Research Article

Relationship between Self-Esteem and Life Satisfaction: A Meta-Analysis Study

M. Furkan Kurnaz1 Esra Teke2
Necmettin Erbakan University Ministry of Education
Hasan Ali Günaydın3
Ministry of Education

Abstract

The aim of this study is to examine the relationships between self-esteem and life satisfaction through meta-analysis. For this purpose, studies were examined and those that fit the criteria were included in the study. Accordingly, 74 articles including numerical data, which were published in refereed scientific journals, in Turkish and English between 2010 and 2020, were included in the study. The effect sizes of the research were done using the Comprehensive Meta-Analysis software. 111 effect sizes were obtained from 74 different studies included in the study. A heterogeneous distribution was determined in the included studies (Q = 1835.56> 135.48). The effect size value according to the sample group as a result of the moderator analysis was calculated as 0.39 for adolescents and 0.43 for adults. Although the strength of the relationship between variables was higher in adults, it was observed that it did not change significantly (p>0.05). The average of effect sizes in the study was calculated as 0.42. These data indicate that there is a positive, moderately effective and significant (p <0.05) effect between life satisfaction and self-esteem. Results were discussed in the light of the literature.

Key Words

Self-esteem • Life satisfaction • Meta-analysis

1 Correspondance to: Master’s Student, Institute of Educational Sciences, Necmettin Erbakan University, Konya, Turkey. E-mail: furkan.kurnaz.mfk@gmail.com ORCID: 0000-0003-3773-9418
2 (M.D.), Psychological Counselor, Ministry of Education, Konya, Turkey. E-mail: esradogru1@gmail.com ORCID: 0000-0002-8436-2169
3 Teacher, Ministry of Education, Konya, Turkey. E-mail: hasanalgunaydin@gmail.com ORCID: 0000-0001-9477-3431

Self-esteem is a popular and important construct in social sciences and everyday life (Blascovich & Tomaka, 1991). This important structure is one of the most researched variables in the fields of counseling and psychology (Doğan & Eryılmaz, 2013; Güloğlu & Karaırmak, 2010). Even though there are many studies on the subject, there is no widely accepted, standard, general definition of self-esteem (Aktaş, 2011).


Rosenberg (1965) states that self-esteem consists of two dimensions: high and low self-esteem. In this context, he stated that individuals with high self-esteem feel themselves valuable and respected; individuals with low self-esteem are not satisfied with themselves and reject themselves. Consistent with Rosenberg; Baumeister, Campbell, Kruger, and Vohs (2003) emphasized that individuals with high self-esteem have good relationships, make positive impressions on people, and are willing to speak in a group. Plummer (2007) stressed that individuals with low self-esteem give little value to their abilities, often deny their success, and have difficulties in setting goals and solving problems.

When the studies in the literature were examined, a positive significant relationship was found between self-esteem and subjective well-being (Doğan & Eryılmaz, 2013), self-efficacy (Yıldırım & Atilla, 2020), academic achievement score and competitiveness (Yenidünya, 2005). A negative relationship was observed between self-esteem and body image (Oktan & Şahin, 2010), social media addiction (Hawi & Samaha, 2017), internet addiction (Yıldırım, 2016), social adaptation (Pehlivan, 2017), loneliness (Güloğlu & Karaırmak, 2010; McWhirter, Besett-Alesch, Horibata, & Gat, 2002). In addition, perceived social support and self-esteem were found to have a direct effect on students' patience levels (Koç & Coşkun, 2019), and variables of self-esteem and social connectedness on the social anxiety variable (Kurtyılmaz, Can, & Ceyhan, 2017). In addition, in studies conducted, relationship was found between self-esteem and social relationships (Harris & Orth, 2019), depression (Carvalho et al., 2016; Yaygır, 2018), happiness (Cheng & Furham, 2002), negative automatic thoughts (Director & Nuri, 2017), loneliness (Tohumcu, 2018; Zhao, Zhang & Ran, 2017) and life satisfaction (Hawi & Samaha, 2017; Karademir, Türkçapar, Uluçan, & Bahadır, 2013; Rey, Extremera & Pena, 2011; Yıldırım, 2017; Yanar, Kizılirmak, & Denizli, 2018; Yıldız & Baytemir, 2016).

Life satisfaction has been defined as a subjective assessment of a person's quality of life in general or specific domains (Diener, Suh, Lucas, & Smith, 1999). Life satisfaction is based on the comparison of individuals' judgments about the level of satisfaction they provide, the current course and the standards (not imposed from outside) that the individual has set for himself (Diener, Emmons, Larsen, & Griffin, 1985). It shows a conceptual evaluation or judgment of the individual's own life (Özdevcioğlu & Aktaş, 2007). It is also the degree of positive evaluation of the overall quality of his life as a whole (Veenhoven, 1991). In other words, life satisfaction represents an evaluative judgment (Pavot & Diener, 2013).

