. Character strengths are morally valuable qualities that contribute to making a person a good individual and leading a good life. The parenting styles of parents, who are the most important moral guides of human beings, may be related to which character strengths will be more dominant in their children. Based on this, the present study, aimed to reveal the relationship between the character strengths of individuals aged 19-25 studying at university and the parenting styles of their mothers and fathers. The study was conducted on 248 university students (77% female, 23% male) aged between 19-25 years (mean age 20.85). The method of the present study is the relational research method, which is a subtype of descriptive research. In the study, the Character Strengths Inventory (VIA-IS-P) developed by McGrath (2019) and adapted to Turkish culture by Demirci et al. (2021) was a study on the character strengths of university students. The Parental Attitude Scale developed by Kuzgun and Eldeleklioğlu (2005) was used to evaluate the parenting styles of their parents. According to the results of the study, significant gender differences were found in the character strengths in all the other virtues with the exception of the virtue of justice. As a result of the calculated correlations, it was determined that all character strengths except humor under the virtue of transcendence and the forgiveness and modesty character strengths of under the virtue of temperance showed significant relationships with the parenting styles of the parents of the university students. Looking at the findings of the regression analysis, it was determined that authoritative motherhood and authoritative fatherhood styles significantly predicted all character strengths under the virtues of courage, wisdom, justice, and humanity.

Character strengths are located at the midpoint of moral competence and direct the person to desire and do what is valuable and good. Character strengths, which can also be defined as morally valuable personality traits, are largely stable universal traits that emerge through thinking, feeling, wanting, and acting that are effective in helping oneself and others (Peterson & Seligman, 2004). University life is a productive environment to study character strengths (Lounsbury et al., 2009). Based on this idea, many studies have been conducted on the character strengths of university students in recent years. These studies have revealed that the character strengths of university students are strongly related to many positive life outcomes and skills, such as university satisfaction, general success average, general life satisfaction, and subjective happiness

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(Bachick et al., 2021; Lounsbury et al., 2009; Griffin, 2014; Kaya, 2022), adaptive coping strategies (Schaper, 2020; Wiepking, 2020), university adjustment (Grinhauz et al., 2022), student's perception of success (Griffin, 2014). In some studies in the part of the character strengths literature related to university students, the relationship between university students' psychological distress, such as the need for psychological counseling, test anxiety, substance use, depression, perceived stress, anxiety, and character strengths was examined (Anjum & Anjad, 2016; Bachick et al., 2021; Bernebée -Say, 2020; Griffin, 2014; Kaya, 2022). Researchers' interest in this topic has increased as studies in the literature have revealed the strong link between university students' character strengths and many positive outcomes. This increasing interest has led many researchers to examine whether the character strengths of university students vary according to their demographic characteristics and the variables explaining character strengths.

Among the demographic characteristics that may be related to the character strengths of university students, most of the studies have been conducted on gender. In many studies conducted with university students, significant differences were found between male and female students in terms of character strength scores. In many studies, female students scored higher than male students, especially in character strength categories such as love, kindness, justice, gratitude, forgiveness, prudence, leadership, perseverance, teamwork, appreciation of beauty and excellence. Male students had higher scores in the areas of creativity, judgment, perspective, courage, and self-regulation (Karris, 2007, Linley et al., 2007; Murrell, 2015; Niemiec, 2013; Noronha & Martins, 2016; Shimai et al., 2006; Zhang & Chen, 2018). According to the study of Ekşi et al. (2022), female university students scored higher than male students in the dimensions of inquisitiveness and caring character strengths. In terms of self-control, which is the last dimension of three-dimensional character strengths, no significant difference was found according to gender (Ekşi et al., 2022). Many studies have revealed differences on demographic characteristics such as gender as well as positive contributions to the individual's life. The studies were generally conducted with individuals from individualistic cultures. In the study of Ekşi et al. (2022), which was conducted with individuals from the same culture as the participants of the current study, twenty-four character strengths were not examined in detail. The present study aims to address this gap in the literature. In addition, the ever-expanding literature has led researchers to investigate the variables that explain character strengths. Existing research has examined which psychosocial environmental factors help explain character strengths and found that positive parenting is strongly associated with children's character strengths (Peterson & Park, 2007; Raimundi et al., 2019; Sukkyung & Kim, 2016).

From childhood, parents are the first and most meaningful moral guides for the individual (Hawkins, 2005). Character strengths that are revealed by benefiting from more than one culture, author, and text are also morally valuable features that make a person a good person and enable them to reach a good life (Allan, 2015). According to Park (2004), good parenting is one of the factors that have an important effect on the development of character strengths that are at the core of moral competence. Many studies on high school students have revealed that positive parenting behaviors have an increasing effect on character strengths (Ngai, 2015; Raimundi et al., 2019; Liu & Wang, 2021; Loton & Waters, 2017; Luo et al., 2021). Positive parenting behaviors, such as parental warmth, can help adolescents develop character strengths by giving them a sense of autonomy and security, and by increasing emotional communication between parents and children (Liu & Wang, 2021; Schafer, 2011). According to Baumrind (1998), the authoritative parenting style, which expresses positive parenting, is associated with positive character development. It helps children internalize and maintain positive behaviors and strong character and regulates the relationship between character strengths and life satisfaction.

Parents who are authoritative by nature want answers and want their children to follow their own directions. Such parents develop a set of rules for their children and examine their children whether they follow these rules. They support their children in every aspect of life (Baumrind, 1991). The authoritative parenting style provides structure to the individual and helps them internalize and maintain positive behaviors and strong character (Berge et al., 2010). According to Vaden's (2001) study with college students, those who reported that their parents exhibited an authoritative parenting style were more likely to achieve higher principled moral development scores, while those who reported that their parents exhibited authoritarian parenting styles were

more likely to achieve lower principled moral development scores. In a study that longitudinally investigated the relationship between parenting styles and the internalization of values in the prioritization, regulation, and realization of individual values from adolescence to young adulthood, it was determined that participants who defined their parents as more authoritative internalized values more (Williams & Ciarrochi, 2019). According to a study conducted on high school students on character strengths, which means values that can be seen in behavior, authoritative parenting significantly regulates the relationship between character strengths and life satisfaction (Saleem et al., 2020).

The moral development of children is affected by general parenting style as well as by parental gender. (Gilligan & Wiggins, 1987; Parke, 1995; Smetana, 1993, 1999). A mother's emotional involvement is more strongly linked to her children's moral activities than a father's (Spinrad et al., 1999). Character strengths are defined as positive traits reflected in mental, emotional, and behavioral dimensions that are morally valued as distinct from temperament and other personality styles (Dahslgaard et al., 2005; Peterson & Seligman, 2004). In a study conducted with high school students, it was determined that mothers with an authoritative parenting style scored higher on their children's character strengths under the virtue of humanity than mothers with a neglectful parenting style. Similarly, children of fathers who adopted the authoritative parenting style also scored higher on character strengths under the virtue of humanity than those of neglectful fathers (Mo, 2019). Studies in the literature on the predictability of the child-rearing styles of parents of different genders on the character strengths of their children were generally carried out with individuals in high school. Considering the view that the influence of parenthood does not end in childhood and continues until young adulthood (Kriegbaum et al. 2016; Newcomb, 1997), it would not be an unrealistic expectation to think that the parenting styles of their parents will still be effective in the character strengths of university students.

In reviewing the literature on character strengths, it was noted that studies of parenting styles have generally been conducted with high school students. In these studies, a limited number of character strengths under a single virtue rather than all twenty-four character strengths were examined. Considering the fact that the parenting styles used by parents in raising children are effective in the psycho-social development of individuals throughout their lives, it is thought that it is necessary to strengthen the literature with studies on university students. For this reason, this study aimed to explore the relationship between the character strengths of 18-25 year olds studying at university and the parenting styles of their mothers and fathers.

The following questions were asked in relation to this primary objective:

1. Is there a significant difference between male and female university students' character strengths under the virtues of transcendence, courage, wisdom, justice, temperance, and humanity?

2. Is there a significant relationship between the character strengths of university students under the virtues of transcendence, courage, wisdom, justice, temperance, and humanity and their parents' parenting styles?

3. Do the parenting styles of their parents significantly predict the character strengths of university students under the virtues of transcendence, courage, wisdom, justice, temperance, and humanity?

Method

Procedure

Data collection started on 8 November 2022 and was completed on 15 February 2023. The sample of the study was determined by means of a random sampling method. This research is of a descriptive nature. In the research, the relationships between the character strengths and parenting styles of university students were examined within the scope of simple relational designs. For the collection of data, approval was obtained from the Bursa Uludag University Social and Human Sciences Research and Publication Ethics Committee on October 27, 2022. Online scale forms were shared with Bursa Uludag University Press and Public Relations Unit to be delivered to all undergraduate students at the university. Online scale forms were sent to student e-mails by this unit. Data collection was terminated when the number of estimators for multivariate regression analysis exceeded the recommended number of participants (Akbulut & Çapık, 2022), taking into account the number of estimators being more than four and small effect sizes according to Cohen's classification.

Participant

The research group consists of 248 university students (190 female and 58 male). Participants ranged in age from 19 to 25 (Mean age = 20.85, SD=2.11). Demographic information about the participants is presented in Table 1.

Table 1. Descriptive Statistics for Sample

		n	*%*	*M*	SD
Gender	Female	190	76.6	0.77	0.42
	Male	58	23.4		
Age	19	93	37.5	20.85	2.11
	20	52	21.0		
	21	32	12.9		
	22	19	7.7		
	23	9	3.6		
	24	9	3.6		
	25	34	13.7		
Faculty	Education	118	47.6	4.00	3.97
	Arts & Sciences	30	12.1		
	Fine Arts	3	1.2		
	Law	2	0.8		
	Economics and Administrative	30	12.1		
	Theology	6	2.4		
	Architecture	1	0.4		
	Engineering	20	8.1		
	Sport Sciences	1	0.4		
	Health Sciences	9	3.6		
	Medicine	7	2.8		
	Veterinary Medicine	4	1.6		
	Agriculture	17	6.9		
Grades	1	109	44.0	2.10	1.18
	2	58	23.4		
	3	29	11.7		
	4	52	21.0		

Measures

Character Strengths Inventory (VIA-IS-P). Developed by Peterson and Seligman (2004) to determine the character strengths of adults, the 240-item VIA Character Strengths Inventory was revised by McGrath in 2019. This revised inventory was adapted to Turkish culture by Demirci et al. (2021). The inventory, which consists of ninety-six items (Sample İtems: "I rarely hold a grudge.", "I always finish what I started.", "I can be trusted with my promises."), is scored with a 5-point Likert scale. It has twenty-four sub-dimensions that contain each character strength. The 24-dimensional model that emerged in the exploratory factor analysis conducted to examine the validity of the inventory adapted to Turkish culture showed an acceptable fit in the confirmatory factor analysis. When the reliability coefficients were calculated within the scope of the sub-dimensions of the inventory, the lowest 0.63 and the highest 0.89 were found. The corrected item-total correlations of the inventory ranged between 0.27 and 0.83. For test-retest reliability, the inventory was administered to 99 university students at 2.5-months intervals. As a result of this application, subscale reliability coefficients ranged from 0.52 to 0.84, with an average calculated as 0.73. (Demirci et al., 2021). For this study, the scale's internal consistency coefficient was recalculated, lowest 0.51 and highest 0.86.

Parental Attitude Scale. The scale, which was first developed by Kuzgun (1972) to evaluate the parental attitudes of university students, was later rearranged by Kuzgun and Eldeleklioglu (2005). The scale consists of 40 items (Sample İtems: "She tries to dominate me.", "She forced me to eat food I did not like, thinking it would help.", "She accepted me for who I am.") measuring mother attitudes and 40 items (Sample İtems: "When we are together, our relationship is very friendly.", "I can talk about my problems with him.", "He always wanted me to do well in exams.") measuring father attitudes. The scale scored with a 5-point Likert scale, consists of three sub-dimensions for each parent: authoritative, protective, and authoritarian attitude. The scale was administered to 100 university students to determine the validity of the scale. It was found to be divided into two factors as a result of exploratory factor analysis. It was determined that the positive factor loadings of the items in the first factor were related to authoritative attitude, and the negative factor loadings were related to authoritarian attitude. The factor loadings of the items measuring authoritative attitude ranged between 0.53 and 0.70, and the factor loadings of the items measuring authoritarian attitude ranged between 0.48 and 0.68. The items in the second factor were found to be related to protective-demanding attitude. The factor loadings of the items measuring the protective-demanding attitude ranged between 0.31 and 0.56. The results of the reliability study of the scale showed that the internal consistency coefficient for the authoritative attitude dimension was 0.89, the internal consistency coefficient for the protective attitude dimension was 0.82 and the internal consistency coefficient for the authoritarian attitude dimension was 0.78 (Kuzgun & Eldeleklioglu, 2005). For this study, the internal consistency coefficient of the scale was recalculated and it was found to be 0.91 for authoritative motherhood, 0.87 for protective motherhood, 0.84 for authoritarian motherhood, 0.94 for authoritative fatherhood, 0.88 for protective fatherhood, and 0.84 for authoritarian fatherhood.

Data Analysis

The differentiation status of the character strengths of university students according to gender was examined with the t-test for Independent Samples. The relationship between the character strengths of university students and parenting styles was examined with the Pearson Product-Moments correlation. In addition, the predictor of the character strengths of the university students by the parenting styles of the parents was examined using the Multiple Linear Regression Analysis Forward method. The assumptions of missing data, extreme values, normality, multicollinearity, linearity, and homogeneity of variances were examined for the continuous variables related to the analyses to be made in this study. Since data is collected from the online platform, there is no missing data in the data set. Mahalanobis values were calculated for outliers, and 15 outliers were excluded from the analysis. In this study, the skewness and kurtosis values of all continuous variables ranged between +1 and -1, and it was accepted that the univariate normal distribution was provided. For the multivariate normal distribution, data sets were allocated for each dependent variable, and scatter diagrams were analysed in these data sets. In the 24 scatter diagrams examined, the fact that the shapes show elliptical distributions shows that the assumption of multivariate normal distribution is met. Considering the binary correlations between the independent variables for the multicollinearity problem, the fact that the correlations are not above 0.80 indicates that there is no multicollinearity problem. In addition, for each regression analysis, it has been confirmed that there is no multicollinearity between the variables, which may pose a problem, since the VIF values are less than 10., the tolerance values are greater than 0.2. Scatter plots were used to examine the linearity and homogeneity of variances, and it was assumed that the errors were normally distributed because the residuals were randomly distributed around zero in a rectangular shape.

The interpretation of the effect size of the significant difference in the t-test for Independent Samples was based on Cohen (1988). According to Cohen (1988), if the calculated score for d is less than 0.2, the effect size can be considered weak. If the effect size is 0.5 or medium, and if it is greater than 0.8, the effect size can be considered strong (Cohen, 1988). Ratner's (2009) classification was used to evaluate the magnitude of the Pearson Product-Moments correlation coefficient. Accordingly, the correlation coefficient sizes between 0 and 0.30 indicate a low level of correlation, values between 0.30 and 0.70 indicate a medium level of correlation, and values between 0.70 and 1.0 indicate a high level of correlation (Ratner, 2009). The interpretation of the effect size indices of the multiple linear regression equations was based on Cohen (1988). According to Cohen (1988), if the effect size index of a regression equation is 0.02, it is small; if 0.15 is medium and 0.35, this equation has a wide effect.

Table 2. The Mean and Standard Deviations of Variables

Variables	N	M	SD	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
TRANSCENDENCE							
Appreciation of beauty and excellence	248	3.82	0.77	-0.64	0.16	0.20	0.31
Gratitude	248	3.44	0.87	-0.24	0.16	-0.45	0.31
Hope	248	3.46	0.82	-0.34	0.16	-0.11	0.31
Humor	248	3.62	0.92	-0.31	0.16	-0.66	0.31
Spirituality	248	3.81	0.87	-0.89	0.16	0.69	0.31
COURAGE							
Bravery	248	3.59	0.63	-0.31	0.16	0.28	0.31
Honesty	248	4.18	0.55	-0.59	0.16	0.27	0.31
Perseverance	248	3.38	0.89	-0.07	0.16	-0.40	0.31
Zest	248	3.08	1.01	0.04	0.16	-0.73	0.31
WISDOM							
Creativity	248	3.78	0.78	-0.44	0.16	-0.07	0.31
Curiosity	248	3.66	0.81	-0.50	0.16	0.05	0.31
Love of learning	248	3.93	0.79	-0.54	0.16	-0.33	0.31
Judgment	248	4.06	0.59	-0.59	0.16	0.63	0.31
Perspective	248	3.48	0.79	-0.24	0.16	0.07	0.31
JUSTICE							
Fairness	248	3.67	0.78	-0.35	0.16	-0.21	0.31
Leadership	248	3.35	0.95	-0.29	0.16	-0.33	0.31
Teamwork	248	4.01	0.59	-0.26	0.16	-0.17	0.31
TEMPERANCE							
Forgiveness	248	3.36	0.82	-0.18	0.16	-0.31	0.31
Modesty	248	3.63	0.71	-0.35	0.16	0.34	0.31
Prudence	248	3.71	0.74	-0.62	0.16	0.82	0.31
Self-Regulation	248	3.32	0.83	-0.33	0.16	-0.24	0.31
HUMANITY							
Kindness	248	4.06	0.70	-0.87	0.16	0.93	0.31
Love	248	3.69	0.96	-0.47	0.16	-0.57	0.31
Social Intelligence	248	3.74	0.70	-0.26	0.16	-0.24	0.31
PARENTING STYLES							
Authoritative motherhood	248	57.23	12.47	-0.66	0.16	-0.14	0.31
Protective motherhood	248	32.98	9.87	0.59	0.16	0.14	0.31
Authoritarian motherhood	248	20.48	7.11	0.91	0.16	0.73	0.31
Authoritative fatherhood	248	50.92	14.14	-0.21	0.16	-0.75	0.31
Protective fatherhood	248	33.48	11.26	0.77	0.16	0.27	0.31
Authoritarian fatherhood	248	23.86	7.91	0.55	0.16	-0.09	0.31

Results

Significant differentiation of the character strengths of university students according to their gender was examined with the t-test for independent samples and the findings are given in Table 3.

Table 3. Findings regarding the significant differentiation of character strengths of university students according to gender

	Variable	Groups	n	$\bar{X}$	SD	t	Sd	p	d
TRANSCENDENCE	Appreciation of beauty and excellence	Male	58	3.54	0.91	-	78.35	0.01	0.46
		Female	190	3.91	0.70	2.91			
	Gratitude	Male	58	3.15	1.03	-	79.35	0.01	0.41
		Female	190	3.53	0.80	2.60			
	Hope	Male	58	3.35	0.91	-	246	0.25	-
		Female	190	3.50	0.79	1.17			
	Humor	Male	58	3.93	0.95	3.02	246	<0.001	0.46
		Female	190	3.52	0.89				
	Spirituality	Male	58	3.63	1.10	-	75.34	0.13	-
		Female	190	3.86	0.78	1.54			
COURAGE	Bravery	Male	58	3.73	0.61	1.98	246	0.05	0.29
		Female	190	3.55	0.63				
	Honesty	Male	58	4.23	0.57	0.79	246	0.43	-
		Female	190	4.17	0.54				
	Perseverance	Male	58	3.31	1.06	-	79.83	0.58	-
		Female	190	3.40	0.84	0.56			
	Zest	Male	58	2.94	1.03	1.26	246	0.21	-
		Female	190	3.13	0.99				
WISDOM	Creativity	Male	58	3.96	0.79	2.01	246	0.05	0.29
		Female	190	3.73	0.78				
	Curiosity	Male	58	3.81	0.74	1.60	246	0.11	-
		Female	190	3.61	0.82				
	Love of learning	Male	58	3.94	0.85	0.10	246	0.92	-
		Female	190	3.93	0.78				
	Judgment	Male	58	4.09	0.67	0.49	246	0.63	-
		Female	190	4.05	0.57				
	Perspective	Male	58	3.35	0.84	-	246	0.16	-
		Female	190	3.52	0.78	1.43			
JUSTICE	Fairness	Male	58	3.72	0.83	0.53	246	0.60	-
		Female	190	3.66	0.77				
	Leadership	Male	58	3.26	1.04	-	246	0.40	-
		Female	190	3.38	0.92	0.84			
	Teamwork	Male	58	3.95	0.61	-	246	0.39	-
		Female	190	4.03	0.59	0.86			
TEMPERANCE	Forgiveness	Male	58	3.17	0.92	-	246	0.05	0.29
		Female	190	3.42	0.79	2.02			
	Modesty	Male	58	3.69	0.79	0.79	246	0.43	-
		Female	190	3.61	0.69				
	Prudence	Male	58	3.86	0.87	1.58	80.15	0.12	-
		Female	190	3.67	0.69				
	Self-Regulation	Male	58	3.22	0.94	-	83.93	0.34	-
		Female	190	3.36	0.80	0.96			
HUMANITY	Kindness	Male	58	3.87	0.76	-	246	0.02	0.38
		Female	190	4.12	0.68	2.35			
	Love	Male	58	3.33	0.98	-	246	<0.001	0.51
		Female	190	3.81	0.92	3.44			
	Social Intelligence	Male	58	3.63	0.75	-	246	0.16	-
		Female	190	3.78	0.69	1.40			

*p < 0.05, **p < 0.01

Table 3 shows that in the virtues of transcendence; appreciation of beauty and excellence, gratitude and humor, there were significant differences between male and female students in terms of character strengths. A difference in the appreciation of beauty and excellence in character strength was found in favor of female students (t (78.35) = -2.91, $p < 0.05$). A significant difference with a weak effect size was found between male and female students in terms of appreciation of beauty and excellence character strength. Based on this, it can be said that female students had more appreciation of beauty and excellence character strength in than male students. Regarding the gratitude character strength, a significant difference with a weak effect size was found in favor of the female students (t (79.35) = - 2.60, $p < 0.05$). Based on this, it can be said that female students have more gratitude character strength than male students. A significant difference with a weak effect size was found in favor of male students in terms of humor character strength (t (246) = 3.02, $p<0.01$). Based on this, it can be said that male students have more humor character strength than female students.

Looking at Table 3 for character strengths under the virtue of courage, it is seen that bravery differs significantly by gender. A significant difference with a small effect size was found in favor of the male students with regard to the bravery character strength (t (246) = 1.98, $p < 0.05$). Based on this, it can be said that male students have more bravery character strength than female students.

