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Research Article

Examination of the Effect of Positive Psychology-based Group Counseling on Lying Tendencies[*]

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Abstract

This study was carried out to apply positive psychology-based group counseling activities, which were prepared to reduce the tendency of 7th grade students to lie and created considering Turkish-Islamic cultural values, and to test the effectiveness of the activities. In the quantitative part of the study in which the mixed method design was preferred, a quasi-experimental design consisting of experimental, control, and placebo groups was used. The quantitative phase of the study was carried out with 68 students, 22 of whom were in the experimental group, 24 in the control group, and 22 in the placebo group, studying in a secondary school in Gaziantep where permission for the study was obtained. The study group for the quantitative stage of the study was determined by the analogous cluster sampling method. The lying tendency scale and the assertiveness inventory were used as data collection tools for this stage. The study group at the qualitative stage, which was completed by performing a case study, was determined using the criterion sampling method and was carried out with the teachers and parents of the experimental group. In the qualitative part of the study, a structured interview form was used as a data collection tool. The study found a significant difference in the lying of the experimental group, no significant difference in the lying tendency of the control and placebo group, significant differences between the difference scores of the groups' lying tendencies, and a significant difference in the assertiveness scores of the placebo group.

Keywords:
Lying, positive psychology, group counseling activities

Pozitif Psikoloji Temelli Grup Rehberliğinin Yalan Söyleme Eğilimlerine Etkisinin İncelenmesi

Öz

Bu çalışma 7. sınıf öğrencilerinin yalan söyleme eğilimlerini azaltmaya yönelik olarak hazırlanan, Türk İslam kültür değerlerine duyarlı bir şekilde oluşturulan pozitif psikoloji temelli grup rehberlik etkinliklerini uygulamak ve uygulanan etkinliklerin etkililiğini sınamak amacıyla gerçekleştirilmiştir. Karma yöntem deseninin tercih edildiği çalışmanın nicel kısmında deney, kontrol ve plasebo gruplarından oluşan yarı deneysel desen kullanılmıştır. Çalışmanın nicel aşaması, Gaziantep ilinde uygulama izni alınan bir ortaokulda öğrenim gören 22'si deney, 24'ü kontrol ve 22'si plasebo olmak üzere 68 öğrenci üzerinde yürütülmüştür. Nicel aşamaya ait çalışma grubu, benzeşik küme örnekleme yöntemi ile belirlenmiştir. Nicel kısımda veri toplama aracı olarak, yalan söyleme eğilimleri ölçeği ile atılganlık envanteri kullanılmıştır. Durum çalışması gerçekleştirilerek tamamlanan nitel aşamadaki çalışma grubu, ölçüt örnekleme yöntemi ile belirlenmiş ve deney grubunun öğretmenleri ile velileri üzerinde yürütülmüştür. Nitel kısımda veri toplama aracı olarak yapılandırılmış görüşme formu kullanılmıştır. Araştırma bulgularında deney grubunun yalan söyleme eğilimlerinde anlamlı bir farklılık olduğu, kontrol ve plasebo gruplarının yalan söyleme eğilimlerinde anlamlı bir farklılık olmadığı, grupların yalan söyleme eğilimlerine ait fark puanları arasında anlamlı farklılıklar olduğu ve plasebo grubunun atılganlık puanlarında anlamlı bir farklılık olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler:
Yalan söyleme, pozitif psikoloji, grup rehberlik etkinliği

Based on the availability of information and acceptance of individual differences, there is not one generic solution for personal problems, but unique individual solutions. The unique strengths of a person arise from their character. A new method used by positive psychology argues that there should be preventive services beyond treatment-centered, and emphasizes that character strengths should be used before or after the encountered problem. Although it has not been completely named, the concept of "human transcendental experiences" expressed by James in the early 1900s and the views that these experiences can stimulate the most appropriate functioning of the human organism (Rathunde, 2001 as cited by Linley & Joseph, 2004) can be referred to as positive psychology. In addition, Maslow's ideas suggesting a new method emphasizing an eclectic approach exhibiting a structure that will expand the scope of existing trends in psychology (Maslow, 1954) demonstrate the historical background of positive psychology. Conceptualization of the issue coincides with the early 2000s. Seligman and Czikszentmihalyi, who thought the structure of psychology that places pathology at its center should be re-evaluated, have suggested that studies on strengthening the current situation could be a technique to eliminate existing problems. On the other hand, it is stated that the things that make life worth living will increase by focusing on the strong character traits of the individual, and thus there should be studies showing that the problem can be prevented (Aspinwall & Staudinger, 2003). Positive psychology believes that humans have a natural potential (Bugental, 1964, as cited by Linley & Joseph, 2004) and aims to discover human virtues with their strengths and character, thus creating an alternative to psychological approaches that focus on the weaknesses of humans (Marujo & Neto, 2014). In fact, the question is: "How can I be happy?" instead of "What can I do now, am I depressed?" (Driver, 2011). Treatment is defined as not just fixing what is broken; it is nurturing what is best (Seligman & Csikszentmihalyi, 2000). In this regard, the aim of positive psychology is repairing the worst things in life and building positive qualities (Seligman & Csikszentmihalyi, 2000).

Human beings have sought ways to be happy since the day they were created. Positive psychology uses the concepts of self-realization, satisfaction, harmony, quality of life, and well-being in this pursuit of happiness. In other words, achieving happiness is possible with a focus on these concepts in life. The concept of happiness is the excess of positive thoughts and feelings about the life of the individual; it is also the sum of the experiences and positive emotions from life (Kangal, 2013). Happiness of individuals and their psychological state are positively related and positive psychology-based interventions contribute positively to this happiness (Sin & Lyubomirsky, as cited by Parks & Schueller, 2014). Diener and Fredrickson reported that a happy person is someone who tends to be happier or more positive (Solano, 2014). The concept of self-realization includes self-honesty, self-confidence, being authentic and natural, and contemplation of the work done (Maslow, 2001). When viewed within the context of positive psychology, it includes an individual's moments of awe, showing kindness, and enjoying the work done (Peterson & Seligman, 2004). Honesty, self-confidence, authenticity, naturality, showing kindness,

and awe for the work done prove the wisdom of the person. Wisdom is related to the experiences of life and to making an effort, self-improvement, and self-realization (Ardelt, 1997 as cited by Scheibe, Kunzmann, & Baltes, 2009 as cited by Compton & Hoffman, 2013). When satisfaction is viewed from the perspective of psychology, the concepts of life satisfaction and enjoying life come to mind, both of which mean that the individual is satisfied with his/her conditions of life and has the joy of living (Akın & Yalnız, 2015). Subjective well-being is the ability of the individual to evaluate the experiences of life positively and to display positive feelings about negative experiences (Diener at al., 1999 as cited by Ruini, 2017). Studies have found that satisfaction directly contributes to well-being (Cheetham, Williams, & Bednall, 2016). Kabakçı (2013) stated that enjoying life (satisfaction) significantly predicts subjective well-being. Man is a bio-social being and must meet his physiological, psychological, and social needs in order to survive. Meeting needs is related to an individual's adaptation level (Avşaroğlu & Üre, 2007) and positive or negative emotions experienced during this adaptation process affect happiness. Quality of life, another factor affecting happiness, is an indicator of an individual's satisfaction from life. It emerges depending on the individual's evaluation of their life as happy, high quality, and ideal, and is built on emotional foundations. Positive feelings about life increase life satisfaction (Korkmaz, Germir, Yücel, & Gürkan, 2015). Studies have found that quality of life plays a role in happiness. Akyüz, Yaşartürk, Aydın, Zorba, & Türkmen (2017) report that as quality of life increases, the level of happiness increases, and Korkmaz, Germir, Yücel, & Gürkan (2015) note that there is a causal relationship between personal and family happiness, and the factors of happiness, satisfaction, and hope. The concept of flow, which has an important place in the theory of positive psychology, expresses the situations where time passes rapidly and a person's attention is completely directed to an activity (Lopez, 2008). Flow, the moment when the person is not involved in anything else and the spontaneous feeling of focusing on the situation (Barker & Galajda, 2016), is composed of interpersonal relationships and quality of life, the ability to break out of life's patterns, and having a unique personality (Csikszentmihalyi, 1997). To establish flow completely and make the experience enjoyable, finding clear goals, having instant feedback on one's actions, a balance between difficulties and skills, the need to combine action and awareness, concentration, lack of concern for failure, loss of self-consciousness within the framework of the work done, disappearance of the feeling of time, and the events be authentic is required (Csikszentmihaly, 2007). Flow is, first of all, a subjective state in which even the activity itself is totally forgotten. Its peculiarity is intense experiential participation in an instant activity. Attention is fully invested in the task at hand and the person works at full capacity (Csikszentmihalyi, 2014). The concept of flow is defined as concentrating one's attention by focusing on the job they do and it is supported in counseling by focusing on character strengths. Studies conducted by Peterson and Seligman have noted that focusing on strengths makes it easier to overcome existing problems. Within this framework, The Via Classification of Strengths (VIA), which consists of six virtues and twenty-four character strengths, has been developed.

The VIA ensures that the strengths of the individual are systematically absorbed in the character (Lopez, 2009). Thus, the positive aspects are supported and the effect of weaknesses that the person sees as a problem in their life is reduced.

Table 1.
VIA (The Via Classification of Strengths) (Peterson & Seligman, 2004)

1. Wisdom: Cognitive strength that entails the acquisition and use of knowledge.
    *1.1. Creativity (originality, ingenuity):*Thinking of novel and productive ways to conceptualize and do things. It includes artistic achievement but is not limited to it.
    1.2. Curiosity (interest, novelty-seeking, openness to experiences): Taking an interest in ongoing experiences. It refers to exploring fascinating topics.
    1.3. Judgment (open-mindedness; critical thinking): Thinking things through and examining them from all sides; being able to change one's mind in light of evidence; weighing all evidence fairly.
    1.4. Love of Learning: This refers to strength of character and curiosity about mastering new skills; tendency to add systematically to what one knows.
    1.5. Perspective (wisdom): Being able to provide wise counsel to others; having
    1.6. ways of looking at the world that make sense to oneself/others
2. Courage: Emotional strength to accomplish goals. It involves one's exercise of will.
    *2.1. Bravery (valor):*Strength of character that means speaking up for what's right even if situations encountered include threats, difficulty, pain, or challenges. It
    includes physical bravery but is not limited to it.
    2.2. Perseverance (persistence, industriousness): Being able to finish what one starts and to persevere in a course of action despite obstacles.
    2.3. Honesty (authenticity, integrity): Speaking the truth but more broadly presenting oneself genuinely and acting in a sincere way. Being without pretense, seeming the way one is. It refers to taking responsibility for one's feelings and actions.
    2.4. Zest (vitality, enthusiasm, vigor, energy): Approaching life with excitement and energy; not doing things halfway or halfheartedly; feeling alive.
3. Humanity: Interpersonal strength that involves tending to and befriending others.
    3.1. Love: Valuing close relations with others, in particular, those in which sharing and caring are reciprocated. Being close to people.
    3.2. Kindness (generosity, care, compassion, altruism): Strength of character that includes doing favors and good deeds for others, helping them, and taking care of them.
    *3.3. Social Intelligence (emotional intelligence, personal intelligence):*Being aware of the motives/feelings of others and oneself. Knowing what to do to fit into different social situations.
4. Justice: Civic strength that underlies healthy community life.
    4.1. Teamwork (citizenship, social responsibility, loyalty): Strength of character that requires working well as a member of a group or team, being loyal to the group, and doing one's share.
    4.2. Fairness: Treating all people the same according to notions of fairness and justice. Not letting feelings bias decisions about others.
    4.3. Leadership: Encouraging a group of which one is a member to accomplish goals.
5. Temperance: Strength that protects against excess.
    5.1. Forgiveness: Being able to forgive the mistakes made by accepting the shortcomings of others in interpersonal relationships. It requires not being vengeful.
    5.2. Modesty: Not regarding oneself as more special than one is.
    5.3. Prudence: Being able to be careful about one's choices. Not saying or doing things that might later be regretted.
    *5.4. Self-Regulation (self-control):*Regulating what one feels and does. It requires being disciplined and controlling one's emotions
6. Transcendence: Strength that forges connections to the universe and provides meaning.
    6.1. Appreciation of Beauty and Excellence: Noticing and appreciating beauty, excellence, and/or skilled performance in various domains of life.
    6.2. Gratitude: Being aware of and thankful for the good things that happen.
    6.3. Hope (optimism, future-mindedness, future orientation): Expecting the best in the future and working to achieve it and believing that a good future is something that can be brought about.
    6.4. Humor Being able to do something that makes other people laugh.
    6.5. Spirituality (religiousness, faith, purpose): Having coherent beliefs about the meaning of life that shape conduct and provide comfort.

In positive psychology, character strengths are used to strengthen weaknesses by supporting the forces present in the character of the person, in contrast to the approach of defining personality problems and discomfort symptoms (Chu & Chao, 2015). A study conducted with high school students reported that character strengths significantly predict a person's well-being, resilience levels, and academic achievement (Kabakçı, 2013), while another study carried out with participants with more severe problems found that supporting character strengths leads to noticeable improvement related to positive relationships and self-acceptance (Meyer, Johnson, Parks, Iwanski, & Penn, 2012). It is a reality that human beings have been in contact with other people since the day they existed. It can be argued that the strengths and weaknesses of the person's perspective on life affect this communication. If evaluated in this context, the concept of honesty can emerge as an indispensable necessity of communication. Achieving honesty seems possible by not lying.

The word lie—"*yalan*" in Turkish etymologically evolved from "*yalgan*" to "*yalkan*" to "*yalan*" (Erdal, 2016)—is a verb meaning to hide the truth, to distort the truth, or to claim that something exists that does not. A person who displays this behavior or adopts it as a habit is called a liar (Soysaldı, 2005). The purpose of this behavior, displayed with the aim of providing material or spiritual benefit, is to purposefully and willingly deceiving the other person (Girişken, 1974). It is a situation that depends on verbal or non-verbal statements (Isenberg, 1964, as cited by Druzin & Li, 2017). The relevant literature classifies lying behavior into three categories: lies of deception, pathological lies, and white lies; lies of deception are divided into eight different categories. Although the types of lies described as pathological lies and white lies also include the act of deception, these two types of lies differ from lies of deception in terms of the purpose of lying and the presence of mental distress. A situation where a person does not tell what they know to another person is considered a lie of silence since there is the quality of deceiving the other person by staying silent (Ekman, 1992). Lies told to overcome undesirable situations by bragging and inventing excuses are viewed as lies of defense (Goleman, 1999). Imaginary lies that emerge in cases where right and wrong cannot be distinguished in time and space are common behaviors seen especially during childhood. Social lies told as a result of not being able to control and socialize one's own behavior (Koç, 2007) can be described as lies that are conveyed from person to person when people who are models show false behaviors. An individual can learn that they can lie and overcome difficult situations they encounter in social situations. Later, they do not see any problem in applying this solution in their life (Uzun, 2011). Lies told for the purpose of being liked (Uzun, 2011) based on a desire of being included in a group or admired are described as extolled lies. Gossip lies, nurtured from feelings such as hostility and jealousy (Karpman, 1949), are defined as talking about a person in order to cause harm. Pathological lies, which differ in terms of deceiving the individual themselves as well as others, damage both the other person and the development and personality of the person telling the lie (Ford, 1997). Pathological lies are the expressions of those who

place lies at the center of their life, whose reason is based on neurological disorders, or who see lying as a reason for pleasure (Samsakçı, 2015). Examples of pathological lies include narcissistic personalities' being more prone to lying (Ford, 1997) and showing symptoms close to pathological lying (Tura, 2005), the presence of continuous lying among the diagnostic criteria of antisocial personality disorder (DSM IV-R), hysterics' telling lies unnecessarily to draw the attention of others (Köroğlu & Bayraktar, 2010), paranoids' resorting to lying behavior by ignoring all contrary evidence because they think that they are constantly being manipulated (Butcher, Mineka, & Hooley, 2013), and making up false information based on confabulation emerging unintentionally (Gündoğar &e Demirci, 2007). There are studies reporting that lying is simply regarded as an unwanted behavior (Özer, Bozkurt & Tuncay, 2005; Ünal, 2006; Şehirli, 2007; Yaman, Mermer, & Mutlugil, 2009), as well as being a behavioral problem (Kanlıkılıçer, 2005; Şehirli, 2007). Within the context of positive psychology, character strengths of the individual—self-acceptance, justice, courage, forgiveness, gratitude, and patience—can reduce lying behavior.

Method

Research Design

In the study, the mixed method was preferred as a research model to examine the structures more deeply (Edmonds & Kennedy, 2017), to focus on the feelings and thoughts of the participants, and to provide ease of generalization about a large group (Creswell & Clark, 2014). Qualitative data were collected to determine the effectiveness of positive psychology-based group counseling, which was prepared within this framework. This method, described as explanatory sequential design, aims to follow quantitative results with qualitative data (Edmonds & Kennedy, 2017) to explain the quantitative results in more detail (Edmonds & Kennedy, 2017).

In the first part of the study, quantitative research methods included a quasi-experimental pre-test/post-test design with experimental, control, and placebo groups. In the second part, specific results were sought to support the quantitative data obtained and a qualitative follow-up study was performed. In this context, qualitative data were collected after the experimental process to determine whether the applied program was effective. Experimental designs aim to determine cause-and-effect relationships between variables (Büyüköztürk, 2011). The design of the experiment can be defined as a 3x2 mixed pattern. In the design, the first factor showed implementation groups (experimental, control, and placebo) and the second factor showed the repeated measures (pre-test, post-test). The dependent variable of the design was students' tendency to lie; the independent variable was group counseling activities based on positive psychology, which is the experimental process whose effect was tested. Before the procedures, the lying tendency scale was

administered to the experimental and control groups and the lying tendency scale and the assertiveness inventory were administered to the placebo group. After the pre-test, students in the experimental group were engaged in positive psychology-based group counseling activities (15 sessions) prepared by the researcher and the placebo group undertook an assertiveness training program (10 sessions) prepared by (Ugürol, 2010). The control group did not participate in any activity during this period. After the procedure was applied to the experimental and placebo groups, the lying tendency scale was administered to the experimental and control groups as the post-test; the students in the placebo group took the lying tendency scale and the assertiveness inventory. In the second part of the study, a case study, a qualitative research method, was used to evaluate the subject matter or events from a holistic perspective (Yıldırım & Şimşek, 1999). In this framework, opinions of the teachers and parents of the students in the experimental group about the applied program were obtained using interviews and the effect of the program was evaluated.

Study Groups

The study group for the quantitative stage of the study was determined by the analogous cluster sampling method. The study group included 7th grade students of a secondary school in Gaziantep, where permission to conduct the study was obtained, forming the analogous subgroups needed for the sampling method (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2014). The group matching method was preferred as it was not possible to impartially assign the groups. Since the students in the groups were in the same grade, the groups were equal in age; they were also equal in socio-economics as they were from the same neighborhoods in the enrollment area. To create group matching, one class was determined as the experimental group (class 2), one class the control group (class 4), and one class the placebo group (class 6) between the branches in 7th grade by drawing lots and using the random sampling method.

The study groups in the quantitative part of the study were determined using the criterion sampling method. This sampling technique aims to review and examine all cases that meet some predetermined criteria (Patton, 2015). In this context, it is possible to examine all cases that meet a predetermined set of criteria (Yıldırım & Şimşek, 1999). Teachers who taught the lessons to the experimental group for at least one semester for more than two hours per week were included in the study. Parents who actively participated in the social post-sharing group created during the study process and agreed to participate in the study were included in the study.

Data Collection Tools

The "Lying Tendency Scale" and "Assertiveness Inventory" were used as data collection tools in the study.

Lying Tendency Scale

The lying tendency scale was developed by Ulusoy (2020) and it consists of two dimensions: lying for social reasons and lying for emotional reasons. The scale comprises 23 statements to which responses are given according to a five-point Likert-type scale. Participants' responses to the items of the scale are given as "never=1", "seldom=2", "sometimes=3", "usually=4", and "always=5". No item is reverse-scored in the scale; the minimum score is 23 and the maximum score is 115. High scores indicate that the student's tendency to lie increases. Similar scoring methods are applied to the subdimensions. The content validity ratio (CVR) of the scale was .51, the content validity index (CVI) was .76, and the Kaiser-Meyer-Olkin (KMO) value was .91. According to the exploratory factor analysis (EFA) results, the explained variance of the scale was 42.8 (n=391). According to the confirmatory factor analysis results (CFA), the two-factor structure of the scale was verified in a sample of middle school students. In this context, the fit indices were x^2/sd=2.44; RMSEA=.056; SRMR=.045; TLI=.903; and CFI=.914. To determine the criterion validity of the scale, the social phobia scale was used for children and adolescents and statistically significant positive correlations were found between the scales (r=.309, p<.05). The reliability of the scale was determined using the Cronbach's alpha coefficient. The internal consistency coefficients were calculated as α=.913 for the entire scale, α=.887 for the lying for social reasons, and α=.844 for the lying for emotional reasons subscales. As a result of the test-retest reliability, statistically significant relationships were found between all the subscales and total scale scores. The lowest relationship was in the lying for emotional reasons subscale (r=.561; p<.001) and the highest was in the lying for social reasons subscale (r=.796; p<.001). The relationship between the total scores obtained from the scale in terms of the 1st and 2nd practice was significant (r=.768; p <.001).

Assertiveness Inventory

The assertiveness inventory consists of 45 items. There are nine reverse-scored items (4, 9, 13, 18, 22, 27, 31, 36, and 40) in the scale and responses are given as no=1 and yes=0. The minimum and maximum scores on the scale are 14 and 45, respectively. As the score approaches 45, assertiveness increases. The relationship between the scores of 100 participants who had timid and assertive characteristics during the scale development phase was .74. Based on this, item analysis was carried out. The reliability coefficient was .72 and the stability coefficient was .80 (Erdoğan & Uçukoğlu, 2011).

Teacher and Parent Interview Forms

Teacher and parent interview forms were prepared on the basis of the aims of the positive psychology-based group counseling activities program and the relevant literature. A draft of the form was checked by an expert in the field and a linguist, the

questions were carefully prepared to be clear and understandable, and it was designed to allow the participants to express their experiences in detail. Specific questions were prepared, a directive manner was avoided, and one-dimensional questions were asked. Probes were used so that experiences could be expressed in detail.

Data Analysis

Parametric tests were used for the data that met the assumption of normality obtained from the pre-test and post-test applied to the experimental, control, and placebo groups; nonparametric tests were used for the data that did not meet the assumption of normality. Paired groups t-test, Wilcoxon signed-rank test, one-way variance analysis, and descriptive analysis method were applied to the qualitative data.

