ANATOLIAN
JOURNAL OF
HEALTH RESEARCH

The Anatolian Journal of Health Research takes the criteria of the International Committee of Medical Journal Editors (ICMJE) and the Committee on Publication Ethics (COPE) that have been prepared as a guide for authors, referees and editors.

Anatolian Journal of Health Research; yazarlar, hakemler ve editörler için rehber olarak hazırlanmış Uluslararası Medikal Dergisi Editörleri Konseyi (ICMJE) ve Yayın Etik Kuralları (COPE) kriterlerini temel almaktadır.

Abstracting and Indexing

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Objective

The Anatolian Journal of Health Research is an independent journal that evaluates manuscripts with the principle of "double-blind" review. The main objective of the journal is to publish scientifically high-quality, interventional or non-interventional, quantitative or qualitative original research articles, review articles and case reports that may contribute to the relevant literature not only in the field of health but also with interdisciplinary studies.

Scope

The Anatolian Journal of Health Research started its publication life in 2020, and it is published in the electronic environment 3 times a year (in four-month intervals in April, August and December). The languages of publication of the journal are Turkish and English.

The Anatolian Journal of Health Research is a journal that focuses on several fields of health including midwifery, child development, nursing, physiotherapy and rehabilitation, audiology, nutrition and dietetics, social services, disaster management, gerontology, health management, medical sciences, pharmacy and dentistry. Moreover, it includes academic studies conducted for fields such as children's, family, women's, adult and public health. Anatolian Journal of Health Research gives priority to publications on "women's health, mother-child health and child development".

Amaç

Anatolian Journal of Health Research, "çift-kör" hakemlik ilkeleri ile makaleleri değerlendiren, bağımsız bir dergidir. Derginin temel amacı gerek sağlık alanında gerekse disiplinler arası çalışmalarda, ilgili literatüre katkıda bulunabilecek, bilimsel olarak yüksek kalitede girişimsel olan-olmayan, nicel ve nitel özgün araştırma makaleleri, derleme makaleleri, olgu raporları yayımlamaktır.

Kapsam

Anatolian Journal of Health Research, 2020 yılında yayın hayatına başlamış olup yılda 3 kez (Nisan, Ağustos, Aralık aylarında, dörder aylık periyot bitimlerinde) elektronik ortamda yayımlanır. Derginin yayın dili Türkçe ve İngilizcedir.

Anatolian Journal of Health Research ebelik, çocuk gelişimi, hemşirelik, fizyoterapi ve rehabilitasyon, odyoloji, beslenme ve diyetetik, sosyal hizmetler, afet yönetimi, gerontoloji, sağlık yönetimi, tıp bilimleri, eczacılık ve diş hekimliği gibi birçok sağlık alanına odaklı bir dergidir. Bununla birlikte çocuk, aile, kadın, yetişkin ve toplum sağlığı vb. alanlarına yönelik yapılan akademik araştırma ve çalışmalara yer vermektedir. Anatolian Journal of Health Research, "kadın sağlığı, anne-çocuk sağlığı ve çocuk gelişimi" konulu yayınlara öncelik vermektedir.

ANATOLIAN JOURNAL OF HEALTH RESEARCH

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ORIGINAL ARTICLE / ARAŞTIRMA

The intimate partner violence and marital adjustment on married women

Evli kadınlarda yakın partner şiddeti ve evlilik uyumu

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ABSTRACT

Aim: This study was determined the relationship between intimate partner violence against women (IPV) and marital adjustment.
Methods: The research conducted that 1057 married women with simple random sampling method. The data were created face to face interview method by the researchers making home visits between December 2017 and November 2018. The data were collected by using the Sociodemographic Form, Domestic Violence Scale (DVS) and Marital Adjustment Test (MAT).
Results: Womens' mean DVS total mean score was found to be 61.25±10.21, MAT total mean score was found to be 30.08±8.05. In the study, it was found that intimate partner violence levels of the women and their married adjustment were moderate. In the study, when the total mean scores of DVS and MAT were compared according to the descriptive characteristics of the women, a statistically significant difference was found between the age, length of marriage, number of children, type of marriage, income, husband's age, and the total score points of the women participating in the study (p<.05). According to our findings, all of the women experienced at least one type of IPV during their marriage. There is a statistically negative and significant relationship between spousal violence and marital adjustment (p<.05).
Conclusion: Marital adjustment is associated with intimate partner violence. As marital adjustment increases, IPV decreases.

Keywords: intimate partner violence; marital relationship; woman

ÖZET

Amaç: Bu çalışma, kadına yönelik yakın partner şiddeti (IPV) ile evlilik uyumu arasındaki ilişkiyi belirlemek amacıyla yürütülmüştür.
Yöntem: Araştırma, basit tesadüfi örnekleme yöntemiyle 1057 evli kadın üzerinde gerçekleştirilmiştir. Veriler, araştırmacılar tarafından ev ziyaretleri esnasında yüz yüze görüşme yöntemi ile toplanmıştır. Verilerin toplanmasında Sosyodemografik Form, Aile İçi Şiddet Ölçeği (AİŞÖ) ve Evlilik Uyumu Testi (EUT) kullanılmıştır.
Bulgular: Kadınların AİŞÖ toplam puan ortalamaları 61.25±10.21, EUT toplam puan ortalamaları 30.08±8.05 olarak bulunmuştur. Araştırmada kadınların partner şiddeti düzeylerinin ve evlilik uyumlarının orta düzeyde olduğu saptanmıştır. Araştırmada kadınların tanımlayıcı özelliklerine göre AİŞÖ ve EUT toplam puan ortalamaları karşılaştırıldığında, araştırmaya katılan kadınların yaş, evlilik süresi, çocuk sayısı, evlilik biçimi, gelir, eş yaşı ile AİŞÖ ve EUT toplam puan ortalamaları arasında istatistiksel olarak anlamlı bir fark saptanmıştır (p<.05). Bulgularımıza göre kadınların tamamı evlilikleri boyunca IPV türlerinden en az birini yaşamıştır. Eş şiddeti ile evlilik uyumu arasında istatistiksel olarak negatif yönde anlamlı bir ilişki vardır. (p<.05).
Sonuçlar: Evlilik uyumu, yakın partner şiddeti ile ilişkilidir. Evlilik uyumu arttıkça, aile içi şiddet azalmaktadır.

Anahtar kelimeler: yakın partner şiddeti; evlilik ilişkisi; kadın

Introduction

The World Health Organization (WHO) has defined violence against women as any activity that can hurt and restrain a woman (WHO, 2017). Violence against women is mostly intimate partner violence (IPV) (Akar et al., 2010; Cheung & Choi, 2016). WHO states that IPV is the most common type of violence, affecting 30% of women (WHO, 2017).

IPV is a serious social issue in all country around the world. Findings of a multicountry study of 24,000 women surveyed showed 15%-75% of the women reported IPV (Moreno et al., 2006). Jamali and Javadpour (2016) reported that 43.2 percent of women are exposed to IPV (Jamali & Javadpour, 2016). Karakuła-Juchnowicz et al. (2017) showed that 200 women experiencing intimate partner violence in Poland prevalence of physical, psychological, sexual, and economic violence 75%, 92%, 21%, and 65% respectively (Karakuła-Juchnowicz et al., 2017). The lifetime prevalence of IPV was 34% in Saudi Arabia (Fageeah 2014). IPV prevalence 90% emotional, 40% physical, 15% sexual violence in Turkey (Tatlılıoğlu & Küçükköse, 2015). A study revealed that 77.9% of women were exposed to IPV during their marriage.

The risk factors for high prevalence IPV in Turkey were similar to in other countries, such as low socioeconomic status and education, husband's having habit like alcohol frequent quarrelling with husband, acceptance of violence in theirculture and during their childhood exposure to violence (Atkinson et al., 2005; Cheung & Choi, 2016; Jamali & Javadpour, 2016). IPV is relavant with negative outcomes such as physical injuries, death and depression (William & Frieze, 2005). Literature also shows that IPV is an chief risk for marital adjustment. In a meta-analysis, Stith showed a significant negative association between IPV and marital adjustment. In addition, there is a negative relationship between marital satisfaction and marital conflict and intimate partner violence (Stith et al., 2008). The

study was aimed to determine the relationship between intimate partner violence against women and marital adjusment.

Conscientiousness in the nursing profession is a component that increases nurses' sense of responsibility and develops professional competencies that require them to use their knowledge and skills in patient care (Dahlqvist et al., 2007). Although there are cultural differences, conscience; sensitivity, respect for human rights, careful and dignified care practices (Dahlqvist et al., 2007; ICN, 2000).

Methods
Study desing
This was a descriptive and cross-sectional study.
Sampling
The population of the study, registered to 5 family health centers (FHC) on married women 18-65 years of age, living in a east region in Turkey. Two FHC were selected through a simple random method from among 5 FHC. There are 5000 married women 18-65 years who are registered 2 FHC. The sample size for the research error of 0.05, a confidence interval of 0.95 and effect size of 0.08 has been identified as a married woman in power analysis with 1000. We have achieved 1070 up married woman who listed by name were selected by simple random sampling method. But as 13 forms were filled in wrongly, these data was deleted. And then, the study was completed with 1057 women.
Measures
The data were collected by using the Sociodemographic Form, Domestic Violence Scale (DVS) and Marital Adjustment Test (MAT).
Sociodemographic Form
In this form, there are 6 questions created by the researchers according to the literature (Yeşiltepe & Çelik, 2014; Öyekçin et al., 2012). It was constituted to determine the information of the women and their husband's (e.g., age, lenght of marriage, number of children, income status, marriage style and age of husband's).
Domestic Violence Scale (DVS)
The scale was developed by Çetiner (2006). The validity and reliability analyses of the scale was completed by İdiz (2009). The scale has a total of 5 subscales as physical violence, verbal violence, sexual violence, emotional violence, and economic violence. The items of these sub-dimensions are as follows: emotional violence (1, 2, 9, 10, 11, 20, 22, 23, 24, 25, 27), physical violence (5, 6, 56 12, 16, 21, 26, 28) verbal violence (4, 7, 14, 29), sexual violence (3, 8, 17, 18, 19) and economic violence (13, 15, 30). The items are Likert scale 5-type and they are answered as follows: 'never' is 1, 'rarely' 2, 'sometimes' 3, 'often' 4 and 'always' 5. The scale is in the range of 30-150 points. As the score increases, domestic violence against women increases. The Cronbach's alpha coefficient of the present study was found to be 0.92 (İdiz, 2009). In this study, the Cronbach's alpha of the scale was .91.
Marital Adjustment Test (MAT)
The scale was developed by Locke and Wallace (1959). The validity and reliability were studied by Tutarel-Kışlak (1999). It was developed to measure general marital adjustment, agreement and disagreement on some issues, and relationship style. This scale has 15 items and items are scored differently. The first item is a Likert item and scored from 0= Never to 6= Always. Items between 2 and 9 are reverse items and scored on 5= Always agree to 1= Always disagree to measure agreements

and disagreements. Item 10 to 15 measure relationship style. Total MAT score obtained by adding the scores between 1-60 points. The lowest marital adjustment score is 1 point, while the highest marital adjustment score is 60 points. Higher total scores refer to high marital adjustment. The Cronbach's alpha coefficient of the present study was found to be .84 (Tutarel-Kışlak, 1999). In our study, the Cronbach's alpha of the scale was .80.
Data collection procedures
The data were created face to face interview method by the researchers making home visits between December 2017 and November 2018. The women answered the forms. It took about 15 to 20 min.
Data analysis
The data were analyzed by The SPSS 22.0 program. Descriptive tests and parametric tests were used. Percentage distribution, arithmetic mean, t-test in independent groups, one way ANOVA and Pearson Correlation were used to assess the data. Normality distributions were evaluated with Skewness and Kurtosis test values. Cronbach's alpha was used to assess the internal consistency of the scales.
Ethical principles of the study
Ethical and legal permission was obtained. The study was approved by the Ethics Committee of Inonu University Health Sciences Institute Ethics Committee in Malatya on 07.02.2017. Ethics Committee Approv No is 2017/3-5. Before starting the study, information about the study was given and verbal consent was obtained.

Table 1. Descriptive characteristics of women (n=1057)

Characteristics	n	%
Age (years)		
18-28	287	27.2
29-39	332	31.4
40-50	272	25.7
51-61	166	15.7
Lenght of marriage		
0-5 years	269	25.4
6-11 years	257	24.3
12-17 years	260	24.6
18-23 years	271	25.6
Number of children		
0	120	11.4
1	211	20.0
2	299	28.3
3 and more	427	40.4
Marriage style		
Flirt	470	44.5
Arranged marriage	587	55.5
Income status		
Low	116	11.0
Middle	567	53.6
High	374	35.4
Age of the husband (years)		
18-28	170	16.1
29-39	313	29.6
40-50	303	28.7
51-61	271	25.6

Table 2. Compare DVS total and subscale mean score and MAT mean score with descriptive characteristics of women (n=1057)

	MAT (Total means)	Emotional violence	Verbal violence	Physical violence	Sexual violence	Economic violence	DVS (Total means)
Age							
18-28	27.59±13.77	16.34±6.14	5.82±2.36	9.57±2.98	8.76±3.18	5.58±2.68	46.08±15.31
29-39	24.88±11.00	18.46±6.88	6.60±2.79	9.94±3.62	9.51±3.63	6.34±2.77	50.87±17.32
40-50	27.74±10.51	19.86±8.03	6.81±3.06	10.13±4.07	9.71±3.92	6.45±3.01	52.98±19.64
51-61	26.34±11.54	24.05±9.99	7.26±3.65	10.37±5.13	9.82±4.58	6.78±3.40	55.30±24.33
Test value	F= 3.734	F= 16.862	F= 10.072	F= 1.746	F= 4.187	F= 7.383	F= 10.505
Significance	**p= .011**	**p= .000**	**p= .000**	**p= .000**	p= .000	**p= .000**	**p= .000**
Lenght of marriage							
0-5 year	28.86±14.00	16.38±6.65	5.89±2.49	9.43±3.15	8.59±3.30	5.54±2.74	45.85±16.35
6-11 year	23.42±10.25	18.35±7.04	6.56±3.01	10.33±4.04	9.78±3.78	6.29±2.89	51.24±18.53
12-17 year	22.96±9.52	19.47±7.09	6.68±2.72	10.33±3.90	9.66±3.63	6.26±2.64	52.43±17.55
18-23 year	27.77±11.81	20.40±9.29	7.04±3.38	9.77±4.24	9.70±4.24	6.83±3.31	53.76±21.99
Test value	F=17.804	F=13.954	F= 7.297	F= 3.504	F=5.742	F=8.811	F= 9.215
Significance	**p= .000**	**p= .000**	**p= .000**	**p= .015**	**p= .001**	**p= .000**	**p= .000**
Number of children							
0	32.59±13.42	15.43±5.90	5.97±2.67	9.40±3.34	8.22±3.29	4.97±2.46	44.03±15.74
1	25.88±12.05	18.17±7.84	6.44±3.15	10.00±3.96	9.40±3.73	6.33±3.05	50.36±19.45
2	24.77±11.25	18.39±6.90	6.55±2.73	9.89±3.59	9.63±3.72	6.30±2.83	50.78±17.37
3 and more	24.60±11.01	19.97±8.39	6.75±3.05	10.14±4.13	9.59±3.91	6.48±3.01	52.95±20.16
Test value	F=16.048	F= 11.651	F= 2.312	F= 1.192	F=4.660	F= 8.659	F= 7.082
Significance	**p= .000**	**p= .000**	**p= .004**	**p= .014**	**p= .003**	**p= .000**	**p= .000**
Marriage style							
Flirt	26.37±12.62	16.88±6.31	5.97±2.55	9.54±3.30	8.93±3.36	5.73±2.69	47.07±16.11
Arranged marriage	25.36±11.14	20.07±8.43	9.54±3.30	10.29±4.24	9.79±4.04	6.63±3.07	53.80±20.49
Test value	t= 1.369	t -6.795	t= -5.711	t= -3.176	t= -3.695	t= -4.987	t= -5.828
Significance	**p= .000**	**p= .000**	**p= .000**	**p= .000**	**p= .000**	**p= .000**	**p= .000**
Income status							
Low	25.75±8.76	25.16±9.68	9.19±3.73	13.18±5.62	12.33±4.21	8.26±3.26	68.14±22.93
Middle	24.72±11.28	18.30±7.41	6.37±2.81	9.81±3.68	9.12±3.60	6.26±2.89	49.88±19.13
High	27.48±13.22	17.17±6.46	5.98±2.40	9.18±2.86	8.93±3.50	5.55±2.62	46.84±15.69
Test value	F= 6.177	F= 53.192	F= 60.602	F= 52.6.83	F=42.313	F= 40.215	F=64.203
Significance	**p= .002**	**p= .000**	**p= .000**	**p= .000**	**p= .000**	**p= .000**	**p= .000**
Age of the husband							
18-28	28.90±14.12	15.55±5.74	5.71±2.27	9.14±2.60	8.49±3.04	5.39±2.62	44.30±14.21
29-39	25.89±12.00	17.61±6.68	6.31±2.72	9.88±3.66	9.30±3.61	6.12±2.87	49.24±17.29
40-50	23.43±10.20	19.10±6.90	6.44±2.53	9.97±3.29	9.41±3.38	6.28±2.65	51.21±16.41
51-61	26.44±11.26	21.28±9.72	7.46±3.70	10.55±5.08	10.11±4.60	6.82±3.37	56.24±23.95
Test value	F= 8.396	F= 23.074	F= 14.581	F= 4.716	F= 6.612	F= 8.597	F= 15.450
Significance	**p= .000**	**p= .000**	**p= .000**	**p= .003**	**p= .000**	**p= .000**	**p= .000**

MAT: Marital Adjustment Test, DVS: Domestic Violence Scale

According to the results, 31.4% of the women are between the ages of 29-39, 25.6% are married, between the ages of 18-23, 40.4% have 3 or more children, 55.5% are married and arranged, 53.6% of them are at middle and 29.6% of them are at income level and between 29-39 years of age have husbands (Table 1).

Our results indicated that women were exposed to at least one of the types of IPV throughout their marriage. Verbal and emotional violence were the most frequently. When DVS subscale and total mean scores of the women were compared based on their descriptive characteristics in the study, a statistically significant difference was determined between age, length of marriage number of children, style of marriage, income, husband's age and DVS subscale and total mean scores (p<0.05). In the advanced analysis, it was determined that young age increased intimate partner violence, longer duration of marriage decreased violence, higher number of children increased IPV, IPV was higher in those getting married with arranged marriage, having low income status, and those getting married with older husband (Table 2).