Stating that there is a large literature on life satisfaction, Appleton and Song (2008) suggest that life satisfaction has six different components. These components are income level, occupation and social status of
the person, opportunities he/she has, welfare conditions, current state policy, environment, family and social relations. Dockery (2004) evaluated factors such as stable personality traits, marital status, social support networks, life events, health status, lifestyle, job status, and socioeconomic status as factors affecting life satisfaction.

When the studies in the literature were examined, it was observed that there was a positive relationship between life satisfaction and psychological resilience (Ülker, Tümülü, & Recepoğlu, 2013), optimism and happiness (Gülcan & Nedim Bal, 2014), endurance and wisdom (Hayat, Khan, & Sadia, 2016). It has been observed that there is a negative relationship between life satisfaction and work-family conflict (Özdevcioğlu & Aktaş, 2007), loneliness (Hasanoğlu, 2019; Yılmaz & Altnok, 2009), burnout (Ünal, Karlıdağ, & Yoloğlu, 2001), negative automatic thoughts (Bulut, 2007). In addition, there are studies showing that there is a significant relationship between life satisfaction and hopelessness (Akandere, Acar, & Baştuğ, 2009), and awareness (Agarwal & Dixit, 2017).

Chen, Tu and Wang (2008) found in their study that neuroticism has a negative effect on life satisfaction, but openness and conscientiousness have a positive effect. Çıkrıkçı and Odacı (2016) revealed in their study that metacognitive awareness and self-efficacy are important predictors of life satisfaction in adolescents. Nam (2020) concluded in his study that resilience, mindfulness and neurotic personality trait variables significantly predicted life satisfaction. Extremera and Rey (2016) found in their study that positive and negative affect completely mediates the connection between emotional intelligence and life satisfaction.

In this study, it was aimed to examine the relationships between self-esteem and life satisfaction with meta-analysis method. Many studies on both self-esteem (Doğan & Eryılmaz, 2013; Güloğlu & Kararmak, 2010) and life satisfaction (Appleton & Song, 2008) were found in the reviewed literature. In this context, it is thought that it would be beneficial to consider the studies in the literature in a holistic manner. Besides, some studies in the literature indicate that there is a positive relationship between self-esteem and life satisfaction (Freire & Ferreira, 2019; Rey et al., 2011; Yıldırım, 2017), while some studies indicated a negative relationship (Seshadri et al., 2019). In this context, this study is considered to be important in terms of putting an end to the contradictory findings and integrating the results of the published studies and creating a framework. It is also thought that this study will make a significant contribution to the literature by filling the gap in the literature.

**Method**

Meta-analysis method was used in this study. Meta-analysis is a method of combining the results of multiple independent studies conducted on a specific subject and performing the statistical analysis of the obtained research findings (Dinçer, 2014). The main findings of the meta-analysis method consist of effect size, heterogeneity test results and publication bias findings. The effect sizes of the research were made using Comprehensive Meta-Analysis software.

**Area Scan**

The data source of the study consists of articles on self-esteem and life satisfaction. In the survey, the words "self-esteem and life satisfaction" were used as key words in Turkish and English. 111 correlation values obtained from 74 studies that meet the inclusion criteria of the study were included in this meta-analysis.
Inclusion Criteria

The criteria sought in studies to be included in meta-analysis:

1. Articles must be published in peer-reviewed scientific journals.
2. Articles contain numerical data that will enable the calculation of the effect size.
3. The language of the articles is Turkish or English.

In the meta-analysis study, 111 effect sizes were calculated from 74 studies that met these criteria.

Coding of Studies and Reliability of Coding Process

Correlation values were used as effect size type in the meta-analysis study. Sample size and correlation values were obtained from each study to calculate the effect size of the study. The sample type and publication year of the studies included in the meta-analysis was determined as the moderator variable.

The study was coded by two independent coders in order to ensure the reliability between the coders, and the Cohen Kappa coefficient was used to evaluate the harmony between the coders. In the study, Cohen Kappa coefficient was found as κ = 0.90.

General Features of the Studies Included in the Study

74 studies included in the study were conducted between 2010-2020. 23 of the studies consist of adolescents and 51 adults. When the publication years of the studies included in the meta-analysis are examined, 3 of the from 2010, 8 from 2011, 7 from 2012, 11 from 2013, 10 from 2014, 8 from 2015. 7 from 2016, 7 from 2017, 2 from 2018, 3 from 2019, 8 from 2020.