Process

Positive psychology-based group counseling activities included 15 sessions. Gains of the sessions were as follows:

Session 1: Expresses positive emotions

Process: The aim of the study was explained, group rules were set, and the pre-test was administered. Messages about emotions, and basic and subordinate emotions were obtained and participants were informed about the topic. Awareness about positive emotions and characteristics was increased and the participants were enabled to discover positive emotions and characteristics that they usually use.

Session 2: Allows individuals to directly express themselves in the group

Develop self-acceptance behavior among others

Realize the importance of self-acceptance in the peer group

Process: Awareness about the factors that trigger positive emotions for positive personal characteristics was raised. Messages were received using the activity applied, thus enabling the participants to express themselves directly within the group. Messages regarding the effect of self-acceptance on personal integrity were obtained and display of self-acceptance in others and peer groups was ensured.

Session 3: Realizes that the individual has to believe that they can achieve.

Express the importance of self-acquaintance and the need to act accordingly.

Process: The fact that the participants become aware of their strong character traits and the importance of self-acquaintance was emphasized, and it was ensured that success was related to acting in accordance with their own characteristics.

Session 4:   Realizes the importance of positive friends.

Process: Messages about the type of communication the participants had during happy moments they spent with their friends and what kind of feeling this state caused were received. Thus, the effect of positive friends was highlighted.

Session 5:   Realizes the importance of justice and righteousness

Process: In the activity, aiming to teach concepts of justice and righteousness, messages including reflections of these virtues practiced in daily life were shared.

Session 6:   Explains the relationship between righteousness and characteristics

Process: Messages about the effect of the concept of righteousness on daily behaviors were received and awareness about the contribution of righteousness to interpersonal communication was increased.

Session 7:   Learns the characteristics of the concept of courage

Process: Participants were informed about the definition and features of the concept of courage. Messages on the subject were received. The effect of courage on accepting one's behavior, taking responsibility, and thinking it over were emphasized.

Session 8:   Knows the characteristics of a person who displays courage

Exemplifies characteristics including courage

Process: Participants were enabled to notice persons displaying the courage characteristic and exemplify this characteristic in their lives.

Session 9:   Supports the concept of courage with examples they have illustrated

Realizes the positive effect of the courage characteristic

Process: Participants' awareness about the necessity of courage in social life and its contribution to righteousness was increased by enabling the participants to present products about the concept of courage.

Session 10: Knows the concept of forgiveness

Explains the concept of forgiveness using examples from their lives.

Explains the concept of forgiveness of others with examples from their lives.

Process: Participants were enabled to learn the concept of forgiveness. Participants' awareness about forgiveness was increased by enabling them to give examples of forgiveness characteristics and forgiving others from their life.

Session 11: Has knowledge about examples of forgiveness

Learns that forgiving is a love-based characteristic.

Understands the importance of forgiving.

Process: Participants were enabled to explain the concept of forgiveness using examples from their life and notice the relationship between forgiveness and love.

Session 12: Notices positive emotions of forgiveness provided to human beings.

Process: Awareness about forgiveness was increased by receiving messages including positive emotions felt when forgiveness was shown.

Sessions 13 and 14: Notices the effect of the feeling of gratitude on personal well-being.

Develops the gratitude characteristic and learn to behave accordingly

Process: Awareness about positive emotions arising as a result of the gratitude characteristic was ensured.

Session 15: Notices the relationship between patience and success.

Realizes the relationship between patience and anger management.

Process: Messages including the importance of setting a goal and the role of patience in attaining a goal were received. Messages about the relationship between patience and anger management were received and the importance of patience was discussed.

Results

Quantitative Results

This section includes results obtained as a result of evaluation of the hypotheses.

Hypothesis 1: "There is a significant difference between the pre-test and post-test scores of the experimental group who undertook positive psychology-based group counseling activities." The paired groups t-test was used to test the first hypothesis of the study, and the results are presented in Table 2.

Table 2 shows that there is a significant difference between the pre-test and post-test scores of the experimental group on the lying tendency scale (p<.025). The significant difference was determined in both total scale score and scores of the subscales. Effect size, which was developed by Cohen (1988), is regarded as large at the level of >0.8. Accordingly, the analysis showed a large effect size (total test score=1.34, lying for

Table 2.
Pre- and Post-test Scores of the Experimental Group

Lying Tendency Scale		n	$\bar{x}$	sd	t	df	p	Cohen's d
Scale Total	Experimental Pre-test	22	45.41	11.48	4.16	21	.000	1.34
	Experimental Post-test		32.60	7.48				
Subscales	Lying for social reasons Pre-test	22	27.14	9.59	3.89	21	.001	1.21
	Lying for social reasons Post-test		18.14	4.29				
	Lying for emotional reasons Pre-test	22	18.27	4.04	3.56	21	.002	0.95
	Lying for emotional reasons Post-test		14.46	3.94				

social reasons subscale=1.21, lying for emotional reasons subscale=.95). When the analysis was examined in terms of mean scores, the scores of the experimental group decreased in the procedure after the process.

Hypothesis 2: "There is a significant difference between the mean pre-test and post-test scores of all the groups in favor of the experimental group." One-way analysis of variance was used to test the second hypothesis of the study, and the results are shown in Table 3 and Table 4.

Table 3.
Scores of the Experimental, Control, and Placebo Groups

Source of variation	Sum of Squares	Sd	Mean of Squares	F	p	η^2
Intergroup	2373.462	2	14.44	4.47	.015	0.12
Intragroup	17257.170	65	20.19			
Total	19630.632	67	12.91			

Table 4.
The Mean and Standard Deviation Scores of the Experimental, Control, and Placebo Groups

Groups	n	$\bar{x}$	sd
Experimental	22	12.82	14.44
Control	24	-.88	20.19
Placebo	22	1.82	12.91

Table 3 and Table 4 show that there is a significant difference between the mean scores of the experimental, control, and placebo groups (p<.025). When the effect value of the significant difference was examined, it had a moderate effect (0.12). Post hoc analysis was performed to determine the group that caused this significance and the results are shown in Table 5.

Table 5.
Post Hoc Analysis of the Mean Scores of the Experimental, Control, and Placebo Groups

Post Hoc	Groups	Groups	Mean Difference	Std. Error	p	95% Confidence Interval	
						Minimum	Maximum
	Experimental	Control	13.69	4.81	.022*	1.64	25.74
Scheffe	Experimental	Placebo	11.00	4.91	.089	-1.31	23.30
	Control	Placebo	-2.69	4.81	.86	-14.74	9.36

Table 5 shows that there was a significant difference between scores of the experimental group and control group (p<.025). No significant difference was found between the other groups. When the mean scores of the groups were examined, the mean score of the experimental group was 12.82 and that of the control group was .88. This means that if the score increases, the tendency to lie decreases relatively. Although there was no significant difference between the scores of the experimental and placebo groups, the mean score of the experimental group decreased compared to the placebo group [=12.82 (experimental), =1.82 (placebo)]. These results show that positive psychology-based group counseling activities were successful in reducing the tendency to lie.

Hypothesis 3: "There is no significant difference between the pre-test and post-test lying tendency scores of the control and placebo groups." The Wilcoxon signed-rank test was used to test the third hypothesis of the study and the results are shown in Table 6.

Table 6.
Pre-Test and Post-Test Results of the Wilcoxon Signed-Rank Test and Lying Scale of the Control and Placebo Groups

		n	Mean rank	Mean Sum	z	p
Control Group **Pre-test - Post-test**	Negative Rank	11	13	143	-.200	.841
	Positive Rank	13	12.08	157		
	Equal	0				
	Total	24				
Control Group **Lying for social reasons** **Pre-test - Post-test**	Negative Rank	10	11.35	113.5	-.070	.945
	Positive Rank	11	10.68	117.5		
	Equal	3				
	Total	24				
Control Group **Lying for emotional reasons** **Pre-test - Post-test**	Negative Rank	11	12.32	135.5	-.415	.678
	Positive Rank	13	12.65	164.5		
	Equal	0				
	Total	24				
Placebo Group **Pre-test - Post-test**	Negative Rank	10	11.05	110.50	-.624	.532
	Positive Rank	9	8.83	79.50		
	Equal	3				
	Total	22				
Placebo Group **Lying for social reasons** **Pre-test - Post-test**	Negative Rank	11	10.05	110.5	-.625	.532
	Positive Rank	8	9.94	79.5		
	Equal	3				
	Total	22				
Placebo Group **Lying for emotional reasons** **Pre-test - Post-test**	Negative Rank	10	8.85	88.5	-.569	.569
	Positive Rank	7	9.21	64.5		
	Equal	5				
	Total	22				

As Table 6 shows, no significant difference was found between the scores (total score and subscale scores) on the scale of lying tendency from the control and placebo groups.

Hypothesis 4: *"There is a difference between the pre-test and post-test scores of the placebo group in the assertiveness inventory."* To test the fourth hypothesis of the study, the Wilcoxon signed-rank test was used and the results are shown in Table 7.

Table 7.
Pre-test and Post-test Assertiveness Inventory and the Wilcoxon Signed-Rank Test Results of the Placebo Group

		$\bar{x}$	sd		n	Mean rank	Mean Sum	z	p
Placebo Group	Pre-test	29.73	7.09	Negative Rank	5	7.90	39.5	-2.01	.045
				Positive Rank	13	10.12	131.5		
	Post-test	32.18	6.02	Equal	4				
				Total	22				

Table 7 shows an increase in the assertiveness inventory scores of the students in the placebo group before and after the procedure (p<.05) [=29.73 (pre-test) =32.18(post-test)]. According to these results, the training program to develop assertiveness skills was effective in the placebo group.

Quantitative Results

To determine the effectiveness of positive psychology-based group counseling activities in detail, opinions of the teachers who taught students in the experimental group were obtained and the results were processed in line with the determined themes and presented in Table 8.

Table 8.
Results of Qualitative Interviews (Teacher)

STATEMENT	THEME
T2: Indeed, when people accept themselves as they are, they feel happier, more confident, and more successful.	Self-acceptance
T5: The student S6 can object without crossing the line. This indicates both courage and self-confidence. I think it is beneficial for children to participate in these activities.I think it contributes to self-confidence positively.	
T1: For example, the student S5 has self-confidence. That student has an individualized training program (ITP) and said the other day: "Teacher, you will do a separate exam for me." This shows his/her self-acceptance.	
T2: I have noticed different behaviors of S5. For example, he/she normally does not listen to the lesson. That student, also receiving an ITP, came to me the other day and said:"Could you do a separate written exam for me?". This is actually an example of accepting oneself as she/he is.	
T1: There are two girls sitting in the front desks, for example. They did not talk before, but then they became confident.	
T3: The student S4 was trying to resemble the student S1. S4 could not be himself/herself and was trying to increase his/her social acceptance in this way. This has decreased. The state of self-acceptance increased.	
T4: S13 started to react less and S14 started to speak less. S3 started to raise their hand more often. When I assigned a task, he/she started to make an effort to complete it.	

Table 8.
Results of Qualitative Interviews (Teacher)

STATEMENT	THEME
T3: Students requested a rearrangement in the seating plan in the classroom. I thought that this change would not be fair because it would affect others. I explained this to the children. Students said it would be unfair for others if thought of in terms of justice. And then, they did not make such a request anymore. Now I think it means that the concept of social justice for the children has improved.	Justice
T3: They bravely told me about an event they had with a teacher. They frankly showed that they did not want to hurt the teacher. This, actually, shows that they have gained courage. Later, they solved this problem with their teacher without even causing a problem. This shows that students' courage and kindness have developed.	Courage
T4: I have observed bantering behaviors among them. They could make jokes without going beyond the limit. Even to me. This shows their courage.	
T1: S10 made progress in fulfilling his/her responsibilities. In fact, I think the responsibility behavior of the class has increased en masse. Even S11, who was not involved in any activities before, did it alone the other day. I have noticed that whenever there is task to be done in the classroom, they do it on their own. Without anyone saying anything.	
T2: One day the key for the classroom locker was lost. I was asking who took it last. S9 stood up courageously and said he/she had taken it but did not know where it was now. This drew my attention. That student has changed a lot in terms of kindness. He/She was more peevish before. Now, he/she is more well-adjusted.	
T4: I have seen examples of forgiving a friend. They can show forgiveness after problems.	Forgiveness
T5: You see they have experienced serious problems. But they love each other. You see they have forgiven themselves. I think more examples about this can be given.	
T3: Self-confidence increases as new solutions increase. I see examples of this. I was talking with a student after this process. "Teacher, I have learned to thank people now, " he/she said. "I used to solve my problems by fighting, now I express myself and thank others when something good happens".	Gratitude
T3: Kindness has increased. They are more patient now.	
T2: I remember there are kind students. Students thank each other now.	
T2: There is an aquarium in the classroom, and students feed the fish knowing their responsibilities and without hurting each other. For example, S9 was in charge of cleaning the aquarium. While this student normally did not fulfill his responsibilities in his classes, he/she started to do this job completely. I used to see that students even insulted each other when we assigned a task to a student. Now, I like seeing them do something by embracing the responsibility and without hurting each other.	
T4: S14 left for another school at the end of the term; the class became sad about that.	
T3: Children used to solve the problems among themselves by quarreling. I am a class teacher. I am dealing with less problems now. Tolerance has increased.	Patience
T4: An absolutely positive atmosphere has been created in the classroom. To me and to themselves. For example, take S12. No matter how much I tried to engage him/her in a dialogue, I could not reduce the problems. But after this process, I can say that he/she calmed down and became more respectful, became quite calm.	
T5: I have noticed positive changes in terms of patience and respect.	

To determine the effectiveness of positive psychology-based group counseling activities in detail, parents of the students in the experimental group were interviewed and the results were processed in line with the determined themes and presented in Table 9.

Table 9.
Results of Qualitative Interviews (Parent)

STATEMENT	THEME
P1: My child is aware of his/her responsibility. He knows his/her feelings. I have noticed that he/she displays behaviors that he/she should at home better after your practices in the classroom.	Self-acceptance
P1: He/She became more mature and understanding at the end of the term compared to the beginning of the term.	
P2: I have seen that, after this study, he/she expressed himself/herself better. He/She was more withdrawn before. Now it is better.	
P2: He/She had a row with his/her friends at the social facility and bravely explained what he/she did, including his/her own mistakes. He/She expressed the situations in which he/she regretted doing wrong. This was very important.	
P2: He/She became smarter. He/She became more patient. Sometimes he/she produces immediate reactions, but these are consequences of the life-stage he/she is in. He/She has more self-confidence now.	
P2: We went through an incident in the weeks when you talked about justice. Our financial situation is not very good. One day he asked me for money to buy something he wanted. I gave some. He brought back some of the money I had given in the evening. I said, "What is this son?" He said: "I used the amount needed. This is the rest; you can buy something for my siblings." Normally he would not do that.	Justice
P1: I have observed him/her after the processes; sometimes he/she is very courageous and becomes controlled.	Courage
P2: If there was a problem between me and my partner, for example, or if we had a row, my daughter would say right and wrong. She is very careful to say these things without hurting us. She distinguishes right from wrong.	
P2: He/She had a row with his/her friends at the social facility and bravely explained what he/she did, including his/her own mistakes. He/She expressed the situations in which he/she regretted doing wrong. This was very important.	
P1: I am a housewife; sometimes he/she does not help and doesn't care. I get angry inevitably. Then he/she can come and make an effort to atone. He/She tells me what you have said in the class. He/She has said "One day you said God is forgiving, why should we not forgive?"	Forgiveness
P1: They quarreled with their friends the other day and then forgave each other. He/She supported his/her friend in that event. He/She learned to take a step back when needed.	
P3: Sometimes I make mistakes, too; he/she says "I can't believe you mom. How can you do this." He/She does not say these things angrily or hurtfully.	Gratitude
P3: For example, I simply do not get on with his/her aunt. I do not call her. If we were to talk about this, he/she said: "Let it be mom, you are older, be understanding, she is our aunt after all. You call her." He/She is much more tolerant than before.	
P1: He/She is different now compared to the last period. Regarding gratitude, he/she is expressing all kinds of his/her love and establishes closer relationships. While talking with someone he/she loves, he/she talks clearly and carefully not to offend.	
P2: He/She is a child who knows how to speak, who thanks, who can express his/her feelings and thoughts. In fact, this started to draw my attention more.	
P3: For example, if he/she wanted something, he/she would persist. If I say "No", he understands. He/She is not persistent anymore.	Patience
P2: He/She became smarter. He/She became more patient. Sometimes he/she produces immediate reactions, but these are consequences of the life-stage he/she is in. He/She has more self-confidence now.	

Discussion and Conclusion

This study was carried out to test the effect of the program, which was prepared on the basis of positive psychology theory and implemented as 15-week group counseling activities, on 7th grade students' lying tendencies. In line with this

purpose, the hypotheses were tested by analyzing the students' scores obtained from the lying tendency scale and the results obtained from the qualitative data about the program applied to the experimental group were included.

The *first hypothesis* of the study was "There is a significant difference between the pre-test and post-test scores of the experimental group." According to the results, positive psychology-based group counseling activities were effective and reduced the experimental group's tendency to lie. Accordingly, the hypothesis was confirmed.

When the gains of the program were examined, the self-acceptance behavior used the virtues of justice, courage, forgiveness, gratitude, and patience to reduce the tendency to lie. When the qualitative interviews conducted were evaluated within this scope, remarkable opinions about self-confidence status, in other words, changes in self-acceptance, were noted. Another study found that the locus of control is a determinant of subjective well-being and is significantly related to self-acceptance (Malhotra, 2017). From this perspective, self-acceptance is related to self-control.

When the interview records were examined, the virtue of justice was reflected in both classroom experiences and family relationships. Tongeren, Welch, Davis, Green, & Worthington (2012) noted that justice is related to forgiveness. Another study found a significant relationship between forgiveness and psychological well-being (Singh & Sharma, 2018). However, Chen, Harris, Worthington, & VanderWeele (2018) reported that forgiveness is positively associated with all psychosocial well-being outcomes. Accordingly, positive psychology-based group guidance activities helped students internalize virtues of justice and forgiveness and turn these virtues into behaviors. An individual who has the virtues of forgiveness and justice cannot act unfairly and cannot engage in lying behavior by showing forgiveness in unfair situations.

A study found that acts of courage occur with more confidence, less fear, and less personal limitations (Pury, Kowalski, & Spearman, 2007). Based on the interview records, there were remarkable statements about the reflection of the virtue of courage on life. The fact that a person becomes courageous and takes responsibility in the face of any mistake he/she has made is related to the characteristic of courage. In this context, a person who has the characteristics of courage cannot exhibit the behavior of lying.

Nezlek, Newman, & Thrash (2017) reported that feelings of gratitude increase well-being. In addition, Cheetham, Williams, & Bednall (2016) reported that pride, satisfaction, compassion, and gratitude, which they regarded as positive emotions, contributed to well-being: while pride and compassion contributed indirectly, satisfaction and gratitude contributed directly. Biçer and Sarıçam (2015) observed statistical differences between the levels of self-transcendence and spiritual well-being according to age. Southwell and Gould (2017) carried out a study with an experimental and control

group and used three-week gratitude activities. They reported a decrease in depression, anxiety, stress, and perceived sleep difficulties scores of the experimental group, while the scores of the control group were not significantly different. According to Bono et al. (2019), gratitude development reduces antisocial behavior over time. Aghababaei and Tabik (2013) examined the relationship of religious gratitude and dispositional gratitude with mental health, subjective well-being, and personality. Studies have reported that gratitude has a moderate to strong negative correlation with mental illness and a positive correlation with subjective well-being. According to the interviews, kindness and patience characteristics became embedded in the students' behaviors. Emotional control in interpersonal relationships undoubtedly emerges when the virtue of patience is reflected in behaviors. We saw in the interviews that the virtue of patience was reflected in behaviors. Doğan (2017) examined the relationships between patience and psychological well-being and found positive significant correlations between the two. Bach and Guse (2015) focused on developing compassion with their patience and meditation training and investigated its effect on adolescents' psychological well-being. The study found that adolescents who received the training had statistically significant increases in personal development compared to those who did not. The quantitative results, interview records, and literature review show that positive psychology-based group counseling activities help the emergence of self-acceptance behavior and increase the virtues of justice, courage, forgiveness, gratitude, and patience. As a result, students' tendency to lie decreased.

The *second hypothesis of the study* was "There is a significant difference between the mean pre-test and post-test scores of all the groups in favor of the experimental group". As a result of the method used to analyze whether the mean scores in two or more related sets of measurements differ significantly from each other (Büyüköztürk, 2003), mean scores of the experimental and control groups significantly differed. This is important. When all the results were evaluated together, positive psychology-based group counseling activities developed and applied within the scope of the study reduced students' tendency to lie.

The *third hypothesis of the study* was "There is no significant difference between the pre-test and post-test lying tendency scores of the control and placebo groups in favor of experimental group". No significant difference was found (p>.05) in both total test scores and the scores obtained from the subscales of the lying tendency scale. Thus, the hypothesis was confirmed. No intervention regarding lying tendency was applied to the control and placebo groups in the study. Accordingly, no change in lying tendencies of the groups were expected. This was supported by the results of the analyses; in other words, the purpose of forming the groups attained its aim. The significant difference in the first hypothesis (experimental group) of the study and the lack of a significant difference in the third hypothesis (control and placebo groups) show that positive psychology-based group counseling activities achieved their purpose.

The *fourth hypothesis of the study* was "There is a difference between the pre-test and post-test scores of the placebo group in the assertiveness inventory." According to the results, a significant difference was found between the pre-test and post-test scores of the placebo group in the assertiveness inventory. These results comply with those of the study by Ugürol (2010) and indicate that the hypothesis was confirmed.

In conclusion, positive psychology-based group counseling activities reduced the tendency to lie. The program prepared in this context can be used in middle schools. The students included in the study shared their moods during the activities and made efforts to prepare the products that the study required. In this context, it may be useful to increase the application time to reveal the feelings and thoughts of the students in depth and to diversify the products they produce. This will help the program goals to be achieved completely.

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Research Article

The Mediating Role of Religious Coping in Perceived Stress, Psychological Symptoms and Psychological Well-Being in a Sample of Puerto Rican Adults

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Abstract

The impact of religious coping (RC) on health has been a subject of interest in recent years. Despite the increase in research on RC, in Puerto Rico there has not been identified studies aimed to examine the mediating role of positive (PRC) and negative (NRC) religious coping in mental health variables. Therefore, the objectives of the study are: (1) Examine the relationship between perceived stress (PS) with PRC/NRC, psychological symptoms (PSx; depression, anxiety & posttraumatic symptoms) and psychological well-being (PWB) in a sample of 302 Puerto Rican adults with several self-report measures associated with mental health outcomes. (2) Examine the relationship between PRC/NRC with PSx, PTSD, and PWB. (3) Examine the mediating role of PRC/NRC in the relationship between PS, PSx, PTSD and PWB. The results of the study revealed that the PRC did not mediate none of the mental health variables. However, NRC significantly related and mediated the relationship between PS with PWB and post-traumatic stress disorders symptoms. Implications are discussed.

