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The Role of Forgiveness in Predicting Life Satisfaction: A Meta-analysis

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Abstract

Abstract

Life satisfaction is one of the components of psychological well-being, and the decrease or increase of it has positive and negative effects on people's well-being. The objective of this study was to investigate the role of forgiveness in predicting life satisfaction. This descriptive research study was a meta-analysis. Data analysis was conducted using cma2 softwar e. According to the inclusion and exclusion criteria, the sample consisted of 45 studies (including 40 articles, 1 book, and 4 theses). The results showed that the effect size in random models for the relationship between forgiveness and life satisfaction was 0.275, which was significant at the $p < 0.05$ level; it was medium based on Cohen's index. The investigation of the role of the moderating variables showed that the relationship between forgiveness and life satisfaction was influenced by variables such as the type of publication and statistical population. Based on the findings of the present meta-analysis, it could be stated that by increasing forgiveness and encouraging people to forgiveness, life satisfaction and psychological well-being in individuals and society could be strengthened.

Introduction

With the emergence of positive psychology, new concepts on human behavior and psychological health, including life satisfaction, were studied and investigated. Life satisfaction not only deals with the physical and psychological health of people but also is a type of social adaptation that can evaluate people's lives (Miao et al., 2020). Life satisfaction is a subjective evaluation of work, marriage, or other areas of life in which a person has defined some criteria for himself. This evaluation is different in people and can be shown in positive or negative ways (Diener, 2009).

Forgiveness shows the highest contribution to hope and life satisfaction because it helps a person maintain his relationship with others; this factor leads to life satisfaction (Rahmandani et al. ., 2020). Interpersonal forgiveness happens when a person tends to maintain a relationship or ignores the fault of the guilty person to achieve inner peace. Thus, a valuable behavior is formed (Donovan & Priester, 2020). Forgiveness is substituting revenge, resentment, and negative judgment toward a guilty person with compassion and kindness (Morton et al., 2019).

Since it is not cost-effective for large-scale research with a larger statistical population of all ages, educational, and social levels in different countries, the use of the meta-analysis method to take advantage of the research on the relationship between forgiveness and life satisfaction is essential. Thus, the objective of this research was to conduct a meta-analysis of international and national research studies on the effect of forgiveness on people's life satisfaction. Hence, previous studies were reviewed and their results were integrated to answer the following questions:

1. What is the overall effect of forgiveness on people's life satisfaction?
2. Are the reviewed studies homogeneous and consistent?
3. Do the investigated research studies tend to publish?
4. Is there a difference between the effect size of forgiveness on life satisfaction based on the moderating variables?

Methodology

The current research is descriptive and based on quantitative data. Moreover, in terms of the data collection method, this research is a meta-analytic study, which is a statistical and systematic method that deals with the integration of other research studies in a single field (Balduzzi et al., 2019). To use this method, some steps are briefly explained below:

1. Setting the research question according to the main objective of the research (i.e., if forgiveness played a role in life satisfaction).
2. Reviewing the research literature systematically from Google Scholar, Elsevier, Magiran, and the Science Information Database in English, Farsi, and Turkish with the keywords of "life satisfaction", "psychological well-being", "psychological well-being" and "forgiveness" in the period from 1990 to 2021.
3. Analyzing 45 studies (i.e., 40 articles, one book, and 4 theses) according to the research keywords
4. Using a focus group to check the quality of process implementation. In the modification process, multilateral review techniques and cross-comparison of the findings with reliable scientific sources were used.
5. Presenting the findings.

Results

The present meta-analysis was performed on 45 studies. Q index, I-square, and Tau square test were used to check the heterogeneity of the studies. The value of this test was not interpretable and only its statistical assumption could have been checked. As seen in Table 1, according to Stein et al., the value of I square was compared with three values of 25, 50, and 75, which expressed low, medium, and high heterogeneity, respectively. Since the value of 97.020 was reported in this study, it indicated a very high heterogeneity in the studies (Moradi & Miralmasi, 2020). On the other hand, tau square was another method for examining the heterogeneity of the studies; they were 0.19, 0.33, and 0.67, which showed weak, moderate, and strong correlations, respectively (Chen et al., 2010). In this study, the tau square was 0.022, which was even less than 0.19, and showed the lack of correlation between the studies or inhomogeneity or homogeneity. The summary of the heterogeneity tests showed that the studies were completely heterogeneous and the random effects model (0.275) provided a more

realistic and valid answer in this research study. To check the publication bias, the funnel plot (Figure 1) and linear regression (Table 2) were used.

