Relationships Between Well-Being and Social Support: A Meta-Analysis of Studies Conducted in Turkey

İlhan YALÇIN

SUMMARY

Objective: The purpose of this study was to investigate overall relationships between well-being and social support through meta-analysis. Studies which investigated associations between social support and life satisfaction, subjective well-being, self-esteem, depression, loneliness were included in the meta-analysis.

Method: By doing literature review to assess studies for potential inclusion; studies were included which met the inclusion criteria. Inclusion criteria were that studies must be conducted in Turkey and must report a correlation coefficient between study variables. Data were analyzed using a random effect model.

Results: It was found that there was a positive relationship between overall well-being and social support; level of social support was negatively correlated with depression and loneliness. For well-being variables, the mean effect size of perceived support from family and for depression/loneliness, the mean effect size of perceived support from friends were significantly stronger than other support sources. For both well-being variables and depression/loneliness variables, mean effect size of studies conducted with older people was significantly stronger than studies conducted with other age groups. Also, mean effect size of theses were significantly stronger than articles.

Conclusion: The findings are expected to contribute to a better understanding of relationships between social support and well-being.

Keywords: Well-being, social support, meta-analysis

INTRODUCTION

In recent years, there has been a significant increase in publications in the field of positive psychology. Mental health researchers began to investigate happiness, self-esteem, optimism, and other aspects of well-being, rather than focusing only factors that lead to disorders such as depression and anxiety (Lucas et al. 1996). At the personal level, positive psychology is related with subjective experiences of individuals' such as well-being, satisfaction, hope, optimism, flow, and happiness. At the individual level, it is related with positive personal characteristics such as capacity to love and work, courage, interpersonal skills, aesthetic sensitivity and forgiveness. At the group level, positive psychology includes civic qualities that lead individuals to be better citizens such as, responsibility, altruism, kindness, tolerance, and work ethic (Seligman and Csikszentmihalyi 2000).

The main purpose of positive psychology is to understand happiness and subjective well-being. In this context, the goal of positive psychology is to understand and explain the happiness and well-being, and predict influencing factors (Carr 2004). Seligman (2002) proposed that positive feelings are

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Assist. Prof., Ankara University, Faculty of Educational Sciences, Division of Guidance and Psychological Counseling, Ankara

e-mail: *yalcini@ankara.edu.tr*

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related with the past, present, and future. For instance, optimism and hope are positive feelings about the future. Joy, enthusiasm, and flow are positive feelings about the present. Additionally, satisfaction, pride, and peace are positive feelings about the past. Seligman (2002) stated that people desire happiness at all three levels. However, this might not be happen all the time. According to Seligman, enduring happiness is different from momentary happiness. People can achieve momentary happiness by doing any activity at a specific time, while accomplishing enduring happiness is more difficult. However, people are unable to achieve lasting happiness by enhancing momentary positive feelings. Seligman have stated that the aforementioned happiness is a composition of inherited qualities, circumstances of life, and factors under an individual's control.

Happiness, at the most basic level, describes a comprehensive qualification of mankind. Within this comprehensive framework, there is a feeling of satisfaction for individuals in areas of their life such as work, leisure time activities, neighborhood relationships, family life, marriage, and competency. Each of these areas is important, is associated with other areas, and eventually satisfaction with all these areas is related to general life satisfaction. However, measures on depression and other disorders are associated with indicators of individuals' life quality. Study findings show that the presence of positive affect and absence of negative affect contribute to individuals' satisfaction with life (Levinsohn et al. 1991).

Initially, studies on well-being focused on the causes of well-being. Currently, studies are investigating outcomes of well-being. Study results show that well-being and life satisfaction are improving the four areas of an individual's life. These areas include: health, work life and income, social relationships, and social benefits. Research findings show that well-being positively affects health, that people who have higher subjective well-being are healthier than others, and that these people have decreased negative physical symptoms. Similarly, individuals who have higher well-being level tend to have enjoy their work and to have an increased income when compared to others. Higher level of well-being provides people with not only individual but also social benefits. Individuals with high level of well-being participate in voluntary activities and exhibit altruistic behavior (Diener and Ryan 2009).

There are positive correlations between well-being and social relationships. Diener and Ryan (2009) reported that individuals who have numerous friends and family members are likely to have higher subjective well-being. Having a social network will help individuals avoid negative experiences such as economic and legal problems and furthermore, it helps individuals experience positive feelings (Cohen and Wills 1985). In the context of social support, there are various types of support such as emotional support (caring, empathy, and worth), informational support (not only providing information but also advice and new viewpoint), tangible support, and network support which includes socializing and belonging to a group (Goldsmith 2004). Social support has buffering effect of stress (Cohen and Wills 1985). After receiving social support during an interpersonal communication, individuals evaluate that support. This support helps individuals cope with stressful situation and this subsequently leads to physical and psychological well-being (Goldsmith 2004). Having social relationships is one of the keys of both physical and psychological health. Feelings of loneliness and isolation are associated with an increase in health problems (Niederhoffer and Pennebaker 2002).