Keywords:
Mediation, Psychological Symptoms, Psychological Well-being, Puerto Rico, Religion, Religious Coping

Since the 19th century, more than 3,300 studies have been conducted aimed to explore the impact of religion on health, showing that religion can positively and negatively impact people's well-being (Bonelli et al., 2013; Braam & Koenig, 2019; Green et al., 2010; Koenig, 2009; 2012; 2015). Findings revealed in more than 100 meta-analysis and systematic literature reviews strengthen the case that religious involvement is associated with better health (Oman & Syme, 2018) especially in those countries where religious beliefs are considered important to the majority of the population (Gundlach & Opfinger, 2011; Snoep, 2008). The findings documented on the impact of religiosity on health are closely associated with the use of positive (PRC) and negative (NRC) religious coping (RC) strategies (Anderson et al., 2015; Hook et al., 2010; Gerber, Boals & Schuettler, 2011; Gonçalves et al., 2015). RC is a management strategy that uses religious beliefs and practices to prevent and alleviate negative consequences of stressful events (Pargament, 1997). Furthermore, Pargament (1997) identifies in his model three types of RC: 1) Self-directed coping, when people trust themselves more than God to solve their problems; 2) Avoidance Coping, when the responsibility is left in the hands of God or the supernatural and 3) Collaborative Coping, when a shared dynamic is established between the human being and the divine in the coping process. NRC can manifest itself when people experience a sense of abandonment and punishment from God, doubts about God's love, power, faithfulness and/or existence. This RC strategy has been related to higher levels of stress and less psychological well-being (PWB) (Ano & Vasconcelles., 2005).

Additionally, recent literature holds that people can experience religious and spiritual struggles in the face of negative events. This concept is occur when negative experiences of emotion, tension or conflict on religious and spiritual issues (Exline, 2013) which is associated with greater symptoms of depression, anxiety, perceived stress (PS) and post-traumatic stress (PTSD) (Abu -Raiya et al., 2015; Ano & Pargament, 2013). Ano et al., (2005) conducted a meta-analysis of 49 relevant studies with a total of 105 effect sizes with the intervention to examine the relationship between RC and psychological adjustment to stress. The results of the study revealed that positive and negative forms of RC are related to positive and negative psychological adjustment to stress. Foch et al, (2017) carried out a systematic review of the studies published on RC from 2003 to 2013. From a total of 1,092 articles initially obtained, 31 met the inclusion criteria established by the authors. The results the impact of PRC on better outcomes in people with chronic diseases, particularly cancer and mental disorders such as depression. Despite the increasing empirical attention given on religion/spirituality and health, Park et al., (2017) recommend conducting studies in this field that involve the analysis of the religious and spiritual dimension as a mediating and moderator variables.

Religion in Puerto Rico is a very influential social institution, given around 89% of Puerto Rican claim to be Christians (Pew Research Center's Forum on Religion

& Public Life, 2012). This fact could be explained from a historical perspective taking into consideration that religion has played a fundamental role in the political, economic and sociocultural development of the country (Agosto-Cintrón, 1996; Scarano, 2008). Moreover, the scientific study of religion and spirituality in Puerto Rico has increased in recent years. In the review carried out by Pagán-Torres et al. (2017), it was found that in Puerto Rico there are a total of 17 publications on religion and health. Furthermore, González-Rivera et al. (2019) carried out a bibliometric analysis on the articles published in Puerto Rican journals about religion and spirituality from a mental health perspective. The results revealed that only 3% of the publications made among Puerto Rican journals have been associated with the field of religion and spirituality. In addition, there are around seven books published which are associated with the field of the psychology of religion and spirituality in the Puerto Rican context (Pagán-Torres, 2019). Among the implications that emerge from the documented literature, religion in Puerto Rico can have a positive and negative impact on health, which depend on the way in which religious individuals practice their religion and how the religious structure influences in religious people.

According to the reviews and analyzes carried out about religion and spirituality in Puerto Rico, no studies directed to examine the impact of RC as a mediating variable was identified. However, it was found a cross-sectional study with Puerto Rican participants which examined the association between RC and depressive symptoms (Pagán-Torres & González-Rivera, 2019) and a psychometric study of a RC scale with Puerto Rican (González-Rivera & Pagán-Torres, 2018). This suggests that research on RC as a mediating variable is a non-existent topic in the scientific literature in Puerto Rico. The previous findings concerning the impact of religiosity and spirituality on mental health in Puerto Rican population are mixed (González-Rivera et al., 2019; Pagán et al. 2017). Therefore, studies based in mediation analysis could provide solid information about the protective and risk factors of RC strategies for mental health in Puerto Ricans. A mediating variable is a variable that explains the relation between a predictor and outcome variable (Baron & Kenny, 1986; Hayes, 2013). The aims of this study were the following: (1) examine the relationship between perceived stress (PS) with PRC, NRC, psychological symptoms (PSx; which involve depression & anxiety), posttraumatic stress disorder (PTSD) and psychological well-being (PWB), (2) examine the relationship between PRC/NRC with PSx, PWB and PTSD, and (3) examine the mediating role of PRC/NRC in the relationship between PS and PSx, PWB and PTSD. Figure 1 shows the research model hypotheses proposed.

Figure 1.
Research Model for Direct and Indirect Effects (IE) Hypotheses
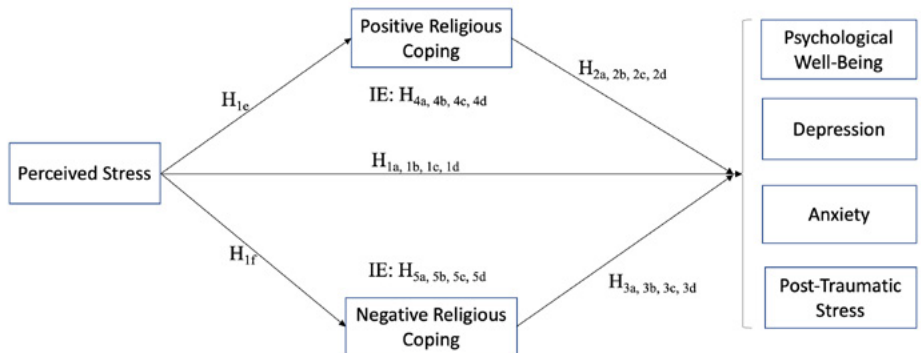
Method

Research Design and Procedures

This research has a non-experimental, cross-sectional, correlational descriptive design. Authorization to carry out the research was obtained through the Institutional Review Board (IRB) from Ponce Health Sciences University, Ponce, Puerto Rico (protocol #1902005352). Once the IRB authorization of the study was obtained, the recruitment of the participants began. For the recruitment of the sample, the digital platform *Psychdata* was used to begin online recruitment through social networks and emails. When the participants accessed the link, they proceeded to read the informed consent sheet which explained to all the information, the purpose, procedure, benefits and risks of the research. If the participants agreed to participate in the study, they proceeded to complete the consent form. To guarantee the protection of confidentiality, an identification code was assigned in the database to record the data of the participants. After completing the informed consent form, the participants proceeded to complete the sociodemographic data sheet, as well as the measures. The sample of the study was recruited from April 2019 to June 2019.

Participants

A non-probabilistic recruitment of the sample was used to recruit the participants of the study. The convenient sample of the current study consisted of 302 Puerto Rican adult participants. The sample average age was 35.79 (DE = 12.14). The inclusion criteria to participate in the study were: (1) be 21 years of age or older, (2) can read and understand Spanish, (3) be Puerto Rican and (4) be a resident in Puerto Rico. Table 1 shows the full sociodemographic characteristics of the subjects.

Table 1
Sociodemographic Characteristics of the Sample

Demographics	*f*	%
Sex		
Male	78	25.8
Female	224	74.2
Age		
21-29	134	44.2
30-39	66	21.9
40-49	48	15.9
50-59	41	13.8
60-69	11	3.6
70-71	2	0.6
Marital Status		
Single	148	49.0
Married	102	33.8
Widowed	3	1.0
Divorced	18	6.0
Cohabiting (free union)	31	10.3
Annual Income (USD)		
$0–20,000	150	49.7
$21,000–30,000	47	15.6
$31,000–40,000	34	11.3
$41,000–50,000	13	4.3
$51,000–60,000	18	6.0
$61,000 or more	40	13.2
Academic Preparation		
High school or less	14	4.6
Associate degree/technical	13	4.3
Bachelor's degree	84	27.8
Master's degree	102	33.8
Doctoral degree	89	29.5
Religious Affiliation		
Catholic	124	41.1
Protestant (Evangelical, Methodist, Baptists, Pentecostal*)*	116	38.4
Adventist	2	0.7
Islamism (Muslim)	1	0.3
Buddhism	5	1.7
Santeria	1	0.3
None	53	17.5
Importance of Religion		
Nothing	36	11.9
Somewhat	57	18.9
Important	80	26.5
Very important	129	42.7
Participation in religious activities		
Never	59	19.5
Once a year	79	26.2
Monthly	44	14.6
Weekly	107	35.4
Daily	13	4.3
Participation in private religious activities		
Never	60	19.9
Once a year	28	9.3
Monthly	25	8.3
Weekly	53	17.5
Daily	136	45.0

Note. n=302

Measures

Sociodemographic data sheet. This document included questions aimed to explore the profile of the study participants such as the age, marital status, gender, annual income, time working, religion to which they belong, importance of religion, frequency of participation in religious activities and number of hours dedicated to religious practices.

Brief Religious Coping Scale (Brief RCOPE). To measure this variable, we used the brief scale of religious strategies (Brief RCOPE) from Pargament, Feuille and Burdz, (2011). We used the Spanish version validated in the Puerto Rican population by Colón-Rivera (2014). The inventory measures PRC and NRC strategies based on Pargament (1997) theoretical model. The instructions invite the participant to think about the most stressful event they have experienced in the last year. Then, it presents a list of 14 RC strategies (e.g., *I looked for God's love and care, I looked for God's help to release my courage, I wondered if God had abandoned me, I doubted God's power*) and ask the participant to indicate on a four-point Likert-type response scale, the degree to which each one of them was performed: 1 (Not at all), 2 (Somewhat), 3 (Quite a bit) and 4 (Very much). The scale obtained a Cronbach's alpha internal consistency index of .88 in a sample of Puerto Rican adults (Colón-Rivera, 2014).

Perceived Stress Scale (PSS). This is an instrument designed to know how stressful people perceive the events of daily life. Remor (2006) translated and validated the Spanish version of said instrument. This scale is a self-report instrument that assesses the level of perceived stress during the last month, it consists of 14 items with a response format of a five-point scale (0 = never, 1 = almost never, 2 = from time to time). when, 3 = often, 4 = very often). The total score of the PSS is obtained by inverting the scores of items 4, 5, 6, 7, 9, 10 and 13 (in the following sense: 0 = 4, 1 = 3, 2 = 2, 3 = 1 and 4 = 0) and then adding the 14 items. The direct score obtained indicates that a higher score corresponds to a higher level of perceived stress. The Cronbach alpha of the PSS in this study was .86.

Eight-Item Patient Health Questionnaire (PHQ-8). This instrument is an eight-item self-report measure that is used to assess depression severity and criteria for a major depressive episode (Kroenke et al., 2009). Each item is rated in frequency on a 4-point (0 = not at all, 3 = nearly every day) scale and total scores may range from 0 to 24. The authors (Kroenke & Spitzer, 2002) suggest five levels of severity: minimal (total score, 0–4); mild (total score, 5–9); moderate (total score, 10–14); moderately severe (total score, 15–19); and severe (total score, 20–24). A score of 10 or above is frequently used as a cut point to identify patients with major depression. In Puerto Rico, this scale obtained an internal consistency of .92 (Pagán-Torres, González-Rivera, & Rosario-Hernández, 2020a).

Generalized Anxiety Disorder-7 (GAD-7). The GAD-7 questionnaire is a one-dimensional self-administered scale designed to assess the presence of the symptoms of Generalized Anxiety Disorder, as listed in the DSM-IV (Spitzer et al., 2006). We used the Spanish version of the GAD-7 (García-Campayo et al., 2010). The total GAD-7 score is calculated by the simple addition of the answers to each item. Each item is rated in frequency on a 4-point (0 = not at all, 3 = nearly every day) scale and total scores may range from 0 to 21. According to the original authors (Spitzer et al., 2006), the total score may be categorized into four severity groups: minimal (0-4), mild (5-9), moderate (10-14), and serious (14-20). In Puerto Rico, this scale obtained an internal consistency of .88 (Pagán-Torres, González-Rivera, & Rosario-Hernández, 2020b).

Post-traumatic Stress Disorder Scale for DSM-5 (PCL-5): This is a self-report measure that evaluates the 20 symptoms of PTSD-DSM-5 (Blevins et al., 2015). PCL-5 has a variety of purposes, including monitoring of the change of symptoms during and after treatment, detection of people with PTSD, and making a provisional diagnosis of PTSD. It consists of 20 items organized on a Likert-type scale that ranges from 0 Nothing to 4 Extremely. The possible range is 0 to 80 points, where the higher the reported score, the higher the level of PTSD symptomatology. In our study, obtained an internal consistency of .95.

Ryff Psychological Well-being Brief Scale. This instrument was developed by Ryff and Keyes (1995) and adapted to the Puerto Rican population by González-Rivera, Quintero, Veray, and Rosario (2016). It is made up of 17 items organized on a six-point Likert-type scale that ranges from 1 Strongly disagree to 6 Agree (Table 3 shows all items in the instrument). The scale consists of four factors: 1) mastery of the environment, 2) life purpose, 3) self-acceptance, and 4) autonomy. The lowest score that can be obtained is 17 and the highest is 102, where high scores represent a person with many psychological strengths and resources. The scale obtained a Cronbach's alpha reliability index of .86 in this study.

Data Analyses

The IBM SPSS version 20 program was used to perform the statistical analyzes. Descriptive statistics were calculated through the measures of central tendency (mean, mode and median) in order to obtain the sociodemographic data of the sample. For data analysis, partial least squares structural equation modeling (PLS-SEM) was used following the two-step procedure suggested by Hair et al., (2017). First, the confirmatory factor analysis aimed at evaluating the measurement model. Second, the evaluation of the structural model. It is important to mention the three reasons for its use in the present study, as pointed out by Chin (2010). First, that PLS-SEM has a soft distributive assumption and since the Kolmogorok-Smirnov and Shapiro-Wilks

tests were significant, it is suggested that the scores were not normally distributed. Second, the exploratory nature of the current study (Hair et al., 2011; Henseler, et al., 2009; Henseler et al., 2013), aims to build and expand an existing theory such as the RC model, in the Puerto Rican context. Third, the complexity of the study justifies the use of PLS-SEM because the tested model has multiple moderating variables (Hair, et al., 2011; Henseler, et al., 2009; Henseler & Sarstedt, 2013).

Results

The research model of the study was analyzed using Smart-PLS 3.2.4, a PLS structural equation modeling tool (Ringle, Wende & Becker, 2015). This program evaluates the psychometric properties of the measurement model and estimates the parameters of the structural model. This tool allows simultaneous analysis of up to 200 indicator variables, allowing the examination of multiple mediating variables simultaneously between indicators of latent predictor variables.

The measurement models

The data indicate that the measures are robust in terms of their internal consistency reliability as indexed by Cronbach's alpha and composite reliability. All Cronbach's alphas and the composite reliabilities of the different measures range from .70 to .91, which fluctuates within the recommended threshold value of .70 (Hair et al., 2017). Regarding validity, all external loads reached the threshold of .70 as indicated by Hair et al. (2017). Furthermore, consistent with Fornell and Larcker (1981) guidelines, the average variance extracted (AVE) for each measure exceeds .50, which is an indication of the convergent validity of the measures (see table 2).

Table 2
Results of measurement models

Latent Variable	Item	CF	AVE	Alfa	CR
Perceived Stress	PS-1	.75	.59	.86	.90
	PS -2	.85			
	PS-3	.80			
	PS-8	.66			
	PS-11	.73			
	PS-14	.80			
Positive Religious Coping	PRC-2	.78	.73	.87	.89
	PRC-3	.80			
	PRC-6	.97			
Negative Religious Coping	NRC-8	.83	.57	.84	.89
	NRC-9	.84			
	NRC-10	.89			
	NRC-11	.77			
	NRC-12	.57			
	NRC-13	.58			

Table 2
Results of measurement models

Latent Variable	Item	CF	AVE	Alfa	CR
Psychological Well-Being	AA	.75	.62	.70	.83
	DE	.83			
	PV	.77			
Depression	PHQ8-1	.76	.58	.88	.91
	PHQ8-2	.84			
	PHQ8-3	.72			
	PHQ8-4	.72			
	PHQ8-5	.75			
	PHQ8-6	.78			
	PHQ8-7	.75			
Anxiety	GAD7-1	.82	.66	.91	.93
	GAD7-2	.89			
	GAD7-3	.87			
	GAD7-4	.85			
	GAD7-5	.72			
	GAD7-6	.77			
	GAD7-7	.76			
Posttraumatic Stress	Evit	.72	.74	.88	.92
	Int	.91			
	ANC	.92			
	ARE	.88			

On the other hand, there are two ways to check discriminant validity (Wong, 2019). One is the the Fornell-Larcker criterion and the second is the heterotrait-monotrait (HTMT) method. The classical approach proposed by Fornell-Larcker (1981) suggest that the square root of AVE in each latent variable can be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables. Table 3 shows that all square root values of AVE of each latent variable are larger than correlation values between all other latent variables.

Table 3
Correlation Matrix Between Latent Variables

Latent Variable	PS	PRC	NRC	PWB	Dep	Anx	PTSD
Perceived Stress (PS)	(.77)						
Positive Religious Coping (PRC)	.12	(.85)					
Negative Religious Coping (NRC)	.43	.32	(.76)				
Psychological Well-Being (PWB)	-.44	-.02	-.39	(.79)			
Depression (Dep	.68	.06	.40	-.50	(.76)		
Anxiety (Anx)	.76	.09	.42	-.44	.73	(.81)	
Posttraumatic Stress Disorder (PTSD)	.73	.17	.42	-.45	.67	.74	(.86)

Note: n=302; elements in the matrix diagonals within parenthesis represent the square roots of the AVE.

Meanwhile, Henseler, Ringle and Sarstedt (2015) proposed to evaluate the heterotrait-monotrait (HTMT) relationship of the correlations to examine the discriminant validity. The HTMT approach is an estimate about what would be the correlation between two variables if they are perfectly measured. A correlation

between constructs close to one indicates a lack of discriminant validity. Therefore, Henseler et al. (2015) suggests a threshold value of .90 if the path model includes constructs that are conceptually very similar. In other words, an HTMT above .90 suggests a lack of discriminant validity. The correlations between constructs appear in Table 4, where all the correlations are below the threshold of .90, which suggests the discriminant validity of the measures. Furthermore, since the HTMT can serve as the basis for a statistical test of discriminant validity. Henseler et al. (2015) recommend the use of the bootstrapping technique to derive a boot with a 95% confidence interval with 5,000 random subsamples. Therefore, a confidence interval containing the value of one indicates a lack of discriminant validity. On the contrary, if the value of one fall outside the interval range, it suggests that the two constructs are empirically different. Since the HTMT-based evaluation uses the confidence interval, which is based on inferential statistics, this criterion should be relied upon primarily. In the present study, none of the correlations between the constructs in the 95% confidence interval of baseline included the value of one; therefore, this suggests that the constructs are empirically distinct.

Table 4

Correlation Matrix Hetero-rasgo/Mono-rasgo (HTMT)

Latent Variable	PS	PRC	NRC	PWB	Dep	Anx	PTSD
PS							
PRC	0.1 (.08 - .2)						
NRC	.49 (.39 - .60)	.33 (.24 - .43)					
PWB	.55 (.43 - .67)	.12 (.08 - .23)	.50 (.35 - .63)				
Dep	.77 (.71 - .84)	.09 (.08 - .17)	.45 (.33 - .57)	.61 (.48 - .73)			
Anx	.85 (.79 - .90)	.09 (.07 - .17)	.48 (.36 - .60)	.54 (.42 - .66)	.81 (.74 - .87)		
PTSD	.82 (.77 - .87)	.13 (.08 - .24)	.48 (.37 - .59)	.56 (.44 - .67)	.74 (.67 - .81)	.81 (.74 - .87)	

Note: n= 302; elements in the diagonals in parentheses are the .90 confidence intervals for the criterion of correlations of HTMT; PS=Perceived Stress, PRC= Positive Religious Coping, NRC=Negative Religious Coping, PWB=Psychological Wellbeing, Dep=Depression, Anx=Anxiety, PTSD=Posttraumatic Stress Disorder.

The structural model

After the validity of the instruments were tested, the structural model was examined, which represents the relationships between the constructs assumed in the theoretical model or latent variables. The elements in the diagonals of the matrix, which represent the square roots of the AVE, are greater in all cases than the elements outside the diagonal in their corresponding row and column, supporting the discriminant validity of the scales. To examine the structural model, as recommended by Hair et al. (2017), first, the structural

model was verified to detect collinearity problems by examining the value of the variance inflation factor (VIF) of all the sets of predictive constructions in the structural model. The values fluctuated between 1.01 and 2.04, so all the VIF values are clearly below the threshold of 5. Therefore, the collinearity between the predictor constructs is not a critical problem in the structural model. In addition, table 5 shows the R^2 values of PRC (.02), NRC (.19), depression (.48), anxiety (.60), PTSD (.60) and PWB (.25), explaining the .1%, 18%, 24%, 59%, 55%, and 24% of the variance, respectively. Falk and Miller (1992) suggest a value of .10 for an R squared at least satisfactory level. With the exclusion of PRC, all other endogenous latent variables possess the threshold level of R squared values. In addition, with the exclusion of PRC, all Q2 values such as NRC, depression, anxiety, PTSD and PWB are above zero (.10, .27, .39, .40 and .13, respectively), providing support of the predictive relevance of the model with respect to endogenous latent variables. The effect sizes for PS achieved f^2 values of .02, .21, .11, .57, .54 and .76 on PRC, NRC, depression, anxiety, PTSD and PWB, respectively, which exceed the minimum threshold of .02 (Chin, Marcolin & Newsted, 2003).

Table 5
Structural model results

Variable	R²	R² Adj	f^2						Q²	VIF
			PRC	NRC	PWB	Dep	Anx	PTSD		
PS			.02	.21	.11	.57	.54	.76		1.01
PRC	.02	.01			.01	.00	.00	.01	.00	1.16
NRC	.19	.18			.05	.01	.01	.02	.10	2.04
PWB	.25	.24							.13	
Dep	.48	.47							.27	
Anx	.60	.59							.39	
PTSD	.56	.55							.40	

Note: n= 302; PS=Perceived Stress, PRC= Positive Religious Coping, NRC=Negative Religious Coping, PWB=Psychological Wellbeing, Dep=Depression, Anx=Anxiety, PTSD=Posttraumatic Stress.