In Table 3, of the character strengths under the virtue of wisdom, only creativity has a significant gender difference. A significant difference with weak effect size was found in favor of male students in terms of creativity character strength (t (246) = 2.01, $p < 0.05$). Based on this, it can be said that male students have more creativity character strength than female students.

Looking at Table 3 for character strengths under the virtue of justice, it was noted that none showed a significant gender difference. When character strengths were examined under the virtue of temperance, it was found that only forgiveness had a significant gender difference. Regarding forgiveness, a significant difference favoring female students was found with a weak effect size (t (246) = -2.02, $p < 0.05$). Based on this, it can be said that female students have more forgiveness character strength than male students.

Table 3 shows that kindness and love, which are character strengths under the virtue of humanity, differ significantly according to gender. A significant difference with a weak effect size was found in favor of female students in terms of kindness character strength (t (79.35) = -2.35, $p < 0.05$). Based on this, it can be said that female students have more kindness character strength than male students. A significant difference in favor of female students with a moderate effect size was found for the love character strength (t (246) = -3.44, $p < 0.01$). Based on this, it can be said that female students have more love character strength than male students.

Correlation Analysis

Pearson Product-Moment Correlation Analysis was used to determine the relationships between the students' character strengths and parenting styles, and the results are presented in Table 4.

Table 4 shows that all character strengths, except humor under the virtue of transcendence, are significantly related to the parenting styles of university student's parents. The appreciation of beauty and excellence character strength showed low positive and significant relationships with authoritative motherhood and authoritative fatherhood (r = 0.20, $p < 0.01$) and authoritative fatherhood (r = 0.15, $p < 0.05$) styles. It has been determined that the gratitude character strength has a moderately positive relationship with authoritative motherhood (r = 0.43, $p < 0.01$) and authoritative fatherhood (r = 0.30, $p < 0.01$) styles, and a low level of negative and significant relationships with protective motherhood (r = -0.27, $p < 0.01$), authoritarian motherhood (r = -0.29, $p < 0.01$), protective fatherhood (r = -0.15, $p < 0.05$) and authoritarian fatherhood (r = -0.17, $p < 0.01$) styles. It has been found that the hope character strength has a low level of positive relationship with authoritative motherhood (r = 0.29, $p < 0.01$) and authoritative fatherhood (r = 0.19, $p < 0.01$) styles and a low level of negative relationship with protective (r = -0.19, $p < 0.01$) and authoritarian motherhood (r = -0.16, $p < 0.05$) styles.

Looking at Table 4 in terms of character strengths under the virtue of courage, it is seen that all character strengths of university students have significant relationships with their parents' parenting styles. It is seen that the bravery character strength (r = 0.16, $p < 0.05$) has a low-level positive and significant relationship with the

authoritative motherhood style. It has been determined that honesty character strength has a low level of positive relationship with authoritative motherhood (r = 0.28, $p < 0.01$) and authoritative fatherhood (r = 0.24, $p < 0.01$) styles, and low level of negative and significant relationships with protective motherhood (r = -0.15, $p < 0.05$), authoritarian motherhood (r = -0.16, $p < 0.05$), protective fatherhood (r = -0.14, $p < 0.05$) and authoritarian fatherhood (r = -0.16, $p < 0.01$) styles. It has been determined that perseverance character strength has a low level of positive relationship with authoritative motherhood (r = 0.21, $p < 0.01$) and authoritative fatherhood styles (r = 0.27, $p < 0.01$), and a low level of negative significant relationship with authoritarian fatherhood style (r = -0.22, $p < 0.01$). On the other hand, it was determined that the zest character strength showed a moderate relationship with the authoritative motherhood style (r = 0 .32, $p < 0.01$), and a low-level positive relationship with the authoritative fatherhood style (r = 0.25, $p < 0.01$), and a low-level negative relationship with the protective motherhood (r = -0.17, $p < 0.01$) and authoritarian motherhood styles (r = -0.18, $p < 0.01$).

Table 4 shows that all the character strengths included under the virtue of wisdom are significantly related to the parenting styles of the students' parents. It has been found that the creativity character strength has a low level of positive relationship with authoritative motherhood (r = 0 .25, $p < 0.01$) and authoritative fatherhood (r = 0.23, $p < 0.01$) styles, and a low level of negative significant relationship with authoritarian motherhood style (r = -0.15, $p < 0.05$). It is seen that the curiosity character strength has a low level of positive relationship with authoritative motherhood (r = 0.24, $p < 0.01$) and authoritative fatherhood styles (r = 0.26, $p < 0.01$), and a low level of negative relationship with authoritarian fatherhood style (r = -0 .13, $p < .05$). It has been determined that the love of learning character strength has a low level of positive and significant relationship with authoritative motherhood (r = 0 .22, $p < 0.01$) and authoritative fatherhood styles (r = 0.27, $p < 0.05$). It has been found that the judgment character strength has a low level of a positive and significant relationship with the authoritative motherhood. (r = 0.15, $p < 0.05$) and authoritative fatherhood styles (r = 0.14, $p < 0.05$). On the other hand, it was determined that the perspective character strength had a low level of positive and significant relationship with the authoritative motherhood style (r = 0.17, $p < 0.01$).

Looking at Table 4 in terms of character strengths under the virtue of justice, it is seen that all the character strengths of university students have significant relationships with their parents' parenting styles. It was determined that the fairness character strength showed a low-level positive relationship with authoritative motherhood (r = 0.13, $p < 0.05$) and authoritative fatherhood styles (r = 0.19, $p < 0.01$), and a low-level negative significant relationship with protective motherhood (r = -0.13, $p < 0.05$) and authoritarian fatherhood styles (r = -0.15, $p < 0.05$). It has been determined that leadership character strength has a low level of positive and significant relationship with authoritative motherhood (r = 0.22, $p < 0.01$) and authoritative fatherhood styles (r = 0.16, $p < 0.05$). On the other hand, it was determined that teamwork character strength had a low level of positive and significant relationship with authoritative motherhood (r = 0.29, $p < 0.01$) and authoritative fatherhood styles (r = 0.25, $p < 0.01$).

When Table 4 is examined, it is seen that self-regulation and prudence, which are character strengths within the virtue of temperance, show significant relationships with the parenting styles of university student's parents. It has been determined that prudence character strength has a low level of positive and significant relationship with authoritative motherhood (r = 0.19, $p < 0.01$) and authoritative fatherhood styles (r = 0.15, $p < 0.05$). On the other hand, it was determined that self-regulation character strength showed a low-level positive relationship with authoritative motherhood (r = 0.24, $p < 0.01$) and authoritative fatherhood styles (r = 0.27, $p < 0.01$), and a low level negative significant relationship with authoritarian motherhood (r = -0.15, $p < 0.05$) and authoritarian fatherhood styles (r = -0.18, $p < 0.05$).

Looking at Table 4 in terms of character strengths under the virtue of humanity, it is seen that all character strengths of university students have significant relationships with their parents' parenting styles. It has been found that kindness character strength has a low level of positive correlation with authoritative motherhood. (r = 0.29, $p < 0.01$) and authoritative fatherhood (r = 0.23, $p < 0.01$) styles, and a low level of negative significant relationship with protective motherhood (r = -0.18, $p < 0.01$), authoritarian motherhood (r = -0.17, $p < 0.01$), protective fatherhood (r = -0.16, $p < 0.05$) and authoritarian fatherhood styles (r = -0.16, $p < 0.05$). It has been determined that that the love character strength has a low level of positive relationship with authoritative motherhood (r = 0.29, $p < 0.01$) and authoritative fatherhood (r = 0.20, $p < 0.01$) style, and a low level of

negative significant relationship with protective motherhood (r = -0.17, $p < 0.01$) and authoritarian motherhood styles (r = -0.17, $p < 0.01$). On the other hand, it was determined that social intelligence character strength showed a low level of positive and significant relationship with authoritative motherhood (r = 0.23, $p < 0.01$) and authoritative fatherhood (r = 0.19, $p < 0.05$) styles.

Table 4. Findings on the relationships between university students' character strengths and parenting styles

	V	AEM	PM	ANM	AEF	PF	ANF
TRANSCENDENCE	Appreciation of beauty and excellence	0.20**	-0.07	-0.12	0.15*	-0.01	-0.02
	Gratitude	0.43**	-0.27**	-0.29**	0.30**	-0.15*	-0.17**
	Hope	0.29**	-0.19**	-0.16*	0.19**	-0.10	-0.12
	Humor	0.12	0.05	-0.01	0.08	0.11	0.03
	Spirituality	0.36**	-0.18**	-0.28**	0.24**	-0.11	-0.14*
COURAGE	Bravery	0.16*	0.04	0.01	0.08	0.12	0.03
	Honesty	0.28**	-0.15*	-0.16*	0.24**	-0.14*	-0.16**
	Perseverance	0.21**	-0.03	-0.11	0.27**	-0.11	-0.22**
	Zest	0.32**	-0.17**	-0.18**	0.25**	-0.04	-0.12
WISDOM	Creativity	0.25**	-0.04	-0.15*	0.23**	0.06	-0.11
	Curiosity	0.24**	-0.07	-0.10	0.26**	-0.05	-0.13*
	Love of learning	0.22**	-0.07	-0.11	0.27**	-0.03	-0.10
	Judgment	0.15*	-0.01	-0.08	0.14*	-0.02	-0.08
	Perspective	0.17**	0.04	-0.11	0.11	0.07	0.01
JUSTICE	Fairness	0.13*	-0.13*	-0.06	0.19**	-0.10	-0.15*
	Leadership	0.22**	-0.07	-0.11	0.16*	0.01	-0.04
	Teamwork	0.29**	-0.03	-0.12	0.25**	-0.03	-0.09
TEMPERANCE	Forgiveness	0.12	-0.03	-0.05	0.13	0.01	-0.06
	Modesty	0.04	-0.06	0.00	0.05	-0.10	-0.06
	Prudence	0.19**	0.01	-0.11	0.15*	-0.01	-0.10
	Self-Regulation	0.24**	-0.02	-0.15*	0.27**	-0.09	-0.18**
HUMANITY	Kindness	0.29**	-0.18**	-0.17**	0.23**	-0.16*	-0.16*
	Love	0.29**	-0.17**	-0.17**	0.20**	-0.05	-0.10
	Social Intelligence	0.23**	0.05	-0.12	0.19**	0.09	-0.04

Note: * p < 0.05, ** , p < 0.01, AEM= Authoritative motherhood, PM= Protective motherhood, ANM= Authoritarian motherhood, AEF= Authoritative fatherhood, PF= Protective fatherhood, ANF= Authoritarian fatherhood.

Regression Analysis

In the study, the Multiple Linear Regression Analysis Forward method was applied to determine whether parenting styles predict the character strengths of university students, and the findings are given in Table 5.

Table 5 shows that the parenting styles of the parents of university students significantly predict the character strengths within the virtue of transcendence except for humor. It is seen that there is a predictor variable in the regression equation related to appreciation of beauty and excellence character strength, and this analysis was completed in a single step. Only authoritative motherhood was included as the predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.04. In other words, authoritative motherhood explains 4% of the appreciation of beauty and excellence character strength of university students. The fact that 4% of the appreciation of beauty and excellence character strength of university students is explained by authoritative motherhood shows that other variables explain 96%. At the same time, this

regression analysis has a small effect size index ($f^2 = 0.042$). The fact that the explained variance is low or the effect size index is at a small effect level shows that the predictor in this analysis is not very effective on the appreciation of beauty and excellence character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.20. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and the appreciation of beauty and excellence character strength of university students. According to this, it can be said that the mothers of university students who have appreciation of beauty and excellence character strength interpret their child-rearing styles more democratically.

When the analysis results in Table 5 are examined in terms of the gratitude character strength under the virtue of transcendence, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.19. In other words authoritative motherhood explains 19% of the gratitude character strength. The fact that 19% of university students' gratitude character strength is explained by the authoritative motherhood variable shows that other variables explain 81%. At the same time, this regression analysis has a medium effect size index ($f^2 = 0.23$). The low explained variance, and the moderate effect size index indicate that the predictor in this analysis is partially effective on the gratitude character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.43. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and the gratitude character strength. Accordingly, it can be said that university students with the gratitude character strength interpret their mothers' child-rearing styles more democratically.

Looking at Table 5, it is seen that there is only one predictor variable in the regression equation related to hope, which is another character strength under the virtue of transcendence, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.08. In other words, authoritative motherhood explains 8% of the hope character strength. The fact that 8% of the hope character strength of university students is explained by the authoritative motherhood variable shows that other variables explain 92%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.09$). The low explained variance and the small effect size index show that the predictor in this analysis is not very effective on hope character strength in university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.29. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and hope character strength. Accordingly, it can be said that university students with the hope character strength interpret their mothers' child-rearing styles more democratically.

When the analysis results in Table 5 are examined in terms of spirituality character strength under the virtue of transcendence, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.12. In other words, authoritative motherhood explains 12% of the spirituality character strength of university students. The fact that 12% of university students' spirituality character strength is explained by authoritative motherhood shows that other variables explain 88%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.14$). The fact that the explained variance is low or the effect size index is also at a small effect level shows that the predictor in this analysis is not very effective on the spirituality character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.36. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and spirituality character strength. Accordingly, it can be said that university students who have the spirituality character strength interpret their mothers' child-rearing styles more democratically.

Looking at Table 5, it is seen that the parenting styles of the university student's parents significantly predicted all the character strengths within the virtue of courage. It is seen that there are two predictor variables in the regression equation related to the bravery character strength, and this analysis was completed in two stages. Authoritative motherhood was included as the first important predictor variable, and authoritarian motherhood was entered as the second variable in the regression equation. The adjusted R^2 value for all variables in the

analysis is 0.06. In other words, authoritative and authoritarian motherhood explains 6% of the bravery character strength. The fact that independent variables explains 6% of university students' bravery character strength shows that other variables explain 94%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.064$). The low explained variance and the small effect size index show that the predictors in this analysis are not very effective on the bravery character strength of university students. It is the variable authoritative motherhood with the bravery character strength and the highest standardized β coefficient ($\beta = 0.39$). When the signs of the regression coefficients are examined, shows that there are positive significant relationships between all predictors and the bravery character strength. According to this, it can be said that university students with bravery character strength are more likely to evaluate their mothers' child-rearing styles as more authoritative or authoritarian.

When the analysis results in Table 5 are examined in terms of honesty character strength under the virtue of courage, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.07. In other words, authoritative motherhood explains 7% of the honesty character strength of university students. The fact that 7% of university students' honesty character strength is explained by authoritative motherhood shows that other variables explain 93%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.08$). The fact that the explained variance is low or the effect size index is at a small effect level shows that the predictor in this analysis is not very effective on the honesty character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.28. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and honesty character strength. According to this, it can be said that university students who have honesty character strength interpret their mothers' child-rearing styles more democratically.

Looking at Table 5, it is seen that there is only one predictor variable in the regression equation associated with perseverance, another character strength under the virtue of courage, and this analysis was completed in one step. Authoritative fatherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.07. In other words, the authoritative fatherhood explains 7% of the perseverance character strength. The fact that the authoritative fatherhood variable explains 7% of university students' perseverance character strength shows that 93% is explained by other variables. At the same time, this regression analysis has a small effect size index ($f^2 = 0.08$). The low explained variance and the small effect size index show that the predictor in this analysis is not very effective on the perseverance character strength of university students. The standardized β coefficient of the predictive variable of authoritative fatherhood is 0.27. When the sign of the regression coefficient is examined, shows that there are positive and significant relationships between authoritative fatherhood and perseverance character strength. Accordingly, it can be said that university students who have perseverance character strength their fathers' child-rearing styles more democratically.

When the analysis results in Table 5 are examined in terms of the zest character strength under the virtue of courage, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.10. In other words, authoritative motherhood explains 10% of university students' zest character strength. The fact that 10% of university students' zest character strength is explained by authoritative motherhood shows that other variables explain 90%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.11$). The fact that the explained variance is low or the effect size index is also at a small effect level indicates that the predictor in this analysis is not very effective on university students' zest character strength. The standardized β coefficient of the predictive variable of authoritative motherhood

Table 5. Regression Findings on Whether Parenting Styles predict University Students' Character Strengths

	Dependent Variables	Predictive Variables	β Coefficient *	Std. Error	Std. β coefficient	R	Adj. R^2	Change Statistics	
								R^2 Change	p
TRANSCENDENCE	Appreciation of beauty and excellence	Constant	3.13	0.23		0.20	0.04	0.04	<0.001
		AEM	0.01	0.00	0.20				<0.001
	Gratitude	Constant	1.71	0.24		0.43	0.19	.19	<0.001
		AEM	0.03	0.00	0.43				<0.001
	Hope	Constant	2.38	0.24		0.29	0.08	0.08	<0.001
		AEM	0.02	0.00	0.29				<0.001
	Spirituality	Constant	2.39	0.24		0.36	0.12	0.13	<0.001
		AEM	0.03	0.00	0.36				<0.001
COURAGE	Bravery	Constant	1.91	0.42		0.26	0.06	0.04	<0.001
		AEM	0.02	0.01	0.39				<0.001
		ANM	0.03	0.01	0.31				<0.001
	Honesty	Constant	3.49	0.16		0.28	0.07	0.08	<0.001
		AEM	0.01	0.00	0.28				<0.001
	Perseverance	Constant	2.53	0.21		0.27	0.07	0.07	<0.001
		AEF	0.02	0.00	0.27				<0.001
	Zest	Constant	1.59	0.29		0.32	0.10	0.10	<0.001
		AEM	0.03	0.01	0.32				<0.001
WISDOM	Creativity	Constant	2.14	0.33		0.32	0.10	0.02	<0.001
		AEM	0.01	0.01	0.18				.02
		PF	0.01	0.01	0.19				.01
		AEF	0.01	0.01	0.19				.02
	Curiosity	Constant	2.92	0.19		0.26	0.06	0.07	<0.001
		AEF	0.02	0.00	0.26				<0.001
	Love of learning	Constant	1.76	0.50		0.32	0.10	0.03	<0.001
		AEF	0.03	0.01	0.51				<0.001
		ANF	0.03	0.01	.30				<0.001
	Judgment	Constant	3.65	0.18		0.15	0.02	0.02	<0.001
		AEM	0.01	0.00	0.15				.02
	Perspective	Constant	2.26	0.38		0.21	0.04	0.02	<0.001
		AEM	0.02	0.00	0.23				<0.001
		PM	0.01	0.01	0.14				.04
JUSTICE	Fairness	Constant	3.14	0.18		0.19	0.03	0.04	<0.001
		AEF	0.01	0.00	0.19				<0.001
	Leadership	Constant	2.41	0.28		0.22	0.04	0.05	<0.001
		AEM	0.02	0.01	0.22				<0.001
	Teamwork	Constant	2.29	0.39		0.33	0.10	0.03	<0.001
		AEM	0.02	0.00	0.48				<0.001
		ANM	0.02	0.01	0.25				.01
TEMPERANCE	Prudence	Constant	3.06	0.22		0.19	0.03	0.04	<0.001
		AEM	0.01	0.00	0.19				<0.001
	Self-Regulation	Constant	2.53	0.19		0.27	0.07	0.07	<0.001
		AEF	0.02	0.00	0.27				<0.001
HUMANITY	Kindness	Constant	3.12	0.20		0.29	0.08	0.09	<0.001
		AEM	0.02	0.00	0.29				<0.001
	Love	Constant	2.44	0.28		0.29	0.08	0.08	<0.001
		AEM	0.02	0.01	0.29				<0.001
	Social Intelligence	Constant	2.24	0.33		0.29	0.08	0.03	<0.001
		AEM	0.02	0.00	0.32				<0.001
		PM	0.01	0.01	0.20				<0.001

* Non-standardized β Coefficient

is 0.32. When the sign of the regression coefficient is examined, shows that there are positive and significant relationships between authoritative motherhood and the zest character strength. According to this, it can be said that university students who have the zest character strength interpret their mothers' child-rearing styles more democratically.

Looking at Table 5, shows that the parenting styles of the university students' parents significantly predicted all the character strengths within the virtue of wisdom. It is seen that there are three predictor variables in the regression equation related to the creativity character strength, and this analysis was completed in three stages. Authoritative motherhood, protective fatherhood, and authoritative fatherhood were included as predictive variables in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.10. In other words, authoritative motherhood protective and authoritative fatherhood explain 10% of university students' creativity character strength. The fact that 10% of the creativity character strength of university students is explained by authoritative motherhood, protective and authoritative fatherhood shows that other variables explain 90%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.11$). The fact that the explained variance is low or the effect size index is at a small effect level shows that the predictors in this analysis are not very effective on the creativity character strength of university students. The variables with the creativity character strength and the highest standardized β coefficient are protective and authoritative fatherhood ($\beta = 0.19$). When the signs of the regression coefficients are examined, shows that there are positive and significant relationships between all predictors and creativity character strength. According to this, it can be said that university students who have the creativity character strength interpret their mothers' child-rearing styles as more democratic and their fathers' child-rearing styles as more protective or democratic.

When the analysis results in Table 5 are examined in terms of the curiosity character strength under the virtue of wisdom, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative fatherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.06. In other words, the authoritative fatherhood explains 6% of the curiosity character strength. The fact that 6% of the curiosity character strength of university students is explained by the authoritative fatherhood variable shows that other variables explain 94%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.064$). The fact that the explained variance is low and the effect size index is small shows that the predictor in this analysis is not very effective on the curiosity character strength of university students. The standardized β coefficient of the predictive variable of authoritative fatherhood is 0.26. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative fatherhood and creativity character strength. Accordingly, it can be said that university students who have the creativity character strength to interpret their fathers' child-rearing styles more democratically.

In Table 5, it is seen that there are two predictor variables related to the love of learning, another character strength under the virtue of wisdom, and this analysis was completed in two stages. Authoritative fatherhood and authoritarian fatherhood were included as predictive variables in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.10. In other words, authoritative and authoritarian fatherhood explain 10% of university students' love of learning character strength. The fact that 10% of university students' love of learning character strength is explained by authoritative and authoritarian fatherhood shows that other variables explain 90%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.11$). The fact that the explained variance is low or the effect size index is at a small effect level shows that the predictors in this analysis are not very effective on the love of learning character strength of university students. Authoritative fatherhood is a variable love of learning character strength, the highest standardized β coefficient ($\beta = 0.51$). When the signs of the regression coefficients are examined, shows that there are positive significant relationships between all predictors and the love of learning character strength. Accordingly, it can be said that university students who have a love of learning character strength interpret their fathers' child-rearing styles as more democratic or authoritarian.