Findings

In this section, publication bias, homogeneity test results, combined effect sizes of the studies and analysis results according to moderator variables are given.

Publication Bias

Funnel plot, Orwin Fail-Safe N, Tau-square coefficient (τ2) and Duval and Tweedie's Trim and Fill method were used in the study to test the publication bias.

Figure 1
Funnel Plot
As can be seen in Figure 1, it is seen that 111 effect sizes included in the study are equally distributed on both sides of the vertical line. The fact that 111 effect sizes that make up the data set are evenly distributed in the upper region shows that there is no publication bias.

Table 1

**Test Data**

<table>
<thead>
<tr>
<th>Publication Bias Test</th>
<th>Criteria</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orwin’s Fail-Safe N</td>
<td>for 0.01</td>
<td>4738</td>
</tr>
<tr>
<td>Egger’s regression intercept</td>
<td>p (1-tailed)</td>
<td>0.16</td>
</tr>
<tr>
<td>Tau- square coefficient ($\tau^2$)</td>
<td>p (1-tailed)</td>
<td>0.49</td>
</tr>
<tr>
<td>Duval ve Tweedie’s Trim and Fill</td>
<td>17</td>
<td>0.42/0.45</td>
</tr>
</tbody>
</table>

According to the Orwin's Fail-Safe N calculation made to test the publication bias, the number of studies that could bring the Fisher's Z value to 0.01 and effect size was calculated 0.00 is the as 4738. The fact that this number is quite large indicates that there is no publication bias. According to Egger’s regression intercept $p = 0.16$ and Tau-square coefficient $(\tau^2)$ analysis, $p = 0.49$ value was not found to be statistically significant ($p > .05$). The value of Egger’s regression intercept, which are not statistically significant, indicates that there is no publication bias (Sedgwick, 2013). According to the result of Duval and Tweedie's trim and fill method, when 17 peer studies are included, it is seen that the average effect size found as a result of meta-analysis changes to 0.45. Since this change is insignificant, the reported impact magnitude can be considered reliable.

**Analysis Findings on the Effect Size**

In this study, between self-esteem and life satisfaction were made a heterogeneity test and random effects model the results of the analyzes are shown in Table 2.

Table 2

**Effect Size Findings**

<table>
<thead>
<tr>
<th>Model</th>
<th>k</th>
<th>ES</th>
<th>%95 C. I.</th>
<th>Heterogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q-value</td>
</tr>
<tr>
<td>Random effect</td>
<td>111</td>
<td>0.42</td>
<td>0.39 0.45</td>
<td>1835.56</td>
</tr>
</tbody>
</table>

Based on the relationship between self-esteem and life satisfaction, the Q value was found to be 1835.56 for 110 df in the heterogeneity test of the studies included in the study. Since the total heterogeneity value calculated exceeds the value in the chi-square table, it can be said that the studies (1835.56 > 135.48) show heterogeneous distribution (Higgins & Thompson, 2002). It is seen that the I² value is high (94.00%). In addition, a p value less than 0.05 means that the studies show heterogeneous distribution. (Petiti, 2000).

According to the random effects model, the lower limit of the 95% confidence interval was calculated as 0.39 and the upper limit 0.45 and the average effect size 0.42. These data indicate that there is a positive, moderately effective and significant ($p < 0.05$) effect between life satisfaction and self-esteem.
Moderator Analysis

In the study, the strength of the relationship between self-esteem and life satisfaction was examined according to the sample group and the publication. Findings obtained are shown in Table 3.

Table 3
Moderator Variables

<table>
<thead>
<tr>
<th>Moderator Variables</th>
<th>k</th>
<th>ES</th>
<th>%95 C.I.</th>
<th>P</th>
<th>Qb</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>Upper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent</td>
<td>39</td>
<td>0.39</td>
<td>0.34</td>
<td>0.44</td>
<td>0.00</td>
<td>1.74</td>
</tr>
<tr>
<td>Adult</td>
<td>72</td>
<td>0.43</td>
<td>0.40</td>
<td>0.47</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Work Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010-2014</td>
<td>50</td>
<td>0.41</td>
<td>0.36</td>
<td>0.46</td>
<td>0.00</td>
<td>0.29</td>
</tr>
<tr>
<td>2015-2020</td>
<td>61</td>
<td>0.43</td>
<td>0.39</td>
<td>0.46</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 3, the effect size value was calculated as 0.39 for adolescents and 0.43 for adults according to the sample group in which the study was conducted. Although the strength of the relationship between self-esteem and life satisfaction was higher in adults, it was observed that it did not change significantly (p > 0.05). When the strength of the relationship between self-esteem and life satisfaction is examined by study year, the variance between studies is not statistically significant.