In recent years, studies investigating relationships between well-being and social support have increased in Turkey. In these studies, relationships between social support and various dimensions of well-being such as subjective well-being, life satisfaction, and self-esteem were examined. Furthermore, relationships between various variables such as depression and loneliness and social support were also investigated. After reviewing these study results, it was found that subjective well-being (Çevik 2010), life satisfaction (Yalçın 2011), and self-esteem (Siyez 2008) are positively correlated with perceived social support from family, friends, teachers, and significant others; depression (Eldeleklioğlu 2006) and loneliness (Duru 2008a) are negatively correlated with social support. Relationships among the mentioned variables were investigated in various age groups. For instance, relationships between general well-being and social support were examined among adolescents (Kahriman and Polat 2003, Yıldırım 2004a), university students (Ceyhan et al. 2005, Tüzün 1997), and the elderly (Arslantaş and Ergin 2011, Bozo et al. 2009).

In this study, relationships between overall well-being and social support were examined through meta-analysis. After reviewing the studies conducted on the aforementioned variables in Turkey, it might be useful to implement a holistic approach to examine relationships between well-being and social support. In the related literature, studies have been conducted on general well-being and its relationships with depression and loneliness (Chu et al. 2010). In this study, in addition to life satisfaction, subjective well-being, and self-esteem, relationships between social support and depression and loneliness were also investigated. It is expected that to know the overall effect size among relationships and what the effect size of moderator variables will contribute to existing literature. For this purpose, following questions were examined:

What is the average effect size of the relationship between social support and well-being variables which include: life satisfaction, subjective well-being, and self-esteem?

What is the average effect size of the relationship between social support and depression/loneliness?

Are there significant differences in the average effect size between well-being variables and social support with regard to moderators (source of social support, study group, and publication type)?

Are there significant differences in the average effect size between depression/loneliness and social support with regard to moderators (source of social support, study group, and publication type)?

METHOD

Identification of Studies

Meta-analysis was used to assess the relationship between well-being and social support. Studies reported correlation coefficients between well-being variables and social support were included in this meta-analysis. During identification of studies, electronic library of a university, YÖK (Council of Higher Education) Thesis Center, ULAKBİM database, and internet search engines were used to identify applicable studies. The keywords in Turkish and English "social support", "subjective well-being", "life satisfaction", "self-esteem", "well-being", "depression", and "loneliness" were used to gather the studies. Inclusion criteria were: (a) study must be conducted in Turkey, (b) study must report correlation coefficient between social support and other study variables. Studies conducted with specific samples (e.g. children with special needs and their families, individuals who have specific illness) were excluded from the pool of studies to ensure the reliability of the study. Table 1 presents the list of included studies.

Sample of Studies

Thirty-five studies met the inclusion criteria and were included in the analysis. Eighty-eight effect sizes reported in these studies were used to analysis. Size of individual study groups ranged from 62 to 1734. The total number of participants across all studies was 14564. The publication years ranged from 1997 to 2013. When reviewed by publication year, most studies were published in 2009 (N= 7), 2008 (N= 6), and 2011 (N= 5). Twenty-seven studies were published articles, and eight studies were theses. The mean ages of participants were not reported in some studies. The mean age of the participants was 24.09 according to the reported mean ages in the studies. In terms of participants, 17 studies targeted university students, 8 studies targeted high school students, 1 study targeted secondary school students, and 9 studies targeted the elderly.

Data Analysis

All the studies included in this meta-analysis reported correlation coefficient. In most meta-analytic studies, correlation coefficient itself is not used directly. Instead, correlation coefficients are transformed to Fisher's z value. Analysis is performed using these values. Then, results are converted to correlation coefficient for reporting (Borenstein et al. 2009). This study followed the same strategy. Cohen et al. (2007) classified correlation coefficients as the following: between 0.00 and ± 0.10 weak, between 0.10 and ± 0.30 modest, between 0.30 and ± 0.50 moderate, between 0.50 and ± 0.80

Table 1. List of included studies

No	Authors	Publ.Type	Social support source	Variable	r	Fisher Z	Sample size	Study sample
1	Aksüllü and Doğan 2004	Article	Total	Depression	-0,42	-0,448	160	Elderly
2	Altay and Avcı 2009	Article	Total	Depression	-0,237	-0,242	62	Elderly
3	Altıparmak 2009	Article	Family	Life satisfaction	0,308	0,318	130	Elderly
		Article	Friend	Life satisfaction	0,153	0,154	130	Elderly
		Article	Sig. others	Life satisfaction	0,276	0,283	130	Elderly
4	Arslan 2009	Article	Family	Self-esteem	0,341	0,355	499	High school
		Article	Friend	Self-esteem	0,207	0,210	499	High school
		Article	Teacher	Self-esteem	0,139	0,140	499	High school
5	Arslantaş and Ergin 2011	Article	Family	Loneliness	-0,643	-0,763	390	Elderly
		Article	Friend	Loneliness	-0,64	-0,758	390	Elderly
		Article	Family	Depression	-0,466	-0,505	390	Elderly
		Article	Friend	Depression	-0,455	-0,491	390	Elderly
6	Boylu and Hazer 2012	Article	Total	SWB	0,341	0,355	348	Elderly
		Article	Total	Life satisfaction	0,439	0,471	348	Elderly