When MAT total mean scores of the women were compared based on their descriptive characteristics in the study, a statistically significant difference was determined between age, duration of marriage, number of children, style of marriage, income, age of the husband's and the total mean score of MAT (p<0.05). In the further analysis; it was showed that younger ones had a lower marital adjustment, those having a longer duration of marriage had a higher marital adjustment, those having lower number of children had a lower marital adjustment, those getting married with arranged marriage had a lower marital adjustment, those with high income had a higher marital adjustment, and those getting married with older husband had a higher marital adjustment (Table 2).

Table 3. DVS and MAT scales and total mean scores of subscales (n=1057)

	Obtained min–max scores	X±SD
MAT	15-50	30.08±8.05
DVS	30-110	61.25±10.21

MAT: Marital Adjustment Test, DVS: Domestic Violence Scale

Womens' mean DVS subscale and total mean score was found to be 61.25±10.21, MAT subscale and total mean score was found to be 30.08±8.05. In the study, it was found that intimate partner violence levels of the women were moderate and their married adjustment were moderate (Table 3).

Table 4. Correlations between the DVS total and subscale mean score and MAT score (n=1057)

DVS	MAT	
	r	p
Emotional violence	- .170	**.000**
Verbal violence	-. 114	**.000**
Physical violence	-. 155	**.000**
Sexual violence	-. 171	**.000**
Economic violence	-.122	**.000**
Total scores mean	-.172	**.000**

DVS: Domestic Violence Scale, MAT: Marital Adjustment Test

In the study, DVS subscale and total mean scores and MAT total mean score of the women were compared and a statistically negative significant correlation was determined (p<0.05). As women's intimate partner violence increased, the rate of marital adjustment decreased (Table 4).

Discussion

Our results indicated that women were exposed to at least one of the types of IPV throughout their marriage. Verbal and emotional violence were the most frequently. Kocacık and Çağlayandereli (2009) reported that verbal and physical violence were the most frequently occurring types and one out of every two women were exposed to at least one type of IPV and the frequency of violence was more than once a week (Kocacık & Çağlayandereli, 2009). Akar et al. (2010) reported that 77.9% of women stated that they were exposed to at least one of the types of intimate partner violence during their lifetime. A study that was conducted 200 women experiencing intimate partner violence in Poland the prevalence of physical, emotional, sexual, and economic violence in the study group was 75%, 92%, 21%, and 65% (Karakuła-Juchnowicz et al., 2017). Houry et al. (2006) reported a study in the U.S. the most frequently occurring types of violence was emotional violence to be 82% respectively, with the total prevalence of violence being 36%. One study said that men's attitudes towards IPV are formed by social perspective (Flood & Pease, 2009). In short, studies in line with our results said that IVP for women is a common problem in many countries.

According to our study results there is a significantly relationship between age and IPV, which finding is in agreement with the studies of Jahromi et al. (2016) reported that IPV is more widespread among young women. Jamali and Javadpour (2016) found that women in the age <30 are at a higher risk of experiencing IPV. Young women may believe that their spouses and marriages will improve over time. (Rafael et al., 2017; Swailes et al., 2017). Our results are similar to the literature.

Our study results reported that there is a significantly relationship between length of marriage and IPV: women who have been married for less than five years are more likely to be the victim of IPV. In the study by Titilayo et al. (2017) it was reported that domestic violence was lower in those who had been married for a long time. In a study it was showed that as the duration of marriage increased, domestic violence decreased (Öyekçin et al., 2012). This may be because women accept their husbands' violent behavior and feel helpless.

In the our study, the difference between the number of children and domestic IPV was found to be significantly. Higher number of children increases IPV. In a study it was stated that higher number of children increased the risk for intimate partner violence against women (Pun et al., 2017). The reason for this is that the increased number of children creates an economic difficulty for parents, obstructs the time to be spent by partners showing love and affection to each other, increases women's workload and causes them to have burnout, which may consequently increase intimate partner violence due to the intolerance of partners.

Among women who participated in the study, there was a statistically significant difference between the style of marriage and violence. IPV was higher in women who got married with arranged marriage. Arranged marriage is a pattern of marriage that is generally accepted in our society and happens when families or relatives decide to match individuals with each other so that they get married. The results of the present study are compatible with the literature (Öyekçin et al., 2012). It is thought that when partners get married without even knowing each other, this causes family communication problems and consequently increases the violence rate.

In the study, the difference between the income status and violence was found to be statistically significant. The results of the our study are compatible with the literature (Abramsky et al., 2011; George et al., 2016). It was determined that IPV was higher in families with low socioeconomic levels due to financial difficulties. Because sufficient financial possibilities are directly proportionate to meeting the needs, financial difficulties among spouses and within the family increase violence. Economically more independent married couples feel relatively free due to having opportunities to experience their special wishes and desires and having no financial difficulties.

There was a significantly difference between husband's age and violence among the women who participated in the study. Having an older husband increased IPV. Results of relevant studies in the literature are different. In a study it was showed that there was no significant correlation between husband's age and history of IPV; however, individuals aged 50 years and over had higher mean scores of violence (Bibi et al., 2014). In a study, it was stated that as husband's age increased, violence against women decreased (Öyekçin et al., 2012). A study was determined that young age predicted the tendency to violence in men at the rate of 30% (Çetin & Erdoğan, 2017). Among women who participated in the study, there was a significantly difference between age and marital adjustment. Young age decreases the marital adjustment. In the study by Kumcağız and Güner (2017) with nurses, it was determined that older age increased marital adjustment. The results of our study are similar to the literature.

In the our results, it was showed that there was a statistically significant difference between duration of marriage and marital adjustment. As the duration of marriage increases, marital adjustment increases. The results of the present study are compatible with the literature (Kublay & Oktan, 2015; Kumcağız & Güner, 2017). It can be asserted that this result may be associated with the fact that spouses know each other better than the first years of marriage. In our results, it was reported that there was a statistically significant difference between number of children and marital adjustment. As the number of children increases, marital adjustment increases. In the study by Şendil and Korkut (2008), it was stated that increase in the number of children decreased the quality of marriage. In the study conducted by İnce, it was indicated that those with high numbers of children had a significantly higher marital adjustment (İnce & Tüfekci, 2015). Child may keep the family together on one hand, but affect the conflict and adjustment between couples on the other. Depending on the responsibility of raising a child, the effort of being a better example to children may contribute to acquiring the behavioral norms that are effective on providing the adjustment between parents.

Looking at the results of our research, it was reported that there was a statistically significant difference between style of marriage and marital adjustment. Individuals who have an arranged marriage have a lower marital adjustment. Yalçın (2014) found that individuals who had a companionate marriage had a higher marital adjustment than those who had an arranged marriage. Similarly, Yeşiltepe and Çelik (2014) determined that individuals who had a companionate marriage had a significantly higher marital adjustment than those who had an arranged marriage.

Çelik (2009) also determined that individuals who had a companionate marriage had higher scores of marital adjustment than those who had an arranged marriage. General jurisdiction in today's conditions is that when individuals marry with the people they choose and like, they will have a better marital adjustment. Couples who have a companionate marriage have more opportunities of knowing and understanding each other, which brings along marital adjustment.

There was a statistically significant difference between the income status perception and marital adjustment of the women who participated in the study. Higher income increases the marital adjustment. The study by İnci and Tüfekci (2015) also revealed similar results. In the study conducted by Kumcağız and Güner (2017) with nurses, it was reported that as the income increased, marital adjustment increased. High income psychosocially activates individuals further and causes couples to spare more time to each other and share more. The results of the present study can be attributed to this reason.

The results of the study showed that it was determined that there was a statistically significant difference between husband's age and marital adjustment. Individuals who have an older spouse have a higher marital adjustment. The results of the present study are important as they are the first in the literature. It is believed that men at this age spend productive time with their wives more frequently and thus, have a higher marital adjustment.

Among women who participated in the study, there was a statistically significant negative correlation between marital adjustment and emotional, verbal, physical, sexual, economic violence among the subscales of family violence. As marital adjustment increases, IPV decreases. In the study conducted by İnce and Tüfekci (2015) with the parents of children with disabilities, it was determined that there was a statistically significant difference between the mean score of being exposed to violence and marital adjustment. Tiwari and Asthana (2016) reported that 300 womena significant negative relationship between marital adjustment and all the dimension of intimate partner violence (physical, sexual, psychological, economic) including total violence. Afolabi (2011) said that, there is a great relationship between marital satisfaction and IPV. Further analysis reported that womens with low marital satisfaction experienced higher level of IPV. Marital adjustment signifies sustaining the marriage relationship healthily and happily (Okhakhume et al., 2017). Thus, couples sustain their marriage in peace and happiness with their existence. In a marriage experiencing violence against women, there is a serious lack of these two factors. The results of the study are important as they are the first ones in the literature and reveal that intimate partner violence and women's marital adjustment are inversely proportional.

Limitations of the study

This research was carried out with a similar sample group in terms of sociodemographics. Therefore, the study findings can only be generalized to this group. This situation constitutes the limitation of our research.

Conclusion and Recommendations

According to the all results of the study, considering that marital adjustment has a negative effect on marriage relationship, divorce rates and healthy development of children; it is important especially for public health nurses to prepare trainings, seminars and programs on marital adjustment for raising awareness in society and married individuals, focus on the effect of the values of individuals on their view of domestic violence and marriage as well as marital adjustment by considering these values in marriage and family counseling and draw attention to the relationship between marital adjustment and violence in order to raise awareness in individuals in marriage and family counseling.

Peer-review

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Author Contributions

A.A.: Study Conception/Design, Data Collection/Analysis, Drafting of Manuscript, Statistical Expertise, Administrative/Technical/Material Support.

A.G.: Study Conception/Design, Data Collection/Analysis, Drafting of Manuscript, Statistical Expertise, Administrative/Technical/Material Support.

P.H.: Study Conception/Design, Data Collection/Analysis, Drafting of Manuscript, Statistical Expertise, Administrative/Technical/Material Support.

F.K.: Study Conception/Design, Data Collection/Analysis, Drafting of Manuscript, Statistical Expertise, Administrative/Technical/Material Support.

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Knowledge levels and attitudes of university students towards COVID-19 virus, COVID-19 vaccine, and protection from COVID-19 virus

Üniversite öğrencilerinin COVID-19 virüsü, COVID-19 aşısı ve COVID-19 virüsünden korunma konusundaki bilgi düzeyleri ve tutumları

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ABSTRACT

Aim: This study aims to examine the knowledge levels and attitudes of university students towards COVID-19 virus, COVID-19 vaccine, and protection from COVID-19 virus. It also aims to compare the knowledge and attitudes of students according to department, grade, worried about getting COVID-19, and following the COVID-19 cases on a daily basis.

Methods: A cross-sectional study was conducted between 22 November 2020 and 6 January 2021 with 322 university students in the health sciences school of a state university. The online survey included general information of students and items about their knowledge and attitudes towards COVID-19 pandemic.

Results: The students' level of knowledge about COVID-19 was high (83 ± 12 on 100 points) and their attitudes were positive and above average (3.85 ± 0.48 on 5-point Likert scale). Their attitudes towards vaccination were also found to be slightly over the average and positive. The knowledge and attitudes of the students differed significantly according to the department, grade and factors related to COVID-19 pandemic.

Conclusion: The results of this study reveal that participants have a high level of knowledge about the COVID-19 pandemic, but are hesitant about vaccination. It is recommended to improve university students' attitudes towards COVID-19 virus, vaccination, and protection in a positive way by increasing their awareness.

Keywords: COVID-19; knowledge; attitude; vaccines; students

ÖZET

Amaç: Bu çalışma, üniversite öğrencilerinin COVID-19 virüsü, COVID-19 aşısı ve COVID-19 virüsünden korunma konusundaki bilgi düzeylerini ve tutumlarını incelemeyi amaçlamaktadır. Ayrıca öğrencilerin bölüm, sınıf, COVID-19'a yakalanma endişesi ve günlük olarak COVID-19 vakalarını takip etme durumlarına göre bilgi ve tutumlarını karşılaştırmayı amaçlamaktadır.

Yöntem: 22 Kasım 2020-6 Ocak 2021 tarihleri arasında bir devlet üniversitesinin Sağlık Bilimleri Fakültesinde öğrenim gören 322 üniversite öğrencisi ile kesitsel bir çalışma yapılmıştır. Çevrimiçi anket öğrencilerin genel bilgilerini ve COVID-19 pandemisine karşı bilgi ve tutumlarına ilişkin maddeleri içermektedir.

Bulgular: Öğrencilerin COVID-19 hakkındaki bilgi düzeyleri yüksek (100 puan üzerinden 83 ± 12), tutumları olumlu ve ortalamanın üzerinde (5'li Likert ölçeğinde 3.85 ± 0.48) idi. Aşılamaya ilişkin tutumları ise yine ortalamanın üzerinde ve olumlu olarak bulundu. Öğrencilerin bilgi ve tutumları bölüm, sınıf ve COVID-19 pandemisi ile ilgili faktörlere göre anlamlı farklılık göstermiştir.

Sonuçlar: Bu çalışmanın sonuçları, katılımcıların COVID-19 pandemisi hakkında bilgi düzeylerinin yüksek olduğunu ancak aşılama konusunda tereddütlü olduklarını ortaya koymaktadır. Üniversite öğrencilerinin farkındalıklarının arttırılarak COVID-19 virüsü, aşı ve korunmaya yönelik tutumlarının olumlu yönde geliştirilmesi önerilmektedir.

Anahtar kelimeler: COVID-19; bilgi; davranış; aşı; öğrenciler

Introduction

A new type of coronavirus (COVID-19) emerged with pneumonia cases of unknown etiology in December 2019 in Wuhan, China (Chen et al., 2020). It has been suggested that COVID-19 was initially seen as endemic in bats, transmitted to humans by wild animals (Zu et al., 2020). The easy transmission of COVID-19 virus from person to person has caused the virus to spread rapidly all over the world. As a consequence, the World Health Organization (WHO) declared COVID-19 virus as a pandemic (WHO, 2020a). COVID-19 virus is even more contagious than the other coronaviruses (Middle East respiratory syndrome coronavirus [MERS-CoV], severe acute respiratory syndrome coronavirus [SARS-CoV]) identified so far. Therefore, the COVID-19 virus has greatly affected the whole world (Lu et al., 2020). To date, more than 110.7 million cases

of COVID-19 and more than 2.4 million deaths have been reported to WHO worldwide (WHO, 2020b).

COVID-19 disease has been occurred with symptoms of high fever, cough, fatigue, muscle pain, and shortness of breath (Rodriguez-Morales et al., 2020). In addition to respiratory tract infection symptoms, serious complications such as acute respiratory distress, septic shock, metabolic acidosis, and coagulation disorder were reported in 18.5% of patients (Chen et al., 2020). However, while adults and children usually survive the disease with mild symptoms, the disease is more severe especially in the elderly or individuals with a chronic disease such as cardiovascular disease, obesity, cancer and diabetes (Guan et al., 2020; Xie & Chen, 2020).

The highly contagious nature of COVID-19 virus makes it difficult to control (Jiang et al., 2020). The main transmission

route of COVID-19 virus is person to person by droplets emanating from the mouth or nose of infected people by sneezing or coughing (Jiang et al., 2020; WHOa, 2020; Xie & Chen, 2020). Other transmission routes of COVID-19 virus occur through contact with virus-contaminated surfaces and asymptomatic individuals. The incubation period of the disease has also been reported as 1-14 days (WHOa, 2020). The most effective way of preventing the disease is preventing the spread and transmission of the virus (Cortegiani et al., 2020). Therefore, which is the only way to control the COVID-19 pandemic, it is important to determine the attitudes and knowledge levels of university students on social distance, hand washing, wearing masks, adequate hygiene, vaccination, and transmission route. It is also important to investigate the factors affecting the university students' attitudes towards COVID-19 virus, COVID-19 vaccine, and protection from COVID-19 virus.

Several studies have been conducted to assess the knowledge level of university students about Covid-19 pandemic. The findings of these studies have been mixed, with some indicating a relatively high level of knowledge and others indicating a lower level of knowledge. For example, a study conducted in China in 2020 found that university students had a good understanding of Covid-19 transmission and prevention measures (Yang et al., 2020).

Similarly, a study conducted in Saudi Arabia found that university students had a high level of knowledge about Covid-19 symptoms and transmission (Al-Hanawi et al., 2020). However, other studies have found that university students have a lower level of knowledge about Covid-19. A study conducted in India in 2020 found that many university students had misconceptions about Covid-19 and its transmission, and

lacked knowledge about the correct preventive measures (Gudi et al., 2020). Overall, the knowledge level of university students about Covid-19 pandemic varies depending on the country, region, and individual factors such as education level, age, and previous exposure to health education related fields.

From this point, this study aims to determine the university students' knowledge level about COVID-19 pandemic and attitudes towards COVID-19 virus, COVID-19 vaccine, and protection from COVID-19 virus. Second aim is to examine whether knowledge level and attitudes of university students about COVID-19 pandemic differ significantly in terms of department, grade, having a family member in the COVID-19 risk group, worried about getting COVID-19, worried about family members getting COVID-19 virus, and following the COVID-19 cases on a daily basis.

Methods
Sample and procedure
The study population consisted of 784 university students at a health sciences faculty of a public university. After, ethical approval and necessary permission for this study were obtained, online survey was administrated via e-mail. However, response rate was very low at the first stage (%19). Then the researchers explained the aim of the study, assured the students about confidentiality of their response, and shared the link of online survey in their class after their lecture finished. Therefore, the sample consisted of only three departments of health sciences faculty, which were health management, nursing, and social work. Data were collected between 22 November 2020 and 6 January 2021. A total of 322 university students, who participated voluntarily, responded the online survey. The response rat was calculated as %41. Due to the remote education during COVID-19 pandemic, researchers could not reach out more students. In addition to this, due to the number of research about the effect of COVID-19 pandemic on university students in the current health sciences faculty, the students may have not been eager to respond online survey.