Table 6 shows the results of the structural model and the beta values of all the path coefficients also shown. Exposure to PS had a significant positive relationship with RNC (beta = .32, p <.001), depression (beta = .62, p <.001), anxiety (beta = .70, p <.001) and PTSD (beta = .66, p <.001). In addition, it was significantly negatively correlated with PWB (beta = -.33, p <.001). While it did not obtain a significant relationship with PRC (beta = .13, p> .05). On the other hand, PRC did not significantly correlate with depression (beta = -.05, p> .05), anxiety (beta = -.02, p> .05), PTSD (beta = .06, p> .05) and PWB (beta = -. 11, p> .05). However, NRC correlated significantly negatively with PWB (beta = -. 28, p <.001) and positively significant with PS (beta = .13, p <.05). We found that NRC significantly mediated the relationship between PS and PWB (t = 2.96, p <.001) and the relationship between PS and PTSD only (t = 2.96, p <.05) (see table 7). Finally, our study revealed an inverse, low and statistically significant relationship between participation in religious activities with depression (r = -.186, p = .001) and anxiety (r = -.176, p = .001) reported by the participants in the sociodemographic data sheet.

Table 6
Results of the direct effects hypothesis

	Hypothesis	Beta	SE	t value	Sig.	BCCI 2.50%	97.50%	Conclusion
	Hypothesis 1							
H_{1a}:	PS → PWB	-.33	.06	5.81	.001	-.45	-.22	Accepted
H_{1b}:	PS → Dep	.62	.05	12.55	.001	.52	.71	Accepted
H_{1c}:	PS → Anx	.70	.04	18.27	.001	.62	.77	Accepted
H_{1d}:	PS → PTSD	.66	.04	17.37	.001	.58	.73	Accepted
H_{1e}:	PS → PRC	.13	.10	1.27	.200	-.15	.24	Rejected
H_{1f}:	PS → NRC	.42	.05	8.61	.001	.32	.51	Accepted
	Hypothesis 2							
H_{2a}:	PRC → PWB	-.11	.12	1.25	.210	-.14	.23	Rejected
H_{2b}:	PRC → Dep	-.05	.06	0.77	.440	-.16	.10	Rejected
H_{2c}:	PRC → Anx	-.02	.05	0.48	.630	-.11	.08	Rejected
H_{2d}:	PRC → PTSD	.06	.06	1.02	.310	-.06	.18	Rejected
	Hypothesis 3							
H_{3a}:	NRC → PWB	-.28	.09	3.20	.001	-.46	-.11	Accepted
H_{3b}:	NRC → Dep	.10	.07	1.53	.130	-.03	.23	Rejected
H_{3c}:	NRC → Anx	.11	.06	1.90	.060	-.01	.22	Rejected
H_{3d}:	NRC → PTSD	.13	.05	2.46	.010	.02	.23	Accepted

Note: n= 302; SE=Standard Error; CIBC= Confidence Interval Bias Corrected.

Table 7
Results of the hypotheses about indirect effects, types of mediation and conclusions

	Hypothesis	Indirect Effect	SE	t value	Sig.	CIBC 2.5%	97.5%	Mediation (Type)	Conclusion
	Hypothesis 4								
H_{4a}:	EP → PRC → PWB	.01	.01	0.83	.410	-.02	.04	No	Rejected
H_{4b}:	EP → PRC → Dep	-.01	.01	0.60	.550	-.03	.01	No	Rejected
H_{4c}:	EP → PRC → Anx	.00	.01	0.41	.680	-.02	.01	No	Rejected
H_{4d}:	EP → PRC → PTSD	.01	.01	0.95	.340	.00	.03	No	Rejected
	Hypothesis 5								
H_{5a}:	EP → NRC → PWB	-.12	.04	2.96	.001	-.21	-.05	Yes (Complementary)	Accepted
H_{5b}:	EP → NRC → Dep	.04	.03	1.48	.140	-.03	.00	No	Rejected
H_{5c}:	EP → NRC → Anx	.04	.02	1.86	.060	.00	.09	No	Rejected
H_{5d}:	EP → NRC → PTSD	.05	.02	2.20	.030	.01	.11	Yes (Complementary)	Accepted

Note: n= 302; SE=Standard Error; CIBC= Confidence Interval Bias Corrected.

Discussion

The first aim of the study was to examine the relationship between PS with depression, anxiety, PTSD, and PWB. According to the results of the study, PS obtained positive and statistically significant relationship with depression, anxiety and PTSD symptoms. Furthermore, it was inversely and significantly related to PWB. These findings are

consistent with current literature about the significant relationship between PS and the mentioned variables (Keinan, Shrira, & Shmotkin, 2012; Richmond, et al., 2009). Also, our study revealed that PS was positively and significantly related with NRC strategies, which is consistent with the findings of Gardner et al., (2014) and Lee, Nezu & Nezu (2014). Interestingly, PS was not significantly related to PRC. These findings suggest that PS may be a risk factor to increase NRC strategies and symptoms associated with depression, anxiety and PTSD.

As part of the second hypothesis of the study, the relationship between PRC with the depression, anxiety, PTSD, and PWB was examined. Interestingly, PRC did not relate significantly to any of the study mentioned variables. All relations were low and not significant. These findings contrast with the literature reported on the impact of PRC strategies on variables relevant to mental health (Ano & et al., 2005; Foch, et al., 2017; Pargament et al., 2013). These findings suggest that the use of PRC strategies was not a protective factor for adaptive management of stressful events and PWB among participants from this study. Consequently, the entire set of hypotheses belonging to hypothesis 2 postulated in our study were rejected.

In the third hypothesis, the relationship between NRC with the variables of depression, anxiety, PTSD and PWB was examined. The results revealed that NRC was inversely and significantly related to PWB (beta = -.28, p <.001) and positively and significantly related to PTSD symptoms (beta = .13, p <.05). These results are consistent with the current literature which suggests that NRC is a risk factor for PWB and increasing of PTSD symptoms (García, et al., 2014). The literature suggests the presence of spiritual struggles and RNC in stressful events (Pargament, 1997; Pargament et al., 2013). Moreover, RNC did not significantly correlate with depression and anxiety. Therefore, according to the results of the study, only the hypotheses H_{3a} and H_{3d} were accepted which postulated a significant relationship between RNC with PWB and PTSD. However, these results contrast with the findings of the meta-analysis by Ano et al., (2005) and the findings of Pargament et al., (1998) given RNC was not significantly related to depression and anxiety in this study.

In the fourth hypothesis, it was examined whether PRC significantly mediated the relationship between PS with depression, anxiety, PTSD, and PWB. Therefore, all the hypotheses 4 postulated in our study were rejected. These findings contrast with those reported by other studies. In the fifth hypothesis, it was examined whether RNC significantly mediated the relationship between PS and depression, anxiety, PTSD, and PWB. However, NRC did not significantly mediate the relationship between PS with depression and anxiety. A possible explanation for all the discussed results, particularly with the PRC variable (which did not significantly relate, mediate and model with any of the variables) is that the degree to which RC can mediate the relationship between

variables, it will depend on the religious commitment of the individual (Carpenter et al., 2012). Individuals with a high level of religious commitment can significantly influence the impact of RC in their lives (Carpenter et al., 2012).

The present study also is the first that has measured the construct of NRC in Puerto Rico. NRC is relevant to mental health professionals, as there in extensive empirical data that spiritual struggles generate in some individuals painful and distressing conflicts with their prior religious beliefs. Those conflicts should be assessed and attended in psychotherapy, as they may be important targets to discuss and alleviate with the clinician. Obviating those conflicts may compromise the effectiveness of the conceptualization and the treatment outcome. According to the findings of the study, NRC may represent a risk factor for PSW and PTSD symptoms among Puerto Ricans, which is consistent with previous findings in other countries (Ano et al. 2005; 2013). Moreover, PRC did not represent a protective factor to mental health outcomes in the sample of the study. These results suggest that religious and spiritual domains could be directly associated with the search of psychological services and psychological symptoms.

Limitations and Future Research

This study has several limitations. First, the recruitment of the sample was not randomly selected, instead, was a convenient sample. Therefore, the results cannot be generalized to the entire Puerto Rican population. However, digital recruitment allowed us to widely broaden the diversity of the sample in terms of sociodemographic characteristics and sample size. Second, the electronic compilation of data was carried out through self-report measures. Quantitative empirical research has the risk of being affected by social demand or subjective reaction to the instruments used. However, this research offers knowledge and preliminary findings of the mediating role of the RC in mental health outcomes in Puerto Rican. Third, this is a cross-sectional and descriptive research design, which limits causal inferences and it is unknown whether the results achieved will be sustained over time. However, the purpose of our study was to perform a mediation analysis. Fourth, our study did not consider the community of non-believers (atheists and agnostics). Despite this, we believe that this research provides relevant information that will be useful for both the scientific community and mental health professionals in Puerto Rico. In addition, advanced statistical techniques with structural equation modeling in PLS and an adequate sample size were used to provide empirical strength to our results. Despite the importance of religion within the sociocultural context in Puerto Rico, no studies were found that measured RC as a mediating variable. Therefore, this study constitutes the first empirical research in Puerto Rico which explore the mediating role of RC on mental health variables with Puerto Rican adults. Consequently, this study serves as a preview for future studies aimed to examine the mediating role of the RC in a variety of mental and physical disorders.

Conclusion

This work constitutes the first empirical research in Puerto Rico focused to explore the mediating role of RC on mental health variables with Puerto Rican adults. This research contributes to the advancement of the scientific study of the religion and spirituality within Caribbean context to consider the importance of the spiritual and religious dimension as an integral part of the human being.

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Declaration of conflict interest

No potential conflict of interest was reported by the authors.

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Research Article

Religiosity, Spirituality, Forgiveness, Religious Coping as Predictors of Life Satisfaction and Generalized Anxiety: A Quantitative Study on Turkish Muslim University Students

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Abstract

During the last two decades, several studies have been carried out to examine the main predictors of life satisfaction and anxiety. This paper investigates the connection between spirituality, religiosity, religious coping, forgiveness, anxiety, and satisfaction with life in the case of a Turkish Muslim sample. In total 560 respondents were selected from different faculties of Bolu Abant İzzet Baysal University. 53.4% (N= 299) of the sample were females and 46.6% (N= 261) of them were males. Participants' age changed to between 18 and 38 years. 28.4% (N=159) of students were from faculty of education, 25.9% (N=145) of students were from faculty of architecture and engineering, 23.8% (N=133) of students were from faculty of theology, and 22% (N=123) of students were from faculty of administrative sciences and economics. In the present researchers utilised the *"Forgiveness Scale"*, *"Positive Religious Coping Scale"*, *"Religious Struggles"*, *"Scale for Satisfaction with Life"* and *"Generalised Anxiety Scale"* to collect data. According to multiple regression findings, religiosity and forgiveness were significant predictors for life satisfaction. Moreover, forgiveness and religious coping (religious struggles and positive religious coping) were significant predictors of generalized anxiety.

Keywords:
Religiosity, Spirituality, Religious Coping, Religious Struggle, Forgiveness, Satisfaction with Life, Generalized Anxiety.

Hayat Memnuniyeti ve Kaygının Yordayıcıları Olarak Dindarlık, Maneviyat, Affetme ve Dini Başa Çıkma: Üniversite Öğrencileri Üzerine Nicel Bir Araştırma

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Öz

Son çeyrek yüzyılda hayat memnuniyeti ve kaygının yordayıcısı olarak pek çok etmen üzerinde durulmuştur. Bu araştırma ise, dindarlık, maneviyat, dini başa çıkma, affetme, hayat memnuniyeti ve kaygı arasındaki ilişkiyi ele almaktadır. Araştırmaya Bolu Abant İzzet Baysal Üniversitesi'nin farklı fakültelerinde okuyan 560 öğrenci dâhil edilmiştir. Katılımcıların %53.4'ü (N= 299) kadın %46.6'sı (N= 261) erkektir. Katılımcıların yaşları 18 ila 38 arasında değişmektedir. Katılımcıların %28.4'ü (N=159) eğitim, %25.9'u (N=145) mimarlık ve mühendislik, % 23.8'i (N=133) ilahiyat ve %22'si (N=123) iktisadi ve idari bilimler fakültelerinde öğrencidir. Veriler "Affetme Ölçeği", "Olumlu Dini Başa Çıkma Ölçeği", "Olumsuz Dini Başa Çıkma Ölçeği", "Hayat Memnuniyeti Ölçeği" ve "Genel Kaygı Ölçeği" yardımıyla toplanmıştır. Regresyon analizlerinden elde edilen bulgular, dindarlık ve affetmenin hayat memnuniyetinde anlamlı yordayıcı olduklarını ortaya koymuştur. Ayrıca araştırmada affetmenin, olumlu ve olumsuz dini başa çıkmanın kaygı üzerinde anlamlı yordayıcı olduğu bulgulanmıştır.

Anahtar Kelimeler:
Dindarlık, Maneviyat, Dini Başa Çıkma, Dini Didişme, Affetme, Hayat Memnuniyeti, Genel Kaygı.

edam

The focus of social scientists on the relationship between health indices and variables of religious orientation toward life, such as religiosity, virtues, and religious coping, have risen substantially during the last quarter of the century. Many studies investigating the links between mental health and the variables of religiousness, religious coping, and forgiveness had contributed to change social scientists' ideas about the relationship between religiosity and health, which were mainly negative in the first period of psychology especially until 1050s (Koenig, 2004: 15-30). Some of these studies indicated that the positive impacts of religiosity and spirituality on both physical and psychological health have emerged through virtues such as helping, humility, etc. These studies also showed the positive connection between religiosity, and positive religious activities like pleading, benevolent God reappraisal, prayer, etc (Abu-Raiya & Pargament, 2015). Some other studies showed that religiosity and religious coping and virtues do not have any positive contribution to health and even some studies found that religiosity or negative religious coping has increased the level of anxiety of individuals (Pargament et al., 2013). However, the larger majority of these studies on the relationship between religious coping, religiosity, spirituality, virtues (like forgiveness, gratitude, humility, etc.), and health and well-being has been done in the Judeo-Christian cultures (mainly in the USA) and mostly ignored people from other eastern religious cultures, Islam in particular. However, the number of studies examining Muslim behaviours concerning the link between religiosity and mental health has started to increase recently (Ayten & Korkmaz, 2019). These studies have started to provide explanations to the links between virtues, religiosity, spirituality, religious and spiritual coping, and both physical and psychological health in the Muslim countries.

This current research attempts to study the links between religiosity, spirituality, religious coping, forgiveness, life satisfaction, and generalized anxiety. The present study aims at contributing findings from Turkish–Muslim sample to literature concerning relations between psychological health and religious coping and forgiveness by examining the link between these variables (Ayten & Ferhan, 2016; Abu Raiya &Ayten, 2020). In the current study, the young generation is selected as a sample because their anxiety propensity is higher than other generations and life satisfaction level is less than the elder individuals (Aslan & Kaysadu, 2018; Özcan, Subaşı, Budak, Çelik, Gürel & Yıldız, 2013; Twenge, 2009; Twenge, 2018) in order to test the function of religiosity and religious coping on life satisfaction and anxiety.

The major aim of the study was to illustrate whether religiosity, spirituality, forgiveness, positive religious coping, and religious struggle are predictors of satisfaction with life and generalized anxiety. Based upon this question and the results of other studies we constructed the following hypotheses (H_{1-7}):

H$_1$: Religiosity will relate positively to life satisfaction (H$_{1a}$), and negatively to anxiety (H$_{1b}$).

H$_2$: Spirituality will relate positively to life satisfaction (H$_{2a}$), and negatively to anxiety (H$_{2b}$).

H$_3$: Forgiveness will relate positively to life satisfaction (H$_{3a}$), and negatively to anxiety (H$_{3b}$).

H$_4$: Religious struggle will relate negatively to life satisfaction (H$_{4a}$), and positively to anxiety (H$_{4b}$).

H$_5$: Positive religious coping will relate positively to life satisfaction (H$_{5a}$), and negatively to anxiety (H$_{5b}$).

H$_6$: Independent variables (religiosity, spirituality, forgiveness, positive religious coping, and religious struggle) will predict participants' levels of satisfaction with life.

H$_7$: Independent variables (religiosity, spirituality, forgiveness, positive religious coping, and religious struggle) will predict participants' levels of generalized anxiety.

Method

In the current study, correlational design was utilized as research model in order to reveal the links between spirituality, religiosity, religious coping and mental health indices such as life satisfaction and generalized anxiety.

Sample

The sample contains 560 Turkish Muslim undergraduates, enrolled in different colleges at Bolu Abant İzzet Baysal University. Researchers utilised non-random snowball sampling to recruit the data. 53.4% (*N*= 299) of the sample are females and 46.6% (*N*= 261) of them are males. The age of participants has ranged from 18 to 38 years. 94.6% (*N*=530) of the sample are between 18-24 ages, and 5.4% (*N*=30) are between 25-38 ages. 28.4% (*N*=159) of students are from faculty of education, 25.9% (*N*=145) of students are from faculty of architecture and engineering, 23.8% (*N*=133) of students are from faculty of theology, and 22% (*N*=123) of students are from faculty of economics and administrative sciences.

Measurements

Demographic Variables Form. Three questions regarding age, faculty, and gender were asked to participants.

Religiosity and Spirituality. Self-rating scales were used to measure participants' religiosity and spirituality inclination levels. These two measures were as follows: (1). "How could you describe your level of religiosity? (Dindarlık düzeyinizi nasıl değerlendirirsiniz?" (2). "How could you describe your level of spirituality? (Maneviyat düzeyinizi nasıl değerlendiriyorsunuz?" For both two scales points are ranged from 1 (low) to 5 (high).

Forgiveness. The level of forgiveness inclination of students was measured by the *Interpersonal Forgiveness Scale* which has 18 items and three sub-dimensions. Ayten (2009) developed the scale and completed its reliability and validity analyses. Kaiser-Mayer-Olkin and Bartlett analyses displayed the fitness of data for factor analysis [KMO= .88; x^2= 1894.523; p= .000]. In reliability analysis Cronbach's alpha coefficients of measure were found as acceptable: Forgiveness total α= .87; "avoidance" α= .83; "hopefulness" α= .74 and "vengeance" α= .71 (Ayten, 2009: 111-128). For the current survey, researchers directed a fresh reliability analysis and they found that Cronbach's alpha coefficients of the tool were satisfactory for the whole scale and sub-scales (Forgiveness α= .875; "vengeance" α= .814, "avoidance" α= .819, and "hopefulness" α= .742). Questions were organised in Likert format and each item ranged in point from 1 to 5.

Religious Coping. IPRC-Islamic Positive Religious Coping Scale was utilized for measuring respondents' inclination of religious coping (Abu-Raiya et al., 2008). The IPRC is composed of 7 items which are including different strategies for coping with adversities of daily life. Each item ranged in point from 1 to 4. Higher marks on this subscale reveal more positive religious coping. Researchers translated the measure to Turkish and completed its factor and reliability analyses [KMO= .901; x^2=2.220; p=000; $α$ =.88].

Religious Struggles. Religious struggles were measured by the Islamic Religious Struggle Scale (see Abu-Raiya et al., 2008). The IRS has 6 items. Respondents were requested to designate the frequency by which they practiced the content of every item over the previous months on a 5-point scale ranging from 4 to 0. Higher scores on this subscale show more religious struggle. Researchers translated the scale to Turkish language and accomplished its validation and reliability analyses [KMO= .897; x^2=2.617; p=.000; $α$=.92].

Life Satisfaction. In order to measure participants' life satisfaction discrepancy, the Satisfaction with Life Scale-SWLS was utilised (see Ed Diener et al., 1985). The SWLS is collected of 5 items. Each item ranged in point from 1 to 7. The measure was adopted to Turkish by Ayten (2012). In his survey findings of data reduction indicated that the scale is validated and reliable [KMO= .81; x^2=323.367; p=.000; $α$ =.81]. A new reliability analysis which has been done for current research displayed that Cronbach's coefficient was also satisfactory [($α$= .79].

Anxiety. Participants' anxiety level was measured by The Generalized Anxiety Scale (see Spitzer et al., 2006) which is including 7 indications of anxiety (e.g., feeling edgy, worried, or nervous). Participants answered the items depending on their experience within the former two weeks. Answers of respondents were scaled from 0 to 3 and higher scores were accepted as a greater presence of anxiety. The researchers translated the measure to Turkish and they have found factor and reliability analysis were satisfactory. [*KMO*= .889; x^2=1.634; *p*=.000; Cronbach's coefficient *α*= .86].

Procedure

Researchers collected from students who are studying in the different faculties of Bolu Abant İzzet Baysal University in Turkey between the date July and August 2018. Questionnaires containing "*Interpersonal Forgiveness Scale*", "*Generalized Anxiety Scale-7*", "*The Islamic Positive Religious Coping Scale*", "*The Islamic Religious Struggle Scale*", and "*The Satisfaction with Life Scale*" were distributed to students in schools. 4 pollsters helped researchers to finalise the survey. They gave information about the purposes of the study to the respondents and what their contribution would involve. Completion of the survey procured roughly 20 minutes based on unpaid contribution. The respondents did not refuse or reject the opportunity to respond to the survey. Generally, the students appear to have approached the research with zest and much interest.

Results

Correlational Analyses

Table 1 shows that the correlational coefficients (*r*) of the survey's central variables. Findings indicated that there are positive correlations between religiosity (*r*=,119; *p*<.01), forgiveness (*r*=,095; *p*<.05), positive religious coping (*r*=,090; *p*<.05), and satisfaction with life. These correlations were also statistically significant. Additionally, there was a significant negative correlation between religious struggles and satisfaction with life (*r*= -,098; p<.05). As for generalized anxiety, it is related negatively with forgiveness (*r*=-,242; p<.01), and positively with positive religious coping (*r*=,118; p<.05).

Table 1.
Correlation Matrix

Variables	1	2	3	4	5	6	7
1. Religiosity (*M*=3.09; *SD*=.767; *range*=1-5)	1						
2. Spirituality (*M*=3.28; *SD*=.796; *range* =1-5)	399**	1					
3. Forgiveness (*M*=3.39; *SD*=.663; *range* =1-5)	.074	.093*	1				
4. Religious struggles (*M*=1.42; *SD*=.784; *range* =1-5)	-.498**	-.202**	-.068	1			
5. P. Religious Coping (*M*=3.33; *SD*=.634; *range*=1-4)	.505**	.147**	.042	-.703**	1		
6. Satisfaction with life (*M*=3.91; *SD*=1.43; *range* =1-7)	.119**	-.003	.095*	-.098*	.090*	1	
7. Generalized anxiety (*M*=2.46; *SD*=.699; *range* =1-4)	.023	.030	-.242**	-.114	.118*	-.298**	1

N=560** p<.01; * p<.05

Regression Analyses

In order to find the predictors of satisfaction with life, Stepwise regression analysis was completed in the first step, the factor 'religiosity' is inserted to model only. In the second step, the two predictors of religiosity and forgiveness are inserted simultaneously. Life satisfaction is accepted as a dependent variable. Spirituality, religious struggles, positive religious coping are excluded variables. The mentioned regression analysis is shown in Table 2.

