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The Effectiveness of Positive Psychology Intervention in Turkey: A Meta-Analysis

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Abstract

The aim of this study is to determine the effect of the results intervention designed in experimental and quasi-experimental model within certain fields of positive psychology in Turkey by using meta-analysis method. The National Thesis Center database and Google Scholar was used to collect the data. Experimental thesis and articles conducted in Turkey between 2000-2019 were included in the study. Relevant thesis and articles are gathered by searching with the keywords “positive psychology”, “psychological well-being”, “psychological resilience”, “mental well-being”, “hope”, “optimism”, “happiness”, “resilience”. The research focused on experimental and quasi-experimental studies, and studies with pre-test and post-test patterns were reviewed. Comprehensive Meta-Analysis program was used in the analysis of the research data. After the analysis of the data, effect sizes in various sub-dimensions were calculated. In this study, the dependent and independent variables in experimental studies carried out by the researchers in Turkey on certain topics of positive psychology and the effectiveness of the independent variables used together with the effect size calculation were examined. In order to make some calculations related to the meta-analysis of the thesis and articles included in the research, studies with the required arithmetic mean, standard deviation and sample number were examined. Studies outside the field of Psychological Counseling and Guidance, qualitative studies and studies in which related values couldn't be calculated were not included in the research. 16 studies (2 for positive psychology, 1 for psychological well-being, 2 for psychological resilience, 4 for subjective well-being, 1 for hope, 3 for optimism, 1 for happiness, 2 for resilience) were included in meta-analysis. As a result; according to a random model this study general effect size found 0,8 (0,32-1,27), also fixed model effect size 0,6 (0,43-0,78). The data obtained has indicated that the experimental studies have effective results in acquiring certain social skills related to positive psychology and providing more psychologically happy, hopeful and positive perspectives. The small number of experimental studies reached is an important indicator of the need for different experimental studies in the field of positive psychology.

Keywords: Positive psychology, well-being, resilience, happiness, meta-analysis

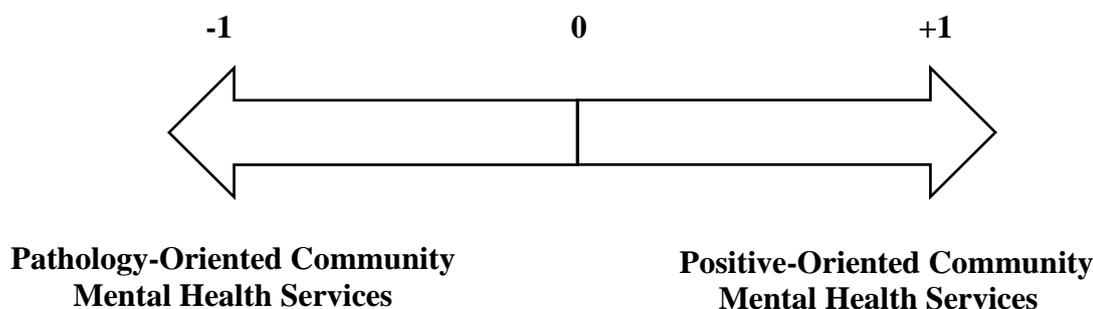
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1. INTRODUCTION

It is seen that psychology used to focus on three areas before World War II: treating mental illnesses, making people's lives more productive and satisfying, identifying and educating superior abilities and intelligence. But after the World War II, pathology-oriented psychology was found to be insufficient to deal with factors such as world-wide chaos, difficulties encountered, economic depression and so on (Seligman & Csikszentmihayli, 2000). While the widespread belief for an individual to be considered healthy was the absence of visible ailments was valid until that time; after the war, World Health Organization's description of health as "not only the absence of disease or weakness, but complete physical, mental and social well-being" was effective in changing the focus of psychology (WHO, 1948).

During such a difficult period after the World War II, people didn't lose their hope despite losing their jobs, money, status and social support, which urged Csikszentmihayli to seek for an answer to the question "What are the resources that empower people? The fact that an answer cannot be found to this question with sciences such as religion, philosophy and history; and the schools of psychology (behaviorism and humanism) found in those years were inadequate has given rise to the emergence of positive psychology. Seligman denotes that "the field of psychology is not only composed of pathology, weakness or damage, medicine and treatment; but it includes terms such as job, education, love, development and joy. Thus, he states that positive psychology is not a well-intentioned thinking, faith, self-deception or a temporary fashion; but it intends to examine individuals' subjective problems in their entirety with the best scientific methods (Seligman & Csikszentmihayli, 2000). In this context, when we examine the historical development of psychology, two important models emerge: pathology-oriented and positive-oriented studies (Eryilmaz, 2015).



The aim of positive psychology is to bring individuals as close to +1 point as possible. It transmits this to individuals by eliminating the situations that disturb the individual and with empowerment strategies that can overcome these situations not through Pollyannism or a simple system of good thinking (Eryilmaz, 2015). This is reported by Hanson (2017) by using a mind-garden metaphor as follows: Suppose your mind is like a garden. You can content yourself with knowing where the things are or look at the weeds and flowers in the garden without judging or changing anything. Secondly, you can remove weeds by reducing the negative effects in your mind. Third, you can grow flowers by increasing the positive aspects in your mind. On the numerical axis, -1 point refers to the pathology point where weeds and flowers stay together, 0 point refers to the state of mind without any weeds, and +1 point refers to the situations in which individuals can plant flowers in their minds.

In this research, the basic concepts of positive psychology such as subjective well-being, mental well-being, psychological well-being, psychological resilience, hope, optimism, happiness, resilience which were examined. The first one is well-being, which is a concept that has been researched since Ancient Greek till present (Eryılmaz, 2015; Hefferon & Boniwell, 2018). It is described as a state beyond “feeling the good things”. The definition of well-being by Ryff and Keyes (1995) includes six dimensions: self-acceptance, personal growth, life purpose, positive interpersonal relationships, autonomy and competence in community. According to the studies, there is a positive relationship among psychological, subjective and mental well-being, which are the sub-dimensions of well-being.

The definition of psychological resilience was first used in the literature by Block in 1950 (Karairmak, 2006). In order to be able to define any situation with the phenomenon of psychological resilience, an individual must be faced with a life-threatening risk and the coping skills shown against this risk must be successful. When the studies in the literature are reviewed, there is no definite suggestion as to whether the source of psychological resilience is individual or environmental, but recent studies suggest that the interaction of these two factors is effective in improving psychological robustness (Gizir, 2007).