The adequacy of sample was calculated by power analysis with G*Power 3.1 (Cohen, 1992). After selecting the F test and ANOVA as statistical test, effect size was determined as 0.25 with a significance level of $\alpha = 0.05$, 95% and 4 number of groups (Faul et al., 2009). The total sample size was calculated as 280. Therefore, it can be inferred that the sample size of 322 is adequate for this study.
Data collection tool
Data collection tool included three parts. In the first part, there were questions about participants' gender, department, grade, and questions related to COVID-19, such as being COVID-19 positive, having a chronic disease, worrying about getting COVID-19 virus, etc.

The second part included questions about the knowledge level on COVID-19 pandemic. These questions were prepared drawn on previous studies and WHO website (e.g., Abdelhafiz et al., 2020; Baloran, 2020; Chesser et al., 2020; Khasawneh et al., 2020; La Torre et al., 2020; Olaimat et al., 2020b; Papagiannis et al., 2020; Sögüt et al., 2021). After, a multiple-choice test including questions about knowledge level on COVID-19 pandemic and their answers were prepared, this test was sent to an academician with Ph.D. in the internal medicine nursing and a family physician working at a COVID-19 outpatient clinic of a public hospital. These two experts evaluated all questions and answers. Then, they sent back their report a week later. In line with these experts' recommendations

Table 1. General features of participants

Characteristics	n	%
Gender		
Female	280	86.96
Male	42	13.04
Department		
Healthcare management	138	42.86
Nursing	68	21.12
Social work	116	36.02
Grade		
First grade	109	33.85
Second grade	102	31.68
Third grade	66	20.50
Fourth grade	45	13.98
Being Covid-19 positive (at any time)		
No	288	89.44
Yes	34	10.56
Having relatives with Covid-19 positive (at any time)		
No	73	22.67
Yes	249	77.33
Having a chronic disease		
No	298	92.55
Yes	24	7.45
Having a family member with chronic disease or in the Covid-19 risk group		
No	108	33.54
Yes	214	66.46
Worried about getting Covid-19 virus		
No	69	21.43
Yes	253	78.57
Worried about family members getting Covid-19 virus		
No	17	5.28
Yes	305	94.72
Following the Covid-19 cases on a daily basis		
No	107	33.23
Yes	215	66.77

and corrections, the final test was formed. This test has nine questions, which is given in Table 2.

In the third part, there were questions about attitudes towards COVID-19 pandemic. These questions were obtained from previous studies (e.g., Abdelhafiz et al., 2020; Khasawneh et al., 2020; La Torre et al., 2020; Papagiannis et al., 2020; Roy et al., 2020; Shi et al., 2020; Zhong et al., 2020). Based on previous studies, three sub-headline were determined under the attitudes towards COVID-19 pandemic. These were attitudes towards COVID-19 virus (4 items), attitudes towards COVID-19 vaccine (3 items), and attitudes towards protection from COVID-19 virus (7 items). It had a total of 15 items, given in Table 3. Participants rated their response on a 5-point Likert-type scale (1: definitely disagree to 5: definitely agree).

Data analysis

SPSS 22 software program was used to analyze the data. Number and percentage were reported for level about COVID-19 pandemic while mean and standard deviation were reported for attitudes towards COVID-19 pandemic. First, normal distribution of data was analyzed. According to Kline (2015), skewness and kurtosis are the two indicator of normal distribution and the skewness value should be within the range of ±3 while the kurtosis value should be within the range of ±10. In the current study, skewness values were found to be -0.03 to -1.23 while the kurtosis values were -0.19 to 2.90. Therefore, parametric tests – Independent sample T-test and One-way ANOVA were used to analyze whether the knowledge level and attitudes towards COVID-19 pandemic differed participants' educational features and other study variables significantly. Then, in order to determine the significant difference between subgroups of independent variables, post hoc analyze were performed. Homogeneity of variances was checked to determine which post hoc test would be performed. After the homogeneity of the test variances, Tukey HSD test and Scheffe test were used when the equal variances were assumed while Tamhane test and Dunnett's T3 test were used when equal variances were not assumed (Montelpare et al., 2020). In order to determine the internal consistency, Cronbach's alpha values are considered as following: 1 to 0.90 – Excellent, 0.89 to 0.80 – Good, 0.79 to 0.70 – Acceptable, 0.69 to 0.60 – Questionable, 0.59 to 0.50 – Poor, and under 0.50 – Unacceptable (George & Mallery, 2003).

Ethical statement

Ethical approval was obtained from Istanbul Medeniyet University Social and Human Sciences Research and Publication Ethics Committee (Date: 04 November 2020 and Number: 2020/42). After obtaining the ethical approval, necessary permission for this study were acquired from the Faculty of Health Sciences.

Results

Features of sample

Table 1 indicates the general features of participants. The majority of sample consisted of females (n=280, 87%). While 42.86% of the participants were at healthcare management, 21.12% of them were at nursing, and 36.02% of them were at social work department. 33.85% of the participants were at first grade, while 13.98% of participants were at fourth grade.

Majority of participants reported that they did not get COVID-19 positive, however, their relatives got COVID-19 positive. Only 24 out of 322 (7.45%) participants had chronic diseases, while 214 (66.46%) participants had a family member with chronic disease or in the COVID-19 risk group. Majority of participants reported that they were worried about getting COVID-19 virus and family members getting the COVID-19 virus. Finally, 66.77% of participants reported that they followed the COVID-19 cases on a daily basis.

Knowledge level of participants about COVID-19 pandemic

Table 2 shows the frequency of true and false answers, as well as general mean of total test. According to these results, all the participants answered correctly to the questions of "what is the most common symptom of COVID-19?" and "who are more at risk for COVID-19?". Then, 96.9% of participants defined the pandemic correctly. However, the lowest score belonged to the question of endemic with 40.4% of the participants. General test score was calculated as 83 ± 12 on a total score of 100 points.

Attitudes of participants towards COVID-19 pandemic

Table 3 indicates the participants' attitudes towards COVID-19 pandemic.

First, participants rated high score on the items of attitudes towards COVID-19 virus. In this sub-headline, there are three negative items, which were coded reverse in data analysis (1=Definitely agree, 5= Definitely disagree). Participants reported that they did not agree with the item of "I think the COVID-19 outbreak is exaggerated", which of mean score was 4.30 (SD=0.86). Similarly, the item of "COVID-19 is no more serious than seasonal flu" had the average mean as 4.39 (SD=0.78). Under this sub-headline, the maximum mean score belonged to the item of "COVID-19 virus can cause death" with 4.44 (SD=1.00), while the minimum mean score belonged to the item of "Healthy people do not catch COVID-19 flu easily" with 4.02 (SD=0.94). General average score was found to be 4.28 (SD=0.59), while the Cronbach's alpha value was 0.567. Therefore, Cronbach's alpha value with 0.567 is within the poor and acceptable range.

When the attitudes towards vaccine was evaluated, participants rated moderate scores on the items of "The vaccine will stop this pandemic" with 2.88 (SD=0.91), "COVID-19 vaccine should only be given to those in high risk groups" with 3.50 (SD=1.06), and "I think everyone should get COVID-19 vaccine" with 3.18 (SD=1.21). The general average was 3.19 (SD=0.80) and the Cronbach's alpha value was within the questionable and acceptable range with 0.608.

When the participants' attitudes towards protection from COVID-19 virus were examined, it was determined that the two highest mean scores belonged to the item of "I think international roaming is safe" with 4.41 (SD=0.79) and "I think intercity or inner city transportation is safe" with 4.25 (SD=0.90). Participants reported that they did not agree these two items about transportation. However, the two lowest mean scores belonged to the item of "Pets cause the spread of COVID-19 virus" with 3.81 (SD=0.99) and "I think social distance prevents the spread of the virus" with 3.95 (SD=1.06). The general average was determined as 4.09 (SD=0.58), while Cronbach's alpha value was found to be 0.701 within the range of good.

Table 2. Knowledge level of participants

Questions and answers	True		False	
	n	%	n	%
1. What is a pandemic? **(10p)** a. Refers to a disease that occurs infrequently or sporadically. b. Refers to the continuous presence and / or usual prevalence of a disease in a geographic population. c. It refers to persistent, high levels of disease well above that seen in other populations. **d. It usually refers to an infectious disease that affects a large number of people and has spread to the continent or the whole world.** e. Although the actual number or cause is uncertain, it refers to a disease that occurs in greater numbers. f. I do not know	312	96.9	10	3.1
2. What is an epidemic? **(10p)** a. It is the mode and speed of movement of a disease. b. It is the size of the susceptible population. c. Refers to the continuous presence and / or usual prevalence of a disease in a geographic population. **d. It is defined as an infectious disease occurring in a wide geographical area and affecting an extremely high proportion of the population.** e. I do not know.	131	40.7	191	59.3
3. What are the roughly 3 criteria for a viral epidemic to be defined as a pandemic in humans? **(10p)** **i) must be a new virus** **ii) must be easily and continuously transmitted from person to person** **iii) it should affect a large number of countries** iv) not be affected by air temperature v) the virus should not mutate	223	69.3	99	30.7
4. What is the most common transmission route of Covid-19? **(15p)** **a.Respiratory** b.The digestive tract c.Sexually d.Through the skin e. I do not know	293	91.0	29	9.0
5. What is the shortest and longest incubation period of Covid-19? **(10p)** a. 20-30 days b. 31-40 days **c. 2-14 days** d. 41-50 days e. I do not know	288	89.4	34	10.6
6. What is the most common symptom of Covid-19? **(15p)** a.**Fever, dry cough, tiredness** b.Thickened urine c. Burning in the esophagus d. Extensive skin rash e. I do not know	322	100.0	0	0
7. Is there any treatment used to treat Covid-19 virus? **(10p)** **a. There is currently no specific treatment available.** b. It is treated with non-steroidal anti-inflammatory drugs. c. I do not know	222	68.9	100	31.1
8. Social distance length specified in Turkey to protect them from Covidien-19 is at least how much? **(10p)** a. 3 meters **b. 1.5 meters** c. I do not know	305	94.7	17	5.3
9. Who are more at risk for Covid-19? **(10p)** **a. Elderly and those with chronic diseases** b. Healthy children, youth and women c. I do not know	322	100.0	0	0
Total Score of Knowledge Level (Mean ± Standard Deviation) **(Minimum: 0 – Maximum: 100)**			**83 ± 12** **(33 – 100)**	

Note: Bold items are the correct answers.

General average of total items for attitudes towards COVID-19 pandemic was 3.85 (SD=0.48) and Cronbach's alpha value was 0.749, which indicates the good internal consistency.

Comparing the participants' knowledge level and attitudes towards COVID-19 pandemic according to their features

Table 4 presents the results that comparing the participants' knowledge level about COVID-19 pandemic and their attitudes towards COVID-19 pandemic according to their features.

Knowledge level: Participants' knowledge level about COVID-19 pandemic differed significantly according to the department, grade, having a family member with chronic disease or in the COVID-19 risk group, worried about getting COVID-19 virus, and worried about family members getting COVID-19 virus. When the knowledge level of students was examined, it was found that nursing students had the highest score with 86.27 (SD=10.18) and social work students had the lowest score with 81.23 (SD=13.70).

Table 3. Attitudes of participants towards Covid-19 pandemic

Attitudes towards Covid-19 Pandemic	M	SD
Attitudes towards Covid-19 virus (ATC)		
1. I think the Covid-19 outbreak is exaggerated.*	4.30	0.86
2. Covid-19 virus can cause death.	4.44	1.00
3. Covid-19 is no more serious than seasonal flu.*	4.39	0.78
4. Healthy people do not catch Covid-19 flu easily.*	4.02	0.94
General average	**4.28**	**0.59**
Cronbach's alpha: 0.667		
Attitudes towards vaccine (ATV)		
6. The vaccine will stop this pandemic.	2.88	0.91
7. Covid-19 vaccine should only be given to those in high risk groups.*	3.50	1.06
8. I think everyone should get Covid-19 vaccine.	3.18	1.21
General average	**3.19**	**0.80**
Cronbach's alpha: 0.608		
Attitudes towards protection (ATP)		
9. I think people with flu-like symptoms should be avoided.	4.08	1.04
10. I think frequent hand washing prevents the spread of Covid-19 virus.	4.07	1.01
11. Pets cause the spread of Covid-19 virus.*	3.81	0.99
12. I think intercity or inner city transportation is safe.*	4.25	0.90
13. I think international roaming is safe.*	4.41	0.79
14. I think social distance prevents the spread of the virus	3.95	1.06
15. I think regular masks will prevent contamination.	4.05	1.03
General average	**4.09**	**0.58**
Cronbach's alpha: 0.701		
General average of total items	**3.85**	**0.48**
Cronbach's alpha: 0.749		

Note: 1: Definitely disagree, 5: Definitely agree
* items are reverse coded (5: Definitely disagree, 1: Definitely agree).
M: Mean, SD: Standard Deviation

Only the knowledge level of nursing students differed significantly from the social work students (p=0.015). When the knowledge level of students was examined according to the grade of students, it was determined that the highest score belonged to the third grade students with 86.03 (SD=9.21) and the lowest score belonged to the first grade students with 80.53 (SD=13.20). Only the knowledge level of first grade students differed significantly from the third grade students (p=0.009). When the factors related to COVID-19 pandemic were examined, it was found that the participants having a family member with chronic disease or in the COVID-19 risk group were reported higher scores with 84.84 (SD=10.65) than the others with 80.66 (SD=13.95) (p=0.01). In addition, participants worried about getting COVID-19 virus and worried about family members getting COVID-19 virus also reported higher scores than the others (p<0.05).

Attitudes towards COVID-19 virus (ATC): According to Table 4, the students' attitudes towards COVID-19 virus significantly differed according to their department (p=0.01). Only the mean score of healthcare management students with 4.40 (SD= 0.55) differed significantly from social work students with 4.19 (SD= 0.67) (p=0.012). Also, students having a family member with chronic disease or in the COVID-19 risk group, worried about getting COVID-19 virus, worried about family members getting COVID-19 virus, and following the COVID-19 cases on a daily basis had higher mean scores than others (p<0.05).

Attitudes towards vaccine (ATV): The mean score of attitudes towards vaccine (ATV) differed significantly according to the department and following the COVID-19 cases on a daily basis (p<0.01). When the mean score of ATV according to the students' department was evaluated, it was determined that healthcare management students reported the highest scores with 3.22 (SD=0.80), while the social work students reported the lowest scores with 3.02 (SD=0.79). Only the mean scores of healthcare management students were higher than the social work students significantly (p<0.05). In addition, the students following the COVID-19 cases on a daily basis had higher mean scores of ATW than others significantly (p<0.01).

Attitudes towards protection (ATP): As seen in Table 4, the mean scores of ATP differed significantly according to the worried about getting COVID-19 virus and worried about family members getting COVID-19 virus (p<0.01). Participants worried about getting COVID-19 virus reported higher scores with 4.15 (SD=0.57) than others with 3.88 (SD=0.60) (p<0.01). Also participants worried about family members getting COVID-19 virus had higher mean scores with 4.11 (SD=0.58) than others with 3.73 (SD=0.59) (p=0.01).

General average of attitudes towards COVID-19 pandemic: The general average score of attitudes towards COVID-19 pandemic differed significantly according to the department (p=0.01). It was found that only the mean score of healthcare management students with 3.95 (SD= 0.49) differed significantly from social work students with 3.74 (SD= 0.50) (p<0.01). In addition to this, students having a family member with chronic disease or in the COVID-19 risk group and following the COVID-19 cases on a daily basis had higher mean scores than others (p<0.01).

Discussion

Countries, health authorities and scientists are still struggling about how to manage and control COVID-19 infections that affect the whole world. In this process, determining the level of knowledge and awareness of individuals about COVID-19 infection, the transmission route, protective measures and vaccination will play an important role in reducing the transmission of the disease (Johnson & Hariharan, 2017). In the current study, the level of knowledge and attitudes towards COVID-19 pandemic of university students studying in the health sciences school were investigated. It was determined that the majority of the participants were worried about getting the COVID-19 virus both for themselves and their relatives. In addition to this, their knowledge level about the COVID-19 pandemic were high and their attitudes towards the COVID-19 pandemic were positive. Similar with the present study, in a study conducted with university students, it was found that university students exhibited positive attitudes (81.1%) and low-risk practices (84.3%) to prevent COVID-19 virus. It was also reported that approximately two-thirds of the students believed in the seriousness of COVID-19 infections (69.1%), and showed a positive attitude towards social distancing and hygiene measures (67.6%) with the anxiety of exposing the COVID-19 virus. Also, more than two-thirds (69.2%) of the students were concerned that they could be infected with COVID-19 virus (Olaimat et al., 2020a). The findings of the present study are supported by similar studies in the literature.