When the analysis results in Table 5 are examined in terms of the judgment character strength under the virtue of wisdom, it is seen that there is only one predictor variable in the regression equation, and this analysis was

completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.02. In other words, authoritative motherhood explains 2% of the judgment character strength of university students. The fact that 2% of the judgment character strength of university students is explained by authoritative motherhood shows that other variables explain 98%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.02$). The fact that the explained variance is low or the effect size index is also at a small effect level indicates that the predictor in this analysis is not very effective on the judgment character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.15. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and judgment character strength. Accordingly, it can be said that university students with judgment character strength interpret their mothers' child-rearing styles more democratically.

Looking at Table 5, it is seen that there are two predictor variables in the regression equation related to perspective, which is another character strength under the virtue of wisdom, and this analysis was completed in two stages. Authoritative and protective motherhood were included as predictor variables in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.04. In other words, authoritative and protective motherhood explains 4% of university students' perspective character strength. The fact that 4% of the perspective character strength of university students is explained by authoritative and protective motherhood shows that other variables explain 96%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.04$). The fact that the explained variance is low or the effect size index is at a small effect level indicates that the predictors in this analysis are not very effective in the perspective character strength of university students. Authoritative motherhood is the variable with perspective character strength and the highest standardized β coefficient ($\beta = 0.23$). When the signs of the regression coefficients are examined, shows that there are positive significant relationships between all predictors and the perspective character strength. Accordingly, it can be said that university students who have the perspective character strength interpret their mothers' child-rearing styles as more democratic or protective.

When the analysis results in Table 5 are examined, it is seen that the parenting styles of the university student's parents significantly predict all the character strengths within the virtue of justice. It is seen that there is only one predictor variable in the regression equation for predicting fairness character strength, and this analysis was completed in one step. Authoritative fatherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.03. In other words, the authoritative fatherhood explains 3% of the fairness character strength of university students. The fact that 3% of the fairness character strength of university students is explained by authoritative fatherhood shows that 97% is explained by other variables. At the same time, this regression analysis has a small effect size index ($f^2 = 0.03$). The fact that the explained variance is low or the effect size index is also at a small effect level indicates that the predictor in this analysis is not very effective on the fairness character strength of university students. The standardized β coefficient of the predictive variable of authoritative fatherhood is 0.19. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative fatherhood and fairness character strength. Accordingly, it can be said that university students who have fairness character strength interpret their fathers' child-rearing styles more democratically.

Table 5 shows that only one predictor variable is associated with leadership another character strength under the virtue of justice. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.04. In other words, authoritative motherhood explains 4% of the leadership character strength of university students. The fact that 4% of the leadership character strength of university students is explained by authoritative motherhood shows that other variables explain 96%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.04$). The fact that the explained variance is low or the effect size index is at a small effect level shows that the predictor in this analysis is not very effective on the leadership character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.22. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and leadership character strength. Accordingly, it can be said that university students with leadership character strength interpret their mothers' child-rearing styles more democratically.

When the analysis results in Table 4 are examined in terms of teamwork character strength under the virtue of justice, it is seen that there are two predictor variables in the regression equation. This analysis was completed in two stages. Authoritative and authoritarian motherhood entered the regression equation as the predictor variable. The adjusted R^2 value for all variables in the analysis is 0.10. In other words, authoritative and authoritarian motherhood explains 10% of university students' teamwork character strength. The fact that 10% of university students' teamwork character strength is explained by authoritative and authoritarian motherhood shows that other variables explain 90%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.11$). The fact that the explained variance is low or the effect size index is also at a small effect level shows that the predictors in this analysis are not very effective on the teamwork character strength of university students. Authoritative motherhood is the variable with the teamwork character strength and the highest standardized β coefficient ($\beta = 0.48$). When the signs of the regression coefficients are examined, shows that there are positive significant relationships between all predictors and teamwork character strength. Accordingly, it can be said that university students who have teamwork character strength interpret their mothers' child-rearing styles as more democratic or authoritarian.

Table 5 shows that the parenting styles of university students' parents significantly predict their children's prudence and self-regulation character strengths within the virtue of temperance. It is seen that there is only one predictor variable in the regression equation related to prudence character strength, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.03. In other words, authoritative motherhood explains 3% of the prudence character strength. The fact that the authoritative motherhood variable explains 3% of the prudence character strength of university students shows that other variables other variables explain 97%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.03$). The low explained variance and the small effect size index show that the predictor in this analysis is not very effective on prudence character strength in university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.19. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and prudence character strength. Accordingly, it can be said that university students with prudence character strength interpret their mothers' child-rearing styles more democratically.

When the analysis results in Table 5 are examined in terms of self-regulation character strength under the virtue of temperance, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative fatherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.07. In other words, the authoritative fatherhood explains 7% of the self-regulation character strength. The fact that 7% of the self-regulation character strength of university students is explained by the authoritative fatherhood variable shows that other variables explain 93%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.08$). The low explained variance and the small effect size index show that the predictor in this analysis is not very effective on self-regulation character strength in university students. The standardized β coefficient of the predictive variable of authoritative fatherhood is 0.27. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative fatherhood and self-regulation character strength. Accordingly, it can be said that university students who have self-regulation character strength interpret their fathers' child-rearing styles more democratically.

Table 5 shows that the parenting styles of university students' parents significantly predict all character strengths under the virtue of humanity. It is seen that there is only one predictor variable in the regression equation related to the kindness character strength, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.08. In other words, authoritative motherhood explains 8% of the kindness character strength. The fact that the authoritative motherhood variable explains 8% of university students' kindness character strength shows that other variables explain 92%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.09$). The low explained variance and the small effect size index show that

the predictor in this analysis is not very effective on the kindness character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.29. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and the kindness character strength. Accordingly, it can be said that university students who have kindness character strength interpret their mothers' child-rearing styles more democratically.

When the analysis results in Table 5 are examined in terms of love character strength under the virtue of humanity, it is seen that there is only one predictor variable in the regression equation, and this analysis was completed in one step. Authoritative motherhood was included as a predictor variable in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.08. In other words, authoritative motherhood explains 8% of the love character strength of university students. The fact that 8% of the love character strength of university students is explained by authoritative motherhood shows that other variables explain 92%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.09$). The low explained variance and the small effect size index show that the predictor in this analysis is not very effective on the love character strength of university students. The standardized β coefficient of the predictive variable of authoritative motherhood is 0.29. Looking at the sign of the regression coefficient, shows that there are positive and significant relationships between authoritative motherhood and love character strength. Accordingly, it can be said that university students who have the love character strength interpret their mothers' child-rearing styles more democratically.

Looking at Table 5, it is seen that there are two predictor variables in the regression equation related to social intelligence, which is another character strength under the virtue of humanity, and this analysis was completed in two stages. Authoritative and protective motherhood were included as predictor variables in the regression equation. The adjusted R^2 value for all variables in the analysis is 0.08. In other words, authoritative and protective motherhood explain 8% of university students' social intelligence character strength. The fact that 8% of the social intelligence character strength of university students is explained by authoritative and protective motherhood shows that other variables explain 92%. At the same time, this regression analysis has a small effect size index ($f^2 = 0.09$). The fact that the explained variance is low or the effect size index is at a small effect level shows that the predictors in this analysis are not very effective on the social intelligence character strength of university students. Authoritative motherhood is the variable with social intelligence character strength and the highest standardized β coefficient ($\beta = 0.32$). When the signs of the regression coefficients are examined, shows that there are positive significant relationships between all predictors and social intelligence character strength. Accordingly, it can be said that university students with social intelligence character strength interpret their mothers' child-rearing styles as more democratic or protective.

Discussion

In this study, the relationships between the character strengths of individuals aged 19-25 and their parents' parenting styles were examined. According to the results of the study, significant gender differences were found in the character strengths within all other virtues except the virtue of justice. As a result of the calculated correlations, it was determined that all character strengths except humor under the virtue of transcendence and the forgiveness and modesty character strengths under the virtue of temperance showed significant relationships with the parenting styles of the parents of the university students. Looking at the findings of the regression analysis, it was determined that authoritative motherhood and authoritative fatherhood styles significantly predicted all character strengths under the virtues of courage, wisdom, justice, and humanity.

According to the study's findings, university students' scores on twenty-one character strengths differ significantly according to their gender. Female college students scored higher than male college students on the appreciation of beauty and excellence, forgiveness, gratitude, kindness, and love character strengths. Male university students, on the other hand, got higher scores than female students in terms of bravery, creativity, and humor. In support of this finding, in other studies conducted with university students in the literature, it was determined that female students scored significantly higher on the kindness, gratitude, forgiveness, appreciation of beauty and excellence character strengths, and male students scored significantly higher on creativity and bravery character strengths (Heintz et al., 2017; Karris, 2007; Schimai et al., 2006; Zhang & Chen, 2018). Different from the findings of the current study, there are also studies in the literature that show

that female students have higher scores on prudence, fairness, leadership, and teamwork character strengths, while male students score significantly higher on self-regulation, open-mindedness, perspective, and judgment character strengths (Karris, 2007; Schimai et al., 2006; Zhang & Chen, 2018). As a result of the studies conducted by Choudbury and Borooah (2017) with 240 university students, it was found that the character strengths of the students did not differ significantly according to their gender.

Results from this study showed that female university students came to the fore in character strengths of interest and compassion, and male university students were more prominent in character strengths that helped to reveal personal skills and characteristics. From the evolutionary perspective explaining this resulting gender difference in character strengths, women are more likely to approve of character strengths such as kindness and love, possibly because such character strengths are related to their natural evolutionary traits. From the same perspective, males are more likely to support character strengths such as bravery, judgment, and versatile perspective, possibly due to their natural, evolutionary role in hunting and foraging for survival (Brdar et al., 2011). The fact that the current finding of this study is supported by studies conducted in other cultures may be a sign of the justification of this evolutionary perspective approach. The cases where the finding is not supported can be explained by the social construction perspective (Brdar et al., 2011) and cultural values adopted by different societies (Niemiec, 2013), which are effective in the emergence of gender differences in character strengths. According to the social construction perspective, men and women develop different characteristics and qualities because they have different social roles. Specifically, men tend to be tough and strong as they are more likely to develop traits such as self-confidence and invincibility and become the backbone of the family. Women are more likely to be sympathetic, attentive, and sensitive, allowing them to largely recognize the needs and emotional expressions of others (Brdar et al., 2011). According to the cultural values perspective, gender differences are largely shaped by the cultural values prevailing in individualist and collectivist societies (Niemiec, 2013). In this study, which was carried out in a collectivist society, it can be said that women come to the fore in their character strengths to take care of and care for the needs of others as a requirement for individuals to behave in accordance with the social and gender roles they have acquired as a result of their socialization. On the other hand, it can be interpreted that men stand out more in planning analysis and character strengths of extroverted nature to ensure the livelihood and safety of the family.

Authoritative parenting style strongly explains the moral development of college students as expressed in certain parental behaviors that reflect non-aggressive control and positive empowerment (Vaden, 2001). The findings of this study, it was revealed that authoritative motherhood has positive and significant relationships with all character strengths of university students except forgiveness, humor and modesty. As a result of the regression analysis, it was determined that while authoritative motherhood significantly predicted the sixteen character strengths, it alone significantly predicted the appreciation of beauty and excellence, gratitude, honesty, hope, judgment, kindness, leadership, love, prudence, spirituality, and zest character strengths. It has been determined that authoritative fatherhood has positive and significant relationships with all the character strengths associated with authoritative motherhood, except for the bravery and perspective character strengths of the university students. The regression analysis showed that while authoritative fatherhood significantly predicted creativity, curiosity, fairness, love of learning, perseverance, and self-regulation character strengths, it alone significantly predicted curiosity, fairness, perseverance, and self-regulation character strengths. Supporting the results of this study, studies in the literature have also revealed that the authoritative style of mothers and their related parenting practices show significant relationships with individuals' love, kindness, emotional intelligence, and forgiveness characteristics (Gugliandolo et al., 2019; Mo, 2019; Neal, 2006; Tahir & Jabeen,2022). Likewise, some studies have shown that maternal parenting styles have stronger relationships with outcomes in an individual's life than paternal parenting styles. It has been suggested that maternal parents affect late adolescent adjustment more strongly than paternal parents (Barton & Kirtley, 2012). Especially in collectivist cultures, mothers are considered more responsible for raising children and are generally more friendly and nurturing. In these cultures, fathers are viewed primarily as providers of economic resources for the family. For this reason, they are expected to be more rigid and less friendly (Saleem et al., 2015). In this study, which was carried out in a society with a collectivist culture, it can be said that although mothers are relatively more independent from themselves, they have more influence on the character strengths of their

university students than their fathers. During the university period, the individual starts to live in a more autonomous structure from his mother compared to the previous developmental periods. However, he will continue to maintain relations with her, especially if she has an authoritative style. This may explain the continuing influence of the authoritative mother on the individual. In addition to playing a key role in social and emotional development as the first attachment figure, mothers may also act as an important role models in moral development with their behaviors within the scope of the authoritative parenting style they adopt. In addition to being role models, it can be argued that they support the development of many character strengths in their children from an early age by supporting their children to express their thoughts and gain new experiences, and by enabling them to correct their mistakes constructively.

According to the findings of this study, protective motherhood has negative and significant relationships with university students' character strengths of fairness, gratitude, honesty, hope, kindness, love, spirituality, and zest. As a result of the regression analysis, protective motherhood entered the equation together with authoritative motherhood in predicting the perspective and social intelligence character strengths of the university students. It was determined that protective fatherhood had negative and significant relationships with the gratitude, honesty, and kindness character strengths of the university students. The regression analysis showed that that protective fatherhood was included in the equation with the authoritative motherhood and authoritative fatherhood style in predicting only the creative character strength of university students. In support of these findings, studies conducted with university students showed that the protective parenting style was negatively correlated with self-compassion and distress tolerance skills (Eker & Kaya, 2018; Perez et al., 2020; Yılmaz, 2009). In a study of university students, contrary to the research findings, it was determined that there were positive significant relationships between the protective parenting style and compassionate love (Eker & Kaya, 2018). In particular, it was expected that university students, who became more autonomous in all areas of their lives, would conflict with the overprotective attitudes of their parents. In the development of character strengths, which are concrete indicators of moral development, it is important for the individual to experience different life events and to make evaluations about themselves as a result of these experiences. Parents with protective parenting style undertake every task on behalf of their children and deprive them of new experiences. This may explain the inverse relationship between relevant character strengths and protective parenting style.

There is no study in the literature that explains the relationship between the protective styles of parents of different genders and the character strengths of their children. The results of the present study revealed that mothers were more effective in terms of the number of entering the regression equation in this parenting style, just as in the authoritative style. The findings of this study, which was carried out in a society with a collectivist culture, show that mothers are more connected with their university student children, even if they are in a relatively more autonomous state. For this reason, it can be interpreted that whether mothers adopt positive parenting practices, such as authoritative attitudes, or more negative parenting practices, such as protective attitudes, they have more influence on their children's moral development in general and character strengths in particular.

According to the current study, authoritarian motherhood has negative relationships with creativity, gratitude, honesty, hope, kindness, love, self-regulation, spirituality, and zest character strengths in university students. As a result of regression analysis, only the teamwork character strength of university students was included in the equation, together with authoritative motherhood in predicting character strength. Authoritarian fatherhood has negative relationships with curiosity, fairness, gratitude, honesty, kindness, perseverance, self-regulation, and spirituality character strengths. As a result of the regression analysis, entered the equation with the authoritative fatherhood in predicting only the love of learning character strength of university students. In support of these findings, studies conducted with university students showed that authoritarian parenting style was negatively correlated with self-compassion and forgiveness (Eker & Kaya, 2018; Harrison, 2012; Yılmaz, 2009). According to Ngai's (2015) study, parental control negatively predicted the honesty, bravery, perseverance, kindness, love, social intelligence, fairness, and self-regulation character strengths of individuals aged between 11 and 20. It is also known that adolescents who evaluate their parents as authoritarian have lower emotional intelligence scores (Argyriou et al., 2016). Just like the protective parenting style, the authoritarian parenting style restricts the children's acquisition of new experiences and self-evaluation within

the framework of these experiences. Unlike the protective parenting style, the authoritarian parenting style does not provide a good start for the individual to discover their positive characteristics, as it does not allow for a warm and accepting parent-child relationship. For this reason, as revealed in the findings of the current study, individuals who consider their parents more authoritarian may stay in the background in some character strengths compared to their peers.

A study conducted in North America revealed that maternal rejection hinders children's emotional self-efficacy development, but father rejection does not (Niditch & Varela, 2012). Apart from similar research results, no study has been found in the literature that explains the relationship between the authoritarian styles of parents of different genders and the character strengths of their children. The results of the present study revealed that mothers were more effective in terms of the number of entering the regression equation in this parenting style, just as in the authoritative and protective styles. According to Vaden (2001), gender inequality in families leads to parenting differences. Resources and opportunities are presented differently for different gender roles in traditional family contexts, causing parents to adopt different perspectives on justice and care (Vaden, 2001). It can be said that in addition to the differentiation in gender roles brought about by the collectivist culture in which the participant group of the present study is included, the gender inequality arising from the traditional family structure also works in favor of the mothers. Whether it is positive or negative parenting practices, the fact that mothers are the first attachment figures can also be considered as a possible factor apart from the evolutionary, social, and cultural influence. Especially when an authoritarian mother cannot offer enough closeness and warmth to the individual as the first object of love, the individual cannot be expected to develop positive internal working models. As a result, social and moral development in general and the development of character strengths in particular may be adversely affected.

Limitations

The present study contributes to the literature on the links between the parenting styles of parents and the character strengths of university students, but it also has some limitations. First of all, the simple relational design was used in this study, in which the descriptive model was adopted. In this study, in which cross-sectional data were obtained, causal inference and generalizability are limited. Future studies should use the experimental research model to detect causal relationships between relevant variables. Secondly, its generalizability is limited as the sample mainly consists of female students and people studying at a single university. Care should be taken to use different study groups in terms of gender and university in future studies on this subject. The variables discussed in the study are limited to the measurements of self-reported measurement tools. In future studies where variables affecting character strengths will be investigated, research can be planned in which the information obtained from mixed design or self-report measurement tools is supported by qualitative data collection methods. Finally, one of the limitations of this study is that it assumes that character strengths are only influenced by parental styles. In future studies where variables affecting character strengths will be investigated, variables such as temperament characteristics and early childhood experiences may be included in addition to familial variables.

Suggestions

The present study, with its findings describing the effect of the family psycho-social environment on the character strengths of university students, shows the preliminary mechanisms that can help the moral development of individuals, thus enriching the theory of character strengths and providing reference to relevant empirical studies. The findings of the current study may shed light on the practices of developing the character strengths of university students. According to Liu and Wang (2021), parents should treat their children more warmly, encouragingly and respectfully, and increase parent-child interactive activities. Because these behaviors promote a positive family psycho-social environment and ultimately strengthen the positive character (Liu & Wang, 2021). Considering the findings of the current study, the fact that university students are so related to their character strengths, even if they are in a more autonomous development period, suggests that parenting sensitivity training to be given to mothers will be beneficial in the development of individuals' character strengths from a younger age. Providing such training to caregivers responsible for individuals who have lost their mothers may be an appropriate approach to support the development of their character strengths.

Conclusion

The results of the study showed that female students scored higher, especially in character strengths under the virtue of humanity. It has been determined that university students' character strengths other than humor, forgiveness, and modesty have positive and significant relationships with the authoritative parenting style, which defines positive parenting practices. It has been revealed that protective and authoritarian parenting styles other than the authoritative parenting style do not have a strong effect on character strengths. In terms of the genders of the parents, it was determined that the parenting styles of the mother significantly predicted all the character strengths within the virtues of courage, wisdom, justice, and humanity. The fact that they showed a small effect size in terms of the level of prediction shows that the effect of parenting styles on the character strengths of university students is not very large. Other family-related variables can also be included in the process in order to examine further the effect of family on the character strengths of university students who have become more autonomous compared to other developmental stages.

Author Contributions: The concept and design of the study, material preparation, data collection and analysis were carried out by the author. The first draft and final version of the manuscript were written, read and revised by the author.

Funding Disclosure: No funding was received to assist with the preparation of this manuscript.

Conflicts of Interest: The author declares that she has no conflicts of interest.

Data Availability: The datasets generated during and/or analyzed during the current study are available in the Dataverse repository, [doi: 10.7910/DVN/1QEOJM,]

Ethics Approval and Consent to Participate: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee (Bursa Uludag University Social and Human Sciences Research and Publication Ethics Committee) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

References

Akbulut, Ö., & Çapık, C. (2022). Multivariate statistical analysis and required sample size. *Journal of Nursology, 25* (2), 111-116. https://doi.org/ 10.5152/JANHS.2022.970637

Allan, B. A. (2015). Balance among character strengths and meaning in life. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being, 16*(5), 1247–1261. https://doi.org/ 10.1007/s10902-014-9557-9

Anjum, A. & Amjad, N. (2016). Character strengths and wellbeing: A discriminant analysis between young adults from counseling centres and community samples. *Pakistan Journal of Social and Clinical Psychology, 14,* 1, 3-14. Retrieved from https://www.gcu.edu.pk/pages/gcupress/pjscp/volumes/pjscp20161-1.pdf

Argyriou, E., Bakoyannis, G., & Tantaros, S. (2016). Parenting styles and trait emotional intelligence in adolescence. *Scandinavian Journal of Psychology, 57*(1), 42–49. doi: 10.1111/sjop.12266

Barton, A. L., & Hirsch, J. K. (2016). Permissive parenting and mental health in college students: Mediating effects of academic entitlement. *Journal of American College Health, 64*:1, 1-8. http://doi.org/10.1080/07448481.2015.1060597

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence, 11*, 56–95. http://doi.org/10.1177/0272431691111004

Baumrind, D. (1998). Reflections on character and competence. In A. Colby, J. James, and D. Hart (Eds.) *Competence and Character through life* (pp. 1-28). The University of Chicago Press.