Hope is the factor that encourages an individual to reach his/her aims actively and help him/her define the ways to achieve his/her goals and proceed with intrinsic motivation in the use of these ways. (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, Yoshinobu, Gibb, June & Charyle, 1991; Irving, Snyder & Crowson, 1998; Hefferon & Boniwell, 2018). It is seen that individuals with superior hopes set achievable goals and divide the aim necessary for this goal into sub-goals (Hefferon & Boniwell, 2018).

Optimism, in its simplest definition, is an individual’s being able to look to the future with hope despite all the difficulties in life (Sapmaz & Doğan, 2012). Harris and Middleton (1994) defined it as an expectation of positive events rather than negative ones. Scheier and Carver (1985) put forth that it was a personality trait. Studies conducted by Scheier and Carver (1985), Chang (1998) stated that individuals with high levels of optimism were more active in solving their problems, used problem solving skills more and they differed from the pessimists in terms of the strategies they used.

Öğülmüş (2001) translated the term “resilience” into Turkish as “yılmazlık” for the first time and it expresses flexibility and being able to revert to one’s own type easily (Greene, 2002). It was defined by Benard (1991) and Rutter (1990) as being able to remain strong against the tough life events and look to the future in an optimistic way. Resilience is an inherent property of some individuals, but it is also a feature that can be acquired and developed later (Gürkan, 2006). Arastaman and Balcı (2013) has found that resilience is a feature that we should have the students gain and also the students who have this feature own higher levels of social competence, autonomy and self-esteem characteristics that are known to be related to resilience.

2. METHOD

2.1. Research Design

In this study, a survey model was used to determine the experimental studies and their effect sizes. Meta-analysis method was used to calculate the effect sizes of the experimental studies. Meta-analysis is a quantitative research method based on examining the existing studies in the literature

and calculating their effect sizes. Since meta-analysis studies are upper-level research of the existing studies, the name “meta-analysis” is used. Meta-analysis studies allow the evaluation of multiple studies at the same time and provide the basis for new studies (Crombie & Davis, 2009).

2.2. Literature Review

In this study, experimental thesis and articles conducted in the field of positive psychology in Turkey between 2000-2019 were reviewed. In order to find out the studies to be included in the research; the keywords “positive psychology”, “psychological well-being”, “psychological resilience”, “mental well-being”, “hope”, “optimism”, “happiness”, “resilience” were searched on The National Thesis Center database and Google Scholar. After searching with the key words, experimental and quasi-experimental thesis and articles with the topics including “education and training”, “psychology”, “education-training and psychology” and written in “Guidance and Psychological Counseling” and “Psychology” departments were examined. As a result of these procedures, 24 thesis and 8 articles were found to meet the criteria.

2.3. Inclusion Criteria

As an inclusion criteria for the thesis and articles to be reviewed in the research, experimental and quasi-experimental design studies carried out in Turkey in the field of positive psychology between 2000-2019 were examined. In addition, arithmetic means of the pre-tests and post-tests, standard deviations, and sample size values were taken into consideration in order to calculate the effect size of these studies (Table 1).

Table 1. Distribution by type of work

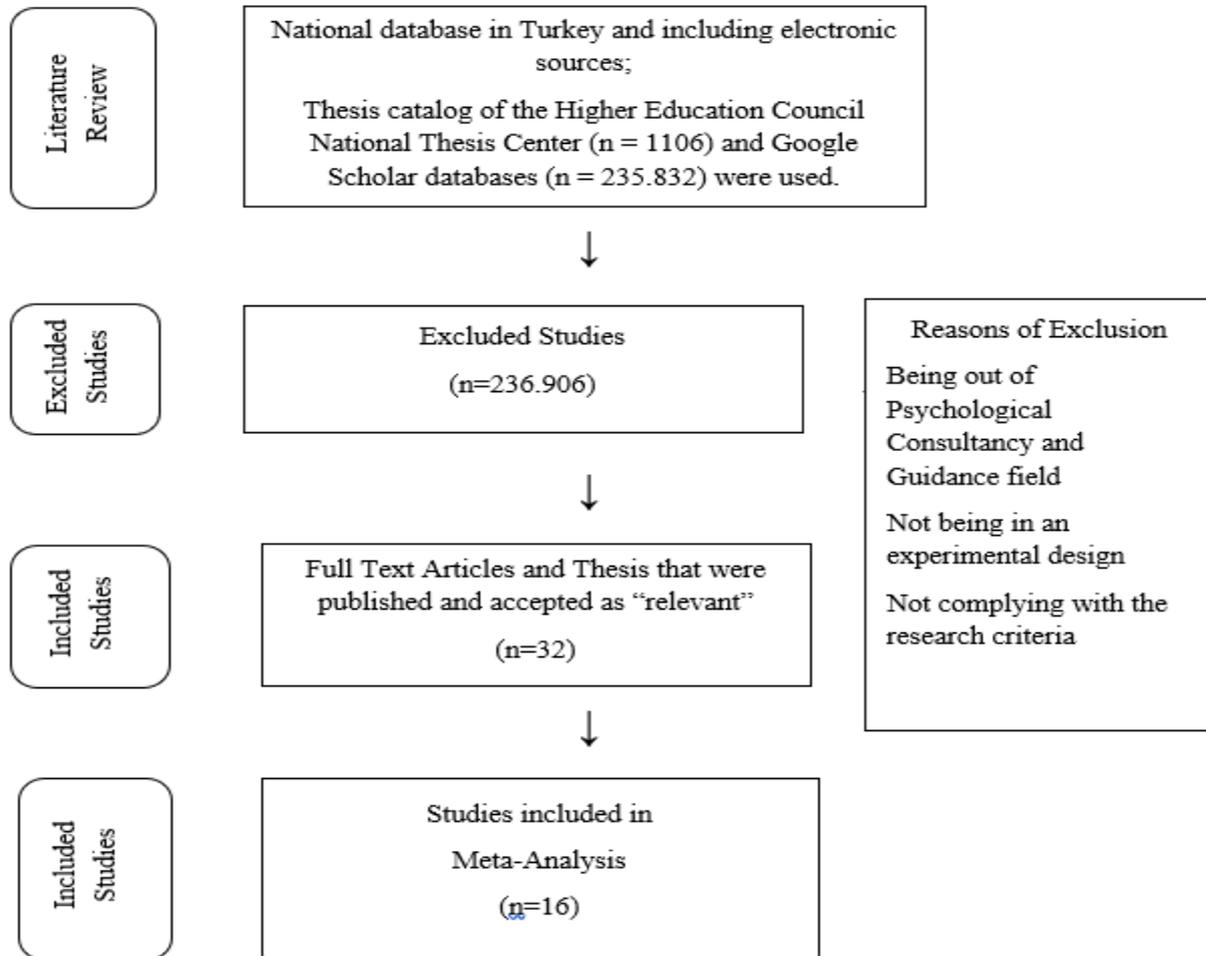
Type of Work	f	%
Master’s Thesis	4	25
PhD Thesis	8	50
Article	4	25
Total	16	100