Table 1. continued

No	Authors	Publ.Type	Social support source	Variable	r	Fisher Z	Sample size	Study sample
7	Bozo et al. 2009	Article	Total	Depression	-0,39	-0,412	102	Elderly
8	Ceyhan et al. 2012	Article	Total	Depression	-0,13	-0,131	492	University
9	Ceyhan et al. 2005	Article	Family	Depression	-0,26	-0,266	293	University
		Article	Friend	Depression	-0,39	-0,412	293	University
10	Çetinkaya 2011	Thesis	Other	Life satisfaction	0,386	0,407	393	Elderly
		Thesis	Other	Life satisfaction	0,406	0,431	393	Elderly
		Thesis	Other	Life satisfaction	0,499	0,548	393	Elderly
11	Çevik 2010	Thesis	Family	SWB	0,59	0,678	398	High school
		Thesis	Friend	SWB	0,48	0,523	398	High school
		Thesis	Sig. others	SWB	0,31	0,321	398	High school
12	Doğan 2008	Article	Family	Depression	-0,316	-0,327	254	University
		Article	Friend	Depression	-0,238	-0,243	254	University
13	Duru 2008	Article	Family	Loneliness	-0,39	-0,412	404	University
		Article	Friend	Loneliness	-0,59	-0,678	404	University
		Article	Sig. others	Loneliness	-0,40	-0,424	404	University
		Article	Total	Loneliness	-0,66	-0,793	404	University
14	Duru 2008b	Article	Total	Loneliness	-0,53	-0,590	198	University
15	Eldeklioğlu 2006	Article	Family	Depression	-0,13	-0,131	325	University
		Article	Friend	Depression	-0,26	-0,266	325	University
16	Eldeklioğlu 2008	Article	Family	Loneliness	-0,16	-0,161	329	University
		Article	Friend	Loneliness	-0,47	-0,510	329	University
17	Gençöz and Özlale 2004	Article	Other	Depression	-0,34	-0,354	342	University
		Article	Other	Depression	-0,39	-0,412	342	University
18	Kahriman and Polat 2003	Article	Family	Self-esteem	0,423	0,451	500	High school
		Article	Friend	Self-esteem	0,414	0,440	500	High school
19	Kapıkıran and Acun Kapıkıran 2010	Article	Other	Depression	-0,26	-0,266	224	University
		Article	Other	Depression	-0,31	-0,321	224	University
20	Kapıkıran 2013	Article	Total	Life satisfaction	0,57	0,648	431	Secondary
21	Kaşıkcı et al. 2009	Article	Family	Self-esteem	0,038	0,038	1210	High school
		Article	Friend	Self-esteem	0,063	0,063	1210	High school
22	Köse 2009	Thesis	Total	Loneliness	-0,748	-0,968	670	High school
23	Kozaklı 2006	Thesis	Family	Loneliness	-0,226	-0,230	385	University
		Thesis	Friend	Loneliness	-0,488	-0,533	385	University
		Thesis	Sig. others	Loneliness	-0,344	-0,359	385	University
		Thesis	Total	Loneliness	-0,49	-0,536	385	University
24	Mutlu 2012	Thesis	Family	Life satisfaction	0,272	0,279	400	Elderly
		Thesis	Friend	Life satisfaction	0,359	0,376	400	Elderly
		Thesis	Sig. others	Life satisfaction	0,559	0,631	400	Elderly
		Thesis	Total	Life satisfaction	0,534	0,596	400	Elderly
25	Önalgil 2012	Thesis	Family	SWB	0,636	0,751	392	Elderly
		Thesis	Friend	SWB	0,543	0,608	392	Elderly
		Thesis	Sig. others	SWB	0,274	0,281	392	Elderly
		Thesis	Total	SWB	0,617	0,720	392	Elderly