Table 4. Comparing the participants' knowledge level and attitudes towards COVID-19 pandemic according to their features

	n	Knowledge level	Attitudes towards Covid-19 virus (ATC)	Attitudes towards vaccine (ATV)	Attitudes towards protection (ATP)	General Average of Attitudes
		M±SD	M±SD	M±SD	M±SD	M±SD
Department						
Health management	138	83.9±10.99	4.40±0.55	3.32±0.80	4.14±0.59	3.95±0.49
Nursing	68	86.27±10.18	4.23±0.51	3.22±0.76	4.1±0.45	3.85±0.38
Social work	116	81.23±13.70	4.19±0.67	3.02±0.79	4.02±0.65	3.74±0.50
	F	*4.05*	*4.51*	*4.61*	*1.35*	*6.20*
	p	*0.02*	*0.01*	*0.01*	*0.26*	*0.002*
Grade						
First grade	109	80.53±13.20	4.24±0.68	3.13±0.8	4.09±0.63	3.82±0.52
Second grade	102	84.20±11.95	4.28±0.52	3.12±0.81	4.09±0.57	3.83±0.42
Third grade	66	86.03±9.21	4.3±0.53	3.38±0.76	4.03±0.58	3.9±0.52
Fourth grade	45	84.94±11.64	4.39±0.6	3.21±0.8	4.17±0.5	3.93±0.45
	F	*3.62*	*0.72*	*1.85*	*0.56*	*0.86*
	p	*0.01*	*0.54*	*0.14*	*0.64*	*0.462*
Having a family member with chronic disease or in the Covid-19 risk group						
Yes	214	84.84±10.65	4.33±0.56	3.21±0.8	4.11±0.58	3.89±0.46
No	108	80.66±13.95	4.19±0.64	3.14±0.79	4.05±0.6	3.79±0.52
	t	*2.74*	*1.96*	*0.84*	*0.90*	*1.63*
	p	*0.01*	*0.04*	*0.40*	*0.37*	*0.10*
Worried about getting Covid-19 virus						
Yes	253	84.23±11.49	4.34±0.57	3.21±0.75	4.15±0.57	3.9±0.47
No	69	80.52±13.39	4.07±0.62	3.12±0.97	3.88±0.60	3.69±0.49
	t	*2.30*	*3.48*	*0.73*	*3.35*	*3.25*
	p	*0.02*	*0.00*	*0.46*	*0.00*	*0.00*
Worried about family members getting Covid-19 virus						
Yes	305	83.75±11.88	4.31±0.57	3.18±0.78	4.11±0.58	3.87±0.47
No	17	77.78±13.03	3.84±0.8	3.35±1.08	3.73±0.59	3.64±0.6
	t	*2.01*	*3.24*	*-0.65*	*2.62*	*1.88*
	p	*0.04*	*0.00*	*0.52*	*0.01*	*0.06*
Following the Covid-19 cases on a daily basis						
Yes	215	83.57±12.19	4.37±0.55	3.29±0.8	4.11±0.61	3.92±0.48
No	107	83.18±11.66	4.12±0.65	2.99±0.76	4.05±0.54	3.72±0.46
	t	*0.27*	*3.50*	*3.24*	*0.97*	*3.62*
	p	*0.78*	*0.00*	*0.00*	*0.33*	*0.00*

Therefore, it can be said that university students have sufficient knowledge and positive attitudes towards the COVID-19 pandemic. For example, some studies have reported that university students have positive attitudes towards COVID-19 pandemic such as wearing masks, social distancing (Erick & Baloran, 2020), washing hands, and disinfecting surfaces and objects (Bokadia & Ganapathy, 2020; Ferreira Alves et al., 2020; Maheshwari et al., 2020). In another study conducted with undergraduate students in Jordan, it was determined that 82% of the participants had an acceptable attitude towards the pandemic (Alzoubi et al., 2020). In addition, Yakar et al. (2020) reported that the participants had sufficient knowledge and positive attitude towards COVID-19 in their study conducted with medical students. In line with these studies, in a study conducted with Iranian medical school students by Taghrir et al. (2020), the average correct answer to questions about

COVID-19 was reported as 86.9%, which is very similar with the findings of current study.

On the contrary, the findings of some studies in the literature are not in line with the current study. For example, in a study conducted with students, one third of participants (33.2%) reported that they used inappropriate hand washing techniques (Torales et al., 2020). According to the World Health Organization (WHO), the hand washing procedure should be 40-60 seconds (WHOa, 2020). In another study, only a small portion of the students chose at least 40 seconds (4.4%) for hand washing. In addition, it was determined that a significant percentage of students (60.2%) did not wear a face mask when going out, which does not support the present study finding (Olaimat et al., 2020a). It suggests that this difference may arise from social awareness and sensitivity. However, wearing a face mask is reported to reduce the spread of COVID-19 infection by reducing the droplet spread of

infected people and is recommended (European CDC, 2020; Feng et al., 2020).

In the current study, it was determined that the knowledge level of nursing students who had clinical practice, especially those who directly touch the patient and third grade students received higher scores than others. Yakar et al. (2020) found that the level of knowledge of the students who had clinical practice increased compared to those who did not have. This finding is in line with the findings of current study. In another study, it was also found that medical and graduate students were more sensitive to social distance and hygiene measures taken against COVID-19 compared to other groups and showed a significant difference (p≤0.05) (Olaimat et al., 2020a). It has also been noted that medical students have lower fear of being infected with COVID-19 (65.0%), which is due to the fact that they have more opportunities to access accurate information (Olaimat et al., 2020b). On the contrary, Alzoubi et al. (2020) found that there was no significant difference between the knowledge and attitudes of medical and non-medical students about the pandemic.

Another finding of the current study is that participants worried about getting Covid-19 virus and worried about family members getting Covid-19 virus are more aware of Covid-19 virus protection measures. Similarly, Hamza et al., (2021) stated that the anxiety level of individuals shapes human attitudes, especially in pandemic situations (Guan et al., 2020). For example, in a study, it was found that there was a positive and significant relationship between preventive behavior and risk perception. When the perception of risk increased, preventive behaviors have been reported to increased (Ferreira et al., 2020). In line with the findings of the current study, in the study of Yang et al. (2020), it was found that the increase in risk perception causes the student to adapt more to preventive practices. This finding suggests that individuals who are worried about getting the disease will protect themselves from the virus. This finding also can be related to the positive effect of the anxiety felt by the students who are afraid of catching COVID-19 by themselves or their families, on their knowledge and attitudes towards the pandemic.

Conclusion

As a result of this study, it has been determined that students' attitudes towards COVID-19 and protective measures are high and positive, and their attitudes towards vaccination are moderate. In addition, it has been determined that the attitudes of students who are worried about getting COVID-19 virus and who follow the daily number of cases have higher scores than others. In line with the findings of the study, it is recommended:

- To reduce university students' anxiety levels by increasing their knowledge about the transmission route, the protection measures about the COVID-19 pandemic,
- To improve their attitudes towards COVID-19 virus, vaccination, and protection by increasing awareness of university students.
- To increase the awareness of university students, especially those who do not receive health-related education by improving their knowledge level and positive attitudes towards COVID-19 pandemic.

Limitations of the study

This study has some limitations. First of all, online survey method was used to collect the data. Online surveys can be a useful tool for collecting data, but they also have certain limitations. Online surveys tend to have a self-selected sample, which means that only people who are interested or motivated enough to respond to the survey will do so. This can lead to sampling bias and limit the generalizability of the findings. Second, with online surveys, researchers have limited control over the respondents' behavior, such as ensuring that they respond honestly, provide complete answers, or do not skip questions. Third, online surveys are dependent on technology, and technical issues such as server errors, slow internet connections, and browser compatibility issues can result in data loss and low response rates.

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Bibliometric analysis of psychology literature related to the COVID-19 pandemic

COVID-19'la ilişkili psikoloji alanyazınına ilişkin bibliyometrik bir analiz

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ABSTRACT

Aim: This study aimed to provide a bibliometric and visualization analysis of the studies conducted in the fields of psychiatry and psychology related to COVID-19.

Methods: A total of 21255 studies carried on between 01 January 2020 and 01 September 2021, were obtained from Pubmed database. The studies have been evaluated under four headings: "behaviour and behaviour mechanisms", "psychological phenomena and processes", "mental disorders", and "behavioral disciplines and activities". Studies consisting of papers, book chapters, research, and review articles were mapped with the VOSviewer (version 1.6.16) open-access program, and the most repeated 484 terms out of 6438 key terms found in 21255 studies, were included in the data set. The term clusters that were closest to each other were determined by evaluating the closeness of the most repeated terms and the 51923 links calculated for 6438 terms.

Results: In the first cluster, the topics such as anxiety, mental health, depression, psychological adaptation, psychological risk factors have formed the majority of the studies in the field of psychology-psychiatry related to COVID-19; in the second cluster, studies are concentrated in areas such as telemedicine, infection control, personal protective equipment, and outpatient services. It is observed that the majority of the terms in the third cluster are about COVID-19 and mental disorders, and the fourth cluster consists of terms such as psychological burnout and job satisfaction in the health workforce.

Conclusion: In this bibliometric study, the information is provided about which topics are mainly carried out in psychiatry and psychology studies related to COVID-19.

Keywords: psychology; COVID-19; knowledge management; bibliometrics

ÖZET

Amaç: Bu çalışma, COVID-19 ile ilgili psikiyatri ve psikoloji alanlarında yapılan çalışmaların bibliyometrik ve görselleştirme analizini sunmayı amaçlamaktadır.

Yöntem: 01 Ocak 2020 ile 01 Eylül 2021 tarihleri arasında gerçekleştirilen 21255 çalışma Pubmed platformu kullanılarak değerlendirilmiştir. Ayrıca, bu çalışmalar, "davranış bilimleri ve davranış mekanizmaları", "psikolojik fenomenler", "mental bozukluklar" ve "davranışsal disiplinler ve aktiviteler" olmak üzere dört başlık altında değerlendirilmiştir. Bildiriler, kitap bölümleri, araştırma ve derleme makalelerinden oluşan çalışmalar VOSviewer (versiyon 1.6.16) açık erişim programı ile haritalanmış ve 21255 çalışmada bulunan 6438 anahtar terimden en çok tekrarlanan 484 terim veri setine dahil edilmiştir. En çok tekrarlanan terimlerin yakınlıkları ve 6438 terim için hesaplanan 51923 bağlantıları değerlendirilerek birbirine en yakın terim kümeleri belirlenmiştir.

Bulgular: Birinci kümede anksiyete, akıl sağlığı, depresyon, psikolojik adaptasyon, psikolojik risk faktörleri, yas tutma gibi başlıkların COVID-19'la ilişkili psikoloji – psikiyatri alanında gerçekleştirilen çalışmaların büyük çoğunluğunu meydana getirdiği; ikinci kümede teletıp, enfeksiyon kontrolü, kişisel koruyucu ekipmanlar ve ayaktan tedavi hizmetleri gibi alanlarda çalışmaların yoğunlaştığı görülmektedir. Üçüncü kümedeki terimlerin büyük çoğunluğunun ise COVID-19 ve mental bozukluklar konusunda olduğu ve dördüncü kümenin sağlık iş gücünde psikolojik tükenmişlik ve iş tatmini gibi terimlerden oluştuğu gözlenmektedir.

Sonuçlar: Bu bibliyometrik çalışmada, COVID-19 ile ilgili psikiyatri ve psikoloji çalışmalarında ağırlıklı olarak hangi konuların yürütüldüğü hakkında bilgi sunulmaktadır.

Anahtar kelimeler: psikoloji; COVID-19; bilgi yönetimi; bibliyometri

Introduction

In the human story, many episodes of pandemics have been seen (Steardo et al., 2020). These infectious diseases mostly have the nature of spreading rapidly and leading to negative consequences in many fields such as social, biological, and economic (Srivastasa & Agrawal, 2020). The last viral disease that the whole world has faced is the Coronavirus (COVID-19) pandemic which was occurred in the last period of 2019. It was first seen in Wuhan in China and identified as a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and later it was named the COVID-19 (Coronaviridae Study Group of the

International Committee on Taxonomy of Viruses, 2020). In March 2020, COVID-19 was declared as a pandemic by the World Health Organization (WHO) (Sohrabi et al., 2020).

The COVID-19 has caused many vulnerabilities in the fields of health, social relations, economics, and psychology. Especially because of the social, biological, and economic uncertainties, the prevalence of psychological disorders has increased during the COVID-19 period (González-Sanguino et al., 2020; Vindegaard & Benros, 2020). From the beginning of this pandemic, so many studies were done to understand and determine the consequences and effects of the COVID-19 on

mental health and behavioural mechanisms all over the world (González-Sanguino et al., 2020; Groarke et al., 2020).

For analyzing and evaluating the studies quantitatively and objectively in the literature, in recent years especially the bibliometric analysis technique has been broadly preferred (Akintunde et al., 2021; Aristovnik et al., 2020; Chahrour et al., 2020). The bibliometric analysis offers to visualize the methodologies, topics, and frameworks of the scientific studies. It is a systematic statistical analysis method in which the publications from research articles, books, reviews, and conference proceedings could be evaluated.

The first part of this study includes the literature on the subject; the second part includes the method; the third part includes the findings and the last part gives the discussion on the results.

Literature review

In the literature, there are several COVID-19 related bibliometric studies. While in some of these studies the COVID-19 related researches were examined from a general perspective (Akintunde et al., 2021), in some other studies comparisons between the countries were made (Fan et al., 2020). In addition, some bibliometric studies include publications only from a single country (Vasantha Raju & Patil, 2020). It is possible to mention that in the vast majority of bibliometric studies, mostly the geography where the publications related to COVID-19, the dominant publication type, and journals have been researched (Al-Zaman, 2020; Dehghanbanadaki et al., 2020; De Felice & Polimeni, 2020; Fan et al., 2020; Farooq et al., 2021). The results obtained in these studies present that most of the published studies are in the article type and the highest number of publications is in China and the United States (Al-Zaman, 2020; Dehghanbanadaki et al., 2020; De Felice & Polimeni, 2020). In addition to these, it is observed that in some studies, the scientific fields have been determined in which the studies related to Coronavirus are focused. According to a study conducted in this context, it was detected that the number of medicine-related papers in the Web of Science database is higher than others (Al-Zaman, 2020). In another study reaching similar results, studies in the first half of 2020 were examined based on the Scopus database, and it was observed that health sciences ranked first in terms of the number of relevant publications and total citations. Furthermore, this study illustrated that psychology is one of the most relevant subject-area classifications in the area of the social sciences and humanities (Aristovnik et al., 2020).

In addition, it is seen that many of the bibliometric studies used specific keywords. For instance, in a study conducted by Ahmad et al. (2021), bibliometric analysis was performed for the COVID-19 vaccine. In another research investigating the keywords included in the publications, it was observed that COVID-19, the novel coronavirus, pandemic, pneumonia, epidemiology, public health, outbreak, epidemic, China, infection, and treatment words are used mostly (Farooq et al., 2021). By another research reaching similar results, except for these words, the most frequent terms were listed as patient, SARS-CoV, case, nCoV, outbreak, Wuhan, Coronavirus, virus, Coronavirus disease, transmission, study, data, country (Dehghanbanadaki et al., 2020).

Specifically, in one of the studies focusing on bibliometric studies on mental health, the most frequently used keywords are classified into four categories: mental health during isolation, impact on the mental health of medical workers, public mental health care during COVID-19, and outbreak-related mental

health issues (Chen et al., 2021). Besides, it can be observed that insomnia, depression, anxiety, and stress are related to psychopathology among the whole words in these clusters. Additionally, the study conducted by Ho et al., (2021) examining bibliometric analysis on COVID-19 in the context of psychology, illustrated that clinical psychology is the area having the highest representation of articles, and COVID-19, pandemic, coronavirus, mental health, and anxiety are the top five keywords. Moreover, in the same study, it was discovered that the most worrying issues in psychology are stress, mental health, and depression. In this study, for the purpose of getting a wide knowledge about the studies in the field of Psychiatry and Psychology, all the titles of the main index "F" from the MeSH were included. In the "F" category, the terms related to mental and behaviour disorders are described. Therefore, by using the keywords from this category, the studies regarding psychiatric and psychological disorders could be evaluated in this bibliometric analysis.

Also in some studies, the publications were examined from specific databases. For instance, in some studies, the publications from the WoS database (Ahmad et al., 2021; Al-Zaman, 2020; Akintunde et al., 2021; Chen et al., 2021; Ho et al., 2020; Soytaş, 2021) were used, or from the Scopus database (Dehghanbanadaki et al., 2020; De Felice & Polimeni, 2020; Fan et al., 2020) the data was obtained. In addition, the database of Pubmed was also preferred to get the data (Chahrour et al., 2020; Gong et al., 2020).

Present study

When the studies focusing on the reflections of the pandemic on mental health are examined, it comes to the fore that there is an increase in depression, stress, and anxiety levels and associated psychopathology due to the secondary effects of COVID-19 such as social isolation, loneliness, and quarantine (Bäuerle et al., 2020; Brooks et al., 2020; Dymecka et al., 2021; Wang & Zhao, 2020). Hence, it is possible to mention that the bibliometric analyzes conducted in the field of psychology have similarly reached the keywords related to mental health issues, which can be considered as considerable disorders in the context of psychopathology, and also these analyzes have illustrated that the studies in the literature generally focus on these problems (Chen et al., 2021). In general, even though the results about psychopathology are mentioned in these researches, it is obvious that there is an insufficiency to detect the situations or factors that may be related to these mental problems, especially from the perspective of clinical psychology. For this reason, the present study planned to examine the studies post COVID-19 in the literature in terms of four headings: behavioural sciences and behavioural mechanisms, psychological phenomena, mental disorders, and behavioural activities and by considering the clusters consisting of the most frequently repeated words. Since this study includes not only the psychopathology clusters most frequently examined in the studies but also the keywords related to or included in these clusters, it differs from the similar studies in the literature. This allows determining the current situation by evaluating the change in the direction of the post-COVID-19 studies in the field of psychology and the areas concentrated on during the pandemic. On the other hand, in addition to the effects in the academic context, it is considered that the current study presents important results in terms of understanding the effects of COVID-19 on the mental health of the general population, especially with the evaluation of the titles within the scope of clinical psychology, and planning interventions that may be
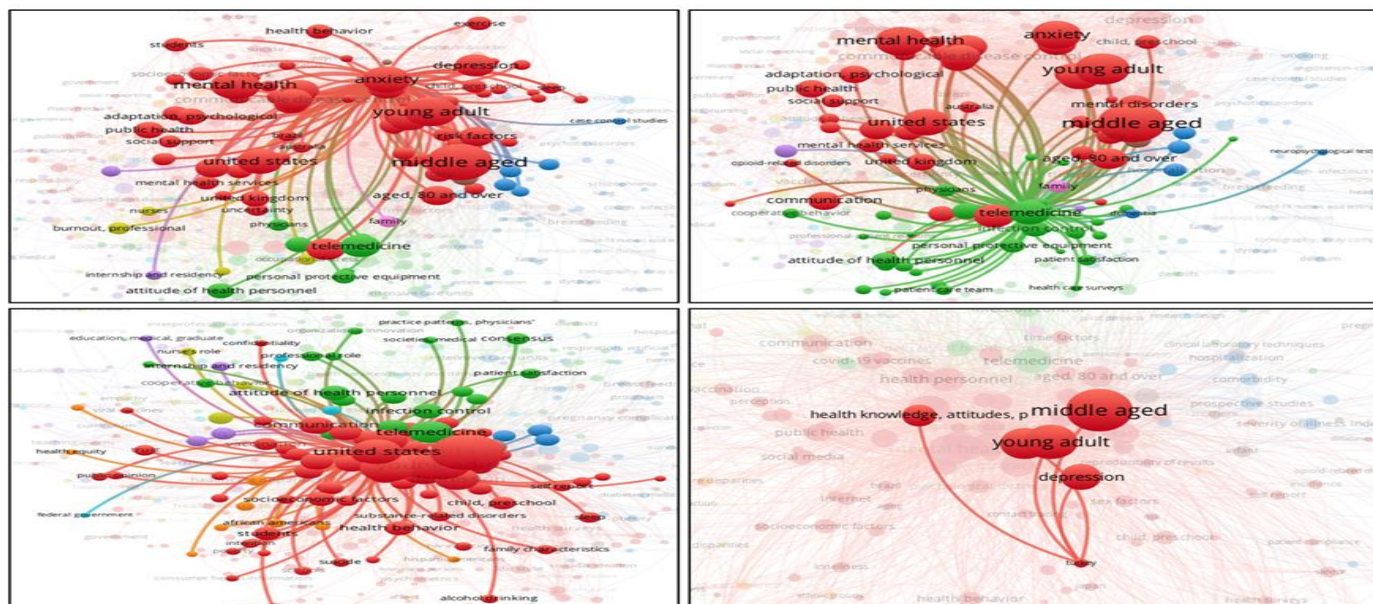
parallel with these. In addition, it is seen that the bibliometric studies include a limited number of publications since they were done in the last period of 2020. For example, the study conducted by Chen et al. (2021) includes the publications which were done between December 1, 2019, and November 13, 2020. In the study done by Ahmad et al. (2021), the studies before January 2021 were investigated. Akintunde et al. (2021) used the data from the studies published before June 27, 2021. However, from the beginning date of the pandemic up to now, new waves of COVID-19 have existed and the effects of the pandemic are still lasting. Therefore, for highlighting the content of the studies related to COVID-19 and psychology, and providing a broadly recent visualization for the literature, this study was performed. Moreover, considering the infrequency of bibliometric studies that is specific to mental health versus general reviews, the present study may contribute to the current literature by providing remarkable findings.