2.4. Exclusion Criteria

As a result of the literature review, studies that were outside the field of guidance and psychological counseling, which were conducted according to quantitative research methods, that did not have pre-test post-test experimental-control groups and which did not have statistical values required for data analysis were not included in the analysis. At the end of the literature review carried out according to this criterion, it was found out that 12 thesis and 4 articles didn’t have the aforementioned values, and 1 thesis was in limited category. Therefore, they could not be included in the analysis.

As a result, experimental studies which are carried out in the field of positive psychology in Turkey between 2000-2019 year and that are relevant to the aforementioned criteria were examined. Then meta-analysis was conducted with the data of 8 PhD thesis, 4 master's thesis and 4 articles (Table 2).

Table 2. Flow Diagram Showing the Process of Finding Studies, Data Collection and Analysis



2.5. Data Analysis

After the studies were selected in line with the inclusion criteria, coding process started. To tag the studies, the criteria below were used:

1. Name of the author and publication year
2. Type of the studies (master's or PhD thesis, article)
3. Arithmetic mean and standard deviation of the experimental group pre-test
4. Arithmetic mean and standard deviation of the experimental group post-test
5. Sample size of the experimental group
6. Arithmetic mean and standard deviation of the control group pre-test
7. Arithmetic mean and standard deviation of the control group pre-test
8. Sample size of the control group (Table 3).

Table 3. Distribution of the Sources by Type and Years of Publication

Type of Source	Topics	Year								Total
		2006	2009	2010	2011	2013	2015	2017	2018	
Master's Thesis	Positive Psychology						1			1
	Subjective Well-Being								1	1
	Optimism		1		1					2
	Total	--	1	--	1	--	1	--	1	4
	Psychological Well-Being					1				1
	Psychological Resilience						1		1	2
	Subjective Well-Being				1				1	2
	Hope	1								1
Resilience	1						1		2	
Total	2	--	--	1	1	1	1	2	8	
Article	Happiness								1	1
	Subjective Well-Being								1	1
	Optimism					1				1
	Positive Psychology			1						1
	Total	--	--	1	--	1	--	--	2	4
Total	Positive Psychology			1			1			2
	Psychological Well-Being					1				1
	Psychological Resilience						1		1	2
	Subjective Well-Being				1				3	4
	Hope	1								1
	Optimism		1		1	1				3
	Happiness								1	1
	Resilience	1						1		2
Total	2	1	1	2	2	2	1	5	16	

In the studies reviewed, the total sample number of experimental groups was found to be 288, that of control group was 253, and the total number of samples was 541. Comprehensive Meta-Analysis program was used for data analysis. Hedge's g was used to calculate the effect size. According to Borenstein, Hedges, Higgins and Rothstein (2009), the effect is considered to be small for $g = .20-.50$, medium for $g = .50-.80$ and large for $g = .80$ and above. Funnel plot (Funnel graphic), Egger's regression intercept, Duval and Tweedie's (2000) trim and fill, Begg and Mazumdar (1994) ran correlation, Rosenthal fail safe N were used in the study to determine publication bias. Operating characteristics of a rank correlation test for publication bias (Table 4).

Table 4. Distribution by Sample Size

Sample Size	f	%
$n < 30$	8	50
$n \geq 30$	8	50
Total	16	100

3. FINDINGS

In meta-analysis studies, there are two options to determine the effect: a fixed and random effects model. In the fixed effects model, the effect size of each study is considered to be the same. However, the demographic variables (gender, age, education, health and financial status, etc.) of the sample often cause the effect size to vary. In addition, it is recommended that researchers use a random effects model in social sciences due to the difficulty in detecting the error involved in the research (Borenstein et al., 2009; Cumming, 2013). The Q test was performed to determine whether the data were homogeneous or heterogeneous, and the distribution of the studies was heterogeneous, so the random effects model was preferred (Table 5).

Table 5: Basic Analysis of Positive Psychology Intervention Programs

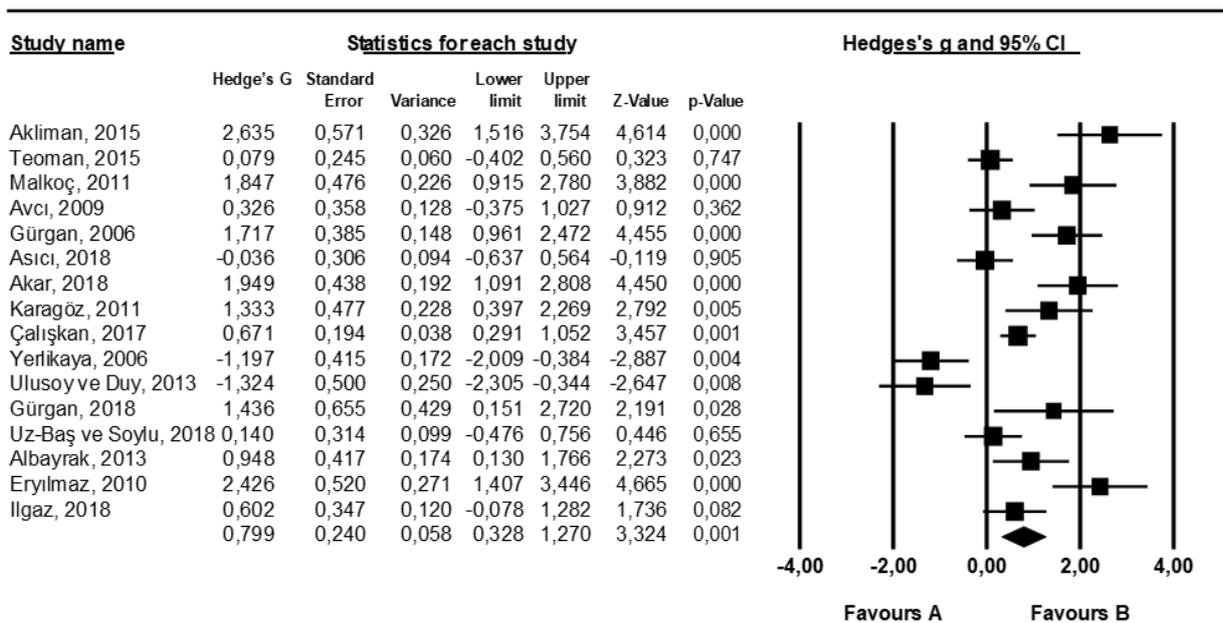
Model	N	Standard Error	Heterogeneous				Overall Effect Size	%95 Confidence Interval	
			Q	df	p	I ²		Lower Limit	Upper Limit
Fixed Effects	16	0,8	99,71	15	0,00	84,95	0,6	0,43	0,78
Random Effects	16	0,24					0,8	0,32	1,27