Table 1. continued

No	Authors	Publ.Type	Social support source	Variable	r	Fisher Z	Sample size	Study sample
26	Özturk et al. 2006	Article	Family	Loneliness	-0,378	-0,398	258	University
		Article	Friend	Loneliness	-0,542	-0,607	258	University
		Article	Sig. others	Loneliness	-0,467	-0,506	258	University
		Article	Total	Loneliness	-0,638	-0,755	258	University
27	Saygın and Arslan 2009	Article	Family	SWB	0,084	0,084	639	University
		Article	Friend	SWB	0,08	0,080	639	University
		Article	Teacher	SWB	0,142	0,143	639	University
28	Siyez 2008	Article	Family	Self-esteem	0,265	0,271	1734	High school
		Article	Friend	Self-esteem	0,22	0,224	1734	High school
		Article	Family	Depression	-0,178	-0,180	1734	High school
		Article	Friend	Depression	-0,096	-0,096	1734	High school
29	Şahin 2011	Thesis	Total	SWB	0,465	0,504	312	University
30	Tüzün 1997	Thesis	Family	Depression	-0,41	-0,436	401	University
		Thesis	Friend	Depression	-0,36	-0,377	401	University
		Thesis	Sig. others	Depression	-0,37	-0,388	401	University
31	Uz Baş 2011	Article	Family	Life satisfaction	0,36	0,377	272	University
		Article	Friend	Life satisfaction	0,35	0,365	272	University
		Article	Sig. others	Life satisfaction	0,18	0,182	272	University
		Article	Total	Life satisfaction	0,39	0,412	272	University
32	Yalçın 2011	Article	Family	Life satisfaction	0,50	0,549	133	University
		Article	Teacher	Life satisfaction	0,47	0,510	133	University
33	Yıldırım 2004	Article	Family	Depression	-0,302	-0,312	485	High school
		Article	Teacher	Depression	-0,232	-0,236	485	High school
34	Yıldırım 2004b	Article	Family	Depression	-0,302	-0,312	660	High school
		Article	Friend	Depression	-0,187	-0,189	660	High school
		Article	Teacher	Depression	-0,233	-0,237	660	High school
		Article	Total	Depression	-0,317	-0,328	660	High school
35	Yılmaz et al. 2008	Article	Family	Loneliness	-0,297	-0,306	339	University
		Article	Friend	Loneliness	-0,418	-0,445	339	University
		Article	Sig. others	Loneliness	-0,192	-0,194	339	University
		Article	Total	Loneliness	-0,361	-0,378	339	University

strong, and larger than ± 0.80 very strong. In this study, the aforementioned classification was utilized for interpreting results. Analysis were performed using Comprehensive Meta Analysis software.

RESULTS

At the beginning, the overall effect size was calculated using two methods. Firstly, all reported effect sizes were analyzed for an overall effect size; secondly when one study reported more than one effect size, the study's effect sizes were combined, allowing each study to contribute only one effect size. When all the effect sizes were analyzed, overall effect size for well-being variables (life satisfaction, subjective well-being, and self-esteem) was r=0.36, when effect sizes were combined, r= 0.37. For the depression/loneliness variables, all the effect sizes were analyzed, overall effect size was r= -0.38; when the effect sizes were combined, the correlation coefficient remained the same (r= -0.38). All the reported effect sizes were included in the analysis, because the results of all effect size and one effect size per study were very close for two variable set.

Table 2. Effect sizes by categories of general well-being

Variables	k	ES	Z	p	Q	St. Error	95% CI	
Life satisfaction	18	0.40	12.54	0.00	98.09	0.007	0.343	0.454
Subjective well-being	12	0,40	5,64	0.00	320.64	0.029	0.267	0.512
Self-esteem	9	0.24	5.19	0.00	136.82	0.011	0.149	0.321
General well-being	39	0.36	11.50	0.00	747.75	0.011	0.303	0.415