Discussion

This meta-analytical study statistically explained the results of studies examining the relationship between life satisfaction and self-esteem. In this study, examining the relationship between self-esteem and life satisfaction in scientific journals, 74 studies were reviewed. To decide whether these studies were publication bias, Funnel Plot, Orwin's Fail-Safe N Calculation, Egger’s regression intercept, Tau-square Coefficient and Duval and Tweedie's Trim and Fill method were used. And, it was found that there was no publication bias. Moreover, heterogeneity results show that these studies are heterogeneously distributed ($Q=1853.56; p<0.1$). 111 correlation values from these 74 studies were included in the analysis. As a result of the analysis, the effect size value was found to be 0.42. According to this result, we can say that there is a middle relationship between life satisfaction and self-esteem (Ellis, 2010). This result is consistent with the Schutte and Malouff (2018) meta-analysis research on the positive well-being of individuals. They found the effect size as 0.32. In previous studies, a positive relationship was found between life satisfaction and self-esteem (Arslan, 2019; Perez-Fuentes et al., 2019; Lau et al., 2020). Individuals with high self-esteem have more positive life satisfaction than individuals with low self-esteem (Freire & Ferreira 2019; Rey et al., 2011; Zhang & Leung, 2002). Moreover, Liang et al. (2020) found that individuals with high self-esteem have higher happiness from life in migrated individuals. But, Seshadri et al. (2019) found a significant negative relationship between life satisfaction and self-esteem of adolescent boys who migrated. And, they explained that there was no significant relationship between life satisfaction and self-esteem in young women who migrated.

Researchers also examined variables that mediate the relationship between life satisfaction and self-esteem. Studies have shown that gender (Boden et al., 2008; Freire & Ferreira, 2019; Kling et al., 1999; Moksnes &
Espnes, 2013), age (Butkovic vd., 2019; Zhang & Leung, 2002), internet usage (Blachino et al., 2016; Blachino et al., 2019), attitude of parent (Milevsky et al., 2006), social status (Zhang & Leung, 2002), health conditions (Moksnes & Espnes, 2013) and aesthetic operations (Papadopulos et al., 2018) play a mediating role in the relationship between life satisfaction and self-esteem. Diener and Diener (2009) found that their self-esteem and life satisfaction was affected by the societies and economic circumstances of the society in which people live. Also, self-esteem and life satisfaction have been found to be strongly affected by close relationships (Milevsky, 2005; Perez-Fuentes et al., 2019).

Since life satisfaction is a multifaceted construct, the relationship between life satisfaction and various variables has been explored in some studies (McGillivray et al., 2009). In these relationships, self-esteem of individuals has been found to have a mediating role in achieving the desired satisfaction in their lives (Butkovic et al., 2019). For example, self-esteem has been shown to have a mediating effect on the relationship between individuals’ life satisfaction and levels of cheerfulness (Lau et al., 2020; Li et al., 2018). Perez-Fuentes et al. (2019) found that the parenting styles influence the life satisfaction of adolescents and self-esteem plays a mediating role in this effect. Arslan (2019) found that self-esteem plays a mediating role in the relationship between individuals’ social alienation and life satisfaction. Moreover, self-esteem is effective in the relationship between emotional intelligence and life satisfaction (Rey et al., 2011; Zarei et al., 2019). Cao and Liang (2017), in their study with substance addicts, found that self-esteem plays a mediating role in the relationship between individuals’ perceived social support and life satisfaction.

Understanding the relationship between self-esteem and life satisfaction of individuals at every stage of life is important for the development of psychological interventions (Butkovic et al., 2019; Cuomo, 2020; Moksnes & Espnes, 2013). By reaching a general opinion by analyzing the studies on the relationship between self-esteem and life satisfaction, this study is projected to be a guide for future studies on this topic.
References

References marked with an asterisk indicate studies included in the meta-analysis.


245


Pehlivan, S. (2017). *Lise öğrencilerinin sosyal uyum becerileri ile benlik saygısı arasındaki ilişkinin incelenmesi* [Examination of the relationship between high school students' social adaptation skills and self-
Relationship between self-esteem and life satisfaction: A meta-analysis study

Kurnaz, Teke, Günyaydın


Seshadri, R., Srinivasan, R., & Kumar, V. (2020). An exploratory study to understand and examine the nature and type of relationship between self-esteem, life satisfaction and adjustment among male and female migrant students. Indian Journal of Mental Health, 7(2), 105-111.