Berge, J. M., Wall, M., Loth, K., & Neumark-Sztainer, D. (2010). Parenting style as a predictor of youth weight and weight-related behaviors. *Journal of Youth Health, 46*(4), 331-338. http://doi.org/10.1016/j.jadohealth.2009.08.004

Bernebée-Say, L. (2020). *Relationship between character strengths and lower levels of college-related stress and test anxiety* (Publication No. 82835) [Bachelor Thesis, University of Twente]. University Of Twente Student Theses

Brdar, I., Ani´c, P., and Rijavec, M. (2011). Character strengths and well-being: are there gender differences? *The Human Pursuit of Well-Being, 95*, 145–156. http://doi.org/10.1007/978-94-007-1375-8_13

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Lawrence Erlbaum Associates

Demirci, İ., Güldal, Ş. & Ekşi, H. (2021, October). Classification and Measurement of Character Strengths: VIA-IS-P and GASC-24 Forms . E. Hamarta (Ed.), *Proceedings of 22ⁿᵈ International Congress on Psychological Counselling and Guidance* (pp.477-479), Ankara: Türk Psikolojik Danışma ve Rehberlik Derneği Yayınları.

Eker, H. & Kaya, M. (2018). Examining university students' self-compassion and compassionate love levels in terms of perceived parental attitudes. *Journal of Education and Training Studies, 6*, 11. http://doi.org/10.11114/jets.v6i11.3407

Ekşi, H. Demirci, İ., Albayrak, İ., & Ekşi, F. (2022). The predictive roles of character strengths and personality traits on flourishing. *International Journal of Psychology and Educational Studies, 9*(2), 353-367. http://doi.org/10.52380/ijpes.2022.9.2.534

Gilligan, C., & Wiggins, G. (1987). The origins of morality in early childhood relationships. In J. Kagan & S. Lamb (Eds.), *The emergence of morality in young children* (pp. 277–305). University of Chicago Press.

Griffin, E. F. (2014). *The effects of time-perspective and character strengths on the success, psychological health and subjective well-being of undergraduate students* (Publication no: 1782842348) [Doctoral dissertation, De Montfort University]. ProQuest Dissertations & Theses Global.

Grinhauz, A. S., Azzara, S. H., & Azzollini, S. (2022). Can character strengths predict college adjustment? A study carried out in nursing students in the Argentine Republic. *Trends in Psychology*, 1-13. http://doi.org/10.1007/s43076-022-00215-1

Gugliandolo, M. C., Mavroveli, S., Costa, S., Cuzzocrea, F., & Larcan, R. (2019). The relative contribution of parenting practices in predicting trait emotional intelligence in an Italian adolescent sample. *British Journal of Developmental Psychology, 37*(4),585–599. http://doi.org/10.1111/bjdp.12299

Harrison, T. L. (2012). *Parenting styles and self-forgiveness: Are guilt and shame mediators?* (Publication no: 1466299947) [Doctoral dissertation, Trevecca Nazarene University]. ProQuest Dissertations & Theses Global.

Hawkins, S. M. (2005). *The influence of parenting styles on the development of moral judgment in college level adolescents* (Publication no: 58825016) [Doctoral dissertation, Liberty University]. CORE.

Heintz, S., Kramm, C., & Ruch, W. (2017). A meta-analysis of gender differences in character strengths and age, nation, and measure as moderators. *Journal of Positive Psychology*, *16*(4), 97-110. http://doi.org/10.1080/17439760.2017.1414297

Karris, M. A. (2007). *Character strengths and well-being in a college sample* (Publication no: 304889523) [Doctoral dissertation. University of Colorado]. ProQuest Dissertations & Theses Global.

Kaya, C. (2022). Adaptation and preliminary validation of a positive psychology assessment tool: Character strengths semantic differential scale. *Journal of Psychoeducational Assessment, 40*(4) 451–464. http://doi.org/10.1177/07342829211070404

Kriegbaum, K., Villarreal, B., Wu, V. C., & Heckhausen, J. (2016). Parents still matter: patterns of shared agency with parents predict college students' academic motivation and achievement. *Motivation Science, 2*(2), 97–115. http://doi.org/10.1037/mot0000033

Kuzgun, Y. (1972). *Anne-baba tutumlarının bireyin kendini gerçekleştirme düzeyine etkisi.* [Unpublished Master Thesis]. Hacettepe University.

Kuzgun, Y. & Eldeleklioğlu, J. (2005). Ana-baba tutumları ölçeği (Ergen ve Yetişkinler için). Y. Kuzgun & F. Bacanlı (Eds) *PDR'de kullanılan ölçekler* (pp.143-151)**.** Nobel Publishing.

Linley, P. A., Maltby, J., Wood, A. M., Joseph, S., Harrington, S., Peterson, C., Park, N. & Seligman, M. E. (2007). Character strengths in the United Kingdom: The VIA inventory of strengths. *Personality and Individual Differences*, *43*(2), 341-351. http://doi.org/10.1016/j.paid.2006.12.004

Liu, Q. & Wang, Z. (2021). Associations between parental emotional warmth, parental attachment, peer attachment, and adolescents' character strengths. *Children and Youth Services Review, 120*, 105765. http://doi.org/10.1016/j.childyouth.2020.105765

Loton, D. J. & Waters, L. E. (2017). The mediating effect of self-efficacy in the connections between strength-based parenting, happiness and psychological distress in teens. *Frontiers in Psychology, 8*(1707). http://doi.org/10.3389/fpsyg.2017.01707

Lounsbury, J. W., Fisher, L. A., Levy, J. J., & Welsh, D. A. (2009). An investigation of character strengths in relation to the academic success of college students. *Individual Differences Research, 7,* 52-69.

Luo, H.; Liu, Q.; Yu, C.; Nie, Y.(2021). Parental warmth, gratitude, and prosocial behavior among Chinese adolescents: The moderating effect of school climate. *International Journal of Environmental Research and Public Health, 18,* 7033. http://doi.org/10.3390/ijerph18137033

McGrath, R. E. (February 2019). *Technical report: The VIA assessment suite for adults: Developmental initial evaluation (rev. ed.).* Retrieved from https://evada-assets.global.ssl.fastly.net/76d1ea39-a4eb-4270-b9dc-899653415f8f/assets/Technical%20Report%20Revised%20Edition%202019_1.pdf

Mo, T. S. (2019). The effect of parenting styles on strengths of humanity: love, kindness and social ıntelligence in Myanmar adolescents**.** *Research on Humanities and Social Sciences, 9*, 8. http://doi.org/10.7176/RHSS

Murrell, L. (2015). *Character strengths and well-being: Differences in social activity among college students* (Publication no: 10140545) [Doctoral dissertation. Oklahoma State University]. ProQuest Dissertations & Theses Global.

Neal, K. L. (2006). *The relationship between children's propensity to forgive, parents' propensity to forgive and parenting practices* (Publication no: 304916872) [Doctoral dissertation. George Mason University]. ProQuest Dissertations & Theses Global.

Niditch, L. A., & Varela, R. E. (2012). Perceptions of parenting, emotional self-efficacy, and anxiety in youth: Test of a mediational model. *Child & Youth Care Forum, 41*, 21–35. http://doi.org/10.1007/s10566-011-9150-x

Newcomb, M. D. (1997). General deviance and psychological distress: Impact of family support/bonding over 12 years from adolescence to adulthood. *Criminal Behaviour and Mental Health, 7,* 369-400. http://doi.org/10.1002/cbm.196

Ngai, S. S. (2015). Parental bonding and character strengths among Chinese adolescents in Hong Kong. *International Journal of Adolescence and Youth, 20*(3), 317-333. http://doi.org/10.1080/02673843.2015.1007879

Niemiec, R. M. (2013). VIA character strengths: Research and practice (The first 10 years). In H. H. Knoop & A. DelleFave (Eds.), *Well-being and cultures: Perspectives on positive psychology* (pp. 11-30). Springer.

Noronha, A. P. P. & Martins, D. F. (2016). Associations between character strengths and life satisfaction: A study with college students. *Acta Colombiana de Psicología*, *19* (2). http://doi.org/10.14718/ACP.2016.19.2.5

Parke, R.D. (1995). Fathers and families. In M.H. Bornstein (Ed.), *Handbook of parenting (Vol. 3): Status and social conditions of parenting* (pp. 27-63). Erlbaum.

Park, N. (2004). Character strengths and positive youth development. *The Annals of the American Academy of Political and Social Science, 591*, 40–54. http://doi.org/10.1177/0002716203260079

Perez, C. M., Nicholson, B. C., Dahlen, E. R., & Leuty, M. E. (2020). Overparenting and emerging adults' mental health: The mediating role of emotional distress tolerance. *Journal of Child and Family Studies, 29,* 374–381. http://doi.org/10.1007/s10826-019-01603-5

Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification.* Oxford University Press.

Peterson, C., & Park, N. (2007). Attachment security and its benefits in context. *Psychological Inquiry, 18*, 172–176. http://doi.org/10.1080/10478400701512752

Raimundi, M. J., Molina, M. F., Schmidt, V., & Hern´andez-Mendo, A. (2019). Family functioning profiles and character strengths in young elite athletes from Argentina. *International Journal of Sport and Exercise Psychology, 17*(1), 32–51. http://doi.org/10.1080/1612197x.2016.1189949

Ratner, B. (2009). The correlation coefficient: Its values range between+ 1/− 1, or do they? *Journal of Targeting, Measurement and Analysis for Marketing, 17*(2), 139- 42. http://doi.org/10.1057/jt.2009.5

Saleem, S., Mahmood, Z., & Subhan, S. (2015). Perceived parental practices and mental health problems: Cross-cultural validation of EMBU-C on Pakistani adolescents. *FWU Journal of Social Sciences, 9*(1), 44–52.

Saleem, M., Javed, H. A., & Durrani, A. K. (2020). Impact of character strength on life satisfaction of adolescents from Punjab: Moderating role of authoritative parenting style. *University of Wah Journal of Social Sciences, 3*, 2, 28-42.

Schafer, R. M. (2011). *The relationship between the functions of school refusal behaviour and family environment* [Master's thesis. University of Nevada]. Digital Scholarship.

Schaper, J. (2020). *Character strengths and coping styles in regard to perceived stress in a university student sample* (Publication No. 82327) [Bachelor Thesis, University of Twente]. University Of Twente Student Theses.

Shimai, S., Otake, K., Park, N., Peterson, C., & Seligman, M. E. P. (2006). Convergence of character strengths ın Amerıcan and Japanese young adults. *Journal of Happiness Studies, 7*: 311-322. http://doi.org/10.1007/s10902-005-3647-7

Smetana, J.G. (1993). Conceptions of parental authority in divorced and married mothers and their adolescents. *Journal of Research on Adolescence, 3*(1), 19-39. http://doi.org/10.1207/s15327795jra0301_2

Smetana, J.G. (1999). The role of parents in moral development: A social domain analysis. *Journal of Moral Education, 28*(3), 311-321. http://doi.org/10.1080/030572499103106

Spinrad, T., Losoya, S., Eisenberg, N., Fabes, R., Shepard, S., Cumberland, A., Guthrie, I., & Murphy, B. (1999). The relations of parental affect and encouragement to children's moral emotions and behaviour. *Journal of Moral Education, 28* (3), 323-337. http://doi.org/10.1080/030572499103115

Sukkyung, Y., & Kim, A. N. (2016). Understanding aggression through attachment and social emotional competence in Korean middle school students. *School Psychology International, 37*(3), 255–270. http://doi.org/10.1177/0143034316631039

Tahir, R., & Jabeen, S. (2022). Parenting styles and psychological well-being: The role of emotional intelligence. *Journal of Professional & Applied Psychology*, *3*(3), 330-342. https://doi.org/10.52053/jpap.v3i3.119

Vaden, S. R. (2001). *The relationship of parenting styles to moral development in college students* (Publication no: 3029904) [Doctoral dissertation. The University of Memphis]. ProQuest Dissertations & Theses Global.

Wiepking, L. (2020). *The relation of character strengths, engagement coping and life satisfaction among students* (Publication No. 81676) [Bachelor Thesis, University of Twente]. University Of Twente Student Theses.

Williams, K. E., & Ciarrochi, J. (2019). Perceived parenting styles and values development: a longitudinal study of adolescents and emerging adults. *Journal of Research on Adolescence, 30*(10). http://doi.org/10.1111/jora.12542

Yılmaz, M. T. (2009). *Üniversite öğrencilerinin öz-anlayışları (self-compassion) ile anne baba tutumları arasındaki ilişkinin incelenmesi* (Thesis No: 249900) [Master Thesis, Selçuk University]. Council of Higher Education Thesis Center.

Zhang, Y. & Chen, M. (2018). Character strengths, strengths use, future self-continuity and subjective well-being among Chinese university students. *Frontiers in Psychology 9*: 1040. http://doi.org/10.3389/fpsyg.2018.01040

RESEARCH ARTICLE

The Effect of Marriage Enrichment Program on Spousal Burnout of Married Women

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ABSTRACT

This study examines the effect of the Marriage Enrichment Program on spouse burnout. The study is a study with a pretest-posttest-follow-up test and experiment-control group. The study group consisted of 18 married women: nine in the experimental group and nine in the control group. A 10-session "Marriage Enrichment Program" based on awareness raising was applied to the experimental group. The study used the spousal Burnout Scale and Personal Information Form as data collection tools. The spousal Burnout Scale was applied to the experimental and control groups as a pre-test, post-test and follow-up test. Whether the difference between the pretest-posttest-follow-up test mean scores of the experimental and control groups was significant was determined using the Mann-Whitney U test and Wilcoxon Signed Ranking test. As a result of the analysis, it was seen that the Marriage Enrichment Program reduced spouse burnout. In addition, it was concluded that this effect lasted for at least 12 weeks according to the follow-up test result averages. In the control group, which was not treated, no improvement was observed in the levels of spouse burnout. The findings were interpreted, and suggestions were made as a result.

Marriage, which has its roots in ancient times, can be defined as a close relationship that includes formal and emotional bonds, which is still valid today. The marriage process, which is associated with monogamy, begins with the wish of two people to go on a happy journey together for the rest of their lives. However, the marriage process does not always go as desired, and the history of the troubles experienced in this process goes back to the history of humanity. There are many different ways to solve the problems experienced in this process. Everyone generally has an opinion on marriage, but the competencies required for a "healthy" marriage process may not be accessible to everyone. When marriage is considered a process, it can also be considered a union with competencies to be acquired. At this point, marriage enrichment programs can meet this need.

Both the mental and physical health of people depend on the state of their close relationships, such as marriage. A study determined that the problems experienced by the spouses during the marriage process were related to disappointment, hatred, sadness, anxiety, tension, hopelessness, hatred and hurt (Whitsitt, 1992). Also, a study examining the quality of close relationships found that the marital relationship strongly influences the development and treatment of psychiatric symptoms and the risk of relapse (Jakubowski et al., 2004). On the other hand, Levenson and Gottman (1985) found in their study that with the decrease in marital satisfaction, the health status of married participants deteriorated (Brooks et al., 2002). Depending on all these results, the problems that people experience during the marriage process affect the individual's well-being. It is also a fact

that spouses may need help from time to time in constructing and maintaining this state of well-being. At this stage, a functional marriage enrichment program can help couples with problems in the marriage process.

Some of the most critical decisions in human life are the decisions to marry and choose the individual to marry. The marital life that emerges after this is one of the essential elements that determine the satisfaction of the individual from life. With marriage, spouses want to preserve their physical, emotional and social satisfaction for many years. However, marital life does not always go smoothly at the desired level. In this process, the marital relationship between spouses becomes ordinary over time, and it is necessary to reconsider with a new perspective. In this context, marriage enrichment programs show themselves as programs that increase marital satisfaction, first in America and then worldwide.

Several studies have examined the impact of relationship enhancement programs on different aspects of romantic relationships. Yalçin and Ersever (2015) researched the Relationship Enhancement Program. They found that it significantly improved the relationship satisfaction of university students and their partners, although its effectiveness decreased after two months. Yilmaz and Kalkan (2010) focused on pre-marital relationship enhancement programs and reported that a seven-week program significantly increased couples' relationship satisfaction. Deveci-Sirin and Bayrakci (2020) investigated the Romantic Relationship Enrichment Program (RREP) and observed that it significantly enhanced couples' relationship satisfaction over two months. However, it did not significantly affect their romantic belief levels. These findings collectively emphasize the potential of relationship enhancement programs to positively impact relationship satisfaction, especially in preparation for marriage among young adults. Additionally, romantic relationships play a crucial role in human life, and relationship education programs, which provide strategies tailored to individuals' values and context, have been associated with numerous positive outcomes, including life satisfaction and physical well-being (Gazioğlu et al., 2022). However, despite their widespread use in Western countries, there is a need for further research to explore the effectiveness of these programs in the Turkish cultural context and to provide recommendations for their development (Gazioglu et al., 2022).

In Turkey, the Preparatory Marriage Program was prepared and implemented by Haskan-Avci (2013) based on Gottman's Strong Relationship House model. The Marriage Preparation Program prepared in this context discusses communication barriers and conflict resolution methods. This model consists of seven steps: creating a love map, sharing interest and admiration, turning towards each other instead of being away from each other, creating a positive perspective, managing conflict; supporting and realizing dreams and aspirations; creating a shared meaning" and these issues were addressed in the sessions (Haskan-Avci, 2013).

When we consider the family as a structure, the person will receive professional assistance for himself and other family members during the marriage process. The individual who is happy in the marriage process will also contribute to the happiness of his environment. Marriage enrichment programs can contribute to the happiness of individuals and, therefore, the whole family with their preventive and curative structures. In a study by Jafari et al. (2021), the researchers aimed to assess the impact of practical communication skills training on marital burnout among married women. The study involved 94 participants selected from a pool of 936 married women who exhibited high marital burnout. Participants were divided into an experimental group and a control group. The intervention included seven sessions specifically designed for the experimental group, focusing on practical communication skills. Results showed a significant reduction in marital burnout and improved effective communication skills among the experimental group. This suggests that enhancing effective communication skills can be valuable in reducing marital burnout and may have implications for pre-marital programs and married couples. In another study by Vurak-Batik and Kalkan (2019), the impact of the "Marital Relationships Enrichment Program for Couples in the Period of Transition to Parenthood" on couples expecting their first child was examined. The program, consisting of 8 group sessions and two follow-up sessions, significantly increased marital satisfaction among participants. The study highlighted the program's effectiveness in enhancing marital satisfaction both before and after the birth of their child.

In the context of our current study, which aims to evaluate the effects of a marital enrichment program on marital burnout, it is crucial to justify the investigation by considering the existing literature. Marital burnout, as identified in previous research, often arises due to a significant gap between individuals' expectations of

emotional relationships and the reality they experience (Pines, 2002; Zarei et al., 2013). This dissonance can lead to frustration and eventual boredom within the marital relationship. Furthermore, when individuals internalize idealized expectations of marriage as a source of meaning and problem-solving, unmet expectations can result in frustration and a perceived loss of significance in their lives (Pines, 2002; Zarei et al., 2013). This understanding of the dynamics of marital burnout underscores the importance of exploring interventions, such as marital enrichment programs, that may help bridge this gap and alleviate burnout.

Additionally, the concept of the self plays a pivotal role in the dynamics of marital burnout. Self-concept, shaped through interactions with the environment, is not static and can evolve through interpersonal experiences (Higgins, 1987). It has been demonstrated in previous research that the self-concept significantly influences marital relationships and overall satisfaction (Claxton et al., 2012). Therefore, considering the impact of self-concept on marital dynamics, it becomes apparent that addressing issues related to marital burnout can have a broader impact on individuals' overall sense of fulfilment and meaning in life.

Furthermore, the significance of spousal support within marriage cannot be understated. Marriage is a fundamental institution that provides emotional, social, and physical intimacy, signifying emotional value, love, and respect between partners (Çag & Yildirim, 2013). A satisfying marriage contributes to emotional well-being and helps couples cope with stress and depression (Kiecolt-Glaser & Newton, 2001). The role of social support, including support from a spouse, has been consistently shown to mitigate the adverse effects of stress and promote better physical and mental health (Anis-ul-Haque & Sohail, 1997; Gündüz, 2005). Moreover, the absence of social support has been linked to higher levels of burnout (Greenglass & Burke, 1988; Gündüz, 2005), emphasizing the pivotal role of spousal support as a critical predictor of burnout in marriages.

As identified in previous studies, cognitive factors also contribute significantly to marital burnout dynamics. These factors encompass attributions related to the marriage and partner and dysfunctional thought patterns (Güven & Sevim, 2002). Unrealistic expectations within marriage and towards one's partner have been associated with disappointment and unhappiness. Furthermore, as couples experience a decline in passion and love, even minor disappointments can lead to negative perceptions of their spouses (Koolaee et al., 2010). The influence of irrational beliefs on burnout has been well-documented (Ohue et al., 2011), and unrealistic standards among partners have been identified as contributors to marital problems (Epstein & Eidelson, 1981). These cognitive factors provide additional insight into the complexity of marital burnout and the potential areas where intervention, such as marital enrichment programs, can be beneficial.

In light of this existing literature, our study seeks to examine the efficacy of a marital enrichment program in addressing marital burnout, considering the role of spousal support, cognitive factors, and self-concept dynamics. By exploring the effects of such programs, we aim to contribute to understanding how interventions can bridge the gap between individuals' expectations and reality in their marital relationships, ultimately promoting healthier and more satisfying marriages while alleviating burnout.

During the marriage process, it may be beneficial for the spouses to have information about marriage enrichment programs, appropriate communication and problem-solving skills, and better define each other. In addition to the themes covered in the Marriage Enrichment Program, a 10-session Marriage Enrichment Program was prepared, considering that the awareness of spouses about these themes would increase and their marital burnout would decrease.

Methodology

Study Design

In this study, in which the effect of the Marriage Enrichment Program based on awareness raising on specific issues on spouse burnout was examined, a pretest-posttest-follow-up test experimental design and an experimental design with a control group were used.

Table 1. Research Design

	Groups	Pre-test	Operation	Post Test	Follow Test
R	Experimental	SBS	Marriage Enrichment Program (MEP)	SBS	SBS
R	Control	SBS	-	SBS	SBS

R: Random Assignment. - : No operation. ETO: Spousal Burnout Scale

Participants

In the process of forming the research group, psychological counselling centres, private rehabilitation centres, primary schools and high schools, Ankara Metropolitan Municipality Family Life Centers were visited by the MEP practitioner and the MEP was introduced. Also, the program was promoted by sharing on social media. As a result, individuals who scored three and above, which is the critical value in ETO, were evaluated. Afterwards, participant lists were created. The Marriage Burnout Scale was applied to 36 married women during the process. As a result of the evaluation, 11 women were excluded from the program because they scored below three points, which is the critical score in the ETO. As a result, women with high spouse burnout scores and who needed intervention were included in the program. Afterwards, seven people who stated they could not continue the program entirely were removed. As a result, 18 married women were randomly selected as the experimental and control groups. In order for the internal validity to be high during the MEP application process, the groups were ensured to have the same number and similar characteristics. The demographic information of the study group is given in Table 2.