k: Number of effect size, ES: Effect size, CI: Confidence interval

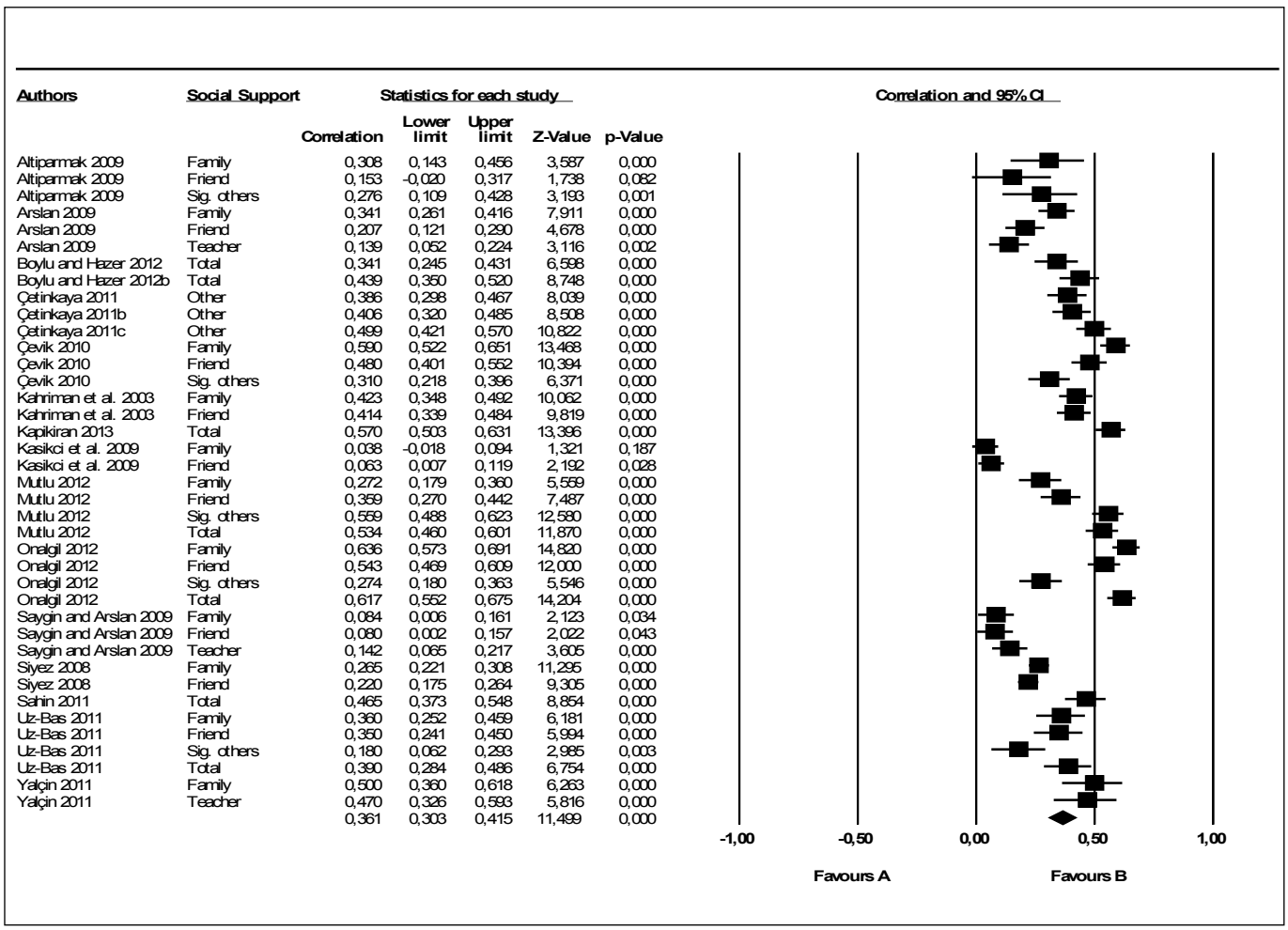

Figure 1. Forest plot for the relationship between well-being and social support

For two variable set (well-being variables and depression/loneliness), homogeneity tests revealed that the Q value was significant (for well-being variables Q_{38}= 747.75, p< 0.05; for depression/loneliness Q_{48}= 914.48, p< 0.05). Thus, random-effects model which assumes that variance among effect sizes is not due only to sampling error was used to analysis.

Overall Effect Sizes for Well-being Variables

Thirty-nine effect sizes were included for the relationship between well-being and social support. The results of meta-analysis for these effect sizes are shown in Table 2. Of these effect sizes, 18 were about the relationships between life satisfaction and social support, 12 were about the relationships between subjective well-being and social support, and 9 were about the relationships between self-esteem and social support. Results revealed that effect sizes between social support and life satisfaction (r= 0.40, p<0.01) and social support and subjective well-being (r= 0.40, p<0.01) were similar. It can be concluded that effect size between self-esteem and social support is smaller than the other two well-being variables (r= 0.24, p<0.01). In general, effect size between well-being variables and social support had a moderate effect size and positive

Table 3. Effect sizes by categories of depression and loneliness

Variables	k	ES	Z	p	Q	St. Error	95% CI	
Depression	27	-0.30	-12.60	0.00	176.31	0.005	-0.338	-0.252
Loneliness	22	-0.47	-10.49	0.00	390.50	0.017	-0.544	-0.395
Depression/Loneliness	49	-0.38	-12.95	0.00	914.48	0.011	-0.431	-0.327