Table 1. Inhomogeneity and heterogeneity tests of the studies' analyses

Model	Effect size and 95% confidence interval				Two-domain null test		Dispersion				
	No of studies	Effect size	min	max	Z score	P value	Q	df	P value	I square	Tao square
Stable effects	45	.248	.241	.255	73.66	.000	177.682	44	.000	97.02.	.022
Random effects	45	.275	.233	.317	12.903	.000	-	-	-	-	-

In Figure 1, the horizontal axis indicated the values of the effect sizes of the investigated studies and the vertical axis indicated their standard error. The density of studies at the top of the figure and their relative symmetry around the mean indicated the absence of publication bias in this meta-analysis. In addition to other methods investigating publication bias, the linear regression method was used. Moreover, number of the studies that changed the result (safe Ns) examined the quality of the study in terms of publication bias and consequently the stability of the study results. The funnel plot followed two main goals. The first goal separated strong research from weak research (Moradi & Miralmasi, 2020). As can be seen in Figure 2, the majority of the studies had accumulated at the top of the funnel plot and did not have a high error. However, the second goal was to look for the size of each study compared to the vertical line in the mean effect size (outcome). In other words, for each study on the right side of the vertical line, a corresponding study should have been observed on the left side (Duval & Tweedi, 2000). According to the upper part of the research funnel, they were placed equally on the left and right sides of this vertical line.

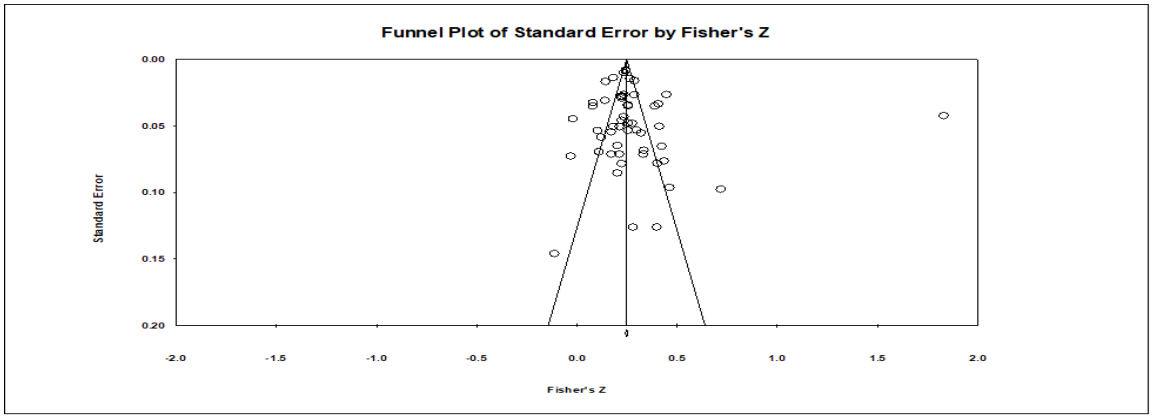


Figure 1. Classic funnel plot in random effects size mode for publication bias

Based on Table 2, linear regression cutoff (B) was equal to 1.05, the 95% confidence interval was equal to the P value of one domain 0.195, and the P value of two domains was 0.390; both domains were higher than 0.05. This result indicated the absence of standard deviation of the collected studies from the regression line and the absence of publication bias in the studies.

Table 2. The results of the linear regression analysis

Statistical index	Cut-off (B)	Standard error	t-value	Sig.	
				One-tailed	Two-tailed
Results	1.05	1.208	.868	.195	.390

Conclusion

The objective of the present study was to examine the overall effect size of the relationship between forgiveness and life satisfaction. The integrated effect size in the random effects model for the relationship between forgiveness and life satisfaction was 0.275, which was interpreted as a medium effect size based on Cohen's index (Moradi & Mralmasi, 2020). In this way, the frequency of forgiveness had a positive and moderate relationship with life satisfaction. Previous findings showed that people who could forgive themselves and others, and could forgive in special situations (compared to other people who did not have these abilities) showed more satisfaction with life. When people can forgive, they can easily control their anger toward others, ignore the guilty person, and make their hearts empty of hatred; they show positive behavior and excitement toward the guilty person (Fernández-capo et al., 2017). Forgiveness in life improves social relationships, self-esteem, cardiovascular health, and the immune system. On the other hand, it reduces depression, anxiety, and blood pressure (Pizarro-Ruiz et al., 2021).

The results of this meta-analysis were based on quantitative data from primary research. Therefore, the authenticity of these data was the responsibility of the authors of the primary research studies. Considering that the quality of the meta-analysis depended on the quality of the selected primary research, despite the efforts of the researchers, selecting the appropriate research studies may have been neglected. In this research, only a few study databases were used, and only articles, theses, and books that were in Persian, English, and Turkish were discussed; other studies in other databases and languages were ignored. Since forgiveness is one of the factors in creating satisfaction in life, it is suggested that researchers take measures to strengthen forgiveness in people's lives.

Conflict of interest

This article is taken from the PhD dissertation on Psychology in the Islamic Azad University, Tehran North Branch, and there is no conflict of interest.

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