In the table, the average effect value of the studies included in the research according to the fixed effect model was 0,6; standard error of mean effect size was 0,8; the minimum confidence interval of the mean effect size was 0,43; the upper limit was found to be 0,78. For the homogeneity test of the included studies, Q analysis was used and it was found to be Q = 99,71; this shows that the studies are heterogeneous. Another way to test homogeneity is I² test. Contrary to the Q statistic, I² ranges that aren't affected by the current number of studies are as follows: 25% represents low heterogeneity, 50% represents moderate heterogeneity, and 75% represents high level heterogeneity (Cooper, Hedges & Valentine, 2009; Kasapoğlu & Kış, 2016). In this study, the overall effect size obtained according to the random effects model was found to be 85%, which represents high heterogeneity. In this case, the average effect value of the random effects model used in the study was 0,8; standard error of average effect size was 0,24; the minimum confidence interval of the mean effect size was 0,32; the upper limit was determined as 1,27.

3.1. Forest Plot

Forest plot, which is a frequently used method in meta-analysis studies, not only shows the confidence interval and effect size of each study analyzed, but also allows us to see the confidence interval and effect size for the whole study. The black boxes in the graph are found by the ratio of total sample by the sample of each of study. The horizontal lines represent the confidence interval. It is possible to say that when these lines are short, the confidence interval is narrow but the sensitivity is high, and when they are long, the confidence interval is wide but the sensitivity is low (Bakioğlu & Göktaş, 2018) (Table 6).

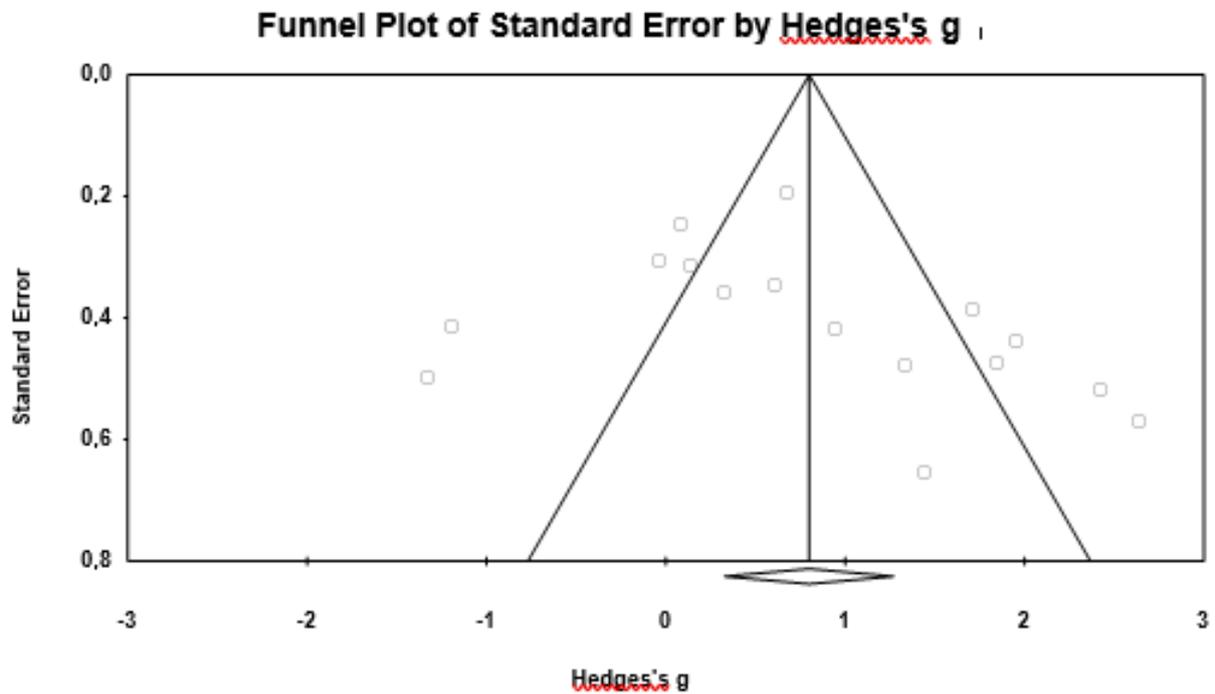
Table 6: Forest Plot



3.2. Funnel Plot

Funnel Plot which is used for the control of publication bias in meta-analysis studies is also used to observe the absence of bias in the graph. Each circle in the graph represents a study. In order to avoid publication bias in the research, the studies should exhibit a symmetrical distribution. The circles stacked in any direction in the graph express the bias of publication. In the Funnel plot graph, the horizontal axis shows the effect size and the vertical axis shows the sample size or variance. While the groups with high sample size lie in the upper parts of the graph and have the average effect size, studies with small samples are located below the graph and in a wide area (Bakioğlu & Göktaş, 2018) (Table 7).

Table 7: Publication Bias Graphic



In this study; according to the Funnel Plot graph given in Figure 1, it is seen that the effect sizes of the studies are close to symmetric distribution and the publication bias is not significant. In addition to Funnel Plot graph; Begg-Mazumdar Kendall's, Egger, Orwin Fail Safe Number (FSN) tests were used to investigate bias and Egger score was found $p = 0,09$. According to these data, it is seen that there is no publication bias. The Orwin Fail Safe Number test whose analysis results are given below, supports this data (Table 8).