Methods

Data were collected from Pubmed database, which comprises biomedical and life sciences literature. Search criteria was set as all of the topics of the "F" main index in MeSH (F01, F02, F03, F04). These topics include the subheadings such as "behaviour and behaviour mechanisms (F01)", "psychological phenomena and processes (F02)", "mental disorders (F03)", and "behavioral disciplines and activities (F04)". The document type was set as studies consisting of papers, book chapters, research, and review articles, and the publication language was set as "English". Finally, a total of 21255 studies carried on between 01 January 2020 and 01 September 2021 were obtained. 8502 studies were conducted in 2020 and 12753 studies were conducted in 2021. All studies were downloaded as a TXT format file, including titles, MeSH codes, authors, abstracts, descriptors, etc.

VOSviewer (version 1.6.16) was used to perform visualization and bibliometric analysis. The visualization maps created by the most repeated terms in the studies mainly consist of nodes and links. The most repeated terms were represented with the nodes. The lines between two nodes represent a cooperation, a co-occurrence. The sizes of nodes show the frequency of occurrence and the colors of nodes and lines represent different clusters. To provide ease of expression in the maps, the minimum number of occurrences of a term was set to 50. As a result, of the 6438 terms, 484 terms meet the threshold. The proximity index (relationship strength) approach presented by van Eck and Waltman (2010) was used to determine the relationships between the terms. According to the approach, the frequency of re-occurrence of each term in studies with other terms is calculated, and the value obtained is compared with the theoretically estimated frequency of occurrence together. The term clusters that were closest to each other were determined by evaluating the closeness of the most repeated terms and the 51923 links calculated for 6438 terms. The minimum number of terms required to create a cluster was determined as 10, and it was determined that the terms in the studies were collected in 9 different clusters in total.

Ethical aspect of research

In this study, no human-related studies have been conducted that are the subject of the ethics committee. Bibliometric analysis has been carried out for the studies in the psychology literature related to Covid-19 pandemic.

Results

The network relations of the key terms discussed in the study are given in Figure 1. Accordingly, the studies related to COVID-19 with young adults and middle-aged people, and also the studies with the sample of the U.S., draw the attention. As a result, it is determined that studies have focused on depression and anxiety; and the studies are carried out on various subjects such as psychological adaptation, social support, mental health services, and telemedicine.

Figure 1. MeSH codes network representation

Figure 2. Network map of the most repeated key terms

Analysis of keywords used in the studies related to COVID-19 research

The network maps created according to the proximity index of the words selected among the most frequently repeated key terms are given in Figure 2. As a result, it was determined that terms such as anxiety and telemedicine are in connection with many key terms in different clusters, in other words, it is seen that the specified fields of study are correlated with fields of study in different clusters. Therefore, it can be said that the key terms that are close to each other in the figure are closely related fields. Similarly, the studies carried out with the USA sample are related to many fields of study; however, the studies conducted with the sample of Türkiye are only on the subjects of middle-aged people, young adults, health information and depression, which are defined only in cluster 1.

When we look at the most frequently repeated key terms in the studies, the distribution of terms according to the clusters formed can be seen in Table 1, with the most frequently repeated key term in the first. Accordingly, it is determined that the topics such as anxiety, mental health, depression, psychological adaptation, and psychological risk factors have formed the majority of the studies in the field of psychology-psychiatry related to COVID-19, that were carried out with middle-aged and young adults in the first cluster.

When studies on people aged 80 and over are examined, it has been observed that topics such as loneliness, recovery, sedentary life, and social isolation are frequently discussed. It has been determined that the studies on the unemployed individuals, chronic diseases, sleep disorders, and disabled individuals which are indicated in italics in the table, are less studied than other studies.

When the second cluster is examined, it is seen that studies are centred upon the fields such as telemedicine, infection control, personal protective equipment and outpatient services, and it is followed by emergency-health workforce planning, clinical decision support and occupational exposure studies. In addition, it was also found that the fields such as triage, patient education, and remote care services were studied less intensively.

Table 1. The most frequently repeated key terms and clusters*

Cluster	Most frequently repeated key terms	Number of key terms in the set
1	221	Middle-aged, young adults, anxiety, mental health, depression, psychological adaptation, risk factors, grieving, people aged 80 and over, loneliness, OCD, occupational stress, psychometry, recovery, sedentary lifestyle, sexual behaviour, social isolation, suicidal thoughts, COVID-19 vaccines, *unemployment, chronic diseases, cognitive behavioural therapy, sleep disorders, disabled individuals.*
2	78	Telemedicine, infection control, personal protective equipment, outpatient care, emergency planning and management, clinical decision support, health workforce planning, international collaboration, occupational exposure, *patient education, patient safety, patient selection, primary care, triage, remote care-consultation.*
3	70	Perception disorders, delirium, Alzheimer's, comorbidity, intensive care units, dyspnea, *nervous system diseases, myalgia, pain, Parkinson's disease, respiratory diseases, psychotic diseases, smoking, loss of taste and smell, schizophrenia, paralysis.*
4	25	Psychological burnout, empathy, health workforce, job satisfaction, health personnel, *occupational diseases, self-care, teleworking, workforce planning, workplace organization.*
5	22	Career planning, clinical competence, problem-oriented learning, *distance learning, medical students, volunteer studies, feasibility studies.*
6	19	International collaboration, research design, *metric development, World Health Organization policies.*
7	17	Ethnic groups, minority groups, ethics, human rights, social justice, social responsibility, *stereotype studies, health care inequalities, social support groups.*
8	16	Newborns, pregnant women, prenatal period studies, *postpartum adaptation process*
9	16	Long-term care services, palliative care, patient isolation, patient-centered treatment, *terminal care, spirituality studies, home care services*

*Note: In the table, the most frequent repetitions of the key terms that form the clusters are given, the key terms stated in italics are the words that are determined as the least repeated words in the cluster.

According to the key terms in the third cluster, it was determined that the majority of the studies in this cluster were related to COVID-19 and mental disorders. In addition, while the studies in the third cluster also focused on psychology – psychiatry, comorbid disorders, intensive care units and dyspnea, it is seen that the studies in the fields such as psychotic disorders, schizophrenia, loss of taste and smell were investigated less intensively. In the studies in the fourth cluster, terms such as psychological burnout and job satisfaction in the health workforce are taken attention. The eighth and ninth clusters have the smallest cluster volume, and newborns, pregnant women, long-term care services, palliative care, patient isolation and spirituality studies are determined in these clusters.

Analysis of journals, countries and universities

The distribution of studies included the key terms discussed in this study, according to journals, countries and universities are given in Table 2.

The top journal that includes the highest number of articles related to the key terms in the topics of F in MeSH, is determined as PLoS One (n=1184, 5.57%). It is detected that the second top journal is the International Journal of Environmental Research and Public Health (n=1050, 4.94%). As a result of the analysis, it is seen that there was a significant decrease in the number of publications after the third journal. The first two journals (PLoS One and International Journal of Environmental Research and Public Health) are seen to contain more than 10% of all articles including the key terms related to mental health, while the other journals include less than 2% of all articles. As a result of analysis, it is determined that the most productive country is China (n=5846), followed by the USA (n=5342). It is found that the third most productive country is the UK with a number of 4658 co-authored articles. After the third country, it is seen that the number of co-authored articles decreased.

Harvard University was the top institution with 218 co-authored articles, followed by the University of Toronto with 144 co-authored articles. It is determined that six of the top 14 institutions with 624 co-authored articles belonging to the USA; four of the institutions with 204 co-authored articles belonging to China.

Discussion

In this study, it was aimed to provide a bibliometric and visualization analysis of the studies conducted in the fields of psychiatry and psychology related to COVID-19. In this regard, the studies consisting of the keywords which are included in all of the topics of the "F" main index in MeSH (F01, F02, F03, F04) were analysed. In addition, the top countries, institutions and journals that contributed to the studies related to COVID-19 in psychiatry and psychology, were determined. Key terms analysis could show the research directions in a special discipline (Zou et al., 2018). As a result of the analysis in which the studies mapped, it is found that the most repeated terms are collected in 9 different clusters in total with a minimum number of 10 terms in each cluster. Due to this result, it can be said that during pandemics, the studies focus on nine main fields.The clusters were sorted according to the most repeated terms that they include. When the first cluster is examined, it is seen that the most repeated keywords that were used in the studies in the fields of psychiatry and psychology are "middle-aged, young adults, anxiety, mental health, depression,

Table 2. The top journals, countries and universities that contributed to the studies related to COVID-19 researchs

Rank	Journals[a]	Number of Articles (percentage)	Country[b]	Number of co-authored articles	University / Institution[c] (Country)	Number of co-authored articles
1	PLoS One	1184 (5.57%)	China	5846	Harvard University (USA)	218
2	International Journal of Environmental Research and Public Health	1050 (4.94%)	USA	5342	University of Toronto (Canada)	144
3	Psychiatry Research	336 (1.58%)	UK	4658	Stanford University (USA)	129
4	Frontiers in Public Health	281 (1.32%)	Italy	2143	University of Michigan (USA)	101
5	The Asian Journal of Psychiatry	261 (1.23%)	Australia	1611	University of Oxford (UK)	93
6	Journal of Medical Internet Research	244 (1.15%)	Spain	1410	Yale University (USA)	86
7	BMJ Open	208 (0.98%)	Canada	1402	Kaohsiung Medical University (Taiwan)	79
8	Journal of Affective Disorders	204 (0.96%)	India	1305	University of Macau (China)	77
9	Brain, Behavior, and Immunity	136 (0.64%)	France	1179	Renmin Hospital of Wuhan University (China)	65
10	BMJ	134 (0.63%)	Germany	944	University of Pittsburgh (USA)	47
11	Lancet Psychiatry	128 (0.60%)	Singapore	899	University of Houston (USA)	43
12	BMC Public Health	118 (0.54%)	Brazil	813	National University of Singapore (Singapore)	41
13	Nutrients	112 (0.52%)	Japan	795	The Hong Kong Polytechnic University (China)	36
14	Psychological trauma	112 (0.52%)	Türkiye	464	University of Chinese Academy of Sciences (China)	26

[a] Note 1: In the table, the journals with the highest number of publications are listed.
[b] Note 2: Co-authored studies from different countries were also included.
[c] Note 3: It was formed by the studies which were carried out between 01-01-2020 and 01-09-2021. For multi-author studies, the studies carried out with different units of the same university/institute were counted as once.

psychological adaptation, risk factors, grieving, people aged 80 and over, loneliness, OCD, occupational stress, psychometry, recovery, sedentary lifestyle, sexual behaviour, social isolation, suicidal thoughts and COVID-19 vaccines" from 221 key terms. According to this result, it can be said that the studies related to anxiety, depression, OCD, and mental health are conducted mostly with middle-aged and young adults and people aged 80 and over. In addition, it can be claimed that the studies were mostly conducted related to loneliness, grieving, sedentary lifestyle, social isolation, and suicidal thoughts which can be thought as a consequence of the pandemic.

During the pandemic, it is known that a wide range of fields such as social, biological and economic were affected negatively (González-Sanguino et al., 2020; Vindegaard & Benros, 2020). Due to the uncertainties caused by pandemics, the possibility of the prevalence of many psychological disorders has been increased. It can be said that because of this reason and for determining the level of the effect of the pandemic on people's mood and psychological states, many researchers have examined the relationship between COVID-19 and psychological disorders such as anxiety, OCD, post-traumatic stress disorder, panic disorder and depression (Choi et al., 2020; Hyland et al., 2020; Mazza et al., 2020). Moreover, social isolation that many governments have applied as a precaution to protect the population from the COVID-19 virus, makes people feel lonelier which is also a risk factor for psychological disorders (Groarke et al., 2020; Li & Wang, 2020). It is seen that in many studies, the researchers also investigated the effect of loneliness due to social isolation, on people (Rumas et al., 2021). As a result, it was determined that being infected or suspicious of being infected led people to feel loneliness, fear, and anxiety more intensively (Brooks et al., 2020; Ornell et al., 2020).

In the first cluster, whereas they were used rarely also the key terms "unemployment, chronic diseases, cognitive behavioural therapy, sleep disorders, disabled individuals" were listed. It means that in the literature, the studies related to chronic diseases, sleep disorders, and unemployment which could be associated with the pandemics, were conducted by a majority. According to results, it can be said that during the pandemics, the studies especially related to cognitive behavioural therapy, were carried out mostly.

In the second cluster, it is found that the key terms "telemedicine, infection control, personal protective equipment, outpatient care, emergency planning and management, clinical decision support, health workforce planning" which are related to especially precautions against COVID-19, were listed. With the onset of the pandemic, it has been observed that there has been a significant increase in the number of patients in hospitals in many countries due to COVID-19, and inpatient services remained incapable and insufficient to meet the needs of patients, unfortunately (Jen et al., 2021). In addition, by telemedicine, exposure to other severely ill patients could be prevented, and mildly ill patients have been protected (Portnoy et al., 2020). For this reason, many governments have encouraged health services to give online social and health support remotely for the less severely ill people. Also, during the pandemic, due to the fact that face-to-face therapy could not be carried out in accordance with staying safe during the COVID-19 period, the number of online therapy sessions was increased (Sampaio et al., 2021).

In the third cluster, it is seen that one of the most used key terms is "perceptual disorders" which is under the subheading of nervous system diseases in MeSH and related to cognitive

disability to perceive the nature of objects through the sense organs. In addition, from Table 1, it is thought that the studies with key terms such as "delirium, Alzheimer's, comorbidity, intensive care units, dyspnea, nervous system diseases, myalgia, pain, Parkinson's disease, respiratory diseases, psychotic diseases, smoking, loss of taste and smell, schizophrenia, paralysis" were conducted mostly during the pandemic. It can be said that the key terms "comorbidity, intensive care units, respiratory diseases, smoking, loss of tastes and smell" could be used in the studies associated with COVID-19. When Table 1 is examined, it is observed that there is a decrease in the number of key terms after the third cluster. Due to this result, it can be said that the number of the studies that include the key terms which are in the clusters of 4,5,6,7,8, and 9, is less than the studies which include the key terms related to COVID-19. As a result, Table 1 shows that during the pandemic, the studies with the middle-aged and young adults and with the vulnerable population aged 80 and over that are related to anxiety, depression, OCD and mental health, had the greatest emphasis in the field of psychiatry and psychology. In a study of a systematic review conducted by Salari et al. (2020), there are findings that support the results of our study. Also, the studies related to psychological burnout, empathy, health workforce, career planning, clinical competence, newborns, pregnant women, long-term care services, palliative care seemed to be focused on less.

The analysis of journals, countries, and universities/institutions demonstrate that PLoS One is the journal that has the highest number of studies during the pandemic with a percentage of 5.57%. The country which has the highest number of articles is China with a number of 5846. According to our results, Harvard University is the top university that has the highest number of publications with 218 articles (Table 2). Compared to the studies conducted by Chen et al. (2021), Akintunde et al. (2021), Fan et al. (2020), Dehghanbanadaki et al. (2020) and Farooq et al. (2021), there is a significant increase in the number of studies conducted in the field of psychiatry from the beginning of the pandemic until now. Also, in many studies (Akintunde et al., 2021; Al-Zaman, 2020; Chen et al., 2021) at the beginning of the pandemic, the top of the country that had the most publication related to COVID-19 was determined as the USA. However, in our study, the top country is detected as China. Also, the top journal is determined as PLoS One, different from early bibliometric analysis (Akintunde et al., 2021; Chen et al., 2021; El-Hawary et al., 2020). In our study, the top institution that contributed to the studies related to COVID-19 is found as Harvard University as the same results in the studies of Akintunde et al. (2021). However, in the studies that include the publications before August 1, 2020 (Farooq et al., 2021) and April 20, 2020 (De Felice & Polimeni, 2020) the top institution was determined as Huazhong University of Science and Technology. Therefore, when comparing the results of our study with the bibliometric studies conducted before, it is seen that the top country, top journal and top institution that have the most publications related to COVID-19 has been changed.

When the studies conducted in Türkiye were examined, it was determined that mostly the middle-aged people and young adults were included in the studies. In addition, mostly related to health information and depression which are defined in only cluster 1, were investigated. Also, it is seen that among the studies related to Covid-19 in Türkiye, it includes approximately

5% of the publications in the field of psychiatry and psychology (Günay, 2021). In this respect, it could be said that the scientific publications in the field of psychiatry and psychology in Türkiye were generally focused on specific and limited fields. Therefore, it is thought that this study could provide an important contribution to the Turkish literature.

Limitations of the study

In our study, key terms that were used can be thought of as the main limitation because psychology and psychiatry studies coded differently from the main index of the MeSH code "F" and alternative terms (coronavirus, corona, pandemic, etc.) coded for pandemics which are different from the key term "COVID-19". In addition, in our study, the studies on the relevant subject were obtained by using the Pubmed database and it can be thought of as a limitation also. However, since there is no word limit keywords and the Pubmed database is being updated daily whereas the updating is done in WoS weekly, in Scopus 1-2 times weekly, and in Google Scholar monthly and also Pubmed provides optimal recent published articles, it can be claimed that it is an optimal tool for keyword search in biomedical studies (Falagas et al., 2008). From this perspective, using the Pubmed database can be considered as the strenght of the study.