k: Number of effect size, ES: Effect size, CI: Confidence interval

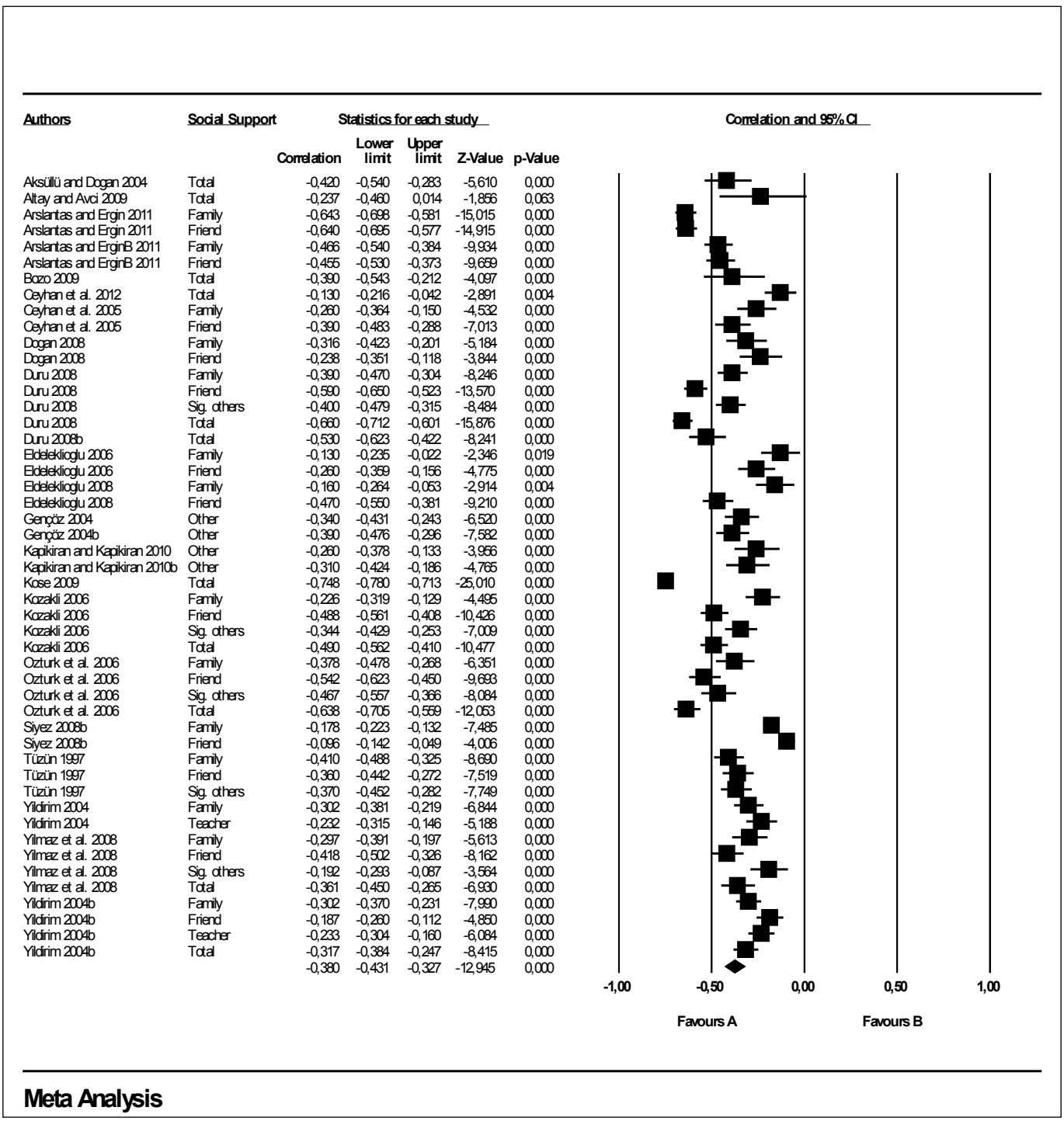

Figure 2. Forest plot for the relationship between depression/loneliness and social support

correlation, r= 0.36 (p<0.01), according to the Cohen et al. (2007) classification.

Overall Effect Sizes for Depression/Loneliness Variables

In this meta-analysis, there are 49 effect sizes between depression/loneliness and social support. Results are presented in Table 3. Of the effect sizes, 27 were about the relationships between depression and social support, and 22 were about the relationships between loneliness and social support. The average effect size between loneliness and social support was r= -0.47 (p<0.01); the average effect size between depression and social support was r= -0.30 (p<0.01). When depression and loneliness variables were analyzed together, the overall effect size between depression/loneliness and social support was r= -0.38 (p<0.01). According to the Cohen et al. (2007) classification, this would be classified as negatively correlated with a moderate effect size.

Effect Sizes about Moderator Variables

In this study, sources of social support, study sample, and publication type were used as moderator variables. First, results regarding moderator analysis between well-being variables and social support were presented; second results on moderator variables between depression/loneliness and social support were displayed.

Results of moderator variable analysis for well-being variables are shown in Table 4. As seen, there are 36 effect sizes for source of social support. These sources of social support were family (k= 11), friends (k= 10), teachers (k= 3) and significant others (k= 5). Reported total social support scores were also included in the analysis (k= 7). Results revealed that heterogeneity test was significant. [$Q_B(4) = 181.34$, $p< 0.01$; $Q_W(31) = 537.48$, $p< 0.01$; $Q_T(35) = 718.82$, $p< 0.01$]. This result signifies that variance among effect sizes cannot be explained only by sampling error. In other words, sources of social support are significant moderators in the relationships between well-being variables and social support.