Table 8: Fail Safe Number Test Results

Z value for the observed studies	7,6358
P value for the observed studies	0,0000*
Alpha	0,05
Tails	2
Z for Alpha	1,95996
Number of observed studies	16
Fail-Safe Number	227

* $p < .05$

Studies that have not yet been published and therefore have no statistical significance, have been named by Rosenthal as the “number of file drawers”. Rosenthal used the Fail Safe N method in order to eliminate the bias that this might cause. This method reveals the number of studies that could render the research statistically insignificant if they are added later on. Accordingly; the greater the N, the greater the validity of the study. Rosenthal formulated the number of Ns to be obtained from k number of studies as $N > 5k + 10$. According to this formula, at least 91 studies are required to eliminate the effect size of this study. Table 8 above shows that N is 227. This shows that there is no publication bias and the effect power is high (Sarı, 2018).

4. DISCUSSION

Since the beginning of the 2000s, the effect of increasing positive psychology movement is also seen in Turkey. When the literature is examined, it is seen that the studies are mostly in relational design. The number of current studies in the experimental design is very small and their effectiveness has not been addressed before this study. The effectiveness of the studies prepared and applied in experimental design has been tested for the first time. Thus, it is aimed that it will contribute to the literature.

While statistical results provide information about how much the study data differ from each other and the expectations of the researcher, the effect size gives information about the relative and different effect sizes of the experimental study data. Within the scope of this study, the effect sizes of 16 experimental studies (12 thesis - 4 Master’s thesis and 8 PhD thesis- and 4 articles) were examined. According to the findings of this study, the overall effect size of the interventions was 0,80. It is seen that the major ratio among the studies within the scope of the research belongs to PhD thesis. The overall effect average of PhD studies was 0,71 (0,86-1,34); the overall effect average of master studies was 0,67 (0,15-1,20); and the overall effect average of the articles was 0,64 (-0,84-2,12). Based on these results gathered after the interventions, it is possible to say that the interventions have a positive effect in favor of the experimental group.

The effect size classification specified by Hedge is as follows: between 0.00 and ± 0.10 weak, between 0.10 and ± 0.30 small, between 0.30 and ± 0.50 medium, between 0.50 and ± 0.80 strong, over 0.80 very strong. Thalheimer and Cook (2002) classified effect sizes as follows: $0.15 \leq$ Effect Size Value < 0.15 is insignificant; $0.15 \leq$ Effect Size Value < 0.40 small; $0.40 \leq$ Effect Size Value < 0.7 medium; $0.75 \leq$ Effect Size Value < 1.10 wide; $1.10 \leq$ Effect Size Value < 1.45 too wide; $1.45 \leq$ Effect Size Value is tremendous (Başar, Aşkın & Gelbal, 2016; Ören & Sarı, 2019). When both classifications are considered, it is possible to say that 0,80 effect size value obtained from this study is within the large classification. Therefore, it is seen that the interventions made affect the experimental groups positively.

When the studies carried out abroad are reviewed, the early start date of positive psychology practices shows the importance given to interventions. It is seen that the first intervention was made by Lichter, Haye and Kammann (1980) with the aim of “reducing depression and increasing psychological well-being”. According to the data obtained from the pre-test, post-test and 6-week follow-up test of this study which includes experimental and control groups aged between 20-60, intervention program was found to be significant in favor of the experimental group. In the meta-analysis study by Bolier, Haverman, Westerhof, Riper, Smit and Bohlmeijer (2013), the effectiveness of 40 applications for subjective well-being, psychological well-being and depression were tested with the meta-analysis method. They were in experimental design and the overall effect size was

found to be 0,34 for subjective well-being studies and 0,20 for psychological well-being studies. Practices made in the field of subjective well-being and psychological well-being in Turkey were examined in this meta-analysis and effect sizes were found 0,7. Based on these results, it is possible to say that the efficiency levels of subjective well-being and psychological intervention programs in Turkey is quite high.

The first study conducted abroad on hope which is another concept discussed in the scope of the study, was conducted by Berg, Snyder and Hamilton (2008) is pain tolerance development and hope vaccination programs with university students. This intervention program did not have an effect on the participants, contrary to expectations, but it is important because it is the first study in this field and contributes to other studies to be conducted. Weis and Speridakos (2011) found similar results at the level of effectiveness of programs in meta-analysis studies in which they measured the effectiveness of hope vaccination programs. It was found that hope vaccination programs had a low level of correlation with self-reported hope and life satisfaction, but no effect on depression, anxiety and psychological stress factors. Similar results were obtained in a study by Seligman, Rashid and Parks (2006) and as examined in this study by Yerlikaya (2006).

The fact that interventions in the field of positive psychology do not have the effect we have expected to see on the experimental group does not mean that the interventions are completely wrong, faulty or weak. This situation may result from the fact that the individuals participating in the therapy or interventions don't have same level of sensitivity (Casellas-Grau, Font & Vives, 2014), the selected intervention studies are not suitable for the experimental group (Sin, Della Porta & Lyubomirsky, 2011), the experimental and control group members have various cultural characteristics (Cohen & Fredrickson, 2010). Another research could prove this was carried out by Mongrain and Anselmo-Matthews in 2012. In their study, made a copy of the study conducted by Seligman, Steen, Park & Peterson (2005) with their own experimental and control groups. The implementation results of these two intervention programs, which are exactly the same, were found to be different than expected. While depressive group in Seligman's study continued to maintain their level of well-being after the intervention program, the effect observed in the experimental group was lower after the intervention program conducted by Mongrain and Anselmo-Matthew (2012). This was attributed to the fact that the experimental group included in Seligman's study was chosen from a group of people who visitors to the Web site created for *Authentic Happiness* book having read the authentic happiness book written by Seligman and that their participants were less depressive than the ones participating in the intervention by Mongrain and Anselmo-Matthew (2012). When the studies are examined through this perspective, the evaluation should be made considering that the same intervention programs may give different results on different groups.

5. LIMITATIONS AND SUGGESTIONS

After the empirical studies in the field of positive psychology in Turkey were eliminated according to certain criteria, 16 studies were reviewed. In this study; moderator effects such as type of studies (master's thesis, PhD thesis, articles), sample size, gender distribution of sample, age of sample, city were not included in the calculation of effect size of the study. This issue can be taken into consideration in future studies.