Table 2.
Predictors of Satisfaction with Life (Stepwise Multiple Regression Analysis)

	Predictors	*β (p)*	*ΔR² (p)*
Step 1	Religiosity	,119 (.005) ,012 (,005)	
Step 2	Religiosity Forgiveness	,112 (.008) ,087 (.039)	,018 (,002)

Findings of Table 2 show us that religiosity and forgiveness were statistically noteworthy predictors on life satisfaction. In the first step, 'religiosity' alone accounts for 1.2% of the alteration in life satisfaction ($ΔR^2$=.012; F=8.005=; p=.005). However, in the second step, 'religiosity' and 'forgiveness together account for 1.8% of the alteration in life satisfaction ($ΔR^2$=.018; F=6.169=; p=.002). As regards Beta coefficients, a positive relationship was observed between religiosity and life satisfaction, forgiveness, and life satisfaction. (See Step 2: $β$=.119; t=2.829; p=.005 for 'religiosity'; $β$=.087; t=2.070; p=.039 for 'forgiveness'). The findings indicate that "life satisfaction" increases as "religiosity" and "forgiveness" increase. The findings supported partially the H₆: *that independent variables (religiosity, spirituality, forgiveness, positive religious coping, and religious struggle) will predict participants' levels of satisfaction with life.*

To determine the predictors of generalised anxiety hierarchical regression analysis (stepwise method) is conducted. In the first step, the factor 'forgiveness' is inserted only. In the second step, the two predictors of forgiveness and positive religious coping are inserted simultaneously. In step 3, three predictors of positive religious coping, forgiveness, and religious struggles are entered into the regression model. The dependent variable is generalized anxiety. Spirituality and religiosity are excluded variables. The results of the regression analysis were offered in Table 3.

Table 3.
Predictors of Generalised Anxiety (Stepwise Multiple Regression Analysis)

	Predictor	*β (p)*	*ΔR² (p)*
Step 1	Forgiveness	-.242 (.000)	.057 (.000)
Step 2	Forgiveness	-.248 (.000)	
	Positive Religious Coping	.128 (.002)	.072 (.000)
Step 3	Forgiveness	-.243 (.000)	
	Positive Religious Coping	.210 (.000)	
	Religious Struggles	.117 (.042)	.077 (.000)

Table 3 displays us that forgiveness, positive religious coping and religious struggles were significant predictors of generalised anxiety. In the first step, 'forgiveness only accounts for 5.7% of the variance in generalized anxiety (ΔR^2=.057; F=34.804=; p=.000). In the second step, 'positive religious coping' and 'forgiveness' together account for 7.2% of the alteration in generalized anxiety (ΔR^2=.072; F=22.609=; p=.000). However, in the third step, 'forgiveness', 'positive religious coping' and 'religious struggles' collectively account for 7.7% of the variance in generalized anxiety (ΔR^2=.077; F=16.542=; p=.000). As respects Beta coefficients, a negative link was observed between forgiveness and generalized anxiety. Beta coefficients also showed that positive religious coping and religious struggles are related positively with generalised anxiety (see Step 3: β=-.243; t= -5.969; p=.000 for 'forgiveness'; β=.210; t=3.673; p=.000 for 'positive religious coping'; β=.117; t=2.037; p=.042 for 'religious struggles'). The results indicate that "generalised anxiety" increases as "positive religious coping" and "religious struggles" increase, on the other hand 'generalised anxiety' decreases as 'forgiveness' increases. The findings supported partially the H_7: *that independent variables (religiosity, spirituality, forgiveness, positive religious coping, and religious struggle) will predict participants' levels of generalized anxiety.*

Discussion and Conclusions

The central purpose of the current study was to study the links of spirituality, religiosity, religious coping, and forgiveness with generalized anxiety and life satisfaction. The study aims to bridge the gap found in the literature with regard to the variables of research in relation to cultures beyond the Western world. Furthermore, the study aimed to investigate the links between gender and main study variables (spirituality, forgiveness, anxiety, life satisfaction, and religious coping). At this juncture, the current research anticipates to advance different findings to the prevailing findings and seeks to promote cross-cultural discussions concerning religiosity, spirituality, religious coping, forgiveness, anxiety, and life satisfaction links.

With regards to the earliest hypothesis of the study ($H1_{a-b}$), the findings designate that there is a statistically significant and positive association between religiosity and satisfaction with life but there is a negative but not statistically significant relationship between religiosity and generalized anxiety. The finding is coherent with the findings of the former studies which are showing the positive link between satisfaction with life and religiosity. Various studies indicated that religiosity has a positive contribution to people's levels of life satisfaction (Fiori, Browni, Cortina & Antonucci, 2006; Tiliouine & Belgoumidi, 2009; Ayten, 2013; Ayten & Ferhan, 2016, Ayten, 2017). Studies showed that the positive relationship between religiosity and life satisfaction has emerged especially in relatively religious countries. For example, Okulicz-Kozaryn (2012) argued that the impact of religiosity on life satisfaction

changes from country to country. For him, religiosity has a more positive influence on life satisfaction and happiness among religious societies in comparison to secular societies. This might be explained by the recognition that the positive social support of religion to human life and human relations are more effective in religious countries than other secular countries.

In the current study, the findings did not support the hypotheses (H_2) with regards to the link between spirituality, life satisfaction, and generalized anxiety. It might be due to the reason that it used a self-rating scale to measure spirituality. On the contrary, many previous studies showed that spirituality has a positive contribution to people's levels of well-being, life satisfaction, happiness, and low anxiety (Coubrie & Davies, 2006; Gaudette & Jankowski, 2013).

As for the role of forgiveness on satisfaction with life and generalized anxiety (H_3) the findings of the study indicated that there is a statistically important positive link between forgiveness and satisfaction with life and a statistically significant negative correlation between forgiveness and generalized anxiety. The current study findings were consistent with the data from other studies indicating that forgiveness has a positive contribution to satisfaction with life, well-being, and low anxiety and low depression (Reed & Enright, 2006; Ayten & Ferhan, 2016; Kwok, Gu & Cheung, 2017).

Findings indicated that there are negative correlations between religious struggle, satisfaction with life, and generalized anxiety (see Table 1). But the link between religious struggle and generalized anxiety did not reach a statistically significant level. These findings were consistent with findings including a negative relationship between religious struggle and satisfaction with life from studies on Muslim samples (Abu-Raiya et al., 2018). Conversely, Zarzycka, and Zietek (2019) found that life satisfaction with life increases as sub-dimensions of religious struggle (e.g. divine, demonic, doubt) decrease. Besides, in most studies, religious struggle or negative religious coping (doubt, punishing God reappraisal, religious discontent, etc.) have been linked to poorer levels of well-being, life satisfaction, and greater levels of depression and anxiety (Ayten, 2012; Zamanian et al., 2015). Some exceptional studies showed that religious or spiritual struggles contribute to positive health indices by providing spiritual growth after trauma (Stauner, Exline & Pargament, 2016).

The present research found positive links between positive religious coping and satisfaction with life and generalized anxiety. These results were consistent with findings concerning the positive link between positive religious coping and life satisfaction (Ross et al. 2009; Ayten, 2012; Ayten et al. 2012; Turan, 2018). Conversely, findings concerning the positive correlation between positive religious coping and generalized anxiety complied with most study findings (Freitas et al., 2015). This might be explained by arguing that when people feel anxiety, they use

more positive religious coping activities, especially in religious societies.

Similar to previous literature, findings from multiple regression analyses indicated that religiosity and forgiveness had a significant contribution to predicting life satisfaction with life (Fiori, Browni, Cortina & Antonucci, 2006; Abdel-Khalek, 2010; Ayten, 2013; Ayten & Ferhan, 2016). Spirituality, positive religious coping and religious struggle were not statistically noteworthy predictors for satisfaction with life. Furthermore 'religiosity' and 'forgiveness together accounted for only 1.8% of the alteration in satisfaction with life. Depending on these findings it might be said that religiosity and forgiveness have a contribution to individuals' levels of satisfaction with life but many other factors explain an individual's satisfaction with life such as marital status, socio-economic status, age, life quality, health conditions, etc.

This study also examined the predictors of generalized anxiety. Forgiveness, positive religious coping and religious struggle were significant predictors for generalized anxiety, but religiosity and spirituality were not significant predictors. Consistent with various studies forgiveness (self-forgiveness, forgiving others, and forgiving negative life events, etc.) had contributed to decreasing general anxiety (Çardak, 2012; Gençoğlu, Şahin & Topkaya, 2018). Very exceptional studies showed that forgiveness (self-forgiveness, forgiveness other, etc.) has no contribution or negative contribution to generalized anxiety. As it is found in various studies religious struggle (or negative religious coping) increased the level of general anxiety (Lucero et al., 2013; Abu-Raiya, Pargament, Weissberger, & Exline, 2016), but findings including positive religious coping that showed contribution to increasing anxiety were not consistent with previous studies (Rosmarin, Pargament, & Mahoney, 2009). Furthermore, according to the findings, three variables together accounted only for 7% of the variance in generalized anxiety. Thus, there might be some other factors which are affecting individuals' level of generalized anxiety such as health problem, school problems, romantic relation problems, socioeconomic issues, etc.

Study Limits and Instructions for Coming Research

The current study has some limitations to be mentioned (**a**) Due to the present study focusing on the levels of participants' religiosity and spirituality by measuring with self-rate scales the researchers believe that if religiosity and spirituality scales were used there would be possibly different conclusions with regards the relationships between spirituality, religiosity, and mental health indices. (**b**) The scope of this study only focuses on undergraduate students. That means the research sample is collected among similar education level, marital status, age, and socio-economical level. It is very vital to illuminate the link between independent variables (spirituality, religiosity, religious coping, forgiveness) and dependent variables (satisfaction with life, and generalized anxiety) by using samples collected from a different age, education,

marital status, etc. (**c**) Current study findings suggested that the relations between religious coping (negative and positive), religiosity, forgiveness, and well-being among Muslims are complex and at the same time possibly mediated and moderated by many factors. It is needed a more detailed and nuanced analysis of the relationships between the two group variables mentioned above. (**d**) Lastly, the present study used one-dimension religious coping scales both positive religious coping and religious struggle. Future studies should look at other types of religious coping (both negative and positive) such as demonic, meaning, interpersonal struggles, benevolent religious reappraisal, interpersonal religious dissatisfaction, spiritual/ religious discontent, religious forgiving, punishing God reappraisal, religious purification, etc.

Ethical Statement

The authors declare that all the procedures of the study were conducted in compliance with the Helsinki Declaration. Voluntary participation, anonymity and informed consent were ensured for all participants and there was no experimental manipulation involved in the study.

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Research Article

Resilience as a Mediator in Spiritual Relations and Quality of Life for Entrepreneurs

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Abstract
Everyone wants a good quality of life and also has its own standards regarding the quality of life, as well as entrepreneurs. Quality of life can include all aspects of life that can not be separated from the elements of spirituality. This study aims to determine whether there is a relationship of spirituality to the quality of life in entrepreneurs mediated by resilience. This research uses a quantitative approach. The subjects of this study were 100 entrepreneurs who were scattered in Malang, aged 20-35 years consist of Male 76 persons and female 24 persons. Sample selected from through groups of entrepreneurs in Malang with a purposive sampling method. The measuring instrument used was a questionnaire from the scale of The Daily Spiritual Experience Scale, The Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form (Q-LES-Q-SF), The Connor-Davidson Resilience Scale (CD-RISC-25). Data analysis using IBM SPSS version 21 analysis techniques with PROCESS macros from Hayes. From the results of this study there is a mediating effect of resilience in the spiritual relationship with quality of life in entrepreneurs. That spirituality does not only have a direct influence on the quality of life, but also indirectly through resilience.
Keywords:
Resilience, Spirituality, Quality of life.

One strategy to exploit the potential of a country's human resources is to maximize it through entrepreneurship. Glaeser, Keer & Keer (2013), conveyed the need for entrepreneurs as the economic drivers of the community, they play a significant role in the growth of the city. An entrepreneur is no other than to get a wage, meet their needs and to get a good quality of life. According to Ruggeri et al., (2001), good quality of life is everyone's dream and that applies to entrepreneurs. However, each person's perception of quality of life is different and has its own standards, including the ideal quality of life or as desired. According to the World Health Organization Quality of Life (WHOQOL) (1996), quality of life is an individual's perception of the position of individuals in life in accordance with the cultural context and value system adopted, where individuals live and their relationship with expectations, goals, standards set and attention from individual.

Being an entrepreneur is one of the right choices for the community and becomes an interesting and attractive thing. Lorenzini (2015) states that young people who are not working will have low life satisfaction and make it easier to get involved in protests. At this point, entrepreneurial behavior can solve one of the important issues faced by the people of Indonesia. Kasali (2010), said entrepreneurs can help increase satisfaction and quality of life and help improve the country's economy, because the more people who are capable of entrepreneurship will lead to an increase in state income. To further sharpen the problem, in this study the productive population in question is more specifically at the age of 20-35 years. This is due to the generality of the youth entrepreneur organization in Indonesia which is in the age of 20-35 (Qamariah, 2016). Likewise, the connection between quality of life and entrepreneurship is reflected in both of them being a good indicator to see the growth of the nation and the State (Bache, 2013; Grine, Fares, & Meguellati, 2015). This is one of the reasons for this research to elaborate further about the quality of life in the entrepreneurial community, specifically those who are still in their productive age.

In addition, previous studies have found that good quality of life is the main goal for entrepreneurs (Lu & Pan, 2009). In this study, Lu & Pan (2009), found the factor of life satisfaction as having an influence on the quality of life of an entrepreneur. Meanwhile, according to Rogala (2014), that quality of life is related to the needs of the individual itself. A study conducted by Dash & Kaur (2012), in India found that from the achievements obtained from entrepreneurship, it can lead to its own satisfaction with his life.

Then Sirgy (2012) explained about several important variables that have a relationship to quality of life, including objective factors and subjective factors. Objectively demographic factors, income, wealth, and macro conditions have a role in quality of life. Subjectively, values, personality, emotions, and cognition have a role in the quality of life. In this study the selection of entrepreneurial communities is an

effort to represent an objective element of quality of life. This is because entrepreneurs have a considerable influence on the level of wealth, welfare, and income (Samli, 2009; Bache, 2013). In Sirgy's research, one of the subjective factors which is quite important is the internal values of individuals such as religion, spirituality, and life satisfaction.

Spiritual entrepreneurs are needed because some facts and research support that quality of life is supported by spirituality. Research conducted by Baker (2003), proves that spirituality contributes to quality of life. Other studies have also been conducted by Young (2012), on individuals with mental disorders who show that the positive effects of spirituality can improve the quality of life, because by getting closer to God it will reduce the stress obtained from everyday life. Spirituality is different from religion, spirituality is a broader concept that is universal and personal while religion is part of spirituality related to culture and society (McEwen, 2003). Individuals are said to have good spirituality if the individual has full, optimistic, and positive thinking (Roper, 2002). According to Delaney (2005), spirituality is a multidimensional phenomenon that produces universal experience.

However, previous studies have shown an inconsistent relationship between spirituality and quality of life. Akbar & Hosain (2018), show that there is a non-linear relationship between spirituality and quality if life. Likewise, Cabale & Cayetano's (2019) suggests that spiritual care does not have a direct relationship with the overall quality of life of the elderly. This description explains the reasons for spiritual research with quality of life to be interesting to study, because there are gaps in research.

Getting a good quality of life as desired can be obtained not only by increasing spirituality, but by being able to analyze yourself and survive in difficult situations. Self-analysis, namely by analyzing the strengths and weaknesses, opportunities and failures in yourself. So that you can find the strengths or weaknesses that exist in yourself. There are several entrepreneurs who have received business capital assistance but then fail and stop not continuing their business due to various obstacles (difficulty in dividing time, lack of managerial ability, difficulty in promoting, developing their business, and competition among entrepreneurs who are fast). Therefore, one of the abilities that entrepreneurs must have is resilience.

Resilience is the capacity an entrepreneur has to cope with difficult circumstances, this capacity to adapt and reflect back in adversity depending on individual resources and their interactions with the environment, Ayala Manzano (2014). Resilience is a dynamic adaptation process that is able to make entrepreneurs continue their efforts despite the many obstacles they face. If someone has low self-confidence, then that person will likely have less interest in entrepreneurship (Ayala & Manzano, 2014). According to Connor (2003), resilience includes several aspects such as emotional regulation, impulse control, optimism, ability to analyze problems, empathy, self-efficacy, achievement.

An entrepreneur is considered a resilient individual if he is able to face problems, develop and mobilize his / her resources. Resilience is the result of interaction between individuals and their environment, a process that is dynamic and gradual in nature, allowing individuals to learn to gain knowledge, abilities and skills that can help them face difficult times, full of uncertainty based on a positive attitude, with creativity and optimism and rely on the abilities they have. Because basically when someone wants to build a business, what is needed is a sense of confidence in their own abilities if the business they want to build will be successful later.

There have been several previous studies related to the relationship between resilience and quality of life. In Daniele's research (2019), there is a positive relationship between resilience and quality of life in psychotic patients. Research accomplished by Yesim (2015) shows an influence between resilience and quality of life in patients with spinal cord injuries. Whereas with entrepreneurs, if their spirituality is good and increasing and their needs for resilience have been met by the entrepreneur, the quality of life will be guaranteed such as physical health, psychological well-being (body image or appearance, positive feelings, self-esteem, concentration), social relationships (personal relationships), relationship with the environment (financial resources, security, home environment, opportunities for fun activities).

Purpose

This study aims to determine whether there is a relationship of spirituality to the quality of life (quality of life) in entrepreneurs mediated by resilience.

Method

Research Design

This research uses descriptive quantitative method. Quantitative is a systematic approach that makes a clear statement of research objectives, makes specific research questions and hypotheses, is measurable, and observable (Creswell, 2012). In this study, a quantitative approach is used to determine the relationship between spirituality and quality of life which is mediated by resilience.

Universe and Sampling

As for determining the sample using purposive sampling, the criteria for individual entrepreneurs. The subjects in this study were individuals who had entrepreneurship in Malang with an age range 20-35 years of 100 subjects consist of 76 male and 24 female. In detail, the participants include 21 person aged 20 years old, 19 person aged 24 years old, 21 person aged 28 years old, 20 person aged 32 years old and 19 person aged 35 years old.

Table 1.
Characteristics of the Subjects (N = 100)

Characteristics	N	%
Gender		
Male	76	76%
Female	24	24%
Age		
20 years old	21	21%
24 years old	19	19%
28 years old	21	21%
32 years old	20	20%
35 years old	19	19%

Data Collection Tools

The instruments used in this study were The Daily Spiritual Experience Scale spiritual scale, Quality of life scale The Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form (Q-LES-Q-SF) and The Connor-Davidson Resilience Scale (CD-RISC-25)

The Daily Spiritual Experience Scale

The Daily Spiritual Experience Scale spiritual scale. Developed by Underwood & Teresi (2002). This scale has 15 items to measure spirituality. Each question has 6 Likert scale answer categories. As for examples of the items include: "I feel grateful for the blessings that have been received", "I feel deep peace or inner harmony".

Quality of life scale The Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form (Q-LES-Q-SF).

Quality of life scale The Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form (Q-LES-Q-SF). Developed by Endicott, Harrison & Blumenthal (1993). This scale has 15 items to measure quality of life. Each question has 5 Likert scale answer categories. The sample items include: "how satisfied are you with physical health?", "How satisfied are you with economic status?"

The Connor-Davidson Resilience Scale (CD-RISC-25) Scale

The Connor-Davidson Resilience Scale (CD-RISC-25). Developed by Kathryn M. Conner and Jonathan R.T. Davidson. (2019). This scale has 25 items to measure resilience. Each question has 4 Likert scale answer categories. The sample items include: "I am able to adapt when changes occur", "I believe I can achieve my goals, even if there are obstacles".

Sociodemographic Information Form

The sociodemographic information forms used by participants in this study included age, gender, year of birth and religious beliefs.

Data Collection Process

The data collection process in this study used questionnaires from The Daily Spiritual Experience Scale spiritual scale, Quality of life scale The Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form (Q-LES-Q-SF) and The Connor-Davidson Resilience Scale (CD-RISC-25). Data was collected from 9 December 2019 to 22 December 2019. Research subjects who are willing to participate are provided a link via email or online to fill in the scale according to the actual subject's circumstances. In this link the researcher conveys that the data information provided is kept confidential, research subjects are allowed to write names using initials. The data that has been collected is then analyzed.

Data Analysis

This study uses a mediation analysis which is used to answer the question of how variable X is thought to influence variable Y through intervention from variable M (Hayes, 2013). This analysis uses IBM SPSS version 21 with PROCESS macros from Hayes.

Result

Table 2.
Bivariate Correlations

	Spiritual	Quality of life	Resilience	Reliability
Spiritual		.897**	.847**	.848
Quality of life	.897**		.954**	.859
Resilience	.847**	964**		.905

n= 100. **$p < .01$.

Table 2 shows that Spiritual has a positive correlation with Quality of life (r = .897**; p <.01). Then Spiritual has a positive correlation with resilience (r=.847**; p<.01), while Quality of life is positively correlated with resilience (r=.954**; p<.01). Resilience has a positive correlation with spiritual (r=.847**; p<.01) while resilience has a positive correlation with quality of life (r=.964**; p<01). In the present study, alpha internal reliability coefficient was found as .848 for spiritual, .859 for Quality of life and .905 for reliability; and the item total correlations ranged from .306 to. 743 for the scale Quality of Life, item total correlations ranged from .302 to. 791 for the scale resilience and item total correlations ranged from .316 to .691 for the scale spiritual.