Table 2. Demographic Characteristics of the Study Group

Variables		Experimental Group		Control Group	
		f	**%**	**f**	**%**
Graduation	Primary education	1	11	2	22
	High school			1	11
	Associate-University	8	88	6	66
Spouse graduation	Primary education	1	11	2	22
	High school	2	22	1	11
	Associate-University	6	66	6	66
Age	20-30	1	11	2	22
	31-40	6	66	5	55
	40-50	1	11	1	11
	50+..	1	11	1	11
Spouse Age	20-30	1	11	2	22
	31-40	3	33	2	22
	40-50	4	44	3	33
	50+..	1	11	2	22
Marriage Duration	1-6	1	11	2	22
	6-10	2	22	3	33
	11-15	4	44	3	33
	16-20	1	11	1	11
	20+…	1	11		
Job	Teacher	7	77	6	66
	Civil Servant	1	11		
	Prıvate	1	11	3	33
Spouse Job	Teacher	3	33	7	77
	Civil Servant	1	11		
	Private	6	66	3	33
Number of Kids	1	2	25	1	14
	2	5	63	3	43
	3	1	13	3	43
	4				
Ages of the Children	1-5	2	25	2	29
	5-10	4	50	3	42
	10+..	2	25	2	29
Marriage Style	Arranged	2	22	3	33
	Meeting	7	77	6	66
Economic Situation	Sufficient	5	55	4	44
	Insufficient	4	44	5	55

Preparation Process of the Marriage Enrichment Program

The researcher worked for ten years at the Çankırı Guidance Research Center Guidance Service. During this period, she organized family training in schools without guidance counsellors in the city centre and Çankırı districts. In this process, the researcher:

- Participants tend to tell their problems more than listening,
- Participants feel better as they talk,
- In family education, activities and exercises are more beneficial than didactically transferring them,
- The consultation processes with the group he participated in and directed were very beneficial,
- She saw that her interviews with her colleagues supported her views.

Within the scope of the research, a literature study on Marriage Enrichment Programs was conducted and religious, skill-building and theoretical-based programs in the field were examined.

While preparing the Marriage Enrichment Program, the "System Approach" was taken as the theoretical basis, and the programs that develop skills within the literature were considered. According to the systems approach, the system comprises interacting parts, units and personalities. As a result, every element of the system interacts with other parts. (Gladding, 2011). For this reason, positive changes in family members will always reflect on the family, which is a big team, and the functioning of the structure will be significantly affected. The program should be in a structure that raises awareness and be implemented in an interactive environment that does not allow the clients to remain passive.

Implementation Goals of the Marriage Enrichment Program

The Marriage Enrichment Program (MEP) aims to raise awareness of couples about functional life skills, to reduce spouse burnout, and, as a result, to create a program that increases couples' life satisfaction. In this process, it was aimed to receive deep sharing from the participants and to provide emotional relief. While the program's achievements were being prepared, the system approach, skill-developing marriage enrichment programs, and the achievements for creating a group counselling environment were determined.

. Summary of the Psychoeducation Program

1.Session
Getting to know each other and being a group
	Objectives:
	1. Participants get to know other members of the group.
	2. An environment is created where group dynamics can occur.
	3. An environment is created where the participants can express themselves comfortably.
	How the program will proceed
	    Group Rules and Contract
	    Sticking Name Tag
	    Acquaintance Exercise

2.Session Getting to know yourself and your partner	*Objectives:* *1.Participants increase their awareness of their ongoing marriage and themselves.* *2.Participants gain motivation for change.* *3. Participants' self-confidence and self-esteem increase.* Cognitive Distortions, ABCDE Model, Cognitive Distortions Inventory as Homework
3. Session Communication	*Objectives:* *1-Participants gain awareness about the current communication pattern in their continuous marriage life.* *2-Participants gain awareness of using effective communication patterns that can be functional in their marital life* Communication Presentation Dysfunctional Communication Patterns Back-to-Back Talk Experiment

Table 3 (Continuation)

4.Session Conflict and Problem Solving	*Objectives:* *1-Participants gain awareness about the dysfunctional reactions they apply throughout their marriage life.* *2-Participants gain awareness about new functional life skills in conflict and problem solving.* *3-Participants transfer the new life information they have learned to their lives.* Conflict and Problem Solving Presentation Role Playing
5.Session Effective Parenting	*Objectives:* *1-Participants gain awareness about effective parenting skills.* *2- Participants develop insight into what is wrong with them.* *3- Participants apply their achievements in their lives and as a result, they change their behavior* Effective Parenting Presentation Effective parent ruler homework
6.Session Change and Development in the Family	*Objectives:* 1-Participants understand how suitable the family as a structure is for change. 2-Participants have information about the developmental stages of the family. 3-Participants understand what a healthy family is and gain motivation for change. Presentation of family development periods My Family Activity (Which period are you in and what are you going through).
7.Session Health in the Family	*Objectives:* *1-Participants understand the characteristics that should be found in a healthy family.* *2-Participants comprehend the positive characteristics that their families should have* Health in the Family Presentation Healthy Family Inventory
8.Session Stress and Trauma in the Family	*Objectives:* *1-Participants know how to deal with family life stressors.* *2-Participants know how to deal with difficult life events when they are exposed to them.* *3-Participants understand how families are organized.* Presentation of Stress and Trauma in the Family, Shares
9.Session Love İn The Family	*Objectives:* *1-Participants understand how important it is to show love in the family.* *2-Participants know how to show love to each other.* *3-Participants know how to keep love alive during the marriage relationship.* Sustainable Love Environment and Love Presentation Shares
10.Session Assessment	*Objectives:* *1-Participants remember their achievements during the MEP implementation process.* *2-Participants gain motivation to implement their achievements.* Evaluation of the MEP Program Completion
During the sessions • Breathing and imagination exercises, hot chair activity, and off-topic sharing were also carried out.	

Program Implementation Process

The Marriage Enrichment Program was implemented in five weeks, two sessions per week. Sessions started in November 2022 and were held regularly, two sessions a week. There was no loss of subjects during the MEP application process. In this process:

After a short warm-up and introductory chat with the participants in each session, the leader entered the session, summarized the previous sessions and started the new session. Along with the presentation, the leader asked

the participants how they experienced the situations shared in their families. Participants evaluated and shared their own families throughout the presentation. At the end of the session, the leader summarised what happened that day. He asked the group if there was any missing or excess portion. He concluded the sessions with good wishes and wishes. In order to consolidate the gains in the process, homework was given and then evaluated.

During the Marriage Enrichment Program, special attention was paid to the reflection of the healing effect of the group environment on the participants. It was comforting that the participants who had similar problems expressed their problems and shared their solutions throughout the process. The individual's receiving group support and acceptance by the group in the group environment is the driving force for change. In addition, in environments where similar problems are shared, participants share their feelings more, and change occurs faster in this process.

Data Analysis

Before starting the data collection process, the Hacettepe University Ethics Committee was applied, and the ethics committee approval of the research was obtained. In order to test the research hypotheses, the methods and results used in the analysis of the data obtained with the Personal Information Forum, the Spousal Burnout Scale (SBS) are given. In the first stage, SBS was applied to ensure the equivalence of the experimental and control groups and the results were evaluated. Since there were 9 participants in the experimental and control groups (n<30), nonparametric statistics were applied. SBS was applied to the experimental and control groups for the follow-up test results before, after and two months after the MEP application. Considering the SBS scores in the experimental and control groups, the Mann-Whitney U test was used to determine whether the groups were equal. Also, the Wilcoxon Signed Rank Test was used to compare the pretest-posttest-follow-up test scores in the experimental and control groups. With this method, it was tested whether the difference between test scores was significant. In addition, the SPSS-IBM 25 program was used in all analysis stages, and the level of significance was determined as .05.

Data Collection Tools

Personal Information Form. During the preparation of the personal information form, closed-ended questions were asked about the Marriage Enrichment Program participants, their spouses and children. In the preparation of the personal information form, items including the family development periods were included, depending on the research problem and the literature on the subject. In the personal information form, the participants' age, profession, graduation, spouse's age, occupation, graduation, how many years they have been married, how many children they have and how old they are, whether they feel financially sufficient, and how many years they have been married are included. The researcher developed the personal information form.

Spousal Burnout Scale. The reliability of the Spousal Burnout Scale (SBS) has been rigorously assessed through various methods. In studies conducted by Çapri (2013), test-retest reliability coefficients were calculated at one, two, and four months, yielding values of .89, .76, and .66, respectively. These results indicate satisfactory stability and consistency in the scale's measurements over time. Furthermore, internal consistency coefficients were examined, demonstrating strong reliability. The internal consistency coefficients for the original Pines SBS were found to be α = .91 and α = .93, underscoring the scale's reliability. In the Turkish adaptation study of SBS, the internal consistency coefficient was established as α = .94, reinforcing its reliability. The high internal consistency coefficients suggest that the scale consistently measures the intended construct. Additionally, the scale's equivalence coefficient between its two halves was calculated as r = .91 using the equivalent halves method, further affirming its reliability (Çapri, 2013). These reliability assessments collectively demonstrate the Spousal Burnout Scale's robustness and consistency in measuring burnout levels in couples.

Analysis of Data

In order to test the research hypotheses, the methods and results used in the analysis of the data obtained with the Personal Information Forum, the Spousal Burnout Scale (SBS) are given. In the first stage, SBS was applied to ensure the equivalence of the experimental and control groups and the results were evaluated. Nonparametric statistics were applied since nine people were in the experimental and control groups (n<30). SBS was applied to the experimental and control groups for the follow-up test results before, after and two months after the

MEP application. Considering the SBS scores in the experimental and control groups, the Mann-Whitney U test was used to determine whether the groups were equal. Also, the Wilcoxon Signed Rank Test was used to compare the pretest-posttest-follow-up test scores in the experimental and control groups. With this method, it was tested whether the difference between test scores was significant. In addition, the SPSS-IBM 25 program was used in all analysis stages, and the significance level was determined as .05.

Results

The "Mann-Whitney U Test" was used to determine whether there was a significant difference between the experimental and control groups formed within the scope of the MEP application regarding Spousal burnout pre-test scores.

Table 3. Mann-Whitney U Test Results of Spousal Burnout Scale Pre-Test Results of Marriage Enrichment Program Experimental and Control Group Participants

Dependent Variable	Group	n	Ranks Mean	Sum of Ranks	Mann Whitney U	Z	P
Spouse Burnout	Exper.Pre	9	10,89	98			
	Cont.Pre	9	8,11	73	28,0	-1,220	,222

It is seen that the difference between the pre-test mean scores of the Experimental and Control Groups on the Spousal Burnout Scale before the application is not significant according to the Mann-Whitney U-test results (p>.05). Thus, it can be said that the experimental and control groups are equivalent before the MEP application.

Table 4. Marriage Enrichment Program Experimental and Control Group Participants' Spousal Burnout Scale Post-Test Mann-Whitney U Test Results

Dependent Variable	Group	n	Ranks Mean	Sum of Ranks	Mann Whitney U	Z	P
Spouse Burnout	Exper.Post	9	5,78	52	7,000	-3,166	,002
	Cont.Post	9	13,22	119			

There was a significant difference in favour of the experimental group between the spouse burnout scale post-test mean scores of the experimental group and control group participants in the Marriage Enrichment Program. A significant difference, which was not found before the MEP application, emerged after the application. It was observed that the mean SBS scores decreased in the experimental group (p<.05).

Table 5. Marriage Enrichment Program Experimental Group Spousal Burnout Pre-test Post-test Wilcoxon Signed Rank Test Results

Measurements	PostTest – Pre-Test	n	Ranks Mean	Sum of Ranks	Mann Whitney U	Z
	Negative Rank	7	4	28	-2,646	,008
Spouse Burnout	Pozitive Rank	0	0	0		
	Equal	2	0			

The "Wilcoxon Signed Ranks Test" was used to examine the effect of the Marriage Enrichment Program on spouse burnout and is shown in Table 5. According to the results of the analysis, the Spousal Burnout Scale scores of the experimental group decreased significantly compared to the pre-application (p<.05). When the mean rank and totals of the difference scores are evaluated, it is seen that this difference is in favour of negative ranks. According to these results, it can be said that the Marriage Enrichment Program is effective in reducing the marital burnout levels of married women.

Table 6. Experimental Group Partner Burnout Post-test Follow-Up Test Wilcoxon Signed Ranks Test Results

Measurements	PostTest-FollowTest	n	Ranks Mean	Sum of Ranks	Z	p
Spouse Burnout	Negative Rank	0	0	0	-1,732	,083
	Pozitive Rank	3	2	6		
	Equal	6	0			

Ten weeks after the completion of the Marriage Enrichment Program application, the difference between the follow-up test and post-test mean scores was examined to test the persistence of spousal burnout levels in the experimental group. As indicated in Table 6, no significant difference was observed between the post-test mean scores and the follow-up test mean scores (p>.05). As a result, it can be said that the effect of MEP lasts at least ten weeks.

Conclusion, Discussion and Suggestions

Our study aimed to evaluate the impact of a Marriage Enrichment Program (MEP) on reducing spouse burnout among married women. Our findings revealed that married women in the experimental group who participated in the MEP experienced a significant reduction in the level of spouse burnout. We conducted a follow-up test two months after the MEP application, demonstrating the program's sustained effect, lasting at least two months. These results underscore the effectiveness of marriage enrichment programs in reducing spouse burnout, aligning with previous research in this domain. For instance, Nazari et al. (2015) conducted a study focusing on the effect of a solution-focused therapy approach on women's spouse burnout levels. The study employed a pretest-posttest experimental design with a control group, with 30 participants divided equally between experimental and control groups. The findings of this study indicated that solution-focused short-term therapy effectively reduced spouse burnout and decreased the tendency toward divorce in married women.

Similarly, Sirin and Deniz (2016) explored the impact of the Family Education Program (FEP) developed by the Ministry of Family and Social Policies, specifically focusing on its modules related to marriage and family life. The study utilized a pretest-posttest experimental design with a control group, incorporating a post-test follow-up assessment. The Spousal Burnout Scale developed by Pines, (1996) and adapted by Çapri (2013) was employed in this research. The findings revealed a significant decrease in spouse burnout among women following the implementation of the Family Education Program (Sirin & Deniz, 2016). Beyond spouse burnout, various programs have effectively addressed different aspects of marital relationships and family education in Turkey. Notably, these studies are relatively recent, with most emerging after 2000. These investigations have delved into subjects such as marriage preparation programs, marital adjustment, marital satisfaction, problem-solving skills, social support, empathy, and conflict resolution (Canel, 2007; Deveci-Şirin, 2013; Duran, Ş., & Hamamcı, 2010; Halil & Kahraman, 2012; Kalkan & Ersanlı, 2008). Our study reaffirms the positive impact of the MEP in reducing spouse burnout among married individuals, with this effect persisting for at least ten weeks.

In the broader context of relationship enhancement programs, research has explored their influence on various aspects of romantic relationships. For instance, Yalçin and Ersever (2015) researched the Relationship Enhancement Program, demonstrating its significant improvement in relationship satisfaction among university students and their partners. Similarly, Yilmaz and Kalkan (2010) on pre-marital relationship enhancement programs, reporting a substantial increase in couples' relationship satisfaction following a seven-week program. Furthermore, Deveci-Sirin and Bayrakci (2020) investigated the Romantic Relationship Enrichment Program (RREP), observing a significant enhancement in couples' relationship satisfaction over two months.

These findings underscore the potential of relationship enhancement programs to positively impact relationship satisfaction, particularly among young adults and couples preparing for marriage. Haskan-Avci (2013) developed the Preparatory Marriage Program within the Turkish context based on Gottman's Strong Relationship House model. This program addresses communication barriers and conflict resolution methods, providing valuable guidance to couples. Recognizing the importance of family as a structure, it is crucial to emphasize that the professional assistance individuals receive during the marriage process benefits themselves and their entire family, contributing to overall happiness. For instance, a study by Jafari et al. (2021) assessed the impact of effective communication skills training on marital burnout among married women. This study

revealed a significant reduction in marital burnout and improved effective communication skills among participants, suggesting the potential value of such interventions in reducing marital burnout and enhancing communication skills.

In another study by Vurak-Batik and Kalkan (2019), the "Marital Relationships Enrichment Program for Couples in the Period of Transition to Parenthood" significantly increased marital satisfaction among couples expecting their first child. The program, consisting of 8 group sessions and two follow-up sessions, highlighted its effectiveness in enhancing marital satisfaction before and after their child's birth.

In the context of our current study, which aims to evaluate the effects of a marital enrichment program on marital burnout, it is essential to justify our investigation by considering the existing literature. Marital burnout, as identified in previous research, often arises due to a significant gap between individuals' expectations of emotional relationships and the reality they experience. This dissonance can lead to frustration and eventual boredom within the marital relationship. Furthermore, when individuals internalize idealized expectations of marriage as a source of meaning and problem-solving, unmet expectations can result in frustration and a perceived loss of significance in their lives. This understanding of the dynamics of marital burnout underscores the importance of exploring interventions, such as marital enrichment programs, that may help bridge this gap and alleviate burnout.

Additionally, the concept of self-concept plays a pivotal role in the dynamics of marital burnout. Self-concept, shaped through interactions with the environment, is not static and can evolve through interpersonal experiences. It has been demonstrated in previous research that self-concept significantly influences marital relationships and overall satisfaction. Therefore, considering the impact of self-concept on marital dynamics, it becomes apparent that addressing issues related to marital burnout can have a broader impact on individuals' overall sense of fulfilment and meaning in life.

Furthermore, the significance of spousal support within marriage cannot be understated. Marriage is a fundamental institution that provides emotional, social, and physical intimacy, signifying emotional value, love, and respect between partners. A satisfying marriage contributes to emotional well-being and helps couples cope with stress and depression. The role of social support, including support from a spouse, has been consistently shown to mitigate the negative effects of stress and promote better physical and mental health. Moreover, the absence of social support has been linked to higher levels of burnout, emphasizing the pivotal role of spousal support as a critical predictor of burnout in marriages.

As identified in previous studies, cognitive factors also contribute significantly to marital burnout dynamics. These factors encompass attributions related to the marriage and partner and dysfunctional thought patterns. Unrealistic expectations within marriage and towards one's partner have been associated with disappointment and unhappiness. Furthermore, as couples experience a decline in passion and love, even minor disappointments can lead to negative perceptions of their spouses. The influence of irrational beliefs on burnout has been well-documented, and unrealistic standards among partners have been identified as contributors to marital problems. These cognitive factors provide additional insight into the complexity of marital burnout and the potential areas where intervention, such as marital enrichment programs, can be beneficial.

In light of this existing literature, our study seeks to examine the efficacy of a marital enrichment program in addressing marital burnout, considering the role of spousal support, cognitive factors, and self-concept dynamics. By exploring the effects of such programs, we aim to contribute to understanding how interventions can bridge the gap between individuals' expectations and reality in their marital relationships, ultimately promoting healthier and more satisfying marriages while alleviating burnout. Our research aims to build upon and expand the existing body of knowledge in this field, particularly in the Turkish cultural context, and provide valuable insights for future research and the development of effective marital enrichment programs.

Limitations

The MEP application was carried out in the Kastamonu-Tosya district, with the majority of participants who are university graduates. It is beneficial to carry out the MEP application with participants with an education level close to the average of Türkiye. Participants, who were all women, accompanied the MEP application.

There were very few male participant candidates in the participant collection phase. It would benefit the MEP to be a more heterogeneous participant group. The judgments drawn from the study results are limited to the features measured by the Spousal Burnout Scale. Individuals scoring three or higher on the Spousal Burnout Scale were included in forming the experimental and control groups. The results of the study can be generalized to groups with similar characteristics.

Suggestions

Family education programs implemented in Turkey should actively involve the practitioner and the participant in the program implementation process. It is essential to benefit from group counselling, psychodrama and group guidance activities, exercises and experiments related to the subject to be covered, especially in the sessions. Also, it would be beneficial for the participants not to be in a classical seating arrangement and to organize the session in a circle that prioritizes sharing and interaction. It is essential to share the thoughts and feelings of the participants during the session. In this context, MEP includes activities and exercises. It is a marriage enrichment program in a circular seating arrangement that prioritizes sharing and listening.

The Marriage Enrichment Program is a program that can be used in marriage training to be prepared by state or private institutions. At the local level, municipalities, Guidance and Research Centers, and Private Psychological Counseling Centers will benefit from the Marriage Enrichment Program. Universities will ensure that the Marriage Enrichment Program is benefited from at the national level by the Ministries of National Education, Youth and Sports and Family and Social Policies. Couples who are exposed to spouse burnout during marriage will be able to participate in the Marriage Enrichment Program and will have a better situation during the marriage process.

Author(s) Note: This article has been developed as a part of the first author's Doctoral dissertation under the supervision of the second author.

Author Contributions: Conception and design of research; made operations; drafted, edited and revised manuscript; approved final version of manuscript.

Funding Disclosure: Funded all financial resources for the study.The funders had no role in study design, data collection and analysis,decision to publish or preparation of the manuscript.

Conflicts of Interest: The author declare that they have no competing interests.

Data Availability: The acquisition,analyses of data; Interpretation of data for the work.

Ethics Approval and Consent to Participate: All participants were informed about the purpose, risks, and benefits of the study before they participated. Written informed consent was obtained from all participants. This study was approved by the Ethics Committee of Hacettepe Üniversitesi- E-35853172-399-00002250870.

References

Anis-ul-Haque, M., & Sohail, T. (1997). Stress, social support, and burnout in nurses. *Pakistan Journal of Psychological Research*, *12*(3), 77–86.

Brooks, L. W., Guerney, B., & Mazza, N. (2002). Relationship Enhancement Couples Group Therapy. *Journal of Family Social Work*, *6*(2), 25–42. https://doi.org/10.1300/J039v06n02_03

Çag, P., & Yildirim, İ. (2013). Evlilik doyumunu yordayan ilişkisel ve kişisel değişkenler. *Turkish Psychological Counseling & Guidance Journal*, *39*(4), 13–23.