The positive psychology practices in Turkey was first seen in PhD doctoral thesis published in 2006 (Gürgan, 2006; Yerlikaya, 2006). Scarcity of work due to the limited number of interventions in Turkey limits the opportunity to purely examine the concept of positive psychology. This point, which

can be considered as a limitation of this study, can be solved by increasing the number of interventions to be made.

As understood from flow chart in Table 2, there are quite many studies in the field of positive psychology as a quantitative value in Turkey. However, most of the studies in the field of Guidance and Psychological Counseling appear to be relational. Positive psychology practices which are similar to the ones carried out increasingly abroad in recent years can also be done in Turkey. Intervention programs can be established for the areas needed by individuals just as the one in the study by Dunn, Uswatte & Elliott (2009). In the study conducted by Eryılmaz (2017), the necessary factors for effective psychotherapy were mentioned based on the existing psychotherapies. These points can be taken into consideration in new programs to be created.

It is seen that the age ranges of the individuals in the experimental and control groups in the studies reviewed are 11-61. Positive psychology intervention programs can be used for younger age groups after making the necessary arrangements (Payton, Weissberg, Durlak, Dymnicki, Taylor, Schellinger & Pachan, 2008; Korkut-Owen, Demirbaş-Çelik & Doğan, 2018). Another developmental period outside the study samples is elderliness. While the general expectation is that the level of well-being decreases with age, Ryan and Deci (2001) stated that this situation is the opposite. As denoted by Howell, Kern & Lyubomirsky (2007), it is seen that positive psychology approaches have an effect on elder groups compared to young groups due to features such as knowledge, experience and wisdom increasing with age. Therefore, intervention programs can be organized for this age group, as well.

It can be deduced from the fact that one of the competence areas of well-being is positive interpersonal communication; face-to-face communication and physical environments in which empathic behaviors can be demonstrated are significant in positive psychology practices. Similarly, web-based consultations are also tested just as in the studies by Luthans, Avey & Patera (2008), Ouweeneel, Le Blanc & Schaufeli (2013), Görges, Oehler, von Hirschhausen, Hegerl & Rummel-Kluge (2018), Walsh, Szymczynska, Taylor & Priebe (2018), Tagalidou, Baier, & Laireiter (2019). Such studies can also be put into practice in Turkey so that the field of positive psychology is known by more people and it will be easier for the people in need to reach it.

In the literature, the integration of positive psychology into state and private schools and its importance is mentioned in the studies carried out by Terjesen, Jacofsky, Froh & Diguseppe (2004), Alvord & Grados (2005), Seligman, Ernst, Gillham, Reivich & Linkins (2009), Marques, Pais-Ribeiro & Lopez (2011), Waters (2011), Furlong, Gilman & Huebner (2009), Shoshani & Steinmetz (2014), Kiraz & Özcan (2017). In Turkey, similar studies by Eryılmaz (2013), Türkmen, Çok, Karaman, & Ercan (2014), Tekinalp & Işık (2015) are available in recent years. However, it is not possible to say that they aren't available in sufficient number, so it can be focused on increasing these studies in schools.

References

- Akar, A. (2018). *Psikolojik sağlık programının ergenlerin psikolojik sağlık düzeyine etkisi*. (Unpublished doctoral dissertation). Maltepe Univ., Istanbul.
- Albayrak, G. (2013). *Comparison of the effect of psycho-education program and psychodrama on psychological well-being's of university students* (Unpublished master's dissertation). Mersin Univ., Mersin.
- Alvord, M. K., & Grados, J. J. (2005). Enhancing resilience in children: A proactive approach. *Professional Psychology: Research and Practice*, 36(3), 238–245. doi:10.1037/0735-7028.36.3.238

Arastaman, G. & Balci, A. (2013). Lise öğrencilerinin yılmazlık algılarının çeşitli değişkenler açısından incelenmesi. *Kuram ve Uygulamada Eğitim Bilimleri* 13(2), 915-928.

Arzu, F., Erbay, E., Ünal, F. G., & Gürkan, U. (2018). The effect of group counseling on subjective well-being and divorce compliance levels of divorced family children. *International Necatibey Educational and Social Science Research Congress. Full Text Paper Book p.*, 187-207.

Asıcı, E. (2018). *The effect of forgiveness focused group guidance on aggression and subjective well-being of adolescents* (Unpublished doctoral dissertation). Dokuz Eylül Univ., İzmir.

Avcı, D. (2009). *Öğrenilmiş iyimserlik eğitim programının 9. ve 10. sınıf öğrencilerinin iyimserlik düzeylerine etkisi* (Unpublished master's dissertation). Gazi Üniv., Ankara.

Bakioğlu, A. & Gökteş, E. (2018). Bir eğitim politikası belirleme yöntemi: Meta analiz. *Medeniyet Eğitim Araştırmaları Dergisi*, 1(2), 35-54.

Başar, T., Aşkın, İ., & Gelbal, S. (2016). Tam öğrenme yaklaşımının öğrencilerin akademik başarıları üzerindeki etkisi: Bir meta-analiz çalışması. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*, 7(2), 355-371. doi: 10.21031/epod.277891

Begg, C.B. & Mazumdar, M. (1994). Operating characteristics of a rank correlation test for publication bias. *Biometrics*, 50(4), 1088–1101. doi: 10.2307/2533446

Benard, B. (1991). *Fostering resiliency in kids: Protective factors in the family, school and community*. Portland, Oregon, Western Center for Drug-Free Schools and Communities. ED335781.

Berg, C. J., Snyder, C. R., & Hamilton, N. (2008). The effectiveness of a hope intervention in coping with cold pressor pain. *Journal of Health Psychology*, 13(6), 804-809. doi: 10.1177/1359105308093864.

Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: a meta-analysis of randomized controlled studies. *BMC Public Health*, 13(1), 119. doi:10.1186/1471-2458-13-119

Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. John Wiley & Sons.