The main results of the study showed that spiritual influence significantly affected resilience a=1.5623, p=.000. Then resilience affects the quality of life significantly b=.4013, p=.0000. Furthermore, spiritual influence resilience through mediator

c'=.3353, p=.000. Then obtained an indirect effect of .6269, direct effect -.3353, and a total effect of .9622. indirect effect of .6269 in 5000 bootstrap samples and obtained true indirect effects ranging from .5168 to .7337 at 95% Confidence Interval (CI). So that it can be described a mediation relationship model (4) as follows:

Figure 1.
Mediation relationship model
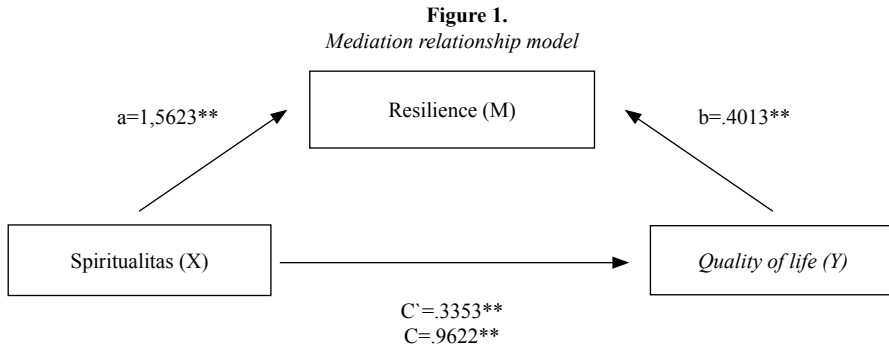
From the mediation model shows that spiritual has a positive relationship with resilience (Line a: β=1.56, p<.000) and resilience is negatively related to quality of life (Line b: β=.40, p<.000). As for the path c shows a significant relationship between spiritual and quality of life (β = .96, p <. 000), while in the path c 'shows (β=.33, p=.000) which means that resilience mediates the relationship between spiritual and quality of life with partial mediation.

Discussion

This study aims to determine the role of resilience in spiritual relationships and quality of life. As explained earlier, the results of this study state that spiritual not only has a direct influence on the quality of life, but also indirectly through resilience. Research on quality of life shows that there are internal factors such as religion (religious) and external factors such as globalization and the country's economic growth (Sandikci et al., 2015). The results of this study focus on internal factors, in this case the spirituality that affects the quality of life in entrepreneurs.

Entrepreneurs still want their business to grow and develop and to improve quality of life, entrepreneurs need spirituality as a means that will make life balanced (Peter & Schukert, 2014). One that plays a role in running the balance of life is spirituality (Balog, Baker & Walker, 2013). Balog, Baker & Walker (2013) research also states that entrepreneurs have a deep meaning to their business activities as a vocation, and the search for deep meaning is influenced spiritually. This is in line with research conducted by Sherman, Randall, and Kauanui (2015), mentioning the importance of spirituality because it can be the main resource and activator, entrepreneurs who have spirituality values in business and practicing religious activities regularly will get happiness, health, pleasure, productivity and better resistance to stress.

In this study found that spiritual factors can be good predictors and have a mutually supportive relationship when together with other factors. There is already an opinion that shows the preposition of the spirituality variable model with other factors as variables needed by entrepreneurs (Godwin, Neck, & D'Intino, 2016), namely with resilience. Where the spiritual is able to increase the ability to overcome, survive and even develop in very difficult circumstances, and can adapt to the conditions in the environment, so that someone is still able to achieve the desired quality of life in his life.

Resilience plays a role in improving spirituality by helping someone to achieve a good quality of life. As explained by Aulia (2014), it shows that the more important spirituality is for a person, the greater his ability to overcome the problems at hand. Meanwhile, according to Azwan et al., (2015) individuals with good spirituality will increase coping, optimism, hope, reduce anxiety and support feelings of comfort and calm. This is in line with the characteristics of resilient individuals according to Connor (2003), that resilient individuals will have the ability to achieve a goal in situations of failure and resilient individuals have good confidence in dealing with difficulties and have no doubt in decision making.

That way individuals who have high spirituality show a sense of calm and comfort in life and get the quality of life they want. This is in line with the opinion of Mezeenbroek (2012), that each individual has a purpose in life that arises from a search for meaning that is constantly straightforward which includes a sense of having a mission in life. One of the mission of one's life is to get a good quality of life. In this study, emphasizing the spiritual as a factor that contributes to the quality of life, has a direct relationship with resilience. It is expected that resilience is able to provide a positive picture of coping with a difficult situation, so that it can help individuals deal with pressures that arise in their lives in entrepreneurship. The role of resilience as a mediator emphasizes individual control over the difficulties they face in life as part of meaningful life (Bond & Flexman, 2006). A meaningful life is to have a quality of life in accordance with the mission and life goals of each individual.

Ethical Statement

The authors declare that all the steps of the study were carried out in compliance with the Helsinki Declaration. Voluntary participation, anonymity and informed consent were ensured for all participants and there was no experimental manipulation involved in the study.

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The Mindfulness Levels of Adults During the Covid-19 Pandemic: The Role of Solution Focused Thinking and Valuing

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Abstract

The aim of this research is to identify the role of solution focused thinking and valuing on mindfulness among adults during the Covid-19 pandemic. The data were obtained through convenience sampling via an online platform. Accordingly, a total of 669 people, 357 men and 314 women, were reached. Personal information form, Mindful Attention Awareness Scale, Solution Focused Inventory and Valuing Questionnaire were used to collect the data. Stepwise regression analysis was conducted to test whether progress, obstruction, goal achievement, problem disengagement and resource activation were meaninful predictors of mindfulness. When the research findings were examined in detail, it was determined that the obstruction variable was the strongest predictor of mindfulness in adults in the Covid-19 period. Other significant predictors, respectively, were determined to be problem disengagement, resource activation and progress. On the other hand, it was determined that goal orientation is not a significant predictor of mindfulness. The research findings were discussed within the scope of the literature and recommendations were made.

Keywords:
Mindfulness, Solution Focused Thinking, Valuing, Adult, Covid-19

Covid-19 Pandemi Sürecinde Yetişkinlerin Bilinçli Farkındalık Düzeyleri: Çözüm Odaklı Düşünme ve Değer Vermenin Rolü

Öz

Bu araştırmanın amacı, Covid-19 salgını sırasında, yetişkinlerde çözüm odaklı düşünmenin ve değer vermenin bilinçli farkındalık üzerindeki rolünü belirlemektir. Veriler, çevrimiçi bir platform aracılığıyla elverişli örnekleme yoluyla elde edildi. Buna göre 357 erkek 314 kadın olmak üzere toplam 669 kişiye ulaşıldı. Verilerin toplanmasında kişisel bilgi formu, Bilinçli Farkındalık Ölçeği, Çözüm Odaklı Envanter ve Değer Verme Ölçeği kullanıldı. İlerleme, tıkanma, hedefe yönelim, problemden ayırma ve kaynakları hakreket geçirmenin bilinçli farkındalığın anlamlı yordayıcıları olup olmadığını test etmek için aşamalı regresyon analizi yapıldı. Araştırma bulguları detaylı olarak incelendiğinde, tıkanma değişkeninin Covid-19 döneminde yetişkinlerde bilinçli farkındalığın en güçlü yordayıcısı olduğu tespit edildi. Sırasıyla diğer anlamlı yordayıcıların problemden ayırma, kaynakları harekete geçirme ve ilerleme olduğu belirlendi. Öte yandan, hedefe yönelimin bilinçli farkındalığın anlamlı bir yordayıcısı olmadığı belirlendi. Araştırma bulguları literatür kapsamında tartışıldı ve önerilerde bulunuldu.

Anahtar Kelimeler:
Bilinçli Farkındalık • Çözüm Odaklı Düşünme • Değer Verme • Covid-19

The coronavirus (COVID-19), identified first in China at the end of 2019, has a highly potentially contamination, and its rate has increased rapidly. Its worldwide infection was recognized by the World Health Organization (WHO) as a pandemic (Ornell et al., 2020). At that time, Turkey started to take significantly necessary precautions to stop the increase of the coronavirus cases and try to find the cure of this virus. In Turkey, the government shut the doors of schools, universities, entertainment and sport centers, shopping malls as precautions. The authorities asked all the citizens to stay at home and not to go outside if unnecessary. Their aim was to protect especially elderly people, children and people with chronic diseases. The factors like the uncertainity of the end of pandemic process, staying at home, changing daily activities affected on the citizens' psychological states, social and daily life. Isolation and social distance, a feature unique to the COVID-19, in contrast with natural disasters like earthquake in which people join together, physically and socially, enforce "being apart" as a compulsory to survive (Polizzi et al., 2020). Some studies indicated that these situations experinced in pandemic periods may cause emotional difficulties such as stress, anxiety, depression, fear and worry among individuals (Shevlin et al., 2020; Zhang et al., 2020). Also, worries and fears about COVID-19 can be a source of stress (Lin 2020) and people with the fear of COVID-19 may be on alert to protect themselves and their family members which can cause to loneliness, fear, and panic in society (Yip and Chau 2020). The presence of these negative emotions may cause the minds to engage more with past and future, rather than here and now (Hanson & Mendius, 2019). Indeed, this is the opposite of mindfulness.

Mindfulness can be defined as accepting with courtesy and compassion for whatever is experienced without judgement, paying attention to what is happening now (Kabat-Zinn, 2009). Mindfulness, which is also defined as a state of deep awareness, includes the sincerity of accepting the events and situations that a person experiences without being judged (Atalay, 2018; Kabat-Zinn, 2003). Contrary to being distracted due to past experiences, in mindfulness, there is a state of trying to be conscious about one's primary experiences and maintaining a non-preconceived behavior (Thompson & Waltz, 2007; Bektaş-Öztaşkın, 2013). Mindfulness is an option for a person to openly and receptively think and experience negative feelings without judgement and attempting to change and suppress these negative feelings (Tatlıoğlu & Deniz, 2011). Experiencing in a suitable and open way contributes directly to well-being and happiness (Brown & Ryan, 2003; Brown et al., 2007; Zümbül, 2019). Mindful individual focuses on intrusive thoughts without paying attention to other thoughts or external stimuli. Because, mindful people are more aware of their environment and are more responding adaptively to negative stimuli, remaining more relaxed, happier, and healthier (Hick & Bien, 2008). Studies have shown that mindfulness reduces rumination, distraction, and negative behaviors and thoughts (Brown & Ryan, 2003; Rodriguez, 2017). In the literature, mindfulness was recorded to be significantly related with less rumination in adults (Hinterman et al.,

2012; Desrosiers et al., 2013; Yu et al., 2021). Mindfulness may promote effective coping during periods of uncertainty crisis (Sweeny et al., 2017; Sweeny et al., 2020). Findings of a research indicated that mindfulness enhances well-being and helps in coping with stressful situations such as the COVID-19 pandemic (Conversano et al., 2020). Another research showed that higher fear of COVID-19 was associated with lower mindfulness, lower humor and higher hopelessness (Saricali et al., 2020). In another research, Arslan (2021) pointed out that coronavirus stress as a mediator in the relationship between coronavirus suffering and mindfulness and coronavirus experiences as an important risk factor for poor wellbeing and greater death obsession. The findings of another study also showed that there is a significant relationship between anxiety, mindfulness and psychological flexibility, both of which have been known to further decrease psychological distress (Dubey et al., 2020). Belen (2020) indicated that the fear of COVID-19 is reversely correlated with mindfulness while positive correlations were found with anxiety and depression and mindfulness mediated in the relationship between fear of COVID-19 and depression and anxiety.

A person should be in the present and here in order to have the solution focused thinking style (Anaswara et al. 2016; Arslan & Asıcı, 2020), which means on the other hand being mindful. Mindfulness may uncover solution focused thoughts and high psychological wellbeing. So, the other important psychological factor for the individuals in coping with stressful experiences and facing difficult situations like Covid-19 pandemic may be solution focused thinking. This brings solution focused thinking that emphasizes producing solutions rather than trying to analyze the cause of stressful experiences in depth (Takagi et al., 2019). Solution focused thinking has traces from Solution Focused Brief Therapy (SFBT). SFBT is a help-model established by de Shazer et al. (1986). In the practice, SFBT emphasizes solution building rather than cause analysis of problems and deeply thinking about them (Takagi et al., 2019). SFBT doesn't emphasize past events and the history of problems. Thus, solution focused thinking means that the focus shifts from problems, excuses, explanations, handicaps, symptoms, past events to abilities, solutions, achievements, present and future events. This way of thinking contains three dimensions. The first is the problem disengagement. To what extent the mind is identified with the problem, in other words, the degree of having a problem-oriented thought. The second is goal orientation. This dimension is the basis of solution focused thinking. It is the direction of the person's goals by taking into account the results she/he wants to achieve and by gaining self-regulation. The third is resource activation which is to define one's own resources and powers and mobilize them (Grant, 2011). The ways of finding solutions and taking actions to resolve the problems are important for a person with these skills and qualifications. Solution focused people can crave and visualize changes which occur in her/his life (Rodriguez, 2017). Solutions are founded in the person who is the expert of their own life and develops strategies to overcome their own problems

and prevails adaptive efforts. For a solution focused thinking, it is assumed that, one needs to be in the 'here and now', can follow goals, not deeply focus on problems, be aware of their own resources. In this context, there is a relationship between mindfulness and solution focused thinking (Anaswara et al., 2016). Also, in a study, Arslan and Asıcı (2020) found that mindfulness positively predicted wellbeing, goal orientation and resource activation and negatively predicted problem disengagement and mindfulness had an effect on wellbeing indirectly via solution focused thinking.

In addition to solution focused thinking, mindfulness can help a person gain more awareness about their own values. Values are an important concept of Acceptance and Commitment Therapy (ACT). Acceptance and Commitment Therapy (ACT) is known as a third wave cognitive behavioral therapy (CBT), which includes mindfulness and acceptance interventions and exercises (Yavuz, 2015). Within ACT, values mean the regarding that something is held to deserve; the importance, worth, or usefulness of something and principles or standards of behaviour; one's judgement of what is important in life. Values are freely selected, verbally configured outcomes of ongoing, active, dynamic, developing forms of activity, which set up main reinforcers for the activity that are real and basic in participation in the valued behavioral form itself (Wilson &Dufrene, 2009; Smout et al., 2014). When a person doesn't make they values clear, they are more likely to behave in a psychologically inflexible way. For instance, during the pandemic, some people found themselves coping with the same thoughts like "nothing matters, everybody will die"and "there is nothing to do". These people could eat and drink more, watch TV, delay important works than usual. Of course, every person can select their own values such as recreation and ambition together (Moran & Ming, 2020). Generally values are shaped by families, culture, and society; thus, a person may not realize whose values really make her/his own choices in life (Shapiro et al., 2006). ACT, which includes mindfulness and acceptance interventions; it focuses on planning a person's behavior in accordance with their values and explains that endeavors to reduce undesirable experiences prevent it. ACT supports values that are an important part of a person and the continuity of actions dedicated to these values (Kaplaner, 2019). It is believed that the values handled in the context of ACT should be explained in order not to confuse the values with goals and desires. When these values are seen in spiritual values, they gain an important function (Uygur, 2016; Kaplaner, 2019). These explanations about values in ACT firstly indicate values are subjectively chosen and experienced to lead one's behavior. A person chooses and owns the predominant and dear values of their culture, they willingly keep them rather than only obey to them in order to refrain from negative judgement, social punishment and so on (Hayes et al., 1999; Hayes et al., 2011; Smout et al., 2014). Values are not only figured out from rational thinking but also selected "only like that". Moreover, values aren't only aroused from and learnt by other people's values; they are active and different from inherent, trait-like patterns like personality (Smout et al., 2014). Values are reinforcers to behave right and the consequence of this behavior is more motivating (Dahl et al., 2009). Values also are guiders to make decisions,

set goals and initiate actions and they continue to guide the choices and behaviors even after decisions, goals, actions. In this sense, living in line with values is progressing; otherwise, it will cause obstruction (Harris, 2009). Lastly, "participation in the valued behavioral form itself" means like this: a parent's spending her/his time playing with her/his children may be correlative with becoming a loving parent, but if this playing with children is done to avoid any criticism or guilt which arise from not doing it (it means it is not freely chosen) and it isn't made according to her/his values. However, that parent purely and freely prefers to spend her/his time playing with her/his children to be a loving parent may have a dignity of being intrinsically reinforcing (Smout et al., 2014).

The fact that the transmission of the Covid-19 virus is easy, there is no a definite treartment and the only way to protect from this virus is wearing mask, social distance, and hygiene can cause concern in people (Kul et al., 2020). Individuals with psychological resilience can get positive results with their solution focused thoughts, mindful approach and acting in line with their values in stressful situation. As a result, focusing on mindfulness, solution focused thinking and valuing during the Covid-19 pandemic period, which is an inevitable stressful experience for many individuals all over the world, is especially important in dealing with anxiety and stress. Instead of focusing on past problems and future anxiety, the person's mind is directed towards their inner world, their power and resources, so that they can think in a solution focused way in the face of the daily difficulties brought by the pandemic, and realize their values and organize their lives in line with them. The literature in the current study indicates the impacts of the Covid-19 pandemic on individuals' mental health and functioning, to understand the factors that help explain the association between mindfulness, solution focused thinking and valuing is critical to developing prevention and intervention strategies for adults. Thus, the findings of this study will therefore provide important implications and directions for current and future approaches to prevention and intervention. For these reasons, it is important to explore the role of solution focused thinking and valuing on mindfulness during the Covid-19 pandemic. Moreover, in the literature we couldn't find any study on these variables together. So, the purpose of the current study is to examine the role of solution focused thinking and valuing on the mindfulness levels of Turkish adults. In this research, it is aimed to search the predictive power of progress, obstruction, goal orientation, problem disengagement, resource activation on the mindfulness levels of adults during the Covid-19 pandemic.

Method

Participants

A convenience sampling technique was used in this study to obtain data from participants. The sample of this study consisted of 669 adult participants living in Turkey. 357 of the participants were male (53.2%) and 314 of them were women

(46.8%). Ages of the participants were ranged between 18 and 71 with the mean value 37.04 (SD = 12.48). 480 of the participants were undergraduate (71.7%); 125 (18.7%) people were graduate students; 57 (8.6%) people were high school graduates; 7 (1%) people were secondary school graduates. 531 (79.1%) of the participants had no chronic diseases. The remaining ones 138 (20.9%) had chronic diseases. In addition, 638 (95.1%) individuals or their relatives were not diagnosed with COVID-19; this diagnosis was made to 33 (4.9%) people or their relatives.

Data Collection Tools

Personal Information Form: It is the form where information such as gender, age, education level, chronic disease, and diagnosis of Covid-19 is asked by the researchers to introduce the research group.

Mindful Attention Awareness Scale (MAAS): MAAS was developed by Brown & Ryan (2003) and adapted in Turkish by Ozyesil, Arslan, Kesici and Deniz (2011). It's a measurement tool that aims to measure minfdulness levels of individuals. MAAS consist of 15 items (ex. I find myself preoccupied with the future or the past). Respondents are asked to indicate how accurately each item described them using a 6 point scale, ranging from 1 (almost always) to 6 (almost never). The total scores of MAAS can change between 15 and 90. The increase in scores means the increase in mindfulness of a person. The original and Turkish versions of the scale were administered to English language teaching students and significant positive correlations between Turkish and English version scores were found. To determine the construct validity of MAAS, exploratory and confirmatory factor analyses were employed and analyses showed a strong single factor solution. The Cronbach's Alpha internal consistency of the scale was .80 and test-retest correlation was .86. There were significant positive relationships with respect to the correlation analysis employed for the Discriminated Validity of MAAS ($\chi 2/sd$ = 2.08, RMSEA = .06, SRMR = .06, GFI = .93 ve AGFI = .91). In this study, the internal consistency was calculated with Cronbach alpha coefficient (α = .84).

Solution Focused Inventory (SFI): SFI developed by Grant (2011) and adapted in Turkish by Şanal-Karahan & Hamarta (2015). SFI is an instrument which is designed to determine to extent to which an individual's thinking system is inclined towards solution structuring. It's consist of 12 item with three subscales: Problem Disengagement (PD) (sample item: "I tend to spend more time analysing my problems than working on possible solutions"), Goal Orientation (GO) (sample item: "I imagine my goals and then work towards them") and Resource Activation (RA) (sample item: "There is always a solution to every problem"). Reverse scoring should be done for the items numbered 1, 2, 4 and 5. Total scores for the SFI are calculated by simply summing all 12 items (after reverse scoring relevant items). Respondents are asked to indicate how

accurately each item (ex. I always achieve my goals) described them using a 6 point scale, ranging from 1 (totally disagree) to 6 (totally agree). The use of a total 12-item SFI composite score and also the use of individual 4 item subscale scores (PD, GO and RA) are supported by the Grant et al (2012) validation study Test–retest reliability over 16 weeks was 0.84. Cronbach's for the 12-item scale was 0.84. The three-factor structure of the scale, which was adapted to Turkish by Şanal-Karahan & Hamarta (2015), was confirmed. Conformity index values were obtained by confirmatory factor analysis as CFI = .94; IFI = .94; GFI = .93 and RMSEA =.07. In this study, the internal consistency was calculated with Cronbach alpha coefficient (α = .74).

Valuing Questionnaire (VQ): *Valuing Scale* was developed by Smout et al. (2014) and adapted in Turkish by Aydın & Aydın (2017). The aim of the scale is to mesure whether individuals live in accordance with the value they have determined last week within the scope ACT. VS, is a scale consisting of two sub-factors 10 items in total and two subfactors progress and obstruction, and total of 10 items. There are five items in each sub-dimension (Smout et al.,2014). Respondents are asked to indicate how accurately each item (ex. I kept moving towards the person I wanted to be) described them using a 7 point scale, ranging from 0 (not correct at all) to 7 (completely correct). In Turkey exploratory factor analysis was performed with 211 students studying at a public university, and then confirmatory factor analysis was performed with 191 students (Aydın & Aydın, 2017). According to the findings, the structure of the scale, which consists of 10 items and two factors as progress and obstruction, has been confirmed in Turkish culture. Cronbach alpha value for total scale score was .78; it was found as .77 for the progress subscale and .76 for the obstruction subscale. In this study, Cronbanch alpha values for was calculated as .77; .77 and .74 for total, progress and obstruction subscales scores respectively.