Canel, A. N. (2007). Ailede problem çözme, evlilik doyumu ve örnek bir grup çalışmasının sınanması (Doktora Tezi). Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul

Çapri, B. (2013). Tükenmişlik Ölçeği-Kısa Formu ile Eş Tükenmişlik Ölçeği-Kısa Formu'nun Türkçe Uyarlaması ve Psikoanalitik-Varoluşçu bakış açısından mesleki ve eş tükenmişlik ilişkisi. *Educational Sciences: Theory & Practice*, *13*(3), 1393–1418. https://doi.org/10.12738/estp.2013.3.1576

Claxton, A., O'Rourke, N., Smith, J. Z., & DeLongis, A. (2012). Personality traits and marital satisfaction within enduring relationships. *Journal of Social and Personal Relationships*, *29*(3), 375–396. https://doi.org/10.1177/0265407511431183

Deveci Şirin, H. (2013). Aile eğitim Programı'nın evli kadınların eş tükenmişliği düzeyine etkisi (Doktora Tezi). Necmettin Erbakan Üniversitesi Eğitim Bilimleri Enstitüsü, Konya.

Deveci-Sirin, H., & Bayrakci, E. (2020). Romantik İlişki Geliştirme Programı'nın (RİGP) Romantik İlişki Doyumu ve Romantik İnanç Düzeyine Etkisinin İncelenmesi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, *16*(1), 145–165. https://doi.org/10.17860/mersinefd.592785

Duran, Ş., & Hamamcı, Z. (2010). Evlilik öncesi ilişki geliştirme programının romantik ilişkiler yaşayan üniversite öğrencilerinin iletişim becerileri ve çatışma iletişim tarzları üzerine etkisinin incelenmesi. *Journal of Social Policy Studies*, *23*, 87–100.

Epstein, N., & Eidelson, R. J. (1981). Unrealistic beliefs of clinical couples: Their relationship to expectations, goals and satisfaction. *The American Journal of Family Therapy*, *9*(4), 13–22. https://doi.org/10.1080/01926188108250420

Gazioğlu, E., Sertelin Mercan, Ç., & Demir, İ. (2022). Romantic Relationship Education: A Literature review with recommendations for Turkiye. *Psikiyatride Güncel Yaklaşımlar*, *14*(4), 555–569. https://doi.org/10.18863/pgy.1069117

Greenglass, E. R., & Burke, R. J. (1988). Work and family precursors of burnout in teachers: Sex differences. *Sex Roles*, *18*(3–4), 215–229. https://doi.org/10.1007/BF00287791

Gündüz, B. (2005). İlköğretim öğretmenlerinde tükenmişlik. *Mersin Üniversitesi Eğitim Fakültesi DergisiDergisi*, *1*(1), 152-166.

Güven, N., & Sevim, S. A. (2002). İlişkilerle ilgili bilişsel çarpıtmalar ve algılanan problem çözme becerilerinin evlilik doyumunu yordama gücü. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, *28*(1), 13–24.

Halil, E., & Kahraman, Z. (2012). Evlilik ve Aile Hayatı Eğitim Programının evli kadınlarda evlilik uyumuna ve aile sistemine etkisi. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, *32*(26), 129–145.

Haskan Avci, Ö. (2013). Evliliğe Hazırlık Programı'nın çift ilişkileri ve ilişki istikrarı üzerindeki etkisi (Doktora Tezi). Hacettepe Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, *94*(3), 319–340. https://doi.org/10.1037/0033-295X.94.3.319

Jafari, A., Alami, A., Charoghchian, E., Delshad Noghabi, A., & Nejatian, M. (2021). The impact of effective communication skills training on the status of marital burnout among married women. *BMC Women's Health*, *21*(1), 1–10. https://doi.org/10.1186/s12905-021-01372-8

Jakubowski, S. F., Milne, E. P., Brunner, H., & Miller, R. B. (2004). A review of empirically supported marital enrichment programs. *Family Relations*, *53*(5), 528–536. https://doi.org/10.1111/j.0197-6664.2004.00062.x

Kalkan, M., & Ersanlı, E. (2008). Bilişsel-davranışçı yaklaşıma dayalı evlilik ilişkisini geliştirme programının evli bireylerin evlilik uyumuna etkisi. *Kuram ve Uygulamada Eğitim Bilimleri*, *8*(3), 963–986.

Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin*, *127*(4), 472–503. https://doi.org/10.1037/0033-2909.127.4.472

Koolaee, A. K., Adibrad, N., & Sedgh Poor, B. S. (2010). The Comparison of relationship beliefs and couples burnout in women who apply for divorce and women who want to continue their marital life. *Iranian Journal of Psychiatry*, *5*(1), 35–39. http://www.ncbi.nlm.nih.gov/pubmed/22952488

Levenson, R. W., & Gottman, J. M. (1985). Physiological and affective predictors of change in relationship satisfaction. *Journal of Personality and Social Psychology*, *49*(1), 85–94. https://doi.org/10.1037/0022-3514.49.1.85

Nazari, A., Rasouli, M., Davarniya, R., Hosseini, A., & Babaei-Gharmkhani, M. (2015). Effectiveness of solution-focused brief therapy (SFBT) on couple burnout and divorce tendency in married women. *Iranian Journal of Psychiatric Nursing*, *3*(3), 41–52.

Ohue, T., Moriyama, M., & Nakaya, T. (2011). Examination of a cognitive model of stress, burnout, and intention to resign for Japanese nurses. *Japan Journal of Nursing Science*, *8*(1), 76–86. https://doi.org/10.1111/j.1742-7924.2010.00161.x

Pines, A. M. (1996). *Couple burnout: Causes and cures*. Routledge.

Pines, A. M. (2002). The Female Entrepreneur. *Clinical Case Studies*, *1*(2), 170–180. https://doi.org/10.1177/1534650102001002005

Sirin, H. D., & Deniz, M. (2016). The Effect of the Family Training Program on married women's couple-burnout levels. *Educational Sciences: Theory & Practice*, *16*(5), 1563–1585. https://doi.org/10.12738/estp.2016.5.2781

Vurak-Batik, M., & Kalkan, M. (2019). The Impact of "Marital Relationships Enrichment Program for Couples in the period of transition to parenthood" on marital satisfaction. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, *8*(2), 1346–1366. https://doi.org/10.15869/itobiad.513869

Whitsitt, T. M. (1992). *Communication, cognition, emotion and conversation between distressed spouses in a clinical setting: A constructivist explanation*. The Florida State University.

Yalçin, İ., & Ersever, O. G. (2015). Effectiveness of the Relationship Enhancement Program on relationship satisfaction of university students. *Hacettepe Üniversitesi. Journal of Education*, *30*(2), 185–201.

Yilmaz, T., & Kalkan, M. (2010). Evlilik Öncesi İlişkileri Geliştirme Programının Çiftlerin İlişki Doyumuna Etkisi. *Educational Sciences: Theory & Practice*, *10*(3), 1893–1920.

Zarei, E., Sadeghifard, M., Adli, M., & Tayebi Soogh, M. (2013). The Effectiveness of Ellis couple therapy training (The rational-emotional-behavioral approach) on reducing the marital burnout. *Journal of Life Science and Biomedicine*, *3*(3), 229–232.

REVIEW ARTICLE

Organizational Overview of Maslow and Management Research

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ABSTRACT

Maslow's theory of motivation or hierarchy of needs; has been the subject of much research on a global scale in the physiological, psychological, and sociological framework. This situation, especially in terms of organizations (public or private), concerns both the employees and the management mechanism. Maslow and management generally reveal the theoretical and relational results in the policies applied in organizations. In the literature, studies in which studies carried out in Maslow and management research are systematically expressed quite limited. The research was carried out using the R program and bibliometric analysis applications with the help of the WoS database on Maslow and management research. As a result of the research analysis, the most emphasized keywords by the authors; motivation, Maslow, Maslow's hierarchy of needs, needs hierarchy, needs, management, self-actualization, leadership, psychology, innovation, sustainability, job satisfaction, China, satisfaction, commitment, human psychology, human needs, Covid-19, management theory, personality division, hierarchy, Maslow's theory, performance, spirituality, sustainable development, theory, Abraham Maslow, creativity, productivity, quality life, rural, safety, culture, values, need, human resource management, well-being, workplace, academic libraries cold war, behavior, cognition, demand, and development. As a result of the analysis, it was understood that the concepts of management, performance, work, job satisfaction, personality, self, attitudes, environment, healthcare, perceptions, participation, antecedents, and science have strong relationships together. The results obtained in Maslow and management research have revealed that organizational activities are also effective in addition to the needs and psychological aspects of individuals.

Maslow emphasized that what most affects the management mechanism in organizations is the latent energy store and productive cooperation that can be obtained from individuals working under the right conditions (Maslow, 2000, p. 4). This shows that organizational management can be evaluated within the framework of employees and their activities. Whether the management mechanism is effective or not can be evaluated by organizational outputs. The activity of employees is associated with the organizational policies implemented by management. Maslow has conducted many studies on organizations, management, and business activities.

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In this respect, Maslow and management research can make valuable contributions to the literature at the organizational level.

It may be useful to evaluate Maslow and management research within the framework of work activities of employees in public or private sector organizations. Maslow makes valuable contributions to the literature with his theories of motivation or hierarchy of needs. The management mechanism has a structure that directs the activities for the future of the organization and enables all employees to adapt to the organizational goals. Examining this structure in terms of Maslow, especially needs and motivation are not one-sided; It is observed that it includes many fields in terms of individual, group, organization, and society. The fact that the management mechanism in organizations has a structure that generally directs activities, solves problems, and takes decisions for the future shows that Maslow and management research can expand the scope of influence.

Maslow's hierarchy of needs is put forward in five stages, the physiological needs of variables such as food, drink, and air; security needs such as protection from illness, attack, heat-cold, and hunger; belonging needs such as coworkers, other friendships, spouse or lover; esteem needs such as status, self-esteem, reward, and honor; He stated that there are needs for self-actualization such as fair, honest, selfless love, seeking the truth (Mathes, 1981, p. 69-70). Maslow considers the lack of something in his hierarchy of needs as a basic factor that creates the need (Taormina and Gao, 2013, p. 156). In terms of management, deficiencies that will be perceived in organizations by all employees, both subordinates and superiors, cause new needs to occur. In the formation of these needs, not only material factors but also spiritual factors can have many effects. According to Maslow, needs such as love and respect are evaluated in this category. In addition, both material and spiritual values can have an impact on the individual's reaching the stage of self-realization. Reaching the top of the hierarchy in terms of management can have many positive results, both individually and organizationally.

The study of people's needs and their relationship to behavior is a key feature of many theories in the social sciences. In this case, Maslow's theory of motivation is quite effective. In motivation theory, human actions that can respond to universal motivating factors and needs are included (Seeley, 1992, p. 304). The processes that take action to meet the needs of individuals in motivation theories; it is evaluated within the framework of physiological, psychological, and sociological needs (Şengöz, 2022, p. 165). This indicates that the scope of the hierarchy of needs is broad and universal. It can be used at different levels and layers of society, including organizations (Dixit et al., 2023, p. 4079). This situation reveals that the hierarchy of needs (or motivation theory) is effective in Maslow and management research. It also shows that Maslow and management research can be studied at the organizational level. It can be shaped by the balanced management policies applied in the organization regarding the work activities, needs, and motivation resources of the employees. Organization policies affect all interested parties in terms of the outputs provided. In organizations that provide goods or services, the management approach can be affected by needs and employee motivation.

Management and business theories; should consider the human element and ethical integrity in approaching concepts such as leadership, power, group dynamics, stress, communication, conflict management, organizational culture, organizational development, globalization, and environmental problems. This situation creates a good business organization in personal and professional life (Acevedo, 2018, p. 757-758). In this respect, the value to be given to people is very effective in management activities. It also shows that the policies implemented by the management mechanism are valuable in the realization of individual and group business activities. From past to present, many concepts have been examined in Maslow and management research, and determining which of these concepts has strong relationships, is emphasized more, and has a popular quality can give original ideas to those working in new research.

Maslow and Management

Maslow stated that many needs can be met with motivated behavior. He emphasized that there may be more than one motivation for an action (Maslow, 1943, p. 370). The theory of employee motivation developed by Maslow helps individuals to understand their work activities or behaviors, as well as reveals how employees are motivated in the field of management and organizational behavior. The conceptualization of the needs of employees in organizations is put forward by the theory of motivation. Maslow states that if individuals grow up in an environment where their needs are not met, it is unlikely that they will be healthy and harmonious individuals (Kaur, 2013, p. 1061). Maslow, the more one learns about the natural tendencies of individuals;

He stated that it is possible to be such good, happy, productive, respectful, loving, and maximum potential individuals (Maslow, 1968, p. 4). This situation reveals the importance of the management mechanism in organizations considering employees and human values in terms of Maslow and management. Meeting employee needs healthily by organizations contributes to the formation of high motivation in the organization. In Maslow and management research, clarifying the concepts that are effective in the organizational activities of the employees can guide the organizational policies.

Maslow stated that needs have a ranking ranging from low to high (Maslow, 1948, p. 433). Maslow emphasizes that higher needs arise only when lower needs are met. In other words, it states that the next basic need category is formed with the satisfaction of the need and has a stronger effect on the motivated behavior of the individual (Sengupta, 2011, p. 103). In studies, it is stated that a certain life span may be required for individuals to form a hierarchy of needs (Wahba & Bridwell, 1976, p. 233). In this respect, the formation of needs is shaped by the organization in which the individual operates. In addition, factors related to individuals' living spaces, standards, expectations, and external environments can also be effective in shaping their needs. The gradual emergence of needs; shows that emotions such as attitude, satisfaction, happiness, and expectation in individuals can be effective.

Motivation in organizations is derived from the word motive. Motivation is an internal state of the mind that activates the behavior of the individual and directs the individual. Motivation activates individuals and is externalized through behavior. Motivation, on the other hand, is the individual's desire to make an effort to reach his goal (Osemeke & Adegboyega, 2017, p. 162). Motives are often based on needs. In this respect, motivation is the result of needs, desires, and expectations that energize behaviors (Adiele and Abraham, 2013, p. 140). Motives are constantly expanding and cannot be fully satisfied. After individuals satisfy a low-level need, they always have the desire to reach a higher-level need (Lussier, 2019, p. 323). This desire can contribute to employee success, especially in organizations. The activities of the employees within the hierarchical structure may result in the desire (motivation) to gain status or power in business life. In organizations, the abuse of status or power becomes harmful, and its use for good becomes a contributory feature. This shows that motivation and motivation in organizations shape the work positions and movement areas of the employees.

If the basic needs of the employees are met in the organizations, more positive work attitudes, better motivation, and performance are observed in the employees (Elliot and Williams III, 1995, p. 74). This situation can lead employees to new needs in organizational activities. The more organizations can respond to the needs of employees, the longer employees will be active in the organization. Especially in areas where there are many alternatives and opportunities in terms of business, keeping qualified personnel will require responding to more needs. Being able to respond to the needs of employees in organizations may also be a prerequisite for meeting the expectations of consumers.

Theorists who carry out behavioral research have generally researched animals. Maslow, on the other hand, said that the activities of these theorists would be useless in learning human characteristics; He stated that they neglected human abilities such as self-sacrifice, shame, love, art, and humor (Loingsigh, 1978, p. 318). He emphasized that in the hierarchy of needs, the needs from the basic needs of individuals in their lives to the highest personal achievement are the result of a learning environment (Vithayaporn et al., 2022, p. 52). In this situation, it is understood that the individual, who has different values from other living things, gains many experiences from his environment and shapes his future with these experiences. Individuals operating in organizations can bring many original and new successes to their business activities, as well as many experiences. The human emotions of the employees are likely effective in organizational activities.

Employees may need to have many personal abilities to achieve self-actualization in terms of Maslow in their work-related practices. For individuals to reflect their talents in business activities, the management mechanism has great duties. Organizational policies should contribute to the personal and organizational development of employees. In addition, it may be effective for employees to adopt organizational goals as well as their individual goals. When this situation is evaluated in terms of Maslow's hierarchy of needs, it shows that needs can be evaluated not only at the level of individuals but also in terms of the needs and expectations

of society, working groups, and organizations in general. The needs or expectations of organizations are shaped especially by the applications of the management mechanism. In the literature, Maslow (1970, p. 264) stated that the individual's self-actualization, personal potential, and having competent behaviors such as using it fully is related to good management.

Questions Regarding Research Purpose

In the study, it is expected to contribute to the literature with the answers to the following questions about Maslow and management research in the WoS database.

- What is the general information about Maslow and management research?
- What are the journals, authors and highlighted keywords that have published the most research on Maslow and management research?
- What is the intensity of use of the keywords highlighted by the authors in Maslow and management studies by years?
- What are the keywords (thematic process) emphasized from past to present in Maslow and management research?
- What is the efficiency level of journals publishing about Maslow and management research over time?
- What is the productivity level of the authors who publish on Maslow and management research over time?
- Where are the countries of the authors publishing in Maslow and management research?
- Who are the most cited authors globally in Maslow and management research?
- What is the density of the keywords highlighted by the authors in Maslow and management studies?
- How are the keywords highlighted in Maslow and management research related to each other (peer association network)?
- What are the keywords that have an intense and central feature (motor themes) in the thematic map of Maslow and management research?
- What significance does Maslow and management research have for organizations?

In the research, Maslow and the factors that are effective in the management problem are discussed in light of the literature. Answers are sought to the above-mentioned questions. Maslow and management studies especially evaluate the work activities of the employees in the organization.

Methodology

The information obtained from bibliometric methods is increasing day by day. The bibliometric analysis provides an overview of the literature in a particular field and provides important contributions to the literature with the information obtained (Ellegaard, 2018, p. 196). Considering the rapid increase in academic publications and the difficulties of following research objectively, bibliometric analysis; effective research makes valuable contributions to future research in terms of themes, a particular subject, or field (Wang and Ngai, 2020, p. 1871). Bibliometric analysis is a type of research aimed at understanding global research in a specific field with the help of the outputs of academic publications using the Scopus or Web of Science (WoS) database (Alsharif et al., 2020, p. 2949). With the help of bibliometric analysis, descriptive and relational indicators can be revealed. Regarding the research subject; Visualizations can be made based on broadcast frequency, publication dates, languages, countries, and institutions. Results for the keywords, concepts, classifications, and relationships emphasized by the authors can be revealed (Danvila-del-Valle et al., 2019, p. 629). The use of bibliometrics reveals the methods and quantitative examination of the production, growth, maturation, and consumption of scientific publications (Moral-Munoz et al., 2020, p. 2). This situation contributes to the examination of research topics that are curious in the international literature and to gain new ideas or perspectives with bibliometric analysis.

The R program is quite flexible (Aria & Cuccurullo, 2017, p. 973). RStudio mapping software was used to reveal the descriptive indicators of the research. R software provides numerous resources on bibliometrics (Riahi et al., 2021, p. 3). In this context, the research resource consists of the WoS database. The bibliometric analysis was carried out using the R program and the analyzes were interpreted with the help of the literature.

In the literature, Khanra et al. (2020, p. 740) stated that bibliometric analyses in intellectual applications related to the research topic, which they summarized from previous research, consist of the following stages.

- Bibliographic links
- Citation analysis
- Prestige analysis
- Synonym analysis

While performing bibliometric analyzes in the research, previous research on the subject and practice is used. In the bibliometric analysis method; Bibliometric links, general citations, prestige analyses, and synonym analyses are included to reveal the relations of the variables with each other. The results obtained are evaluated within the framework of Maslow and management practices in terms of organizations.

Findings

The data regarding the results of the R program and bibliometric analysis within the framework of Maslow and management (dated 02.03.2023) researches in the Research WoS are as follows. As a result of the analysis, it shows that Maslow and management researchers had a research area in WoS between 1983-2023 (without year limitation). It is observed that 459 studies from 389 different sources are included in the analysis. As a result of the research of Maslow and management concepts, the annual growth rate is 6.18%. There are 1312 authors in total in the study, and it is understood that there are 116 authors in single-author studies and the rate of international co-authors is 15.47%. It is seen that the rate of co-authors per research is 3.42, and the total keywords used by the authors regarding Maslow and management are 1604. It is observed that a total of 16379 sources were used in the studies, the average of the studies was 9.08 years and an average of 13.25 citations were made per research. The results of the analysis reveal that Maslow and management research in general have improved over the years.

Figure 1. Journal, author, and keyword match in research
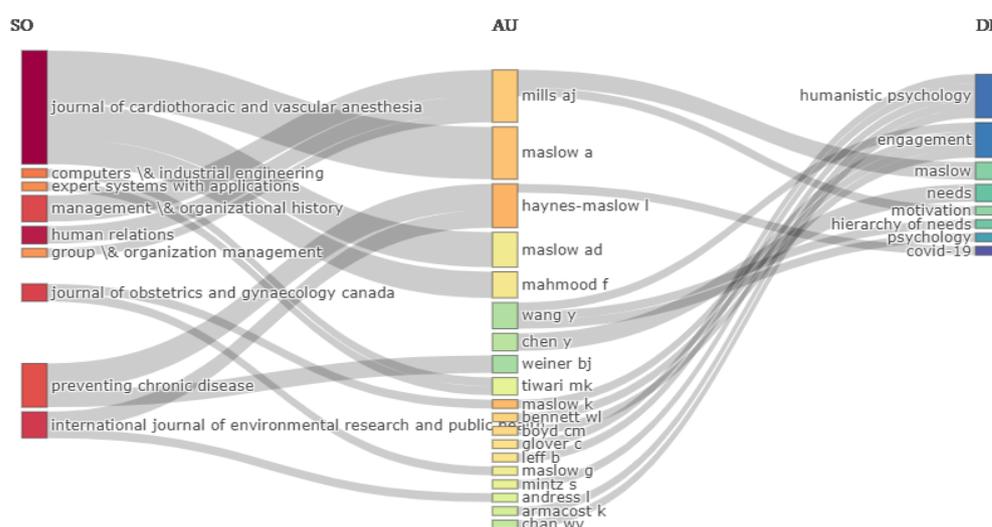
In Figure 1, journals, authors, and keywords that publish on Maslow and management studies are given. In the analysis, the journals that published the most on the subject; Journal of Cardiothoracic and Vascular Anesthesia, Computers & Industrial Engineering, Expert Systems With Applications, Management & Organizational History, Human Relations, Group & Organization Management, Journal of Obstetrics and Gynaecology Canada, Preventing Chronic Disease, and International Journal of Environmental Research and Public. Authors who researched Maslow and management research; Mills AJ, Maslow A, Haynes-Maslow I, Maslow AD, Mahmood F, Wang Y, Chen Y, Weiner BJ, Tiwari MK, Maslow K, Bennett WL, Boyd CM,

Glover C, Leff B, Maslow G, Mintz S, Andress I, Armacost K, and Chan WV. The keywords used in Maslow and management research are; Humanistic psychology consists of the words commitment, Maslow, needs, motivation, the hierarchy of needs, psychology, and Covid-19.