Further analysis revealed that mean effect size of perceived social support from family was (r= 0.36), mean effect size of perceived social support from significant others was (r= 0.33), mean effect size of perceived social support from friends was (r= 0.30), and mean effect size of perceived social support from teachers was (r= 0.24). Additionally, the mean effect size of the total score of social support was found to be r= 0.49. According to Cohen et al. (2007) classification, effect sizes of perceived support from family, significant others, and friends can be considered as moderate in magnitude and positive in direction, while the effect size of perceived support from teachers is modest. Also, the mean effect size of total scores of social support can be considered as strong in magnitude.

Studies included in this meta-analysis were conducted on high school students, university students, and elderly. This analysis was performed with 38 effect sizes. In one study (Kapıkıran 2013), the study population was secondary school students and that study was not included in the analysis. In two studies, (Yıldırım 2004a, 2004b) participants included both secondary school students and high school students. All these participants were considered high school students during data analysis. Results revealed that the heterogeneity test was significant [$Q_B(2) = 210.03$, $p< 0.01$; $Q_W(35) = 491.27$, $p< 0.01$; $Q_T(37) = 701.30$, $p< 0.01$]. Thus, various age groups are significant moderators in the relationship between well-being variables and social support. As seen in Table 4, the

Table 4. Effect sizes of moderator variables in the relationship between well-being and social support

Moderator	Categories	k	ES	QBetween	St. Error	95% CI	
Support source		36	0.37	181.34*	0.012	0.322	0.420
	Family	11	0.36		0.028	0.235	0.470
	Friend	10	0.30		0.018	0.188	0.395
	Teacher	3	0.24		0.024	0.076	0.392
	Sig. others	5	0.33		0.025	0.178	0.466
	Total score	7	0.49		0.010	0.408	0.558
Sample		38	0.36	210.03*	0.011	0.309	0.405
	High school	12	0.30		0.015	0.205	0.384
	University	10	0.30		0.017	0.197	0.400
	Elderly	16	0.43		0.011	0.358	0.493
Publ. type		39	0.36	297.10*	0.011	0.319	0.407
	Article	24	0.28		0.010	0.222	0.343
	Thesis	15	0.47		0.009	0.406	0.530

k: Number of effect size, ES: Effect size, CI: Confidence interval, *p< 0.01

Table 5. Effect sizes of moderator variables in the relationship between depression/loneliness and social support

Moderator	Categories	k	ES	Qbetween	St. Error	95% CI	
Support source		45	-0.30	158.12*	0.012	-0.340	-0.268
	Family	14	-0.33		0.012	-0.401	-0.246
	Friend	13	-0.40		0.026	-0.506	-0.294
	Teacher	2	-0.23		0.003	-0.287	-0.177
	Sig. others	5	-0.36		0.008	-0.436	-0.271
	Total score	11	-0.47		0.046	-0.598	-0.321
Sample		49	-0.39	174.23*	0.011	-0.431	-0.347
	High school	9	-0.31		0.034	-0.445	-0.155
	University	33	-0.38		0.007	-0.426	-0.328
	Elderly	7	-0.49		0.018	-0.581	-0.388
Publ. type		49	-0.38	93.60*	0.011	-0.423	-0.325
	Article	41	-0.37		0.010	-0.418	-0.313
	Thesis	8	-0.45		0.036	-0.577	-0.293

k: Number of effect size, ES: Effect size, CI: Confidence interval, *p< 0.01

average effect size for the elderly group was the largest in magnitude (r= 0.43). The groups with the next largest effect sizes included university (r= 0.30) and high school (r= 0.30) students. These effect sizes can be considered as moderate effects.

Included studies were also analyzed in terms of publication type. Results revealed that the heterogeneity test was significant [$Q_B(1) = 297.10$, $p< 0.01$; $Q_W(37) = 450.65$, $p< 0.01$; $Q_T(38) = 747.75$, $p< 0.01$]. The average effect size of theses was stronger (r= 0.47) than effect size of journal articles (r= 0.28).

Published and unpublished studies were also considered in the context of publication bias and sensitivity. It is argued that studies that report larger effect size are more likely to be published than studies that report smaller effect size (Borenstein et al. 2009). Interestingly, the results of this study did not follow this expectation. In this meta-analysis, fail-safe N analysis was also performed. Accordingly, 1737 unpublished studies with nonsignificant results were needed to nullify the effect size between well-being variables and social support.

Results of moderator variable analysis between depression/loneliness and social support are displayed in Table 5. There are k= 45 effect sizes about sources of social support. The heterogeneity test was significant. [$Q_B(4) = 158.12$, $p< 0.01$; $Q_W(40) = 752.88$, $p< 0.01$; $Q_T(44) = 911.00$, $p< 0.01$]. Accordingly, average effect size of perceived support from friends was r= -0.40, and average effect size of perceived support from significant others was r= -0.36. These are followed by the average effect size of family support (r= -0.33) and teacher support (r= -0.23). Additionally, the mean effect size of total score of social support for depression/loneliness variables were found to be r= -0.47. Effect sizes of perceived support from friends, significant others, and family is moderate in magnitude and negative in direction, while effect size of perceived support from teachers is modest and negative.