Procedure

Before the data collection process, the necessary permission was obtained from the Social and Humanities and Scientific Research and Publication Ethics Committee of Izmir Democracy University (Protocol No: 2020/24, Acceptance Date: 17/04/2020, Decision Number and No: 2020/06-07). Later, the approval of the research was obtained from the Covid-19 Scientific Research Evaluation Commission within the General Directorate of Health Services of the Turkish Ministry of Health. Then, the personal information form and scales included in the study were uploaded to an online platform. The link with permission to access these forms and scales was shared to the participants via e-mail and various social media platforms. Participants who entered the relevant link were first directed to the Informed Consent Form and those who marked the "I accept" option reached the scales. The form includes the purpose of the research, confidentiality and volunteering information. In addition, it has been added that participants can leave the research if they wish at any stage. Filling in forms and scales took about 20 minutes**.**

Data Analysis

In order to determine the power of independent variables discussed in the study to predict mindfulness, stepwise regression analysis was used to process variables that make significant contributions to individuals' mindfulness. Before starting the analysis, the appropriateness of the scores obtained from the participants forming the sample of the study for regression analysis was tested. For this, the data is expected to show normal distribution first (Tabachnick & Fidell, 2013). Firstly, Kolmogov-Smirnov test which is recommended to be used for data over 50 was performed and it was found that the data showed normal distribution (Büyüköztürk, 2016). Findings from the Kolmogorov-Smirnov test showed that the values of all variables were not significant (p > .05). These findings indicate that the data have a normal distribution. Another condition for regression analysis is the absence of multiple connections between variables. When analyzed in Table 1, there is no correlation greater than .90 between variables. This is an indication that there are no multiple connections between variables. Other methods of examining the presence of multiple connections are to examine variance increase factors (VIF) and tolerance values (TV). Accordingly, the VIF value is less than 10 (VIF <.10); TV value greater than 10 (TV> .10) indicates that there is no high level of multiple connections between variables (Çokluk, Şekercioğlu & Büyüköztürk, 2012). VIF values of problem disengagement, goal orientation, resource activation, progress and obstruction are 1.2, 1.6; 1.3; 1.4; 1.3 respectively, and TV values are .80; .63; .78; .71 and .74 respectively. As a result, these findings supported the absence of multiple connection problems between variables.

Findings

In the study, mindfulness as dependent variable and progress and obstruction, problem disengagement, goal orientation, resource activation as independent variables were discussed. The mean and standard deviation and the correlation values between these variables were given in Table 1.

Table 1
Descriptive Statistics of Dependent and Independent Variables and Correlations Between Variables

Variables	*Mean*	sd	1	2	**3**	**4**	**5**	**6**
Dependent Variable								
1.M	60.54	10.81	-					
Independent Variables								
2.PD	11.91	3.79	-.37**	-				
3.GO	18.50	3.13	.25**	-.20**	-			
4.RA	18.78	3.24	.21**	-.16**	.45**	-		
5.P	20.91	5.11	.27**	-.17**	.50**	.29**	-	
6.O	12.65	5.22	-.50**	.43**	-.29**	-.13**	-.30**	-

**p<.001
NOTE: M= Mindfulness; PD= Problem Disengagement; GO= Goal Orientation; RA= Resource Activation; P= Progress; O= Obstruction

The stepwise multiple regression analysis applied for the mindfulness levels of the participants was completed in four stages. In the stepwise multiple regression analysis, progress and obstruction as the subscales of valuing and problem disengagement and resource activation as the subscales of solution focused thinking were analyzed and the power of these variables to predict mindfulness was examined. Stepwise regression analysis results for predicting Mindfulness are given in Table 2.

Table 2
Stepwise Multiple Regression Analysis Regarding Prediction of Mindfulness Scores

Model/Variable	B	Se	Beta	t	P	R	R²
1.Constant	73.650	.950		77.499	.000		
O	-1.037	.069	-.500	-14.925	.000	.500	.249
2.Constant	77.868	1.246		62.514	.000		
O	-.869	.076	-0419	-11.476	.000	.528	.276
PD	-.532	.104	-.187	-5.111	.000		
3. Constant	69.373	2.596		26.723	.000		
O	-.850	.075	-.410	-11.311	.000	.542	.290
PD	-.486	.104	-.171	-4.679	.000		
RA	.410	.110	.123	3.179	.000		
4. Constant	65.998	2.873		22.974	.000		
O	-.799	.077	-.386	-10.363	.000	.549	.297
PD	-,482	.103	-169	-4.662	.000		
RA	.330	.114	.099	2.902	.000		
P	.201	.075	.095	2.689	.000		

Note: O= Obstruction; PD=Problem Disengagement; RA: Resource Activation; P= Progress
For Model 1: F=22.766 p=, 000; For Model 2 : F=16.117 p=,000 ; For Model 3: F = 13.830 p= .000; For Model 4 F= 7.232 p=0.00

In the first stage, the obstruction variable was analyzed and explained 24.9% of the total variance as the biggest explanatory of the variance in mindfulness scores or the strongest predictor of mindfulness scores. Correlation between obstruction scores and mindfulness scores of adults was found to be negative and significant (R= .050, R^2=.24.9, F (1.667) = 222.766, p < .05).

In the second stage, in addition to the obstruction variable, the problem disengagement variable was included in the analysis as an important predictor. The additional contribution of this variable to the total variance is 028%, and the two variables together explained as 27.6% of the total variance in the mindfulness scores. Correlation between problem disengagement scores and mindfulness scores was found negative and significant (R= .053, R^2=.27.6, F (1.666) = 26.117, p < .05).

In the third stage, in addition to obstruction and problem disengagement variables, resource activation variable was analyzed. The additional contribution of this variable is 015%, and together with the other two variables, they announced 29% of the total variance in mindfulness scores. Correlation between resource activation scores and mindfulness scores was positive and significant (R= .054, R^2= .29, F (1.665) =13.830, p < .05).

In the fourth stage, after the obstruction, problem disengagement and resource activation variables, the progress variable was analyzed. This variable brought an additional contribution of 008% to variance. Together, the four variables explained 29.7% of the total variance. Correlation between progress scores and mindfulness scores was found positive and significant (R= .055, R^2= .29.7, F (1.664) = 7.232, p < .05).

When all the findings were analyzed, it was concluded that obstruction, problem disengagement, resource activation and progress as variables were significant predictors of mindfulness, whereas the goal orientation variable was not a significant predictor of mindfulness.

Discussion

In this research, it was examined that the predictive power of solution focused thinking and valuing on the mindfulness levels of adults in the Covid-19 pandemic. It has been determined whether there are predictive powers of obstruction and progress, and goal orientation, problem disengagement, resource activation on mindfulness among adults during the period of Covid-19 pandemic. In addition, as a result of the findings, it was observed that problem disengagement, resource activation, progress and obstruction variables significantly predicted the levels of mindfulness in adults in the Covid-19 pandemic, except for the goal orientation dimension of the solution focused thinking.

 When the research findings were examined in detail, it was determined that the obstruction variable was the strongest predictor of mindfulness by explaining 24.9% of the total variance. It was also determined that the correlation between obstruction and mindfulness scores was negative and significant. The concept of obstruction, which is also included in the literature as values-obstruction (obstruction to values based action, extent to which psychological barriers interfered with enacting values) means distancing from values due to the deterioration of a valuable life and unwanted experiences, avoiding values, paying attention to other psychological experiences. When the scale items of the obstruction dimension are examined, it is noteworthy that the expressions of thinking about the past and the future more, staying on the autopilot, difficult thoughts, emotions and memories preventing what the person wants to do are the opposite of the concept of mindfulness. When the literature is examined, although there is no study that directly examines the relationship between mindfulness and obstruction, a study by Baer (2015) emphasizes that acting according to values is stressful and difficult,

and unpleasant thoughts and feelings may arise, and these may often be obstacles to taking action and points out that mindfulness and acceptance can be transformed into behaviors that contain values. Acceptance allows the person to recognize and approve the reality of their lives, conditions or experiences, even if negative, along with their related contexts. Garcia et al. (2014) pointed that acceptance has a relationship with a better quality of life. In the context of the Covid-19 pandemic, acceptance intend to better balance a person's need to act with getting mindful about a situation are beyond anyone's control. Mindfulness (Hayes et al., 2013) supports acceptance and self-compassion and acting in the way of a person's values (Schimmenti et al., 2020). However, in another study, the essence of values and context significantly mitigated the negative effects of COVID-19 risk factors on mental health, and the opposite of current moment awareness made the negative effects of these contextual factors worse (Pakenham et al., 2020; Schimmenti et al., 2020).

The second significant predictor of mindfulness is problem disengagement, which is a subdimension of the solution focused thinking. The additional contribution of this variable to the total variance is 028%, and the two variables together explained as 27.6% of the total variance in the mindfulness scores. Correlation between problem disengagement scores and mindfulness scores was found negative and significant. Problem Disengagement means that solution focused thinking includes more than goal articulation, resource awareness and utilisation (Grant et al., 2012). It also is a dimension that differs from putting problems first. Being unable to be aware of whether things are on the way or not, focusing on the negative, dealing with analyzing the problem rather than the solution, which are the items of problem disengagement, are expressions that are far from the content of the concept of mindfulness. Mindfulness does not ignore problems, it is learning to walk with problems while being aware and in the moment. Especially, people who are mindful may apply their cognitive attention to now, therefore, this makes them less likely to focus on the past and future and more likely to decrease the importance of negative thoughts (Brown and Ryan, 2003; Frewen et al., 2007; Keng et al., 2011). Those people can accept and not judge their feelings and thoughts (Baer, 2009). The more a person tries to produce solutions, focuses on the solution rather than the problem, and realizes that there are good things as well as bad things in his life, the more mindful he will be (Siegel, 2009). The findings of the study show that adults' level of mindfulness will decrease as their separation points from the problem increase, or vice versa. In a study by Weick and Putnam (2006), they stated that mindfulness attaches importance to focusing on the moment, not focusing on the problem. In an another study, mindfulness decreases the effect of any daily stressor on rumination (Ciesla et al. 2012). After learning something about COVID-19 pandemic, people with high levels of mindfulness can more easily save from negative things. Accordingly, the same people may decrease unfunctional and repetitive thoughts related to Covid-19 pandemic and experience relatively low

levels of anxiety and depression (Hong et al., 2020). Moreover, in a research which combined solution focused therapy and mindfulness, it was found that a person could gain deeper insights about the relationship between their action and outcomes to form and focus on workable solutions (Rodriguez, 2017). In a different research, people with low score on mindfulness got more bored and had lower satisfaction and more rumination (Waterschoot et al., 2021).

A third important predictor that predicts mindfulness is resource activation variable. The additional contribution of this variable is 015%, and together with the other two variables, they announced 29% of the total variance in mindfulness scores. According to results of this study we found a low variance between resource activation and mindfulness, so according to probility theory, we can speculate these two random variable generates a discreate continuos process. Resource activation involves identifying and acting personal and contextual resources and forces. The items of resource activation are in line with the concept of mindfulness, that every problem has a solution, that there is always enough resources to solve a problem, knowing where to look at events and situations, that they are more stable contrary to what many people think, that setbacks are an opportunity that can turn failure into success. The findings of the study show that the higher the person's resource activation score, the higher his mindfulness scores will increase. When looking at the literature, Weick and Putnam (2006) argue that mindfulness is a personal resource on its own, it helps focus one's attention on the moment rather than focusing on problems and outcomes / returns beyond one's own control, and can reduce work stress. Kroon et al. (2015) also stated in their studies that mindfulness is a personal resource and can be effective in performance, especially in the work environment and job change.

The fourth predictor of mindfulness is progress, brought an additional contribution of 008% to variance. Together, the four variables explained 29.7% of the total variance. Also included in the literature as Values-progress (Values-based action), progress means the extent to which people felt they lived their own values. Progress, as values in action, means perseverance and a clear awareness of what is important personally, and even when not motivated in its content, working in line with goals, being proud of life, moving forward in the areas of life that is most important to the person you want to be, is a "knowing you have a purpose" expressions address the concept of mindfulness. Dedicated purposeful values-based action directs a person to deeply connect with their own values, even in case of mishap such as the Covid-19 lockdown. The chasing of values informed aims brings accomplishment, whereas inactivity, impulsivity, non-conversational actions, or constant avoidance behaviour condenses stress, trouble and leads to disconnection (Hayes et al., 2011; Landi et al., 2020).

When we look at ACT and mindfulness literature, it is emphasized that mindfulness and values clarity and values-based behavior are related (Christie, 2017). But it is

clear that research directly examining the relationship between mindfulness and values-based action is limited (Christie, 2017); mindfulness and values-progress are usually measured in the ACT literature as a single construct, psychological flexibility (Brown and Kasser, 2005; McCracken and Yang, 2008; Wilson and Sandoz, 2008; McCracken and Keogh, 2009; McCracken and Velleman, 2010; Vilardaga et al., 2011, Guadagno, 2012; Christie et al., 2017; Kraft et al., 2019; Kingston et al., 2020; Fingelstein-Fox et al.2020). However, when mindfulness and values-based action constructs are measured separately, the strength of the correlations between the two constructs are highly different. This is possibly due to the wide variety of measures of both mindfulness and values-based action (Christie, 2017). The findings of the study show that the higher the progress score of the person, the higher his mindfulness level will be. Also, values are an element of action and a feature of deliberate action; values are not things to be accomplished, such as getting stuck with goals or goals, but they can be achieved from moment to moment (Christie, 2017). It is not surprising that progress, which is a value-oriented action, is a predictor of mindfulness, and the moment is important for mindfulness.

Another important finding of this study is that goal orientation, which is the subdimension of solution focused thinking, does not predict mindfulness. Goal orientation as a part of the solution focused thinking is an attitude toward creating and configuring solutions through the expressing and use of goals of approaches and effective selfregulation. In studies consistent with the findings of our research, mindfulness can be seen as the process of getting aware of the mode of mind that is overpowering at any time, and of transforming from a goal oriented 'doing' mode into present focused 'becoming' mode (Segal et al., 2002; Williams, 2008; Williams et al., 2007). The contradiction between goal orientation and the ability of mindfulness to be aware of what is being done rather than committing to certain goals shows why goal orientation does not predict mindfulness. Many studies also show that the development of mindfulness leads to a shift from specific goals and situations to a more independent sense of self, and that selfregulation, which also takes place in goal orientation, is associated with more adaptive elements (Chatzisarantis & Hagger, 2007; Crane et al., 2008; Lakey et al., 2007). On the other hand, Crane et al. (2012) suggested that mindfulness based interventions have the potential to affect goal related processes. They found that mindfulness based cognitive practices increased participants' confidence in clarifying their important goals and living a more valuable life. Strick and Puppies (2017) also argued in one of their studies that mindfulness increases the relationship between intrinsic motivation and goal setting. In another study, mindfulness positively predicted goal orientation. This means when mindfulness increased, university students made their own resources active and used towards their goals (Arslan and Asıcı, 2020).

When the findings are evaluated in integrity, it can be said that in the Covid-19 process, the levels of valuing and solution focused thinking of adults in general have a significant effect on their mindfulness. Namely, in this pandemic, soluiton focused thinking and valuing are the meaningful predictors of the mindfulness levels of the adults.

Suggestions

Some suggestions have been made based on all the findings of the study. Besides the important findings of this research, there are some limitations as well. One of the limitations was about the data collection way. Because of the Covid-19 outbreak, we obtained our data through an online platform. The other one might be the sample size reduced the probability to reach definitive conclusions. Another one of the limitations of this study was not to analyze the outliers. Also, we used only self-report measures, which rely on participants' abilities to examine themselves and report their subjective experience, and could be biased by several factors such as desire to be socially accepted, their own understandings of the scales. Future researchers may use a multi-method approach including physiological and neural measures. Since this study, which is a relational research, does not provide a cause-effect relationship, other researchers can use experimental research designs to reveal the cause-effect relationship between variables. In addition, this cross-sectional study does not provide information about the change and development of variables over time. It is important to see the change in variables, especially in this ongoing pandemic process. Therefore, longitudinal studies are needed to be carried out with the relevant variables.

In the process of uncertainty created by the Covid-19 pandemic and the process of adapting to the new normal, which is different from the old normal, seminars, psychoeducations, short-term solution-focused group psychological counseling can be offered face-to-face, online or by observing social distance. For example, soluiton focused based and mindfulness based trainings can effectively reduce the psychological negative consequences of the Covid-19 pandemic, helping to restore well-being in many adults.

Again, especially in this pandemic period, ACT-based programs, seminars and psychoeducations can be done online or by observing social distance for people who have difficulties in determining their values, having difficulties in making and accepting decisions, and who do not know how to live with negative situations. Adults participated in this study, so research can be conducted on this topic by including different sample groups. Finally, researchers can examine different predictors of mindfulness and models in which there are different variables that can mediate solution focused thinking and valuing and mindfulness.

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Research Article

The Inner Life of An Experienced Meditator: From Shopping Lists to Awakening

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Abstract
This article addresses the little-studied area of the subjective experience of meditation through the analysis of the daily meditation diary of an experienced meditator over 2 months during the covid-19 lockdown in England in early 2020. The participant, who began meditating over 40 years ago, practised an open monitoring style of meditation for 90 minutes every day followed by 30-minutes of reflecting and writing notes on the experience. The meditation time included 60 minutes of ambient sounds and 30 minutes of binaural audio. The main and overarching themes in these diaries were identified by thematic analysis. Overarching themes were 'What is meditation' and 'Something feels different! Changes in sensations or feelings while meditating'. One stand-alone theme was identified, 'Unusual or altered states of consciousness'. The Buddhist concept of jhanas may provide a framework for understanding such experiences. These themes were discussed for the insights they provide into the meditation process.
Keywords:
Meditation, Meditation diary, Subjective experience, Phenomenology, Unusual or altered states of consciousness, Ethnography

Although there have been many quantitative studies of the effects of meditation, there are relatively few of the subjective experiences of meditators (Ekici, Garip & Van Gordon, 2020; Kjellgren & Taylor, 2008). Of those studies that have attempted this, the main approach has been through post-meditation questionnaires (Thomas & Cohen, 2014). A narrative account of one person's life experiences while engaging in Vipassana meditation over a two-year period is given by Walsh (1977) and a qualitative study of the experiences of experienced and inexperienced Zazen meditators was carried out by Kjellgren and Taylor (2008). Isbel, Sysak and Summers (2020) used meditation diaries to study the development of meditation skills over an eight-week period. One of the few larger-scale studies of meditation experience was of 60 Buddhist meditators, of unspecified experience, plus a small group of 'expert' meditators (Lindahl, Fisher, Cooper, Rosen & Britton, 2017). The participants in that study were interviewed about the broad experience of their meditation practice using semi-structured interviews. No attempt was made to conduct the interviews closely in time following a meditation. Thematic analysis of the interview data yielded seven broad domains of response: cognitive, perceptual, affective, somatic, conative, sense of self, and social.

The present study aims to fill a gap in the literature on meditation by studying the subjective experiences of one experienced meditator through the analysis of the meditation diaries completed *immediately after* each daily meditation session. These diaries were of the specific experiences during each, individual meditation.

This study can also be seen as cultural autoethnography, a study of the cultural practices of those who meditate, through the observations of a long-standing member of that culture. It presents a window into this culture though systematic recordings of meditation practice. It is ethnography as a way of seeing that is consistent with the title of the review essay, "'If Somebody's with Something Every Day They've Gotta Learn Something—Or They're Just Out to Lunch": The Dialectics of Ethnography as a Way of Being' (Roth, 2003). The forms of autoethnography vary from those that place most emphasis on others to those that place most emphasis on self (Ellis, Adams & Bochner, 2011). The emphasis in this study is on personal narrative and invites readers to use this study to reflect on and understand their own world.

The study is consistent with, and sympathetic to, the aims of the Emergent Phenomenological Research Consortium (EPRC) (n.d.), in that it refers to experiences that can arise during meditation, contemplation and similar practices, and it is phenomenological in drawing on subjective, first person experiences. The EPRC seeks to expand the number of such studies to better understand this important aspect of human experience. And like the EPRC, this paper seeks to add to knowledge and possible applications of practice to a greater extent than the development of theory.

The broader intention is to help less experienced meditators gain some idea of where meditation might lead them. This study is based on the idea that people who have not meditated before, or who have little experience of meditation, want to know about the subjective experiences that occur while meditating. They may well have been attracted to meditation by hearing that it helps reduce stress or increases well-being and so on, but the inner experience is also important to them. So this study was designed to reveal something of the inner experience of a meditator's usual daily practice over a two-month period. Why two months? Many studies of the effects of meditation on health and well-being etc. have been done with participants on popular eight-week courses such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT). Two months is long enough to reveal effects in those studies and also to give an idea of the range of experiences that are typical among regular meditators.

Finally, a more specific context and aim for this study is of the author living alone, with limited possibilities for leaving the home because of the first government-imposed lockdown during the covid-19 pandemic in 2020 in England. In other words, it is a study that one person could do to make the most of the pandemic lockdown, and it could help people interested in starting to meditate, while contributing to my own well-being and the feeling of doing something useful, meditation being a practice that led to greater well-being in one early study during the pandemic (Lades, Laffan, Daly & Delaney, 2020).

There are many types of meditation, often broadly divided into three types (Lippelt, Hommel & Colzato, 2014). The first type includes those that involve focusing attention on an external object such as a blank wall, a repeated sound or mantra such as 'Om', an internal sensation such as breathing, or movements such as yoga exercises. In this type of meditation, the meditator also has to monitor their concentration and, if the mind wanders from the object of concentration, to return attention to the object.

This may be contrasted with meditations involving open monitoring in which the meditator simply observes the rising and fading of thoughts, feelings, memories etc. without focusing on them. In other words, there is no object of concentration in open monitoring meditation. Another common type of meditation is the loving kindness meditation (Lippelt, Hommel & Colzato, 2014). Here the aim is to develop the qualities of love and compassion, first for oneself and then to extend positive feelings more widely, e.g., from self to a friend, then to people who live nearby, to all living beings and then finally to people the meditator dislikes. These and most other types of meditation tend to be done in a quiet setting to minimise distractions.

People meditate for many reasons including improved health and well-being, and/or to understand themselves better or become more aware (Sedlmeier, Eberth,

Schwartz, Zimmermann, Haarig, Jaeger & Kunze, 2012). The latter motive includes those who meditate within a religious or spiritual tradition and may extend to achieving transcendent or transpersonal insights (Ekici, Garip & Van Gordon, 2020), or to achieving enlightenment (Sedlmeier & Theumer, 2020; Taylor, 2017).

Mindfulness meditation practices have been shown to have a wide range of individual psychological health benefits, including reductions in symptoms of depression and anxiety (Khoury et al., 2013), and improvements in well-being and other mental health measures (Keng, Smoski, & Robins, 2011; Khoury et al., 2015), cognitive abilities (Chiesa, Calati, & Serretti, 2011), and in physical health (Keng et al., 2011). Meditation has also been shown to benefit more people than just the individual meditating through increasing the prosocial behaviour of the meditator (Goleman & Davidson, 2017). In a systematic review, mindfulness as both an intervention and as a personality variable, was linked to prosocial behaviour (Donald, Sahdra, Zanden, Duineveld, Atkins, Marshall & Ciarrochi, 2019).

A secondary component of this study was to look at the effect, if any, of binaural beats, an auditory phenomenon in which tones of different frequency are presented to each ear simultaneously, usually via headphones. Under this condition what is usually experienced is the creation of a new, third tone, whose frequency is equivalent to the difference between the two tones being played. For example, if the right ear is sent a tone of 200 Hz and the left ear is sent a tone of 206 Hz, what is experienced is a third tone of 6 Hz (Oster, 1973) The most consistent finding in a review of the effects of binaural audio was increased feelings of relaxation and reduced feelings of anxiety (Chaleb, Wilpert, Reber & Fell, 2015).