**Figure 2.** The intensity of use of concepts related to Maslow and management research by years
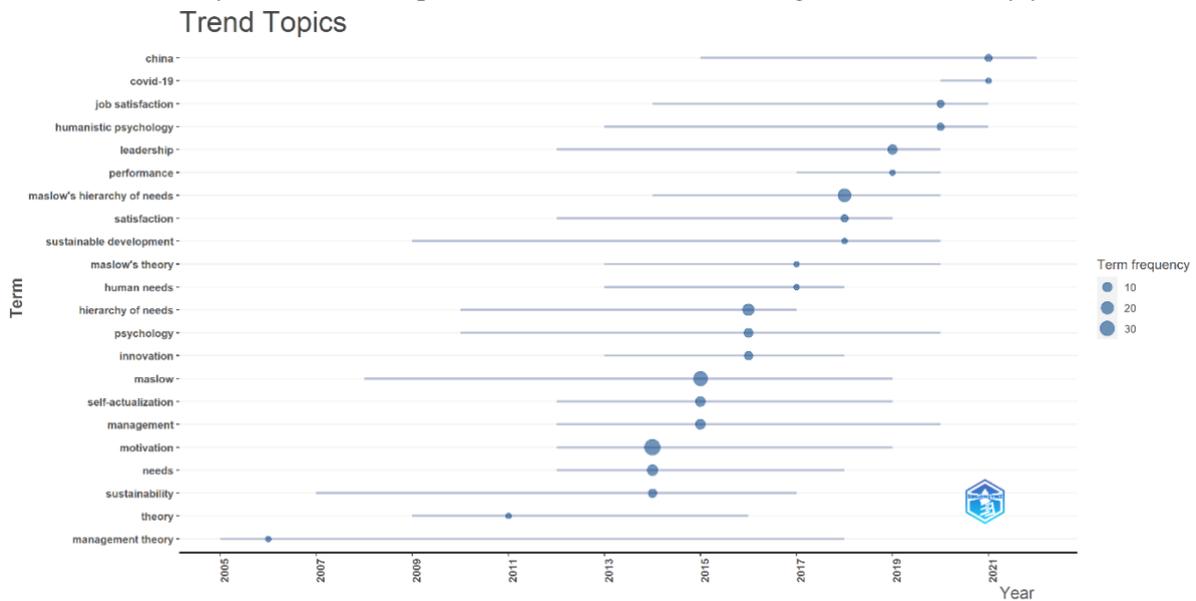
Considering the words emphasized in Maslow and management research by years; China (2015-2022), Covid-19 (2020-2021), job satisfaction (2014-2021), human psychology (2013-2021), leadership (2012-2020), performance (2017-2020), Maslow's needs hierarchy (2014-2020), sustainable development (2009-2020), Maslow's theory (2013-2020), human needs (2013-2018), the hierarchy of needs (2010-2017), psychology (2010-2020), innovation (2013-2018), Maslow (2008-2019), self-actualization (2012-2019), management (2012-2020), motivation (2012-2019), needs (2012-2018), sustainability (2007-2017), theory (2009-2016) and management theory (2005-2018). The results of the analysis show that the word Maslow has an intense field of study in the years 2008-2019 and the word management in the years 2012-2020.

**Figure 3.** The thematic process of Maslow and management research
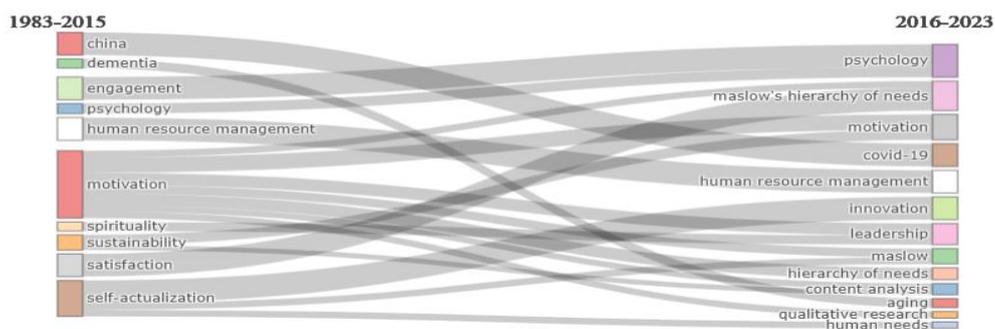
In Figure 3, the keywords emphasized by the authors in 1983-2015 and 2016-2023 related to Maslow and management research are included. In the analysis, the most researched concepts in 1983-2015; It has been observed in China, dementia, commitment, psychology, human resource management, motivation, spirituality, sustainability, satisfaction, and self-actualization. The most emphasized concepts in the research in 2016-2023; are psychology, Maslow's hierarchy of needs, motivation, Covid-19, human resource management, innovation, leadership, Maslow, the hierarchy of needs, content analysis, aging, qualitative research, and human needs. As a result of the analysis, it was observed that some of the words emphasized in 1983-2015 changed in 2016-2023. For example, in recent years, the words Covid-19 instead of China, aging instead of dementia, and psychology instead of commitment have been emphasized more.

Figure 4. The productivity of journals publishing Maslow and management research over time
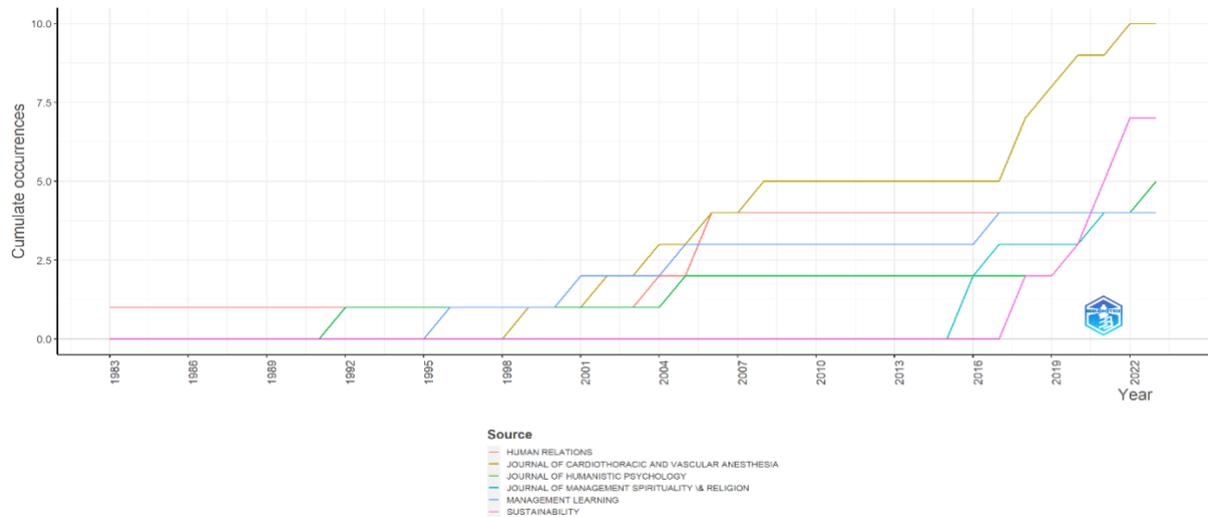

Considering the most productive journals on Maslow and Management in recent years, the Journal of Cardiothoracic and Vascular Anesthesia ranks first. Then there is the Sustainability magazine. The third journal that publishes the most intensive research is the Journal of Humanistic Psychology. Management Learning, Journal of Management Spirituality & Religion, and Human Relations are included in the research, respectively. The results obtained indicate that Maslow and management research have a large body of work related to the field of medicine.

Figure 5. Productivity of Maslow and management studies publishing authors over time
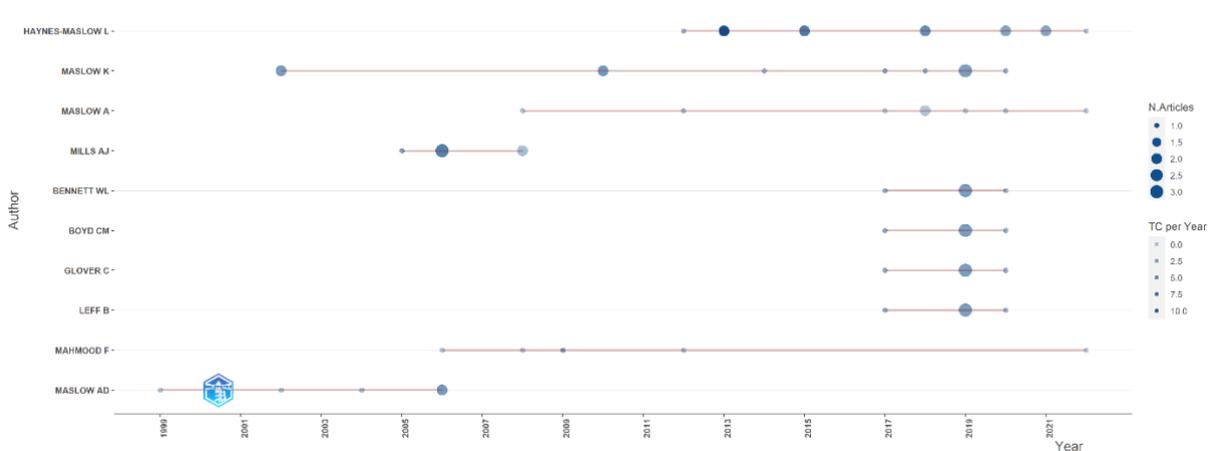

In Figure 5, authors who have done extensive work on Maslow and management research and their most productive times are shown. As a result of the analysis, Haynes-Maslow L (2012-2022), Maslow K (2002-2020), Maslow A (2008-2022), Mills AJ (2005-2008), Bennett WL (2017-2020), Boyd CM (2017-2020)), Glover C (2017-2020), Leff B (2017-2020), Mahmood F (2006-2022), and Maslow AD (1999-2006) conducted quite productive research.

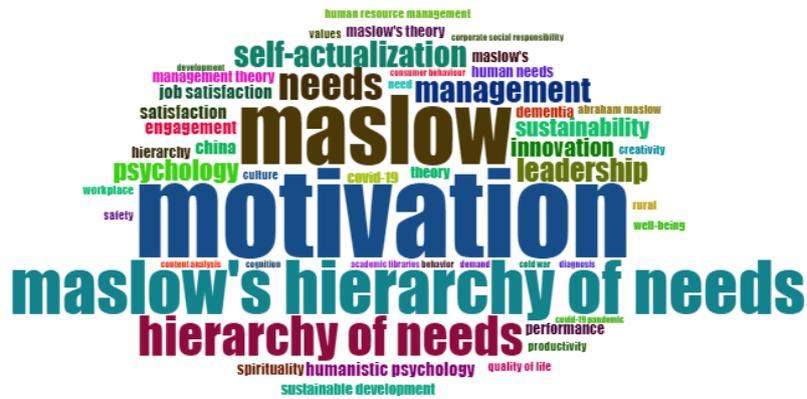**Figure 6.** Maslow and management research co-author countries
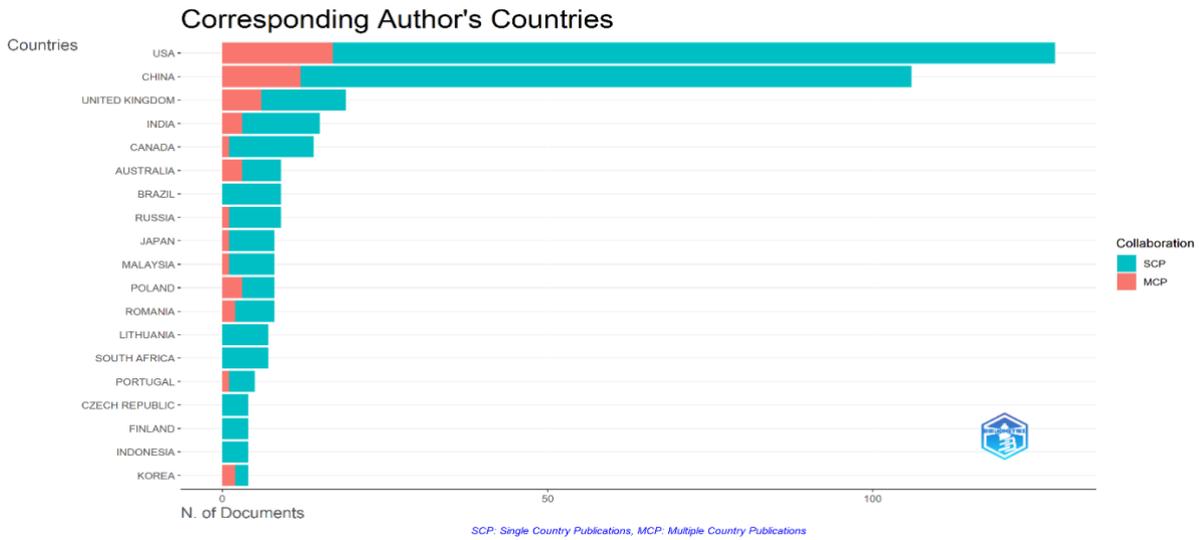
Considering the country addresses of the authors who conducted the most research on Maslow and management research in terms of single and multiple country publications in the analysis; USA, China, United Kingdom, India, Canada, Australia, Brazil, Russia, Japan, Malaysia, Poland, Romania, Lithuania, South Africa, Portugal, Czech Republic, Finland, Indonesia, and Korea. These results show that there is a need for more international studies on Maslow and management research in Turkey.

Figure 7. Maslow and management research top cited authors globally
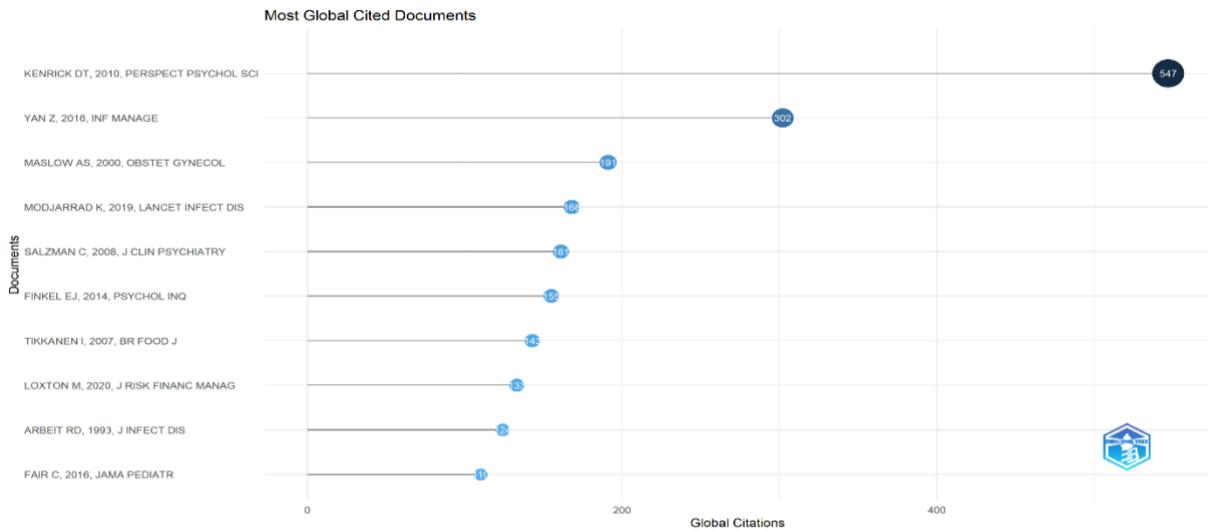
The most cited authors worldwide in Maslow and management research are Kendrick (2010), Yan (2016), Maslow (2000), Modjarrad (2019), Salzman (2008), Finkel (2014), Tikkanen (2007), Loxton (2020), Arbeit (1993) and Fair (2016).

Figure 8. Maslow and management research keywords the authors highlighted the most

The keywords that the authors emphasized the most in Maslow and management research in the analysis; motivation, Maslow, Maslow's hierarchy needs, hierarchy of needs, needs, management, self-actualization, leadership, psychology, innovation, sustainability, job satisfaction, China, satisfaction, commitment, human psychology, human needs, Covid-19, management theory, personality division, hierarchy, Maslow's theory, performance, spirituality, sustainable development, theory, Abraham Maslow, creativity, productivity, quality life, rural, safety, culture, values, need, human resource management, well-being, workplace, academic libraries It is seen that concepts such as cold war, behavior, cognition, demand, and development take place. These concepts can affect employees directly or indirectly, especially in organizational activities.

Figure 9. Collaboration network of highlighted words in Maslow and management studies
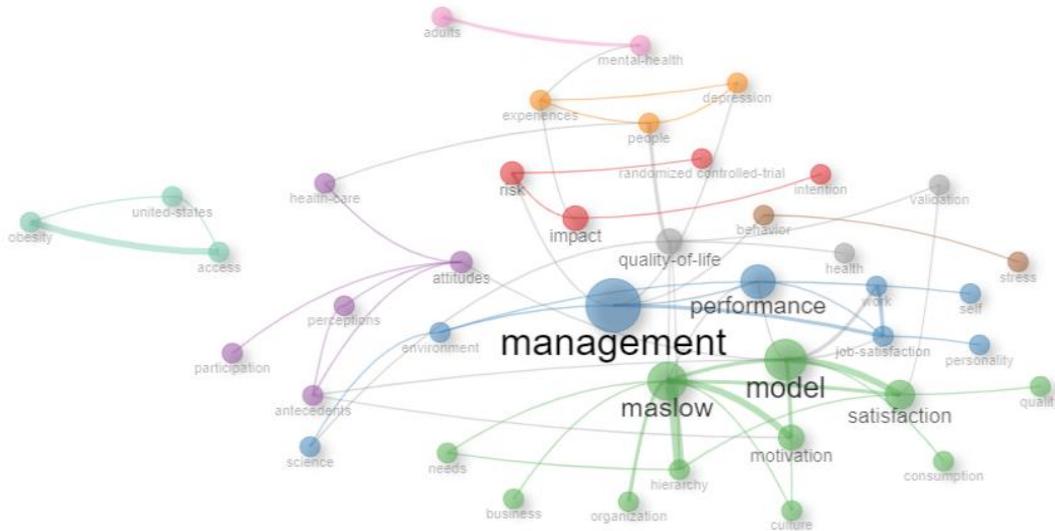

Figure 9 shows the relationships between the words highlighted in Maslow and management studies. In the analysis, it is understood that words with the same color and more pronounced have strong associations. As a result of the analysis, the words management, performance, job, job satisfaction, personality, self, attitudes, environment, health care, perceptions, participation, premises, and science have strong associations together. The words Maslow, model, satisfaction, motivation, hierarchy, organization, business, demands, culture, consumption, and quality have strong relationships together. In the research, the concepts of risk, effect,

randomized controlled trial, and purpose also have relationships. In the analysis, it is understood that quality of life validity and health concepts are related. As a result of the analysis, behavior, stress; experiences, depression, and human concepts; Adult and mental health seem to have separate relationships. In the research, the words USA, obesity, and access are interrelated. In the analysis, it is seen that the concept of management is related to the concepts of quality of life, behavior, risk, and depression. The Maslow concept is associated with performance and quality of life. It is also seen that the word satisfaction is associated with validity. In the analysis, it is understood that the words health care, science, and quality of life are separately related to the concept of human. The concepts of motivation and antecedents are related. As a result of the analysis, it is observed that the concept of the model is related to job, job satisfaction, performance, and attitudes.

The obtained results reveal that there are many factors affecting employees within the organization in Maslow and management research. These factors seem to affect individuals both in organizational and social, psychological, emotional, individual, health, environmental, and social aspects. For example, the concept of quality of life, which can be shaped by activities both within and outside the organization, has had relations with health. In addition, the fact that many concepts such as motivation, hierarchy, and demand, which are effective in organizational activities, are related to culture, shows that social factors have a valuable role in general. In addition, it shows that concepts such as management, performance, work, job satisfaction, attitudes, environment, health care, personality, and perceptions in organizations can be a powerful result of individual, health, and environmental interaction.