Additionally, the role of study groups was also evaluated in the relationships between depression/loneliness and social support. Results revealed that heterogeneity test was significant [$Q_B(2)= 174.23$, $p< 0.01$; $Q_W(46) = 740.24$, $p< 0.01$; $Q_T(48) = 914.48$, $p< 0.01$]. Thus, average effect size of the elderly group was found to be r= -0.49. University students (r= -0.38) and high school (r= -0.31) students followed in magnitude of effect sizes. Effect sizes of studies conducted with the elderly group can be considered as nearly strong and negative, while effect sizes of studies conducted with university students and high school students are moderate in magnitude and negative in direction.

When studies analyzed according to publication types, heterogeneity test was significant [$Q_B(1)= 93.60$, $p< 0.01$; $Q_W(47) = 820.88$, $p< 0.01$; $Q_T(48) = 914.48$, $p< 0.01$]. Accordingly, the average effect size of theses was (r= -0.45), while average effect sizes of journal articles were found as r= -0.37. Fail-safe N analysis revealed that 6,309 unpublished studies with nonsignificant results were needed to nullify the effect size between depression/loneliness variables and social support.

DISCUSSION

In this study, 88 effect sizes which were reported in 35 studies were investigated and relationships between well-being variables, depression/loneliness and social support were explored. Of the effect sizes, 39 of them pertained to the relationships between well-being and social support, while 49 pertained to relationships between depression/loneliness and social support.

Results showed that the average effect size of well-being variables was 0.36. When each of the well-being variables analyzed separately, effect size of life satisfaction and subjective well-being was 0.40. These effect sizes are moderate in magnitude. In a meta-analytic study conducted by Chu et al. (2010), relationships between well-being and social support among children and adolescents were examined. Results of that study showed that effect size of the relationship between these two variables was small in magnitude but significant.

The mean effect size of the depression/loneliness variable was negative in direction and moderate in magnitude. Individual analysis of these two variables revealed that the effect size of loneliness was negative and strong; whereas the effect size of depression was negative and moderate in magnitude. Peplau (1988) stated that loneliness is a painful experience and it occurs when individuals' social relationships decrease qualitatively or quantitatively. Accordingly, when the existing social relationships do not meet the individuals' need of social interaction and desires, loneliness is likely to emerge. Similarly, Champion (1995) argued that inadequate social support might lead to both negative life events and depression. Thus, we can conclude that the associations that we discovered between depression/loneliness and social support were expected.

When the relationships between well-being variables and sources of social support were examined, it was found that the average effect size of perceived support from family was larger than other sources of social support. In terms of effect size, it is followed by perceived support from significant others, support from friends, and support from teachers. When the effect of sources of social support on the relationship between depression/loneliness and social support was analyzed, the average effect size of perceived support from friends was larger than other social support sources. It is followed by perceived social support from significant others, support from family, and support from teachers in terms of effect size.

Many researchers from various disciplines focused on the importance of social relationships in the treatment of disease and maintenance of well-being and health (Cohen et al. 2000). Studies showed that a social support system is an important source to help prevent and solve individuals' psychological problems and to protect mental health (Yıldırım, 2006). In the related literature, researchers found that various life events might be more important in specific life stages and they might vary according to gender, culture, and social group. For example, family and peer relationships are important in all the life stages, whereas, school and teachers are notable support sources for children and adolescents. Furthermore, for adults, work life has positive effects in terms of social support (Champion 1995).

Another result of the study showed that the average effect size of the elderly group was the larger than any other research group for both well-being and depression/loneliness variables. University students and high school students followed in terms of magnitude of effect size. Social relationships are important for all the life stages and the quality of social relationships are significant part of the elderly persons life. Older people state that seeing family members and friends, spending time together, and doing activities with them make them feel happy. In later years of life, social relationships contribute meaning to individuals' life (Victor et al. 2009). The fact that the average effect size of elderly group was largest for both well-being and depression/loneliness variables is consistent with the existing literature.

When all the included studies were analyzed in terms of publication type, the average effect size of unpublished studies was larger than published studies for both well-being and depression/loneliness variables. This result is consistent with the study finding reported by Chu et al. (2010) and is unexpected. Thus, it can be concluded that there is no publication bias among the studies included in this meta-analysis.

Consequently, this study is the first meta-analytic study to explore relationships between well-being variables and social support to our knowledge. We expect that the results of this study will contribute to further studies on the relationship between well-being and social support and bring a holistic approach to the relationships among these variables.

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