Casellas-Grau, A., Font, A., & Vives, J. (2014). Positive psychology interventions in breast cancer. A systematic review. *Psychooncology*, 23(1), 9-19. doi: 10.1002/pon.3353

Chang, E. C., & Bridewell, W. B. (1998). Irrational beliefs, optimism, pessimism, and psychological distress: A preliminary examination of differential effects in a college population. *Journal of Clinical Psychology*, 54(2), 137–142. doi: 10.1002/(SICI)1097-4679(199802)54:2<137::AID-JCLP2>3.0.CO;2-P

Cohen, M. A. & Fredrickson, B. L. (2010). In search of durable positive psychology interventions: Predictors and consequences of long-term positive behavior change. *The Journal of Positive Psychology*, 5(5), 355-366. doi:10.1080/17439760.2010.508883

Cooper, H., Hedges, L.V. & Valentine, J.C. (2009). *The handbook of research synthesis and meta-analysis*. New York: Russell Sage

Crombie, I.K., & Davies, H.T. (2009). What is meta-analysis. *What is...?Series*, Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.734.6596&rep=rep1&type=pdf>

Cumming, G. (2013). *Understanding the new statistics: Effect sizes, confidence intervals, and meta-analysis*. Routledge/Taylor & Francis Group.

Çalışkan, Ö. (2017). *Experimental exploration of attitude change: A path model of cognitive dissonance, resilience, and readiness for organizational change among prospective teachers* (Unpublished doctoral dissertation). METU, Ankara.

Dunn, D. S., Uswatte, G., & Elliott, T. R. (2009). Happiness, resilience and positive growth following physical disability: Issues for understanding, research, and therapeutic intervention. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford library of psychology. Oxford handbook of positive psychology* (pp. 651–664). Oxford University Press.

Duval, S. & Tweedie, R. (2000a) A nonparametric 'trim and fill' method of accounting for publication bias in meta-analysis. *Journal of the American Statistical Association*, 95, 89–99. doi:10.1080/01621459.2000.10473905

Eryılmaz, A. (2010). Renew: "expansion of goals program" for adolescents with respect to positive psychotherapy and comprehensive guidance. *Family and Society*, 11(5), 53-66.

Eryılmaz, A. (2013). Using of positive psychology on psychological counseling and guidance context on character strength and preventive services. *The Journal of Happiness & Well-Being*, 3(1), 1-22.

Eryılmaz, A. (2015). *Psikolojik sorunlara müdahale ve kendi kendine yardım kitabı*. Ankara: Pegem Yayınevi.

Eryılmaz, A. (2017). Positive Psychotherapies. *Current Approaches in Psychiatry*, 9(3), 346-362. doi:10.18863/pgy.288667

Furlong, M. J., Gilman, R., & Huebner, E. S. (Eds.). (2009). *Handbook of positive psychology in schools*. Routledge.

Gizir, C. (2007). Psikolojik sağlamlık, risk faktörleri ve koruyucu faktörler üzerine bir derleme çalışması. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3(28), 113-128.

Görges, F., Oehler, C., von Hirschhausen, E., Hegerl, U., & Rummel-Kluge, C. (2018). Get happy-acceptance of an internet-based self-management positive psychology intervention for adult primary care patients with mild and moderate depression or dysthymia: A pilot study. *Internet Interventions*, 12, 26-35. doi:10.1016/j.invent.2018.03.001

Greene, R. R. (2002). Human behavior theory: A resilience orientation. *Resilience: An integrated approach to practice, policy, and research*, 1-28.

Gürkan, U. (2006). *Grupla psikolojik danışmanın üniversite öğrencilerinin yılmazlık düzeylerine etkisi* (Unpublished doctoral dissertation). Ankara Univ., Ankara.

Hanson, R. (2017). *Brain happiness settings: New brain science contentment, calmness and trust*. (Trans.: K. Atakay). İstanbul: Okuyan Us

Harris, P., & Middleton, W. (1994). The illusion of control and optimism about health: On being less at risk but no more in control than others. *British Journal of Social Psychology*, 33(4), 369–386. doi:10.1111/j.2044-8309.1994.tb01035.x

Hefferon, K., & Boniwell, I. (2018). *Positive psychology theory, research and applications*, (Çev. Ed. T. Doğan). Ankara: Nobel

Howell, R. T., Kern, M. L., & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review*, 1(1), 83-136. doi: 10.1080/17437190701492486

İlgaz, D. (2018). *Pozitif psikoloji uygulamaları eğitiminin öğretmenlerin psikolojik sermaye ve öznel iyi oluş düzeylerine etkisi* (Unpublished master's dissertation). Üsküdar Univ., İstanbul.

Irving, L. M., Snyder, C. R. & Crowson, J. J. (1998). Hope and the negotiation of cancer facts by college women. *Journal of Personality*, 66(2), 195-214. doi: 10.1111/1467-6494.00009

Karagöz, Y. (2011). *Olumlu düşünme eğitim programının ergenlerin geleceğine yönelik iyimserlik, depresyon ve bilişsel çarpıtma düzeylerine etkisinin incelenmesi* (Unpublished master's dissertation). Dokuz Eylül Univ., İzmir.

Karairmak, Ö. (2006). Psikolojik sağlık, risk faktörleri ve koruyucu faktörler. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3(26), 129-142.

Kasapoğlu, F., & Kış, A. (2016). Investigating the subjective well-being in terms of gender: A meta-analysis. *MUJFE*, 12(3), 770-782. doi:10.17860/mersinefd.282379

Keven-Aklıman, Ç. (2015). *The effectiveness of a positive body image group counseling programme on adolescent girls on the context of positive psychology and positive psychotherapy*. (Unpublished master's dissertation). Ufuk Univ., Ankara.

Kiraz, A. & Özcan, B., (2017). Life satisfaction of adolescents living in Northern Cyprus. *Journal of History Culture and Art Research*, 6(3), 88-106. doi:10.7596/taksad.v6i3.941

Korkut Owen, F., Demirbaş-Çelik, N., & Doğan, T. (2018). Secondary school students' wellness according to their age, gender and life satisfaction. *Journal of History Culture and Art Research*, 7(1), 379-397. doi:10.7596/taksad.v7i1.1222

Lichter, S., Haye, K., & Kammann, R. (1980). Increasing happiness through cognitive retraining. *New Zealand Psychologist*, 9(2), 57-64.

Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning & Education*, 7(2), 209-221. doi:10.5465/AMLE.2008.32712618

Malkoç, A. (2011). *Öznel iyi oluş müdahale programının üniversite öğrencilerinin öznel iyi oluş düzeylerine etkisi* (Unpublished doctoral dissertation). Marmara Univ., İstanbul.