A small number of studies have suggested that listening to binaural sound at the EEG frequency observed during a deep resting state (between 4Hz and 8Hz in the range known as theta waves) facilitates meditative states. Jirakittayakorn and Wongsawat, 2017, for example, showed that presenting participants with 6 Hz binaural audio for 30 minutes evoked theta wave activity in the cortex and parietal regions of their brains and induced a meditative state. As a personal experiment and as part of this study, I included 30 minutes of listening to binaural audio at 6Hz in my meditation practice, but in all other respects meditated as usual. I stopped using the binaural audio in my daily practice when this study concluded, however, as it had no effect that I could discern, so this theme is not developed any further in this paper.

My main practice is 90 to 120 minutes a day of what is sometimes called effortless meditation (Russell, n.d.), a type of open monitoring meditation. This approach can be summarised by 10th century Buddhist monk, Tilopa's, 'Six Words', as translated from the Tibetan by McLeod (n.d.):

Let go of what has passed.
Let go of what may come.
Let go of what is happening now.
Don't try to figure anything out.
Don't try to make anything happen.
Relax, right now, and rest.

As this study aims to explore subjective experiences and their interpretations in a naturalistic setting, a qualitative method is most appropriate. Drawing on the principle of phenomenology, the study of the experience of things themselves, as developed by Edmund Husserl (see, for example, Moran, 1999), this study is concerned with the way things appear to, or are interpreted by, one individual. While Interpretative Phenomenological Analysis (IPA) is useful for exploring interpretations, the double hermeneutic approach cannot be applied when the researcher is the participant. Thematic Analysis (TA) (Braun and Clarke, 2006) has the flexibility to accommodate interpretation of subjective experience by a researcher-participant and is therefore the most suitable method of analysis. TA is a flexible method of analysing text that is largely independent of the theoretical orientation of the researcher. It is a way of identifying themes or patterns in a body of data. The data set for this study was a daily diary of meditation experiences, written as soon as the 90-minutes of meditation ended. TA was performed on the whole data set in an inductive, data driven, or 'bottom up' process.

The research question that guided this study was: 'What does an experienced meditator experience while meditating?'

Method

Participant

The author of this study was the only participant. I describe myself as an experienced meditator having started meditating in 1978 and meditating more frequently and for longer durations since then, until I now meditate for at least 90 minutes a day, every day, and have done so for several years. I have no history of mental health disorders. I recently retired after forty years as a teacher, researcher and practitioner of psychology in higher education. I am not a member of an organisation or religious tradition that has a favoured meditation method. My choice of meditation practice has always been determined by a search for an evidence-based practice that evoked feelings of inner peace and tranquillity, improved well-being, and facilitated the exploration of inner life. My long-term practice is called effortless meditation (Russell, n.d.) and is a type of open monitoring or insight meditation that fulfils these aims.

Data Collection

The data gathered in this study was in the form of an unstructured daily meditation diary. A diary is an ideal method for capturing the subjective experience of meditation as it provides an intimate window into the personal world (Ketelle, 2012).

As part of this study, I also kept, and considered including, weekly quantitative scores on measures of happiness and subjective well-being: the Fordyce Emotions Questionnaire (Fordyce, 1988), which provides a score out of 10 for happiness and the Satisfaction with Life Scale (Diener, 1984), which provides a score out of 7 for life satisfaction. However, as these scores all started high, with very little change over the two months of the study, a ceiling effect, I felt that they would add little to the study so I have not included them. More sensitive scales would be needed to show an effect on these factors. The data are available for inspection on request.

Procedure

For this study I followed my typical practice of meditating for 90 minutes every morning, shortly after waking from sleep. I sat upright on a dining chair in my living room and timed the process using a free phone app, Insight Timer, set to chime a bell-like tone every 30 minutes. The first 60 minutes of the meditation period were with ambient sounds only, consisting mainly of birdsong and distant traffic noise. During the final 30 minutes, binaural audio at a frequency of 6Hz was played through headphones, which rendered ambient sounds inaudible.

At the end of the 90 minutes I immediately wrote diary notes of the meditation experience, a process typically taking 15-30 minutes. Included in the notes were comments about thoughts, feelings, memories and anything more unusual, such as experiences I thought of as transcendent because they felt profound or deeply insightful, that arose during the 90 minutes. If anything occurred during the meditation that seemed to relate to the binaural audio, I also added that to the notes. On two occasions I added notes from experiences at other times of the day, if the effects seemed related to the meditation.

Findings

Inductive TA was performed on this data set to identify themes in the diary notes, with particular emphasis on concepts and observations that were mentioned more frequently. These themes could be observations, feelings, or interpretations.

In summary, these themes were:

Over-arching theme: **What is meditation?**

Theme: **Is this really meditating?**

Theme: **Thinking again – just stop it!**

Over-arching theme: **Something feels different! Changes in sensations or feelings while meditating**

Theme: **Becoming more aware of sensations**

Theme: **Feeling more peaceful and calm**

Theme: **Feeling happy and contented**

Theme: **Discomfort or less pleasant feelings**

In a theme by itself:

Theme: **Unusual or altered states of consciousness**

Over-arching theme: **What is meditation?**

Meditating didn't just consist of sitting down and getting on with it. Thoughts or insights arose about the process of meditating itself: what does meditation consist of; when is an experience a meditation and when is it just sitting not doing much; what is a good meditation or a bad meditation and is there even such a thing as a good or bad meditation? These thoughts arose both during the time set aside for meditating and also during the period of reflection and meditation diary writing.

Theme: **Is this really meditating?**

Thoughts came up a number of times about what actually constitutes a meditation. They included wondering whether any activity could be described as a type of meditation or whether there is something that sets meditation apart from other activities. The data give a sense that it was not considered enough to simply sit and observe the mind, without expectations, for a while. Looked at retrospectively this is interesting because, if asked directly "What is meditation?" that is exactly what I would say that it is! Somehow, in the moment, that was not considered enough, as though there had to be some sort of change in experience to be considered a meditation at all, never mind a good meditation.

N.B. The diary quotes given below to illustrate the themes also include the number of the day, between 1 and 61, on which the quote was written.

Day 1: In the meditation diary that I have kept for a little over a year, if a meditation involved no difference from the typical pattern of thoughts arising, thoughts fading, periods of no thought and a feeling of being a bit quieter and more relaxed at the end of the meditation than the beginning then I did not write any notes. Today would have been such a day.

Day 23: Feeling that a meditation with many thoughts arising is wrong in some way or inferior because of a lack of concentration.

Sat with that for a while. Those thoughts changed to thinking that it doesn't matter as long as it's possible to experience awareness. Then I felt more settled.

Day 39: Struggling to find anything to write today. I just sat and thoughts arose now and then with little change over the 90 minutes.

There are suggestions here of some sort of inner contradiction between the prior understanding of what meditation is and the descriptions given in the diary of the experience of meditation. In other words, if my prior view was that the type of meditation I do simply consists of observing the mind without expectations then a meditation consisting of day-to-day thoughts would be as good and as noteworthy as any other. These are the kind of subtle expectations that I wasn't previously aware of, that a meditation diary can help reveal.

There were also thoughts about boundary issues (when am I meditating and when am I not?) and expressions of dissatisfaction with some meditation experiences. These suggest that meditation is engaged in to evoke change or gain deeper understandings, so something different is expected to happen than in other daily activities.

Day 8: I write these notes in the period after the end of the 'meditating' phase. Today it occurs to me that this is part of the overall meditation experience – it is a meditation in its own right as it is a period of quiet reflection before moving on to the tasks of the day (doing the laundry next!). In the moments when I am not writing I experience it in the same way as the more formal meditation, as a peaceful, quiet time, often without thoughts.

Day 39: I can still detect a small wish that there be a different process during meditations than in the rest of my day – an indication of an expectation or attachment.

Day 50: Many thoughts until it gradually changed to drowsiness. It could hardly be called a meditation...

Theme: *Thinking again – just stop it!*

Many items were linked to this idea. It reflects the special status given to the process of thinking during meditations. Whether more or fewer thoughts arose than in other daily activities was seen as relevant to the quality of, and satisfaction with, the meditation process.

Day 21: Thoughts, no thoughts, thoughts, no thoughts, all the way through...

Little change from beginning to end. Mind slightly quieter.

There was a feeling of dissatisfaction in the quote from day 21 that does not come across as clearly in the words alone. The data suggest that thoughts are considered something unpleasant to be reduced, or at least less pleasant than having few or no thoughts, and that a 'good' meditation would involve a reduction in the number of thoughts.

Day 2: The feeling of quiet, calm stillness continued and the periods without thoughts lasted longer.

Day 12: Settled quickly and experienced a long (for me) period with either no thoughts or with just the early hints of thoughts which faded before forming, as soon as they were noticed. It's difficult to estimate times but I'd say this phase lasted at least 20 minutes or so.

There were also reflections on the factors that may have changed the number of thoughts occurring during a meditation. The emphasis was on factors that could potentially reduce the number of thoughts in the moment or in future meditations.

Day 8: I noticed that if I breathe out slowly then pause before breathing in again, no thoughts arise for at least a few seconds.

Day 38: Thoughts also constantly rising and falling, mainly rising when energy levels were higher. Despite there being little difference between this meditation and my usual inner process, it still felt quieter at the end and for a while after.

There was an expectation that meditation would result in a reduction in the number of thoughts that arose, both during the meditation phase and in other aspects of life. Again, this was seen as a desirable outcome of meditation.

Day 13: Throughout the 90 minutes of the meditation, thoughts arose, stayed a while and faded. Almost as soon as one thought faded another arose, with no discernable change throughout. It is more common in my experience for the quiet spaces between thoughts to lengthen, but not today. Sometimes thoughts are like that.

Day 22: About halfway through, thoughts became fewer and the quiet periods lasted longer. The transition from 'noisy' thinking to relative quiet happened quite quickly, over a few seconds. That then persisted, although thoughts didn't entirely quieten, and carried on after the 90 minutes ended.

Day 41: The early part of the meditation was relatively quiet inside. Then, for about quarter of an hour, no thoughts at all that I could discern. Finally, for the remaining 45 minutes and beyond, there was only an occasional very fleeting thought. This is rare. Unprecedented even.

Gratitude!

Over-arching theme: *Something feels different! Changes in sensations or feelings while meditating*

This overarching theme is about changes in sensations and feelings. What kind of differences or experiences were considered worth noting? Differences were noted in sensations originating within the body (as distinct from sights, sounds, smells etc. originating in the outside world) and in feelings.

Theme: *Becoming more aware of sensations*

During some meditations, body sensations such as itchiness, aching and tingling were experienced more intensely to an extent that was felt to be worth noting. The sense given in these items is that it is usually the increased intensity of the experiences that was worth noting, rather than the specific sensations themselves. Changes in the intensity or the richness of experiences were seen as changes being due to meditating.

Day 1: During the binaural phase I noticed muscles in my back, shoulders, neck and jaw were tighter than usual and so deliberately relaxed them.

Day 2: In the binaural phase I noticed that my body felt as though it was tingling all over. This also lasted for several minutes after the end of the audio.

Day 8: Early in the meditation I noticed that the pain and stiffness in my neck, that I have had for a couple of days, is starting to fade and the sensations intruded less – a small source of pleasure.

Day 49: Increasingly still and quiet with occasional drowsiness. Sensory impressions seem more prominent and intense than usual.

Day 51: Feeling energised. Sensory impressions more intense, from the ringing in my ears to vibrations in the house.

Theme: **Feeling more peaceful and calm**

Another group of more commonly noted changes that occurred while meditating were a cluster of feelings such as inner peace, tranquility, calmness and inner quiet. These were attributed to the process of meditation and were experienced to a noteworthy extent.

Day 2: The feeling of quiet, calm stillness continued and the periods without thoughts lasted longer.

Day 48: A quiet, peaceful meditation. A bit drowsy in the second half, without actually dropping off to sleep!

These peaceful feelings were seen as desirable outcomes of meditation to the extent that, achieving such feelings were among the main reasons for engaging in meditation. There is a sense of wanting such experiences to last longer than just during the meditation time. In other words, meditation is being engaged in to gain long term changes in inner peace etc. and not just during the meditation time itself.

Day 5: Again there was a pleasant, calm, peaceful feeling that was deeper after the bin [binaural] phase than the non-b [no audio] phase, and I felt reluctant to start moving again to start other daily routines so I sat for a few minutes appreciating the peaceful feeling before moving to write these notes.

When I experience these peaceful feelings they tend to gradually fade over the course of the next hour as I get into daily routines and disappear completely when I read social media or look at personal finances!

Day 11: Sometimes my awareness wandered off with thoughts or memories but most of the time it stayed with the present and simply being here. It seemed easier to stay present during the bin [binaural] phase.

With this went a feeling of calm and quiet and I enjoyed staying with that for a while after the audio finished – so simple but wonderful!

[Note added later that day] The feeling of contentment continued to the end of the day.

Theme: *Feeling happy and contented*

In some meditations feelings of positive hedonic tone were experienced on a dimension from pleasantness and contentment, through happiness to bliss.

Day 7: A gradual process of inner quietening through both the non-b [no audio] and bin [binaural] phases until the last few minutes of the bin phase. I felt happy for no reason and smiled. Although not a strong feeling, it was very pleasant and continued after the end of the audio. It was a small 'good to be alive' moment.

Again these were attributed to the process of meditation and, as before, there is a sense of wanting such experiences to last longer than just during the meditation time – they are a long term aim. They were at least a partial answer to the question, "why meditate?"

Day 3: A very typical experience all through the meditation until the last few minutes of the binaural phase when I experienced a feeling of happiness that arose for no apparent reason. A thought that popped up at this point was "This is always here, you just need to turn to it."

Thoughts that arose before that were mainly about the dawn chorus audio file that I created immediately before starting meditation. (Today is international dawn chorus day.)

The pleasant, calm happiness continued after the end of the audio.

Day 42: I would have described most of the meditation as pleasantly peaceful – quiet, not too many mundane thoughts popping up. But as it came towards the end, that quality didn't change but it felt blissful. No fireworks. No altered state. Just ordinary, everyday bliss! I sat with it after the time ended because it was such a good feeling, but notes need writing, plants need watering etc...

Day 46: That was wonderful! The whole meditation flowed smoothly and quietly from beginning to end and beyond. Thoughts came and went as usual, and it all felt quiet and peaceful - deeply relaxing. Perhaps it was associated with the greater sense of acceptance I also noticed. Whatever happened (or not) was fine.

Theme: *Discomfort or less pleasant feelings*

In some meditations feelings of negative hedonic tone were experienced, including unwanted drowsiness, body aches and restlessness.

Day 4: I felt slightly drowsy about midway through the bin [binaural] phase so I turned my head from side to side for a few seconds while breathing more deeply and the feeling passed in less than a couple of minutes.

Day 8: I felt the need, later in the non-b [no binaural audio] phase, to stand and move slowly to loosen joints that were aching and uncomfortable (legs and back). I moved slowly and mindfully, trying not to disrupt the feeling of calm presence.

Other such feelings included lack of clarity, distractability and negative feelings about the number of thoughts that arose. As in the previous theme, these feelings were attributed to the process of meditation. Some items indicate that the feeling was not expected, while others were at least not seen as surprising.

Day 33: Unusual sounds from my computer drew attention. So, instead of the usual effortless meditation I began observing the breath, slowing the out breath and pausing at the end of the out breath. I felt a sense of relief during those silent pauses and a releasing of the small tensions I associate with a chattering mind.

Day 38: Trusting the process even when nothing is clear.

Day 50: Many thoughts until it gradually changed to drowsiness. It could hardly be called a meditation…

These were seen as problems that needed solving, rather than something to be accepted. The brief quote for day 38, for example, refers to confusing thoughts during the meditation giving rise to feeling unclear and that this could be solved by trusting the meditation process.

In a theme by itself:

Theme: **Unusual or altered states of consciousness**

Some meditation experiences were outside the usual day-to-day experiences of thoughts, feelings, sensations, memories etc. and their coming and going. This theme includes more unusual changes such as to the sense of identity, or the arising of feelings that were not expected while simply sitting quietly, or of different states of consciousness, not previously experienced.

Day 2: As I began moving after the end of the meditation period, I noticed that I felt taller, and somehow lighter and more spacious. In a way it was a pleasant feeling but in a detached kind of way – a bit hard to describe.

Day 8: Towards the end of the meditation I noticed that I experienced my inner world as a space within which those things of which I am aware appear and disappear. That space is mainly occupied by visual sensations, but when I close my eyes to meditate it seems to become a quieter space. While noticing this experience, the space seemed to expand and become more peaceful.

Day 10: After the audio stopped I moved my hand to the computer to quit the VLC application [for playing audio files]. My hand looked like an external object – something that was different to 'me' for a short while.

Day 25: Still, quiet, peaceful. Love is here too but is not as clear to me as other aspects.

Overall, such feelings were accepted or regarded as indications of growth or progress. As mentioned above, meditation is engaged in to bring about changes such as greater self-understanding and inner peace, and the experiences in this group are seen to be indications of such changes, and more, taking place.

Day 17: A feeling of spaciousness and timelessness emerged, ironically towards the end of the bin [binaural] phase, although I was only aware that it was near the end because the audio began to fade while that feeling was present.

Day 24: Became aware of an aspect of consciousness – It seems different to day-to-day awareness of the mass of sensory information and memories etc. - free, fluid, detached. It's a bit like a companion but without being separate.

Day 48: A sense of a vast inner space in which things appear when they emerge into conscious awareness, particularly during the first half of the meditation.

Some experiences were so outside normal day-to-day experiences that it was not possible at the time to describe them or put them into words. I could describe such experiences as being transcendent or transpersonal now, while being aware that these words still don't clearly communicate the experience.

Day 37: As I sit, quietly and present, with no thoughts or feelings, there are no words to describe it. No words are adequate or relevant. It just is. Yet here I am writing about it. I can only write because I am not in that conscious place. When I am in that place there is no urge or thought to write.

Day 56: Empty. No-one home. Simply aware. Awareness observing things rather than the 'me' called 'Peter'.

Day 58: It began with simply feeling deep and profound and then moved into a profound sense of infinite inner space

Then came the feeling of a wonderful eternal 'now'. There is nowhere else but here and now.

There is nowhere else to be and nothing else to do – the feeling that this is exactly right.

There was no obvious reason why this meditation should have been like this – it just happens sometimes when one is here and open.

Discussion

This has been a response to the research question, 'What does an experienced meditator experience while meditating?' When looking over this two-month journal of meditation experiences I was struck by the range of experiences from mundane and trivial to the profound and transcendent. From the outside it would have seemed that every day was very similar, simply someone sitting quietly and still for 90 minutes. The meditation notes, on the other hand, suggest a mix of interested observations,

curiosity about phenomena and longer term effects, musings on identity, and even reflections on the meaning of life. This difference between inner experience and outer appearance reflects one of the strengths of the personal narrative autoethnography. What were previously inner, personal experiences can now be reflected on by others and compared to their own inner experience.

It would be easy to focus mainly on the unusual or transpersonal experiences in the journal. For those seeking to understand the mind or explore human potential, these are the kinds of experience that seem to throw light onto those issues. And yet it was the simple experience of sitting quietly for a while in the midst of a busy life that was, perhaps, more typical and more relevant.

One of the most useful insights gained from this study relates to expectations and meditation. Before the study I would have said that I had few expectations about what should happen while meditating. However, the theme, 'Is this really meditating?' reveals the opposite to be the case. I clearly expected meditation to evoke experiences different from simply sitting quietly. This was a valuable insight and has led to changes in how I approach and think about meditation since making that observation. The insight might not have been identified without having written a detailed meditation journal. Experience alone, without subsequent reflection and analysis, may not be enough for a meditation practice to develop.

Concerning some of the experiences in the theme, 'Unusual or altered states of consciousness' it is clear that these were unexpected and mysterious to some extent. However, since ending the meditation phase of this study I came across a description of altered states that are known in Buddhism as 'jhanas' (Brasington, 2015). Some of the experiences described above, particularly experiences of unexpected happiness, inner peace and equanimity, and also of inner spaciousness, could be seen as due to entering one or more of the eight jhanas, as they are consistent with traditional descriptions of those states. While the eight jhanas are usually described as manifesting in a specific sequence, Brasington allows for the possibility of entering them without planning or going through a specific sequence of stages.

The paucity of first-person accounts of meditation experiences makes comparison with comparable studies impossible. Woollacott (2016) makes the point:

> Scientific research on meditation may be able to identify which neurons are activated in meditative states, but this is insufficient. Within our studies, we need to include the first-person perspective and to examine heightened awareness during meditation.

The present study makes a contribution to this gap in the research and provides just such a first-person perspective on the meditation experience.

In the Introduction I made the point that this study was something that could be done during the unusual circumstances of the first covid-19 lockdown that was in place in England during 2020. I found that both carrying out this study and meditation itself had beneficial effects. It has been an interesting and engaging experience for me that I hope others also find useful. Being able to both carry out and write about meditation experiences, in the hope of helping others, also gave me a feeling of being part of the culture of meditators, of reaching out and connecting with others at a time of being physically alone, not seeing or talking to others except through virtual media.

Limitations

The most obvious limitation is that this is a study by and of just one meditator. Those who discuss their meditation experiences, in group meditation settings for example, will be aware of the variety of experiences that are possible. Wider study with more participants will give a better idea of the range of possibilities, even within just one type of meditation.

It is important to remember that this is not a roadmap of the meditation process and nor are anyone else's meditation experiences. Those new to meditation may find it useful to note that experiences can vary widely. In fact it is considered potentially misleading in some meditation circles to talk about meditation experiences in case it encourages unhelpful expectations.

Further research

The most obvious need is for more studies of the subjective experience of meditation and not just through the narrow lens of psychometric questionnaires. The subjective experience is a crucial aspect of meditation and yet, as mentioned above, one of the least studied. Meditation is increasingly recommended for those experiencing anxiety, depression, stress and other mental health issues. To be confident that it can be recommended safely requires a more thorough understanding of what people can expect to experience while meditating. Clinicians need to know that not all meditation experiences are positive, for example.

It would also be worth exploring further those experiences described here as unusual or altered states of consciousness, within the context of the experiences described within Buddhism as the jhanas (Brasington, 2015). This may be a useful framework within which to study some of the less well understood meditation experiences.

Acknowledgements

Compliance with Ethical Standards

Conflict of Interest The author declares that he has no financial conflicts of interest and no ties to any religious or spiritual tradition.

Ethical Approval As a retired academic with no institutional affiliation, I no longer have access to an ethics review process. However, I would like to reassure readers that I treated myself ethically and followed ethical guidelines throughout the research process (Wester, 2011). All procedures were in accordance with the code of ethics of the British Psychological Society (2018).

Informed Consent Informed consent is not an issue for this type of study.

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