Figure 10. Maslow and management research thematic map
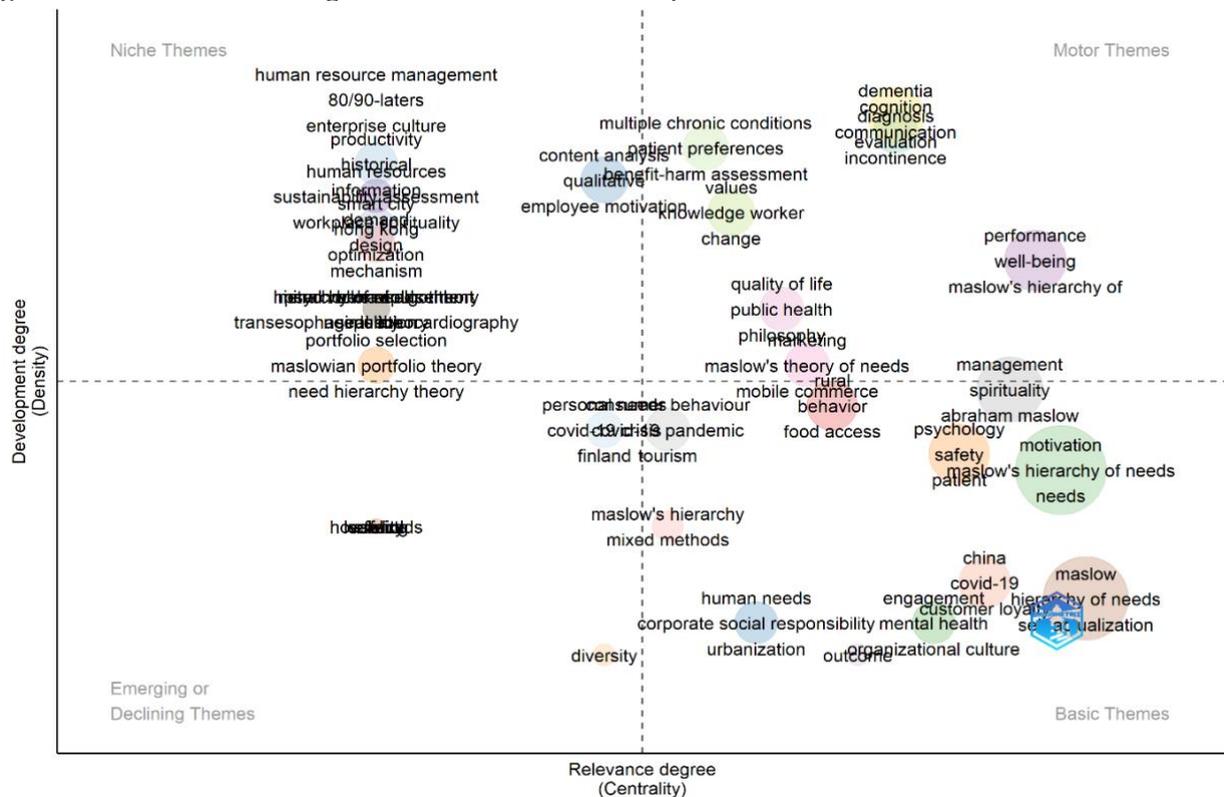
The Maslow and management research thematic map includes words with a high level of density and centralization. It can be said that these concepts, which represent motor themes, are both extensively researched and popular in the literature. In the analysis, the groups with which the words are related are expressed. In the first group of Maslow and management research; management, spirituality, Abraham Maslow, creativity, workplace, self-management, education, intuition, religion, and synergy. These concepts are in Maslow and management research; reveal that education, beliefs, individual characteristics as well as the ability to act together are effective in organizational activities. In the second group word list of the research; is performance, well-being, Maslow's hierarchy, spirituality at work, attitudes, distance education, e-learning, emotional

balance, inner peace, happiness, and health. The obtained results show that in addition to financial means, moral values, and health are very effective, and technological innovations also contribute to this effect. In the third group word list; rural, behavior, food access, dining environment, food safety, and detonate. The results show that behaviors are effective alongside basic needs in Maslow and management research. The fourth group word list; market consists of Maslow's hierarchy of needs, mobile communication, and services concepts. This shows that technological changes (such as ease of access), new service understandings and marketing practices can shape needs in terms of communication in Maslow and management research. In the fifth group words; quality of life, public health, philosophy, and talent concepts. Individuals in Maslow and management practices; familial, organizational, and social aspects of their quality of life, health, philosophical perspective, and personal abilities reveal that they have a very effective role. Sixth group words; It consists of the concepts of dementia, diagnosis, assessment, aging, Alzheimer's disease, the elderly, the elderly, practice, and mild cognitive impairment. This situation reveals that the life span of individuals in the organization affects their activities in terms of health. In the seventh group words; cognitive, communication, incontinence, and rehabilitation concepts. Eighth group words; values, knowledge worker, change, knowledge, and society. This situation reveals the importance of knowledge as well as social values in organizational activities. In the ninth group; multiple chronic conditions, patient preferences, benefit-risk assessment, benefit-harm balance, and hypertension. Employee health in organizations in general affects business activities.

Discussion Result and Suggestions

Maslow and management research; clarifies the understanding of concepts that are physiologically, psychologically, and sociologically valuable in the business activities of organizations. Policies implemented by the management mechanism in organizations shape the organizational culture, work activities, and behavioral characteristics of the employees in general. Maslow and management studies clarify the importance of the variables that employees face. In this respect, it has been observed in the analysis that Maslow and management researches are not limited to organizations only and that many variables can be effective in many areas. The variables obtained and the research comments on the subject in the literature are as follows.

In the analysis, it is observed that the concept of self-actualization was heavily researched in the thematic process and the years 2012-2019 among the keywords emphasized by the authors. Self-actualization, which is at the top of Maslow's hierarchy of needs, directs the behavior of employees in organizational activities. Creating a self-actualizing work environment contributes to organizational policies. If the management mechanism contributes to the development of employees, success is inevitable. In the literature, Dye et al. (2005, p. 1382) Maslow's hierarchy of needs; emphasized that it is not a tool for the subordination or control of the employees, it helps the organization to achieve self-realization at the top of the pyramid and provides support to the employees to enlighten the individuals. Greene and Burke (2007, p. 119) stated that self-actualization has an internal focus, revealing self-differentiation, psychological integration, or personal potential.

In the research, it was seen that the concept of culture was effective in the keywords emphasized by the authors and in the co-collaboration network. Culture has a mechanism that frames the practice areas of organizations and enables employees to adapt to cultural values. In the analysis, it is understood that the concepts of culture and hierarchy are related to the co-collaboration network. This shows that cultural values affect the organization in subordinate-superior relations. In the literature, Dye et al. (2005, p. 1384) stated that in terms of Maslow, the hierarchy has a valid structure in all cultures. Jelavic and Ogilvie (2010, p. 16) of cultural studies; In terms of psychology and management sciences, stated that management models have a critical value in adapting them to specific cultures. In their research, they emphasized that cultural value systems are effective in integrating management models into decision-making processes and leadership styles.

In the research, it is seen that spirituality is effective in the thematic process, in the keywords emphasized by the authors, and in the motor themes, including spirituality at work. Spirituality or spiritual values can have an impact on the behavior of employees in organizations. If the moral values of the employees coincide with the organizational policies, high performance is expected from the employees. In the analysis, it is also understood

that job satisfaction has been extensively investigated in Maslow and management studies, and it is included in the keywords and co-association network emphasized by the authors. In this case, spirituality in the workplace and job satisfaction may have an effective relationship. Employees with high job satisfaction in organizations are expected to contribute more to the organization. In the literature, Greene and Burke (2007, p. 125) stated that Maslow expresses spirituality as finding meaning in life and work and that spirituality contributes to job satisfaction.

In the research, the concept of talent was included in the motor themes. In addition, the concept of self-actualization has been used extensively. The talent of the employees is an effective value for the management mechanism in the activities of the organization. Talented employees can produce more effective and productive results. This contributes to being employees with qualified personnel status. In organizations, it is easier for talented employees to realize themselves than unskilled ones. The talent of the employees sometimes depends on their innate characteristics and sometimes on their activities for self-development. The type of job can also shape talent. Self-actualized employees can make many contributions to the organization. In the literature, O'Connor et al. (2007, p. 742) stated that self-actualizes have unique abilities, tastes, tastes, and an abstract spirituality. Kaur (2013, p. 1062) emphasized that self-actualized employees in the organization are valuable for human resources.

In the research, it is seen that attitudes and job satisfaction have a relationship in the cooperative network, and attitudes are also included in the motor themes section. This situation shows that the attitudes of the employees in the organization can affect each other with job satisfaction. The attitude of the employees towards their job or the management mechanism affects the level of satisfaction. Employees' attitudes towards other co-workers or organizational policies also shape their job satisfaction. In the literature, Udechukwu (2009, p. 69) states that Maslow's behaviors related to job attitudes such as satisfaction can affect needs in various ways; Herzberg, on the other hand, stated that the needs that affect attitudes can be met internally or externally.

In Maslow and management research, it is seen that the concepts of needs and hierarchy of needs have a very intense effect. The ability to meet the needs of the employees operating in the organization is reflected in their behavior. Organizations, where the needs of employees are met, can be the assurance of long-term employment perception. In this framework, the closer employees are to the top of Maslow's hierarchy of needs, the more they develop. In terms of the management mechanism, the response to the need can contribute to the formation of a positive perception in the employees. In the literature, Sengupta (2011, p. 102) stated that if the part needs of individuals are met, they can fully experience themselves and their environment and become free for higher development. Ervina and Yuniawan (2022, p. 44) emphasized that Maslow's basic physical, safety, love or belonging, esteem, and self-actualization needs help to understand the needs (demands) of employees in various human resource management practices.

In the analysis, it is observed that motivation is effective in all categories. This shows that the motivation of employees is very effective in the realization of business activities in organizations. Employees with high motivation contribute more to organizational outputs. There may be many internal or external factors that can affect the motivation of employees in the organization. In terms of internal factors, the employee's perception, expectations, and demands for their activities can play an effective role. In terms of external factors, organizational policies, other employees and society in general can have many effects. In this respect, organization managers have important duties to keep employee motivation high. In the literature, Sengupta (2011, p. 112) emphasized that managers around the world perceive the need for high work motivation.

It is observed that culture is quite effective in the keywords and co-collaboration network emphasized by the authors. Organizational culture, organizational policies, and practices are effective. In the thematic process, it is seen that human resources management is also effective in the keywords emphasized by the authors and in the motor themes part. In management practices in organizations, human resource management is a fundamental resource that shapes business activities. The feature of human resources that creates outputs and directs the future of the organization has contributed to the increase in its value day by day. Effective and efficient management of human resources makes valuable contributions to the future of organizations. In the literature, Jerome (2013, p. 44) emphasized that within the framework of Maslow's hierarchy of needs theory, each organization should create its own culture instead of copying other organizational cultures, and this can be achieved through the connection of organizational culture and human resources practices.

In the research, it is seen that the concepts of happiness and emotional balance are included in the motor themes section. Happiness is both before and after many organizational activities; It is a valuable motivation tool that is desired to be experienced. Emotional balance can affect the way individuals behave in work activities. A happy employee in the workplace acts more willingly for workplace activities. This makes it necessary for a happy working environment to be provided by the management mechanism. In some cases, the factors that can cause happiness may vary from person to person. While some individuals in organizations prioritize material opportunities (such as money, fixed assets, comfortable working environment) as a source of happiness, others may consider spiritual opportunities (such as emotion, behavior, belief, and feeling). In this respect, to create a happy working area in organizations, it is necessary to carry out balanced policies that can meet the expectations of the employees. In the literature, Taormina and Gao (2013, p. 172) stated that emotional support from family is a critical component of a happy life and has an effective role in one's sense of belonging.

As a result of the network of partnerships in Maslow and management research; It is seen that experiences, depression, and human concepts are related to each other. Experience can facilitate the movement area of employees in organizational activities. The intensity of work activities can cause negative pressures such as depression and stress in employees. Organizational experience guides the behavior of employees. In the literature, Osemeke and Adegboyega (2017, p. 170) stated that the motivations that guide individuals can change with life experiences and cultural views. Lussier (2019, p. 322) stated that Maslow takes into account human-centered motives such as self-actualization motive.

It is seen that sustainability is used intensively in the analysis, and it is included in the thematic process and the keywords emphasized by the authors. Sustainable policies of organizations can contribute dynamically to the movement areas of employees. Organizations that demonstrate sustainable activities in environments where competition is strong are expected to be stronger. In addition, the sustainable activities of the employees can contribute to their individual development. In the literature Hunting and Conroy (2018, p. 268) they stated that a sustainable lifestyle contributes to the self-realization of individuals.

It is seen that the concept of creativity is included in the keywords emphasized by the authors, in the motor themes section where density and centralization are high. This shows that employee creativity is effective in Maslow and management studies. The importance given to the concept of creativity in recent years shows that organizations need new formations for business activities. Employees make unique contributions to their organizations through creativity. Organizations that provide unique and different outputs determine a valuable position in market conditions. In the literature (Bridgman et al., 2019, p. 94), they stated that management and creativity are related within the framework of Maslow's pyramid.

In the research engine themes section, it is understood that communication and mobile communication have both an intense and centralized structure. Communication is very effective in organizational activities, both in the management mechanism of the employees and in their dialogues with other employees. It is reflected as a result of employees' communication mechanisms, behaviors, and ideas. Depending on technological developments, mobile communication affects individuals in all areas of life and contributes to the execution of many business activities. A strong communication network in the organization contributes to the reduction of uncertainty. In the literature, Wolor et al. (2022, p. 119) stated that the employees in the organization should perceive the message intended to be given correctly for effective communication and that there should be no ambiguity.

In the analysis, it is observed that the concepts of education and distance education both have high degrees of centralization and intensity (in motor themes). In addition, it is seen that the word Covid-19 has a very popular field of study in Maslow and management studies. This is related to the remote realization of organizational activities in many areas during the Covid-19 period. Organizations have been able to carry out both training on their applications and other activities with the distance education method. In such environments of necessity, there are rapid changes in business activities. In the literature, Ratten (2023, p. 6) emphasized that management education has changed due to Covid-19, virtual classrooms and online teaching studies are carried out, and there are changes in learning and teaching styles.

As a result, Maslow's hierarchy of needs linked the formation of a need to the satisfaction of a lower-level need. This situation does not give a definite result about whether a higher need will occur if any need is not met. When evaluated in terms of management, the situation of meeting or not meeting an existing need in the organization creates a wide area of discussion on whether new needs will occur or not. In addition, differences in expectations in employees can lead to the formation of a wide variety of needs. Considering Maslow and management research results, in the formation of a need; It is understood that environmental factors, technological changes, socio-cultural structures, and value judgments prevailing in the organization have a general effect. This shows that there is a need for applications that can give a new perspective on the subject. In the literature, Rojas et al. (2023, p. 13) emphasized that in Maslow's theory of motivation, individuals would not be motivated to take into account their other needs without fully satisfying their lower-level needs, that is, they would not be able to satisfy needs such as love, belonging and respect without meeting lower level needs such as physiological and security.

The application is limited to Maslow and management research in WoS. The research is evaluated through organizations and employee activities. In new applications related to Maslow and management research; employees' beliefs, expectations from organizational policies, and the level of meeting their material or moral needs can be included. In addition, the expectations of the management mechanism from the employees in organizations and the factors (material / moral) that are effective in the formation of these expectations can be investigated. In the research, public and private sector business activities are evaluated in general. New research can include the distinction between public and private sectors regarding Maslow and management research. In addition, comparisons can be made regarding public or private sector management policies in research. Maslow (1948, p. 436) stated in his research that trying to reach higher needs leads to stronger and more accurate individuality in terms of satisfaction. He emphasized that the stages of self-actualization are related to development. In this respect, future research can examine the gains provided to employees by management that strive for self-realization.

Author Contributions: The entire research was conducted by the corresponding author.

Funding Disclosure: No financial support was received.

Conflicts of Interest: There is no conflict of interest with any person or institution in the research.

Data Availability: The data sets are available from the corresponding author upon reasonable request.

Ethics Approval and Consent to Participate: There is no need for ethical approval as the article did not include human participants.

References

Acevedo, A. (2018). A personalistic appraisal of Maslow's needs theory of motivation: From "Humanistic" psychology to integral humanism. *Journal of Business Ethics, 148*(4), 741-763.

Adiele, E. E., & Abraham, N. M. (2013). Achievement of Abraham Maslow's needs hierarchy theory among teachers: Implications for human resource management in the secondary school system in rivers state. *Journal of Curriculum and Teaching, 2*(1), 140-144. http://dx.doi.org/10.5430/jct.v2n1p140

Alsharif, A. H., Salleh, N. Z. MD., & Baharun R. (2020). Research trends of neuromarketing: A bibliometric analysis. *Journal of Theoretical and Applied Information Technology, 98*(15), 2948-2962.

Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics, 11*(4), 959-975. http://dx.doi.org/10.1016/j.joi.2017.08.007

Bridgman, T., Cummings, S., & Ballard, J. (2019). Who built Maslow's pyramid? A history of the creation of management studies' most famous symbol and its implications for management education. *Academy of Management Learning & Education, 18*(1), 81–98. https://doi.org/10.5465/amle.2017.0351

Danvila-del-Valle, I., Estevez-Mendoza, C., & Lara, F. J. (2019). Human resources training: A bibliometric analysis. *Journal of Business Research, 101,* 627-636. https://doi.org/10.1016/j.jbusres.2019.02.026

Dixit, S., Sharma, S. D., & Kamara, V. (2023). A comparative analysis of the psychological concepts created by Abraham Maslow & Fredrick Herzberg: In context of the organizational study. *Journal of Survey in Fisheries Sciences, 10*(2S), 4068-4081.

Dye, K., Mills, A. J., & Weatherbee, T. (2005). Maslow: Man interrupted: Reading Management Theory in context. *Management Decision, 43*(10), 1375-1395. https://doi.org/10.1108/00251740510634921

Ellegaard, O. (2018). The application of bibliometric analysis: Disciplinary and user aspects. *Scientometrics, 116*, 181–202. https://doi.org/10.1007/s11192-018-2765-z

Elliot, E. M., & Williams III, F.P. (1995). When you no longer need Maslow: Exchange, professionalism, and decentralization in the management of criminal justice agencies. *Public Administration Quarterly, 19*(1), 74-88.

Ervina I, R. H., & Yuniawan, A. (2022). Human resource management transformation in generation Z: A bibliometric review. *Proceeding of 2nd International Conference on Research and Development (ICORAD), 1*(2), 42-49. https://doi.org/10.47841/icorad.v1i2.54

Greene, L., & Burke, G. (2007). Beyond self-actualization. *Journal of Health and Human Services Administration, 30*(2), 116-128.

Hunting, A., & Conroy, D. (2018). Spirituality, stewardship and consumption: New ways of living in a material world. *Social Responsibility Journal, 14*(2), 255-273. https://doi.org/10.1108/SRJ-06-2016-0097

Jelavic, M., & Ogilvie, K. (2010). Maslow and management: Universally applicable or idiosyncratic? *Canadian Institute of Management,* 16-17.

Jerome, N. (2013). Application of the Maslow's hierarchy of need theory; impacts and implications on organizational culture, human resource and employee's performance. *International Journal of Business and Management Invention, 2*(3), 39-45.

Kaur, A. (2013). Maslow's need hierarchy theory: Applications and criticisms. *Global Journal of Management and Business Studies, 3*(10), 1061-1064.

Khanra, S., Dhir, A., & Mantymaki, M. (2020). Big data analytics and enterprises: A bibliometric synthesis of the literatüre. *Enterprise Information Systems, 14*(6), 737-768. https://doi.org/10.1080/17517575.2020.1734241

Loingsigh, P. O. (1978). Motivation for human fulfilment. *An Irish Quarterly Review, 67*(268), 317-329.

Lussier, K. (2019). Of Maslow, motives, and managers: The hierarchy of needs in American business, 1960–1985. *Journal of the History of the Behavioral Sciences, 55,* 319–341. https://doi.org/10.1002/jhbs.21992

Maslow, A. H. (1968). *Toward a psychology of being, reinhold publishing.* Van Nosuand Reinhold. New York. ISBN: 00442003805-4 pbk.

Maslow, A. H. (1943). A Theory of human motivation. *Psychological Review, 50*(4), 370-396.

Maslow, A. H. (1948). "Higher" and "Lower" Needs. *The Journal of Psychology: Interdisciplinary and Applied, 25*(2), 433-436. http://dx.doi.org/10.1080/00223980.1948.9917386

Maslow, A. H. (1970). *Motivation and Personality*. Harold, Paul, and Lew, Universal Container Corporation, New York.

Maslow, A. H. (2000). *The Maslow business reader*. John Wilwy & Sons, Inc. Canada. ISBN: 0-471-36008-2. https://archive.org/details/maslowbusinessre00abra

Mathes, E. W. (1981). Maslow's hierarchy of needs as a guide for living. *Journal of Humanistic Psychology, 21*(4), 69-72.

Moral-Munoz, J. A., Herrera-Viedma, E., Santisteban-Espejo, A., & Cobo, M. J. (2020). Software tools for conducting bibliometric analysis in science: An upto-date review. *El Profesional de la Información, 29*(1), 1-20. https://doi.org/10.3145/epi.2020.ene.03

O'Connor, D., & Yballe, L. (2007). Maslow revisited: Constructing a road map of human nature. *Journal of Management Education, 31*(6), 738-756. https://doi.org/10.1177/1052562907307639

Osemeke, M., & Adegboyega, S. (2017). Critical review and comparism between Maslow, Herzberg and McClelland's theory of needs. *Business and Finance, 1*(1), 161-173.

Ratten, V. (2023). The post covid-19 pandemic era: Changes in teaching and learning methods for management educators. *The International Journal of Management Education 21*, 1-8. https://doi.org/10.1016/j.ijme.2023.100777

Riahi, Y., Saikouk, T., Gunasekaran, A. & Badraoui, I. (2021). Artificial ıntelligence applications in supply chain: A descriptive bibliometric analysis and future research directions. *Expert Systems with Applications, 173*, 1-19. https://doi.org/10.1016/j.eswa.2021.114702

Rojas, M., Mendez, A., & Watkins-Fassler, K. (2023). The hierarchy of needs empirical examination of Maslow's theory and lessons for development. *World Development, 165,* 1-15. https://doi.org/10.1016/j.worlddev.2023.106185

Seeley, E. (1992). Human needs and consumer economics: The implications of Maslow's theory of motivation for consumer expenditure patterns. *The Journal of Socio-Economics, 21*(4), 303-324.

Sengupta, S. S. (2011). Growth in human motivation: Beyond Maslow. *Indian Journal of Industrial Relations, 47*(1), 102-116.

Şengöz, M. (2022). Maslow'un ihtiyaçlar hiyerarşisi modeli'nin bütünleşik bir süreç olarak yeniden yorumlanması. *JRES, 9*(1), 164-173. https://doi.org/10.51725/etad.977931

Taormina, R. J., & Gao, J. H. (2013). Maslow and the motivation hierarchy: Measuring satisfaction of the needs. *The American Journal of Psychology, 126*(2), 155-177. https://doi.org/10.5406/amerjpsyc.126.2.0155

Udechukwu, I. I., (2009). Correctional officer turnover: Of Maslow's needs hierarchy and Herzberg's motivation theory. *Public Personnel Management, 38*(2), 69-82. https://doi.org/10.1177/009102600903800205

Vithayaporn, S., Katekaew, R., Vorapanya, C., & Sanpetpanich, S. (2022). Antecedents and consequences of organizational learning climates: A meta-analysis using Maslow's hierarchy of needs theory. *ABAC ODI Journal, 9*(2), 38-58.

Wahba, M. A., & Bridwell, L.G. (1976). Maslow reconsidered: A review of research on the need hierarchy theory. *Organizational Behavior and Human Performance, 15*, 212-240.

Wang, Q., & Ngai, E. W. T. (2020). Event study methodology in business research: A bibliometric analysis. *Industrial Management & Data Systems, 120*(10), 1863-1900. https://doi.org/10.1108/IMDS-12-2019-0671

Wolor, C. W., Dania, R. F. R., Rofaida, R., & Eranza, D. R. D. (2022). Employee performance attributes in post pandemic era: Redefining compassion, employee communication, employee engagement, and job satisfaction. *Pakistan Journal of Life and Social Sciences, 20*(1), 108-127. https://doi.org/10.57239/PJLSS-2022-20.1.0012