Conclusion

To realize and show the effects of the COVID-19 clearly, on public health, future studies can be offered when the pandemic is over. In addition, this bibliometric study provides information on which topics of psychiatry and psychology studies are mainly carried out. Thus, it is thought that our study could be an important resource for researchers for their future studies.

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Ethics Committee Approval

In this study, no study was conducted on the subject of the ethics committee. Bibliometric analysis has been carried out for the studies in the psychology literature related to COVID-19 pandemic.

Peer-Review

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Author Contributions

G.B.: Conceptualization, Writing-Original Draft, Writing-Review & Editing.

Ü.T.Y.: Conceptualization, Writing-Original Draft, Writing-Review & Editing.

M.F.E.: Investigation, Methodology, Formal Analysis, Writing-Review & Editing.

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Simülasyon eğitiminin pediatri dersi alan hemşirelik öğrencilerinin klinik becerilerine etkisi

The effect of simulation training on clinical skills of nursing students taking pediatrics course

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ÖZET

Amaç: Bu araştırma simülasyon eğitiminin pediatri dersi alan hemşirelik öğrencilerinin klinik becerilerine etkisini incelemek amacı ile yapılmıştır.
Yöntem: Araştırmamız 2020- 2021 Eğitim-Öğretim yılında Çocuk Sağlığı ve Hastalıkları Hemşireliği dersini alan 240 öğrenci ile yapıldı. Çalışmada Öğrenci Bilgi Formu, Simülasyon Tasarım Ölçeği ve Öğrenmede Öğrenci Memnuniyeti ve Özgüven Ölçeği kullanıldı. Veriler bilgisayar ortamında tanımlayıcı istatistikler, ortalama ve ki kare ile değerlendirildi.
Bulgular: Araştırmamıza katılan öğrencilerin %57.5'inin kadın, yaş ortalamalarının 21.70±1.64 olduğu bulunmuştur. Öğrencilerin % 59.6'sının aldıkları hemşirelik eğitiminden memnun oldukları, %65.8'inin verilen teorik eğitimin, %53.3'ünün klinik uygulama eğitiminin yeterli olduğunu, ancak %40'ının klinik uygulamalarda sorun yaşadıklarını ve genel olarak heyecan, merak, kaygı ve korku hissettikleri belirlenmiştir. Ayrıca simülasyon eğitimi sonucunda öğrencilerin simülasyon tasarım ölçeği ile öğrenmede öğrenci memnuniyeti ve özgüven ölçeği puanlarının yüksek olduğu tespit edilmiştir.
Sonuçlar: Araştırmamızda öğrencilerin aldıkları hemşirelik eğitimlerinden (teorik/uygulama) memnun oldukları ancak klinik ortamda sorun yaşayabildikleri tespit edilmiş olup simülasyon eğitimi sonucunda öğrencilerin simülasyon tasarım ölçeği ile öğrenmede öğrenci memnuniyeti ve özgüven ölçeği puanlarının yüksek olduğu belirlenmiştir. Bu doğrultuda öğrencilerin öğrenme süreçlerinde simülasyona dayalı eğitimlerle desteklenmesi önerilmektedir.

Anahtar kelimeler*:* çocuk; hemşirelik; simülasyon

ABSTRACT

Aim: This research was conducted to examine the effect of simulation training on the clinical skills of nursing students taking pediatrics courses.
Methods: Our research was conducted with 240 students who took the Child Health and Diseases Nursing course in the 2020-2021 academic year. Student Information Form, Simulation Design Scale and Student Satisfaction and Self-Confidence Scale in Learning were used in the study. Data were evaluated with descriptive statistics, mean and chi-square in computer environment.
Results: It was found that 57.5% of the students participating in our study were female, and their mean age was 21.70±1.64. 59.6% of the students were satisfied with the nursing education they received, 65.8% of them stated that 53.3% of the theoretical training was sufficient, but the clinical practice training was sufficient, but 40% of them had problems in clinical practice and generally felt excitement, curiosity, anxiety and fear. determined. In addition, as a result of the simulation training, it was determined that the students' scores on the simulation design scale and the student satisfaction and self-confidence scale in learning were high.
Conclusion: In our study, it was determined that the students were satisfied with the nursing education (theory/practice) they received, but they had problems in the clinical environment. In this direction, it is recommended to support students with simulation-based training in their learning processes.

Keywords*:* child; nursing; simulation

Giriş

Hemşirelik eğitimi, öğrencilerin sorumluluklarını yerine getirebilmesini ve teori ile klinik becerilerini birleştirmesini sağlayarak eleştirel düşünebilme ve problem çözme becerisi kazandırmasını içermektedir (Göriş ve ark., 2014; Türkmen ve ark., 2016). Bununla birlikte günümüzde bilim ve teknoloji alanındaki gelişmeler tüm sağlık alanlarında olduğu gibi yenilikleri takip ederek bilgi, becerisini geliştirebilen ve uyum sağlayabilen profesyonel hemşire gereksinimini arttırmıştır (Atakoğlu ve ark., 2020; Sarmasoğlu ve ark., 2016). Ancak sağlık bakım sistemi içerisinde önemli bir yeri olan hemşirelerin, kaliteli ve nitelikli bakımı sunabilmeleri için eğitim süreçlerinde mesleki bilgi ve beceri açısından yeterliliklerinin sağlanması gereklidir.

Hemşirelik eğitiminde teorik bilgi ile uygulama becerilerinin beraber alınması önem arz etmektedir. Klinik alanlar, öğrenciye hasta bakım uygulamalarına ilişkin teorik bilgi, beceri ve tutumları uygulamaya aktarması için fırsatlar sunabilmektedir. Literatür incelendiğinde klinik uygulamaların öğrencilerin psikomotor, iletişim ve klinik karar verme becerilerini geliştirme, güven duygularını arttırma, ekibin bir parçası olarak çalışabilme olanağı sağladığı ifade edilmiştir (Göriş ve ark., 2014; Oerman & Lukomskı, 2001; Türkmen ve ark., 2016). Ancak, klinik uygulama alanlarının yoğun ve yetersiz olması, öğrenci sayısının fazla olması, öğrencilerin hata yapmaktan çekinmeleri ve buna bağlı olarak anksiyete yaşamaları öğrencilerin bilgi ve becerilerini klinik bakım uygulamalarında kullanmalarını engelleyebilmektedir (Canbulat Şahiner ve ark., 2017; Öztürk & Dinç, 2014; Şendir & Doğan, 2015). Bu durum hemşirelik eğitimlerinde öğrencilerin öğrenme süreçlerine aktif katılımını destekleyen interaktif yöntemlerin kullanımlarını gerektirmektedir (Akalın & Şahin, 2020; Norman, 2012). Simülasyon son yıllarda hemşirelik eğitimlerinde sıklıkla kullanılan yenilikçi eğitim yöntemleri arasındadır (Canbulat Şahiner ve ark., 2017; Cooper ve ark., 2012).

Simülasyon, gerçekçi klinik uygulama ortamlarında deneyimleri canlandırmak ve geliştirmek için gerçek bir durumun tamamen interaktif bir şekilde taklit edilmesi olarak tanımlanmaktadır (Terzioğlu ve ark., 2012). Simülasyon temelli eğitim öğrencilere etkin öğrenme ilkeleri doğrultusunda deneyimleyerek öğrenme fırsatı sunabilmektedir. Ayrıca eğiticilerin güvenli bir şekilde öğrencilerin başarılarını ölçme, becerilerini gözlemleyebilme ve geri bildirim verebilmelerini sağlayabilmektedir (Doğan ve ark., 2017; Sezer & Orgun, 2017). Yapılan çalışmalarda hemşirelik eğitiminde simülasyon eğitiminin öğrencilerin özgüvenlerini arttırdığı ve klinik karar verme becerilerinin geliştirmelerini sağladığı aynı zamanda bakım verme ve yönetim becerisi kazandırdığı gösterilmiştir (Göriş ve ark., 2014; Atakoğlu ve ark., 2020). Ayrıca simülasyonun çocuk sağlığı ve hastalıkları hemşireliği eğitiminde kullanılmasının, öğrenci hemşirelerin kliniklerde hatalı uygulamalarını azaltarak güvenli hasta bakımı sağlayabildiği, stres, kaygı ve korkularının azalmasına neden olabildiği gösterilmiştir (Canbulat Şahiner ve ark., 2017; Durmaz Edeer & Sarıkaya, 2015). Ancak ülkemizde simülasyonun Çocuk Sağlığı ve Hastalıkları Hemşireliği eğitiminde müfredata entegrasyonunun ne düzeyde olduğu ve klinik ortamdaki yansımaları bilinmemektedir. Bununla birlikte klinik ortamlarda yapılan tıbbi hatalara bağlı ölümler daha çok çocuk hastalarda görülmektedir. Bu durum çocuklara uygulanan girişimlerin önemini her geçen gün arttırmıştır. Bu doğrultuda simülasyon eğitiminin çocukların sağlık durumunun korunması ve geliştirilmesinde önemli olduğu düşünülmekte olup çalışmamız simülasyon eğitiminin çocuk sağlığı ve hastalıkları hemşireliği dersini alan hemşirelik öğrencilerinin klinik becerilerine etkisini incelemek amacı ile yapılmıştır.

Yöntem
Araştırmanın amacı ve türü
Bu araştırma, simülasyon eğitiminin çocuk sağlığı ve hastalıkları hemşireliği dersini alan hemşirelik öğrencilerinin klinik becerileri üzerindeki etkisini incelemek amacı ile tanımlayıcı bir araştırma olarak yapılmıştır. Tanımlayıcı çalışmalar bir konu hakkında konunun anlamını ortaya çıkarmak ya da incelenen durumu tanımlamak amacı ile yapılan çalışmalardır. Aynı zamanda bu çalışmalarda veriler daha çok anket ve görüşmeler neticesinde bireylerin öz bildirimlerine yönelik toplanmaktadır (Erdoğan ve ark., 2015).
Araştırmanın evreni ve örneklemi
Araştırmanın evrenini İnönü Üniversitesi Hemşirelik Fakültesi'nin 2020- 2021 Eğitim-Öğretim yılında Çocuk Sağlığı ve Hastalıkları Hemşireliği dersini alan öğrenciler oluşturmuştur. Araştırmamızda örneklem seçimine gidilmemiş olup araştırmaya alınma kriterlerini sağlayan ve araştırmaya katılmayı kabul eden 240 öğrenci ile çalışmamız yürütülmüştür.

Çalışmanın örnekleme alınma kriterlerini; araştırmaya katılmayı kabul eden, İnönü Üniversitesi Hemşirelik Bölümü öğrencisi olup Çocuk Sağlığı ve Hastalıkları Hemşireliği dersini almakta olan ve grup içi benzerliği sağlayabilmek için daha önce çocuk sağlığı ve hastalıkları kliniklerinde çalışmamış olan öğrenciler oluşturmuştur.
Araştırmanın prosedürü
Araştırmaya alınma kriterlerini sağlayan ve araştırmaya katılmayı kabul eden öğrencilere araştırmacılar tarafından araştırmanın içeriği ile bilgiler verilerek aydınlatılmış onamları alınmıştır. Simülasyon eğitimi için yaygın olarak kullanılan pediatrik simülasyon maketi olduğu için Simbaby eğitim maketi kullanılmıştır (Schebesta ve ark., 2011).

Simülasyon senaryosu astımlı bir çocuk vakası olarak belirlenmiş ve senaryonun oluşturulabilmesi için çocuk sağlığı ve hastalıkları alanında uzmanlardan destek alınmıştır. Senaryo; öğrenciler tarafından klinikte astım atağı geçiren astımlı bir çocuğun hemşirelik müdahalelerini adım adım yapılmasını içermektedir. Senaryonun bileşenlerini; tanımlanmış hedefler, hazırlık materyalleri, senaryonun tamamlanabilmesi için verilen süre ve simülasyon sonrası öğrencilerin deneyimlerini açıklayan bir form ile bilgilendirme toplantısı oluşturmuştur. Senaryonun tamamlanma süresi 45 dk bilgilendirme toplantı süresi 15 dk olarak belirlenmiştir. Simülasyon eğitiminden sonra tüm öğrencilerin Simülasyon Tasarım Ölçeği ve Öğrenmede Öğrenci Memnuniyeti ve Öz güven Ölçeği'ni doldurmaları sağlanmıştır.
Veri toplama araçları
Veriler araştırmacılar tarafından oluşturulmuş öğrencilerin sosyo-demografik özeliklerini içeren Öğrenci Bilgi Formu, Simülasyon Tasarım Ölçeği ve Öğrenmede Öğrenci Memnuniyeti ve Özgüven Ölçeği ile toplandı.
Öğrenci Bilgi Formu
Bu form öğrencilerin kişisel özelliklerini (yaş, cinsiyet) ve klinik uygulamalar ile ilgili düşüncelerini sorgulayan sorular içermektedir.
Simülasyon Tasarım Ölçeği
Jeffries ve Rizzolo (2006) tarafından geliştirilen bu ölçeğin "Hedefler ve Bilgi", "Destek", "Problem Çözme", "Geribildirim/Rehberli Yansıma" ve "Aslına Uygunluk Derecesi (Gerçekçilik)" olmak üzere 5 alt boyutu bulunmakta ve toplam 20 maddeden oluşmaktadır. Ölçeğin puan aralığı; 1 puan en düşük, 5 puan en yüksek şeklinde olup ölçek puanları, yanıtlara verilen toplam puanın madde sayısına bölünmesi ile elde edilmektedir (Aydın, 2020). Araştırmamızda ölçeğin total güvenirlik kat sayısı .91'dir.
Öğrenmede Öğrenci Memnuniyeti ve Özgüven Ölçeği
Jeffries ve Rizzolo (2006) tarafından geliştirilmiş olan bu ölçeğin orijinali 13 madde iken Türkçeye uyarlamasında madde sayısı 12 olmuştur. Ölçeğin "Şimdiki Öğrenme ile ilgili Memnuniyet (5 madde)" ve "Öğrenmede Özgüven (7 madde)" olmak üzere iki alt boyutu bulunmaktadır. Ölçek 5'li likert tipinde olup, ölçekte verilen cevaplar 1 (kesinlikle katılmıyorum) ile 5 (kesinlikle katılıyorum) arasında değişen değerlerle puanlanmaktadır.

Ölçek puanları; alt boyutların toplamının madde sayısına bölünmesiyle elde edilmektedir. Puan arttıkça öğrenci memnuniyeti ve öğrenmede kendine güveni artmaktadır (Avcı, 2022). Araştırmamızda ölçeğin total güvenirlik kat sayısı .91'dir
Verilerin değerlendirilmesi
Araştırma sonucunda elde edilen verilerin değerlendirilmesinde araştırmacı tarafından SPSS programı kullanılmış ve yorumlanmıştır. İstatistiksel verilerin değerlendirilmesinde tanımlayıcı istatistikler, ortalama ve ki kare kullanılmıştır.
Araştırmanın etik yönü
Araştırmanın yapılabilmesi için İnönü Üniversitesi Sağlık Bilimleri Girişimsel Olmayan Klinik Araştırmalar Etik Kurulu'ndan gerekli etik izin (2022/3611) ve çalışmanın yapılacağı kurumdan izin (20176953-199) alınmıştır. Araştırmacılar tarafından, araştırmaya dâhil edilme kriterlerini karşılayan öğrenciler belirlendikten sonra araştırma konusunda bilgi verilerek araştırmaya katılmayı kabul eden öğrencilerden bilgilendirilmiş onam formu alınmıştır.

Bulgular

Tablo 1. Öğrencilerin tanıtıcı özelliklerinin dağılımı

Değişkenler	n	%
Cinsiyet		
Erkek	102	57.5
Kadın	138	42.5
Mezun oldukları lise		
Düz lise	22	9.2
Anadolu lisesi	168	70
Fen lisesi	18	7.5
Diğer	32	13.3
Hemşirelik eğitiminden memnuniyet durumları		
Çok memnunum	15	6.3
Memnunum	143	59.6
Kararsızım	66	27.5
Memnun değilim	16	6.7
Verilen teorik eğitiminden memnuniyet durumları		
Yeterli	158	65.8
Yetersiz	82	34.2
Klinik uygulama eğitimlerinden memnuniyet durumları		
Yeterli	128	53.3
Yetersiz	112	46.7
Klinik uygulamalarda sorun yaşama durumları		
Evet	96	40
Hayır	144	60
Klinik uygulamalarda duygu durumları		
Heyecan, korku, merak, kaygı	226	94

Araştırmamıza katılan öğrencilerin %57.5'inin kadın, %70'inin anadolu lisesi mezunu olduğu bulunmuştur. Ayrıca öğrencilerin %59.6'sının aldıkları hemşirelik eğitiminden memnun oldukları, %65.8'inin verilen teorik eğitimin, %53.3'ünün klinik uygulama eğitiminin yeterli olduğunu, ancak %40'ının klinik uygulamalarda sorun yaşadıklarını ve %94'ünün heyecan, merak, kaygı ve korku hissettiklerini ifade etmiştir (Tablo 1).

Öğrencilere uygulanan simülasyonun tasarım ölçeği iki bölümden oluşmaktadır. Uygulama bölümü alt boyutları puan ortalamaları sırasıyla hedefler 4.14±0.61, destek 4,29±0,73, problem çözme 4.09±0.73, geri bildirim 4.08±1.00, aslına uygunluk 4.14±0.70 bildirilmiştir. Ölçeğin önem bölümü alt boyutlarından hedefler 3.96±0.77, destek 4.26±1.68, problem çözme 4.16±0.66, geri bildirim 3.90±0.95, aslına uygunluk 4.25±0.77 puan ortalamalarına sahip olduğu ve öğrencilerin simülasyon tasarım ölçeği puanlarının yüksek olduğu belirlenmiştir (Tablo 2).

Tablo 3. Öğrenmede öğrenci memnuniyeti ve özgüven ölçeği puan ortalamaları

Değişkenler	Min	Max	Ort±SS
Şimdiki öğrenme ile ilgili memnuniyet	3.00	5.00	4.44±0.51
Öğrenmede özgüven	3.00	5.00	4.25±0.52
Toplam	3.33	5.00	4.33±0.48

Öğrenmede öğrenci memnuniyeti ve özgüveni ölçeği toplam puan ortalaması 4.33±0.48 bulunmuştur. Ölçeğin alt boyutlarından memnuniyet alt boyutu puan ortalaması 4.44±0.518 iken özgüven alt boyut puan ortalamasının 4.25±0.52 olduğu ve çalışmamıza katılan öğrencilerin öğrenci memnuniyeti ve özgüveni puan ortalamalarının yüksek olduğu tespit edilmiştir (Tablo 3).