Marques, S. C., Pais-Ribeiro, J. L., & Lopez, S. J. (2011). The role of positive psychology constructs in predicting mental health and academic achievement in children and adolescents: A two-year longitudinal study. *Journal of Happiness Studies*, 12(6), 1049-1062. doi:10.1007/s10902-010-9244-4

Mongrain, M., & Anselmo-Matthews, T. (2012). Do positive psychology exercises work? A replication of Seligman et al. (2005). *Journal of Clinical Psychology*, 68(4). doi: 10.1002/jclp.21839

Ouweneel, Le Blanc, P. M., & Schaufeli, W. B. (2013). Do-it-yourself: An online positive psychology intervention to promote positive emotions, self-efficacy, and engagement at work. *Career Develop. International*, 18(2), 173-195. doi: 10.1108/CDI-10-2012-0102

Öğülmüş, S. (2001). Resilience as a personality trait. *I. National Child and Crime Symposium: Causes and Prevention Studies*. (29-30 March 2001).

Ören, F. Ş., & Sarı, K. (2019). The effect of inquiry based learning strategy on students' higher level thinking skills: a meta-analysis study. *PAU Journal of Education*, 46(46), 328-348. doi: 10.9779/pauefd.460168

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews. Technical Report. *Collaborative for Academic, Social, and Emotional Learning*. Retrieved from <https://www.casel.org/wp-content/uploads/2016/08/PDF-4-the-positive-impact-of-social-and-emotional-learning-for-kindergarten-to-eighth-grade-students-executive-summary.pdf>

Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. E. Rolf, A.S. Masten, D. Cicchetti, K. Nuechterlein S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp.181-214). NY: Cambridge Univ. Press.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141-166.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727. doi:10.1037/0022-3514.69.4.719

Sapmaz, F., & Doğan, T. (2012). Optimism as a predictor of happiness and life satisfaction. *Mersin University Journal of the Faculty of Education*, 8(3), 63-69.

Sarı, K. (2018). *The effect of inquiry-based learning strategy in science education on the students' academic achievements and attitudes: a meta analysis study* (Unpublished master's dissertation). Celal Bayar Univ., Manisa.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247. doi:org/10.1037/0278-6133.4.3.219

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14. doi: [org/10.1037/0003-066X.55.1.5](https://doi.org/10.1037/0003-066X.55.1.5)

Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education*, 35(3), 293-311. doi: 10.1080/03054980902934563

Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist*, 61(8), 774–788. <https://doi.org/10.1037/0003-066X.61.8.774>

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60(5), 410-421. doi: 10.1037/0003-066X.60.5.410

Shoshani, A., & Steinmetz, S. (2014). Positive psychology at school: A school-based intervention to promote adolescents' mental health and well-being. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 15(6), 1289–1311. doi:10.1007/s10902-013-9476-1

Sin, N. L., Della Porta, M. D., & Lyubomirsky, S. (2011). Tailoring positive psychology interventions to treat depressed individuals. In S. I. Donaldson, M. Csikszentmihalyi, & J. Nakamura (Eds.), *Series in applied psychology. Applied positive psychology: Improving everyday life, health, schools, work, and society*, (pp. 79–96). Routledge/Taylor & Francis Group.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, L., June, L. & Charyle, H. P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570-585. doi: 10.1037//0022-3514.60.4.570

Tagalidou, N., Baier, J., & Laireiter, A. R. (2019). The effects of three positive psychology interventions using online diaries: A randomized-placebo controlled trial. *Internet Interventions*, 17, [100242] doi: doi:10.1016/j.invent.2019.100242

Teoman, D. D. (2015). *A field study in positive psychology: Increasing resiliency and changing stress coping styles of employees with a gratitude intervention* (Unpublished doctoral dissertation). İstanbul Univ., İstanbul.

Tekinalp, B. E., & Terzi, Ş. (2015). *Eğitimde pozitif psikoloji uygulamaları*. Ankara: Pegem A.

Terjesen, M., D., Jacofsky, M., Froh, J., & Digiuseppe, R. (2004). Integrating positive psychology into schools: Implications for practice. *Psychology in The Schools*, 41(1), 163-172. doi: 10.1002/pits.10148

Thalheimer, W., & Cook, S.R. (2002). *How to calculate effect sizes from published research: A simplified methodology*. Retrieved from

https://pdfs.semanticscholar.org/d7f0/c3a171ffd6bad4297feeb708a2d79e06da8b.pdf?_ga=2.126596493.1479464147.1583779784-1287943039.1568976925

Türkmen, M., Çok, F., Karaman, N. G., & Ercan, H. (2014). A general review of intervention programs for adolescents. *Ankara University Journal of Faculty of Educational Sciences*, 47(1), 187-208. doi: 10.1501/Egifak_0000001323

Ulusoy, Y., & Duy, B. (2013). Effectiveness of a psycho-education program on learned helplessness and irrational beliefs. *Educational Sciences: Theory & Practice*, 13(3), 1431-1446. doi:10.12738/estp.2013.3.1469

Uz-Baş A., & Soyulu Y. (2018). The effect of positive emotions on intellectual skills and the level of happiness of counselor trainees. *Journal of Higher Education and Science*, 8(2), 264-270. doi: 10.5961/jhes.2018.269

Walsh, S., Szymczynska, P., Taylor, S. J., & Priebe, S. (2018). The acceptability of an online intervention using positive psychology for depression: A qualitative study. *Internet Interventions*, 13(3), 60-66. doi: 10.1016/j.invent.2018.07.003

Waters, L. (2011). A review of school-based positive psychology interventions. *The Educational and Developmental Psychologist*, 28(2), 75-90. doi: 10.1375/aedp.28.2.75

Weis, R., & Speridakos, E. C. (2011). A meta-analysis of hope enhancement strategies in clinical and community settings. *Psych Well-Being*, 1(5), 1-16. doi:10.1186/2211-1522-1-5

WHO (1948). *Who we are?* Retrieved from <https://www.who.int/about/who-we-are/constitution#:~:targetText=Health%20is%20a%20state%20of,absence%20of%20disease%20or%20infirmity>

Yerlikaya, İ. (2006). *The effect of hope training program on primary school children hopelessness level based on cognitive – behavioral approach and hobby therapy* (Unpublished doctoral dissertation). Ankara Univ., Ankara.