Tablo 2. Simülasyon tasarım ölçeği puan ortalamaları

Değişkenler	1. Bölüm Uygulama		2. Bölüm Önem	
	Min-Max	Ort	Min-Max	Ort±SS
Hedefler ve bilgi	3.00-5.00	4.14±0.61	2.40-5.00	3.96±0.77
Destek	3.00-5.00	4.29±0.73	2.75-5.00	4.26±1.68
Problem çözme	2.60-5.00	4.09±0.73	2.00-5.00	4.16±0.66
Geribildirim/Rehberli yansıma	2.00-5.00	4.08±1.00	2.50-5.00	3.90±0.95
Aslına uygunluk derecesi	2.50-5.00	4.06±0.72	2.00-5.00	4.25±0.77
Toplam	2.75-5.00	4.14±0.70	2.70-7.45	4.09±0.79

Tartışma

Günümüzde hemşirelik eğitiminde kullanılan geleneksel öğrenme yöntemleri öğrencilerin klinik becerilerinin kazandırılmasında, eleştirel düşünebilme ve karar verme süreçlerinde yetersiz kalmaktadır. Bu nedenle hemşirelik öğrencilerinin klinik bilgi ve becerilerinin gelişmesini destekleyen simülasyonun, öğrenme süreçleri içerisindeki önemi günden güne artış göstermektedir (Uzelli Yılmaz & Akın Korhan, 2017). Simülasyon, öğrencilerin teorik bilgilerin uygulamaya aktarmasını, bakım verdikleri hastalara zarar vermeden kaliteli ve güvenli hemşirelik bakımı vermelerini sağlayabilmektedir (Kim & Shin, 2016; Ulfvarson & Oxelmark, 2012). Ayrıca simülasyona dayalı eğitim yaparak öğrenme fırsatı sunarak öğrencilerin sorun çözme becerilerini arttırabilmektedir (Çetinkaya Uslusoy, 2018).

Çalışmamıza katılan öğrencilerin klinik uygulamalarda heyecan, korku, kaygı yaşadıklarını ifade etmiş olup simülasyon tasarım ölçeği puanları ile memnuniyet düzeylerinin yüksek olduğu bulunmuştur. İlgili alanda simülasyona dayalı eğitimin öğrencilerin bilgi düzeylerini, iletişim becerilerini arttırdığı ve eleştirel düşünme becerilerinin gelişmesinin yanı sıra streslerini azaltıp öz güvenlerini olumlu yönde etkilediği gösterilmiştir (Canbulat Şahiner ve ark., 2017; Flood & Higbie, 2016; Lee ve ark., 2016; Şendir & Doğan, 2015; Uzelli Yılmaz & Akın Korhan, 2017). Ayrıca simülasyona dayalı öğrenme yöntemi ile öğrencilerin öz etkililik, memnuniyet, karar verme ve problem çözme becerilerinin gelişmesini desteklediği ifade

edilmiştir (Kim-Godwin ve ark., 2013; Luctkar-Flude ve ark., 2012; Tosterud ve ark., 2013). Farklı çalışmalarda da klinik uygulama öncesi senaryo/bilgisayarlı simülasyon eğitimi verilen öğrencilerin tartışma ve öğretim becerilerini arttırdığı klinik hemşireleri tarafından daha fazla kabul gördükleri belirlenmiştir (Şendir & Doğan, 2015; Wagner ve ark., 2009). Bu durum çocuk sağlığı ve hastalıkları dersi için öğrencilerin öğrenme süreçlerinde ve klinik uygulamalarda stres, korkularını azaltmaya yönelik olarak simülasyona dayalı öğrenme yöntemlerinden yararlanılabileceğini göstermiştir.

Sonuç ve Öneriler

Araştırmamızda öğrencilerin aldıkları hemşirelik eğitimlerinden (teorik/uygulama) memnun oldukları ancak klinik uygulamalarda sorunlarla beraber kaygı ve korku yaşayabildikleri tespit edilmiş olup simülasyon eğitimi sonucunda öğrencilerin simülasyon tasarım ölçeği ile öğrenmede öğrenci memnuniyeti ve özgüven ölçeği puanlarının yüksek olduğu belirlenmiştir. Pediatri kliniklerinde çocuk ve bakım vericilerinin zarar görmeden uygun ve etkili bakım alabilmesi için öğrencilerin kaygı korkularını azaltmaya yönelik eğitimlerin verilmesinin önemli olabileceği düşünülmektedir. Bu doğrultuda hemşirelik öğrencilerinin çocuk sağlığı ve hastalıkları hemşireliği dersinin öğrenme süreçlerinde simülasyona dayalı eğitimlerle desteklenmesi önerilmektedir.

Çıkar Çatışması

Çıkar çatışması bulunmamaktadır.

Etik Komite Onayı

Araştırmanın yapılabilmesi için İnönü Üniversitesi Sağlık Bilimleri Girişimsel Olmayan Klinik Araştırmalar Etik Kurulu'ndan etik izin (2022/3611) ve çalışmanın yapılacağı kurumdan izin (20176953-199) alınmıştır.

Hakem Değerlendirmesi

Dış bağımsız.

Yazar Katkıları

Y.S.D.: Tasarım, Makalenin Yazımı, Literatür Taraması, Eleştirel İnceleme.

E.H.Y.: Tasarım, Literatür Taraması, Eleştirel İnceleme.

M.Y.: Verilerin Toplanması, Denetim

A.A.S.: Verilerin Toplanması

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Üstün yetenekli çocuklarla ilgili yapılan lisansüstü tezlerin incelenmesi: Sağlık bilimleri örneği

Evaluation of graduate theses about gifted children: Example of health sciences

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ÖZET

Amaç: Bu araştırmanın temel amacı, Türkiye de sağlık bilimleri alanında üstün yetenekli çocuklarla ilgili yapılan lisansüstü tezlerin yılına, tez türüne, anabilim dalına, yöntemine, örneklem yöntemine, örneklem grubuna, örneklem sayısına, değişkenlere ve yapıldığı ile göre eğilimlerini bütüncül ve kapsamlı bir şekilde ortaya koymaktır.

Yöntem: Araştırmada tezleri derinlemesine incelemek amacıyla nitel araştırma yöntemlerinden doküman inceleme yöntemi kullanılırken analiz aşamasında içerik analizinden yararlanılmıştır. Araştırma 1995-2021 yılları arasını kapsamaktadır. Araştırma verileri YÖK Tez Tarama Merkezi veri tabanında kayıtlı 10 lisansüstü tezden elde edilmiştir. Toplam 10 tez araştırmaya dâhil edilmiştir.

Bulgular: Araştırma verilerine göre; bu tezlerden 5 tanesi yüksek lisans, 3 tanesi doktora ve 1 tanesi uzmanlık tezidir. Bu lisansüstü tezler araştırma sonucunda çalışmalar en çok yüksek lisans (7) tez türünde verilmiştir. İlk çalışmanın 1995 yılında verilmiş olmasıyla beraber en fazla çalışmanın 2018 yılında (4) yapıldığı görülmüştür. Araştırmada çoğunlukla nicel araştırma yöntemleri kullanılmıştır. Örneklem seçme yöntemi olarak en fazla basit tesadüfi örneklem (3) yöntemi kullanılmıştır. Örneklem grubunun çoğunluğunu ortaokul çocukları (5) oluşturmuştur. Araştırmada üstün yetenekli çocuklarla beraber; etiketlenme (2), empati (2) ve duygusal zeka (2) değişkenleri ele alınmıştır. Çalışmalar çoğunlukla Ankara (7) ilinin tercih edildiği de ulaşılan sonuçlar arasında yer almaktadır.

Sonuçlar: Araştırma sonucu ülkemizde üstün yetenekli çocuklara yönelik araştırmaların yetersiz olduğu daha fazla çalışmaya gereksinim olduğunu göstermiştir.

Anahtar kelimeler*:* üstün zekâ; yetenekli çocuklar; zihinsel yetenek

ABSTRACT

Aim: As the main purpose of this science, the students targeted in the field of health in Turkey are related to the department, method, sampling method, sample, sample, for example, what kind of appearance is considered and relative with what appears in any way and a sampling method.

Methods: In the research, the document review method, one of the qualitative research methods, was used in order to examine the theses in depth, while content analysis was used in the analysis phase. The research covers the years 1995-2021. Research data were obtained from 10 postgraduate theses registered in the database of YÖK Thesis Search Center. A total of 10 theses were included in the research.

Results: According to the research data; 5 of these theses are master's thesis, 3 of them are doctorate and 1 of them is specialization thesis. As a result of these postgraduate theses research, the studies were mostly given in the postgraduate (7) thesis type. In the research, mostly quantitative research methods were used. The simplest random sampling method (3) was used as the sample selection method. The majority of the sample group consisted of secondary school children (5). In the research with gifted children; labeling (2), empathy (2) and emotional intelligence (2) variables were discussed. It is also among the results that the studies mostly preferred the province of Ankara (7).

Conclusion: The result of the research showed that there is a need for more studies in our country where research on gifted children is insufficient.

Keywords*:* giftedness; talented children; mental ability

Giriş

Zekâ bireydeki zihin sisteminin ve beynin birbiriyle etkileşimi sonucu ortaya çıkan birden fazla yönü olan olguyken (Ataman, 2012) yetenek, kişinin herhangi bir konuda potansiyel olarak iyi yapabileceği becerileri ifade eder (Altınöz, 2009). Alışılagelmiş anlayışta üstün yetenek/zekâ; standardize edilmiş testlerin sonucunda belirlenen bir zekâ puanının (130 ve üzeri IQ) üstü kabul görmüştür (Çitil & Ataman, 2018). Özel eğitim hizmetleri yönetmeliğine göre; "*zekâ, yaratıcılık, sanat, spor, liderlik kapasitesi veya özel akademik alanlarda akranlarına göre yüksek düzeyde performans gösteren bireydir*" (ÖEHY, 2006).

Özel ve üstün yeteneklilik; kişinin kalıtımsal niteliklerle var olan ve dış uyarıcılarla gelişen fiziksel gelişim ve büyüme, motor gelişimi, algı- dikkat kontrolü, sentez, analiz, problem çözme gibi zihinsel gelişim, alıcı ve ifade edici dil becerilerinde ilerleme gibi dil gelişim, duygusal, sosyal ve estetik gelişim alanlarından birinde/birkaçında veya tümünde farklı ölçme araçları ile gözlemle alanındaki uzmanlar tarafından ölçülebilir ve gözlenebilir, akranlarından ileride olması durumudur (Baykoç Dönmez, 2009).

Üstün yetenekli çocuklar ihtiyaçları ve özellikleri yönünden akranlarından farklılık gösterirler (Bekiroğlu & Levent, 2013). Bu bakımdan üstün yetenekli bireylerin özellikleri; Bilişsel gelişim, sosyal duygusal gelişim, kişilik gelişimi ve fiziksel gelişim başlıkları altında incelenmiştir.

Üstün yetenekli/zekâlı çocukların bilişsel özellikleri

Uyarıcılara karşı aşırı duyarlılık, dikkatli ve detaylı gözlem yeteneği, sorgulayıcı ve meraklı bir tutum, hayal gücü yüksek (Baykoç Dönmez, 2009), hızlı ve kolay öğrenme (Çitil & Ataman, 2018).

Üstün yetenekli/zekâlı çocukların sosyal duygusal özellikleri

Adaletsizlik karşısında fazla tahammülsüzlük ve aşırı tepki gösterme, başarılarından zevk alma, iş bilirliği kurma becerisi yüksek ve organizasyon yeteneği ileride olma (Baykoç Dönmez, 2009).

Üstün yetenekli/zekâlı çocukların kişilik özellikleri

Liderlik, meraklılık, kendine has olmak, üretkenlik, otoriterlik, mükemmeliyetçilik (Çitil & Ataman, 2018), kelime hazinesi gelişmiş, kitaplara ve okumaya karşı düşkünlük vardır (Baykoç Dönmez, 2009).

Üstün yetenekli/zekâlı çocukların fiziksel özellikleri

Güzel veya yakışıklı bir fiziki yapıda olma (Ataman, 2004; Çağlar, 2004; Enç, 2005), denge gerektiren işlerde oldukça başarılıdırlar (Davaslıgil, 2004). Akranlarından farklı özelliklere sahip bu bireylerin tanımlama süreci ülkemizde Bilim ve Sanat Merkezleri (BİLSEM) kapsamında değerlendirilmektedir. Tanılama ile ilgili aşamalar BİLSEM yönergesinde (MEB, 2007) belirtilen esaslara göre yapılmaktadır. Bu esaslar; Başvuru aşaması, aday gösterme aşaması, ön değerlendirme, test etme aşaması ve karar verme aşaması başlıkları altında toplanabilir.

Dünya ile ülkemizde üstün yeteneklilerin bütün nüfus içindeki oranları %2 olarak düşünülmektedir. Üstün yetenekli/zekâlı çocuklar farklı zamanda farklı kişilerce sınıflandırılmıştır. Aşağıdaki tablolar bu sınıflandırmalardan bazılarıdır.

Tablo 1. Üstün yetenekliler sınıflandırması (Gross, 2000)

Sınıflandırma	IQ Puanı	Yaygınlık
Hafif düzeyde üstün yetenekliler	115-129	1:40
Normal düzeyde üstün yetenekliler	130-144	1:40-1:1000
Çok üstün yetenekliler	145-159	1:1000-1:10000
Olağanüstü düzeyde üstün yetenekliler	160-179	1:10000-1:1milyon
Dahi seviyesinde üstün yetenekliler	180 ve üzeri	1:1 milyondan daha az

İnsanlar bireysel nitelikleri açısından birbirlerinden farklılık gösterdikleri gibi kişisel yetenekleri ve bilişsel özellikleri açısından da aynı biçimde farklılık gösterirler. Bir başka deyişle çevreden alınan veri ölçüsü ve verilerin alınmasında hız bakımından insanlar arasında farklılıklar vardır. Bu sebeple farklı olan bu kişiler için yetenekleri, ilgileri ve gereksinimleri doğrultusunda özel bir eğitim yapılması gerektiği anlayışı oluşur. Bu anlayış doğrultusunda insanlığın gelişmesinde önem arz eden ve yerüstü kaynakları olarak görülen "Üstün Yetenekli Çocuklar" içinde eğitim ayrı bir önem teşkil etmektedir. Üstün yeteneklilerin/zekâlıların eğitim sürecindeki yerine bakıldığında; geçmişte üstün zekâ gücünü felsefe sisteminde ilk vurgulayan eski Yunan filozofu Platon' dur. Platon'un "Devlet Adamı Felsefesi " adında bir düşüncesi vardır. Ülküsel Devlet isimli yapıtında toplumdaki kişileri altına, gümüşe, tunca ve bakıra benzetmiştir (Özsoy ve ark., 2001). Altın olarak nitelendirdiği kişiler bu toplumda, üstün yetenekli/zekâlı olanları temsil etmektedir. Platon' a göre; geleceğin düşünürlerini oluşturan bu grubun eğitim seviyesinin en üste kadar yükselmeli ve onlara toplum tarafından en iyi eğitim sağlanmalıdır. Günümüz de Amerika Birleşik Devletleri (ABD), İsrail, Çin, Almanya, Rusya,

Japonya, İngiltere gibi ülkeler başta olmak üzere üstün yeteneklilerin/zekâlıların eğitimi üniversite, özel okul ve vakıflarda yapılmaktadır. 1958 yılında ABD de çıkarılan özel bir yasa ile üstün yeteneklilerin/zekâlıların eğitimi konusunda destek sağlamıştır. Bizde ise Platon' un devlet adamı yetiştirmek amacıyla önerdiği eğitim sistemini Enderun Mektepleri ile ilk kez Osmanlı Devleti olmuştur. Dolayısıyla sistemli olarak üstün yeteneklilerin/zekâlıların eğitim kurumu sistemli olarak dünyada ilk defa Osmanlı Devleti tarafından gerçekleşmiştir (Uzun, 2004). Günümüzde üstün yetenekli/ zekâlı çocukların eğitim aldığı merkezler;

Bilim ve Sanat Merkezleri, Fen Liseleri, Anadolu Güzel Sanatlar ve Spor Liseleri, Türk Eğitim Vakfı İnanç Türkeş Özel Lisesi (TEVİTOL), Beyazıt Ford Otosan İlköğretim Okulu, Üstün Yetenekliler Eğitim ve Araştırma Merkezi, Anadolu Üniversitesi Üstün Yetenekliler Eğitim Programı (ÜYEP) şeklinde sıralanabilir (Şimşek, 2014). Üstün yetenekli/zekâlı çocuklara yönelik birçok çalışma olmakla beraber sağlık bilimleri alanlarında yapılan çalışmaların yetersiz olduğu düşünülmektedir. Bu doğrultuda bu araştırmanın amacı, Türkiye de "Sağlık bilimleri alanında üstün yetenekliler" ile ilgili lisansüstü tezlerin çok yönlü incelenmesidir. Bu amaç doğrultusunda aşağıdaki sorulara yanıt aranmıştır:

1. Çalışmaların yayın yılına göre dağılımı nasıldır?
2. Çalışmaların yapıldığı anabilim dalına göre dağılımı nasıldır?
3. Çalışmaların yapıldığı tez türüne göre dağılımı nasıldır?
4. Çalışmalarda kullanılan yöntemlerin dağılımı nasıldır?
5. Çalışmaların örneklem yöntemine göre dağılımı nasıldır?
6. Çalışmalarda yer verilen örneklem sayısına göre dağılımı nasıldır?
7. Çalışmaların örneklem grubuna göre dağılımı nasıldır?
8. Çalışmaların kullanılan veri toplama araçlarına göre dağılımı nasıldır?
9. Çalışmalarda üstün yetenekliler/zekâlılar ile birlikte ele alınan değişkenlere göre dağılımı nasıldır?
10. Çalışmaların yapılan il bakımına göre dağılımı nasıldır?

Çalışma sonuçlarının ilgili alanyazında yapılacak olan yeni araştırmalara katkı sağlayacağı düşünülmektedir.

Yöntem
Araştırma deseni

Sağlık bilimleri alanında üstün yetenekli/zekâlı çocuklar ilgili lisansüstü araştırmaları incelemeyi amaçlayan bu araştırmada içerik analizi ve doküman inceleme yöntemi kullanılmıştır. İçerik analizi yöntemi önceden yapılmış araştırmaları veya farklı dokümanları tematik olarak incelemeyi ve sistematik olarak raporlamayı amaçlayan araştırma tekniğidir.

Şimşek ve Yıldırım'a göre (2011); doküman incelemesi, araştırılması amaçlanan durum, olgu ve olgular hakkında verileri kapsayan yazılı materyallerin analizini içerir. Doküman incelemesinin içerik çözümlemesi ve genel tarama biçiminde iki farklı türü vardır. İçerik çözümlemesi belli bir kitap ya da belgenin belli birtakım niteliklerinin sayısallaştırılarak belirlenmesi gayesiyle yapılır (Karasar, 2005). Yapılan bu araştırmanın amacı da içerik çözümlenmesine uymaktadır.

Veri toplama süreci

Araştırmada verileri toplama tekniği olarak doküman incelemesinden faydalanılmıştır. Araştırmada 'üstün yetenek, üstün zekâ, sağlık bilimleri' anahtar kelimeleri seçilmiştir ve YÖK Tez Tarama Merkezi veri tabanında tarama yapılmıştır. Üstün

zekâ anahtar kelimesi sonuç vermezken diğer anahtar kelimeler sonucunda 10 teze ulaşılmıştır.

Çalışmalar araştırmacılar tarafından belirlenen kategorilere göre incelenip Excel dosyasına kaydedilmiştir.

Çalışma kriterleri:

- Çalışmaya sağlık bilimleri alanında yapılan çalışmalar.
- Ve Türkiye de yapılan çalışmalar araştırmaya dâhil edilmiştir.
- Araştırma YÖK Tez Tarama Merkezi ile kısıtlıdır.

Verilerin analizi

Bu araştırmada betimsel içerik analizi kullanılmıştır. Araştırmacılar tarafından tez türü, yayın yılı, ana bilim dalı, yöntem, örneklem yöntemi, örneklem grubu, örneklem sayısı, veri toplama araçları, birlikte ele alınan değişkenler ve il olmak üzere 10 kategori belirlenmiş ve kategorilere ayrılan veriler grafikler ile ifade edilmiştir.

Bulgular

Araştırmanın temel amacı, Türkiye'de sağlık bilimleri alanında üstün yetenekli çocuklarla ilgili yapılan lisansüstü tezlerin yılına, tez türüne, anabilim dalına, yöntemine, örneklem yöntemine, örneklem grubuna, örneklem sayısına, değişkenlere ve yapıldığı ile göre eğilimlerini bütüncül ve kapsamlı bir şekilde ortaya koymaktır. Bu amaç doğrultusunda bulgular tablolar halinde aşağıdaki şekilde verilmiştir.

Tablo 2. Araştırmaların yazar, yıl, tez türü ve anabilim dalı kategorilerine göre özeti

Yazar	Yıl	Tür	Anabilim Dalı
Kuru, A.	2017	YL	Çocuk Gelişimi ve Eğitimi
Saranlı, A. G.	2011	Doktora	Çocuk Gelişimi ve Eğitimi
Uyaroğlu, B.	2011	YL	Özel Eğitim
Gider, B.	2019	YL	Çocuk Gelişimi ve Eğitimi
Özcan, M.	2018	YL	Beden Eğitimi ve Spor
Tercan, H.	2018	YL	Çocuk Gelişimi ve Eğitimi
Bapoğlu Dümenci, S.	2018	Doktora	Çocuk Gelişimi ve Eğitimi
Yıldız, S.	2018	YL	Hemşirelik
Bencik Kangal, S.	2010	Doktora	Çocuk Gelişimi ve Eğitimi
Dağlıoğlu, H. E.	1995	Uzmanlık	Çocuk Gelişimi ve Eğitimi

Araştırmaların yıllara göre dağılımı

Veriler incelendiğinde; çalışmalar 1995, 2010, 2017 ve 2019 yıllarında %10 (1'er tane), 2011 yılında %20 (2 tane) ve 2018 yılında %40 (4 tane) oranında tez olduğu görülmüştür. Böylelikle en fazla tezin 2018 yılında yazıldığı görülmüştür.

Araştırmaların tez türüne göre dağılımı

Veriler incelendiğinde; çalışmaların %60'ını (6 tanesi) yüksek lisans, %30'u 3 tanesi doktora ve %10'u (1 tanesi) uzmanlık tezinden oluşmaktadır. Buna göre yüksek lisans seviyesinde yapılan araştırmalar çoğunluğu oluştururken detaylı çalışma yapan ve alana en fazla katkıyı sağlayacak doktora ve uzmanlık seviyesinde olanların %40'lık gibi az bir oranı oluşturması dikkat çekmektedir. Bu veriler, Türkiye'de üstün yetenekliler/zekâlılar ile ilgili olarak doktora ve uzmanlık seviyesinde oldukça sınırlı sayıda araştırma gerçekleştirildiği görülmüştür.

Araştırmaların anabilim dalına göre dağılımı

Veriler incelendiğinde; çalışmalarda özel eğitim, hemşirelik ve beden eğitimi ve spor anabilim dallarında 1'er tane, çocuk gelişimi ve eğitimi anabilim dalında 7 tane tez olduğu görülmüştür.

Tablo 3. Araştırmaların yazar, yöntem, örneklem yöntemi, örneklem grubu kategorilerine göre özeti

Yazar	Yöntem	Örnekleme Yöntemi	Örneklem Grubu
Kuru, A.	İlişkisel tarama	Küçük grup	10-14 yaş
Saranlı, A. G.	Yarı deneysel desen	Amaçsal	9-11 yaş ve ebeveynler
Uyaroğlu, B.	Belirtilmemiş	Belirtilmemiş	9- 11 yaş
Gider, B.	Deneysel desen	Rastgele	10 yaş
Özcan, M.	Tarama modeli	Gönüllüler	Öğrenciler
Tercan, H.	Karma	Basit seçkisiz ve amaçsal	10-13 yaş ve ebeveyn
Bapoğlu Dümenci, S.	Karma	Basit tesadüfi	11-12 yaş
Yıldız, S.	Karşılaştırmalı-tanımlayıcı	Örneklem seçimi yapılmamış	8-11 yaş ve ebeveyn
Bencik Kangal, S.	Tarama ve betimsel	Belirtilmemiş	12-13 yaş
Dağlıoğlu, H. E.	Belirtilmemiş	Belirtilmemiş	8,9,10-11 yaş

Araştırmaların yönteme göre dağılımı

Veriler incelendiğinde; çalışmaların %20'sinin (2 tanesi) yönteminin belirtilmediği, karma ve tarama betimsel araştırma yöntemlerinden %20'sinin (2'şer tane) ve deneysel desen, ilişkisel tarama, karşılaştırmalı grup tanımlayıcı, tarama modeli ve yarı deneysel desen yöntemlerinden %10'ar (1'er tane) tez olduğu görülmüştür.

Araştırmaların örneklem yöntemi göre dağılımı

Veriler incelendiğinde; çalışmaların %10'unda (1 tanesi) örneklem seçme yoluna gidilmemiş. Amaçsal, basit seçkisiz ve amaçsal, gönüllüler, küçük grup ve rastgele örneklem seçme yöntemlerinden %10'luk (1'er tane), basit tesadüfi örneklem yönteminde %30 (3 tane) tez çalışması olduğu görülmüştür.

Araştırmaların örneklem kademesine göre dağılımı

Veriler incelendiğinde; çalışmaların %10'ununda (1 tanesi) örneklem grubunun belirtilmediği; ortaokul ve lise kademesinde %10 (1 tane), çocuklar ve ebeveynlerle %30 (3 tane), ortaokul kademesinde %50 (5 tane) tez çalışması olduğu görülmüştür.

Araştırmaların örneklem sayısına göre dağılımı

Veriler incelendiğinde; çalışmalarda örneklem sayısı 0-100 arasında olan %40 (4 tane), 101-200 / 201-300 / 301-400 arasında olan %20 (2'şer tane) ve 400 üstü olan %10 (1 tane) çalışma olduğu görülmüştür.

Veri toplama araçlarına göre dağılımı

Veriler incelendiğinde; çalışmaların %70'inin (7 tanesinde) bilgi toplama formu, %20'sinde (2 tanesinde) yarı yapılandırılmış görüşme veri toplama araçları kullanıldığı görülmüştür.

Araştırmaların yapılan illere göre dağılımı

Veriler incelendiğinde; çalışmaların %70'inin (7 tanesi) Ankara, %10'ar (1'er tanesi) İstanbul, Samsun, Kırıkkale illerinde yapıldığı görülmüştür. Bu da çalışmalarda büyük ve merkez illerin önemini göstermiştir.

Tablo 4. Araştırmaların yazar ve birlikte ele alınan değişkenler kategorisine göre özeti

Yazar	Birlikte Ele Alınan Değişkenler
Kuru, A.	Etiketlenme durumu, benlik saygısı ve empati düzeyi
Saranlı, A. G.	Aile rehberliği programlarının etkililiği
Uyaroğlu, B.	Empati becerileri, duygusal zekâ düzeyleri, anne baba tutumları
Gider, B.	Bireysel ve işbirlikli dijital öyküleme uygulamaları, yazma performansı ve dil gelişimi
Özcan, M.	Beden eğitimi ve spor dersine yönelik tutumlar
Tercan, H.	Etiketlenme algıları, duygusal zekâ yeterlilikleri
Bapoğlu Dümenci, S.	Akran ilişkisi, sosyal beceri eğitim programı etkisi
Yıldız, S.	Akranlarının algıladıkları ebeveyn tutumları, psikososyal sorunlar, yaşam kalitesi
Bencik Kangal, S.	Ahlaki yargılarının karşılaştırılması, yaratıcı drama programının çocukların ahlaki yargılarına etkisi
Dağlıoğlu, H. E.	Üstün yetenekli çocukların belirlenmesi

Araştırmaların birlikte ele alınan değişkenlere göre dağılımı

Veriler incelendiğinde, çalışmalarda daha çok etiketlenme durumu, empati becerileri ve duygusal zekâ düzeylerinin üstün yetenekli çocuklara beraber ele alınan değişkenler olduğu görülmüştür.

Tartışma

Özel eğitim hizmetleri yönetmeliğine göre; "*zekâ, yaratıcılık, sanat, spor, liderlik kapasitesi veya özel akademik alanlarda akranlarına göre yüksek düzeyde performans gösteren bireydir*" (ÖEHY, 2006). Bu doğrultuda bu araştırma da; "Sağlık bilimleri alanında Üstün Yetenekliler" ile ilgili lisansüstü tezlerin yayın yılı, anabilim dalı, tez türü, yöntem, örneklem yöntemi, örneklem sayısı, örneklem grubu, veri toplama araçları, birlikte ele alınan değişkenler ve il bakımında inceleme yapılması amaçlanmıştır. Araştırmanın verileri incelendiğinde ülkemizde sağlık bilimleri alanında yapılan üstün yetenekli bireylerle alakalı tezlerin çoğunlukla yüksek lisans alanında olduğu görülmüştür.

''*Türkiye'de üstün yetenekli öğrencilerle ilgili yapılan lisansüstü eğitim tezlerinin çok boyutlu olarak incelenmesi.*'' isimli benzer bir çalışma yapan Özenç ve Özenç'te (2013) tez türü bakımından incelediği çalışmada yüksek lisans düzeyinde yapılan tezlerin çoğunlukta olduğunu bulmuştur. Tezlerin çoğunlukla çocuk gelişimi ve eğitimi ana bilim dalında yapıldığı görülmüştür. Özenç ve Özenç'in (2013) ''*Türkiye'de üstün yetenekli öğrencilerle ilgili yapılan lisansüstü eğitim tezlerinin çok boyutlu olarak incelenmesi.*'' isimli benzer çalışmasında da aynı sonuca ulaşılmıştır. Sağlık bilimleri alanında yer alan çocuk gelişimi ve eğitimin özel çocuklarla ilgilendiği göz önüne alındığında bu sonuç aslında beklendik bir durumdur. Genellikle 2018 yıllarında yapılan bu araştırmalarda karma ve betimsel araştırma yöntemlerinin çoğunlukla kullanıldığı görülmüştür.

Dağlıoğlu ve Suveren'de (2013) yaptıkları araştırmada, 1992 yılında BİLSEM'lerin kurulmasıyla birlikte üstün yetenekliler alanında yapılan çalışmaların yoğun artış gösterdiği sonucuna ulaşmışlardır. Çalışmada tez araştırmalarının çoğunlukla

Tablo 5. Araştırmaların yazar, örneklem sayısı, veri toplama aracı kategorilerine göre özeti

Yazar	Örneklem Sayısı	Veri Toplama Aracı	Yapılan İl
Kuru, A.	366	Kişisel bilgi formu, üstün zekâ etiket etkileri ölçeği, Cooper Smith özsaygı envanteri, KA-Sİ empatik eğitim ölçeği- ergen formu	İstanbul
Saranlı, A. G.	20	Aile bilgi formu, aile değerlendirme ölçeği, Hacettepe ruhsal uyum ölçeği, çocuklar için sosyal desteği değerlendirme ölçeği, üstün yetenekli çocukların ailelerinin eğitim ihtiyaçlarını anlamaya yönelik ihtiyaç analizi soru formu, üstün yetenekli çocukların anne babalarına yönelik odak grup görüşmeleri soru formu	Ankara
Uyaroğlu, B.	156	Kişisel bilgi formu, EQ-NED duygusal zeka ölçeği, çocuklar için empati ölçeği, aile hayatı ve çocuk yetiştirme tutumu ölçeği	Ankara
Gider, B.	18	Yazma performansı değerlendirme ölçeği, Peabody resim kelime testi	Kırklareli
Özcan, M.	487	Beden eğitimi ve spor dersine yönelik tutum ölçeği	Samsun
Tercan, H.	130	Bilgi formu, duygusal zekâ yeterliliklerini kullanma sıklığı ölçeği, üstün yeteneklilerin etiketlenme algısını belirleme ölçeği, yarı yapılandırılmış görüşme formu	Ankara
Bapoğlu Dümenci, S.	18	Bilgi formu, akran ilişkileri ölçeği, ihtiyaç belirleme formu, yarı yapılandırılmış görüşme	Ankara
Yıldız, S.	249	Bilgi formu, anne baba tutum ölçeği, resimli psikososyal ve davranış sorunları kontrol listesi, 5-7 ve 8-12 yaş arası çocuklar için yaşam kalitesi ölçeği	Ankara
Bencik Kangal, S.	304	Bilgi formu, ahlaki yargılar envanteri	Ankara
Dağlıoğlu, H. E.	294	Öğretmen gözlem formu, genel yetenek testi, Wisc-r çocuklar için zekâ testi	Ankara

ortaokul kademesinde olduğu görülmüştür. 'Üstün yetenekliler alanında yapılan tezlerin incelemesi' konulu bir başka çalışmada da benzer şekilde çalışmaların çoğunlukla ortaöğretim kademesinde ki bireylerle yapıldığı görülmüştür (Kardeş ve ark., 2018). Üstün yetenekli bireylerle ilgili değerlendirmelerin çoğunlukla IQ testlerini de akademik becerilerinde yoğunlaştığını gördüğümüzde bu sonucunda beklendik bir durum olduğu görülmüştür. Alt kademelerin değerlendirilmelerin daha zor olduğu ve buna yönelik ölçekleri az olduğu düşünülmektedir.

Sonuç ve Öneriler

Araştırma sonucunda en çok yüksek lisans (%60) tez türünde çalışma olduğu görülmüştür. İlk çalışma 1995 yılında yapılmakla beraber en fazla 2018 (%40) yılında çalışma yapıldığı görmüştür. Çalışmaların %70'i çocuk gelişimi ve eğitimi anabilim dalında yapılmıştır. Araştırmalarda 2 tezin yöntemi belirtilmemekle beraber en çok Karma (%20) ve tarama-betimsel (%20) araştırma yöntemleri kullanıldığı görülmüştür. Çalışmalarda örneklem seçme yöntemi olarak en fazla basit tesadüfi (%30) örneklem yöntemi kullanıldığı görülmüştür. Örneklem kademelerine bakıldığında çalışmaların çoğunlukla ortaokul (%50) kademesine yönelik yapıldığı görülmüştür. Örneklem sayıları olarak en fazla 0-100 (%40) arasında kişiyle görüşülmüştür. Üstün yetenekli çocuklara yönelik yapılan çalışmalarda birlikte ele alınan değişkenlerin etiketlenme (%20), duygusal zekâ (%20) ve empati (%20) olduğu görülmüştür. Veri toplama araçlarında en çok bilgi formu (70) olduğu görülmüştür. Çalışmaların daha çok Ankara (%70) ilinde yapıldığı görülmüştür.

Bu sonuçlar doğrultusunda öneriler aşağıda verildiği gibidir:

- Doktora ve uzmanlık alanındaki araştırmacılar bu konuya yönelik araştırmalara araştırmacılar tarafından yönlendirilebilir.
- Sağlık bilimleri alanında yapılan ilk çalışma 1995 olmakla beraber son 3 yılda bu alana yönelik çalışma yapılmadığı ve günümüze kadar 10 tane tez çalışması yapıldığı görülmüştür. Üstün yeteneklilerle ilgili güncel sağlık çalışmaları yetersiz olduğu düşünülmektedir. Alandaki araştırmacıların danışmanlar tarafından yönlendirilebilir.
- Daha çok çocuk gelişimi ve eğitimi alanında çalışmalar yapılmıştır. Diğer alandaki kişilerle multidisipliner çalışmalar yapılabilir.
- Ülkemizin farklı bölgelerinde de üstün yetenekli/zekâlı çocuklar olduğu bilinmektedir. Daha çok Ankara ili odaklı çalışmalara yer verilmiş. Diğer illerimizde de benzeri çalışmalar yapılabilir.

Araştırma tez türü, yayın yılı, ana bilim dalı yöntem, örneklem yöntemi, örneklem grubu, örneklem sayısı, veri toplama araçları, birlikte ele alınan değişkenler ve il açısından incelenmiştir. Araştırma sonucunda ülkemizde bu konuya yönelik araştırmaların yetersiz olduğu daha fazla çalışmaya gereksinim olduğunu göstermiştir.

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