

Research Article

Social Support, Resilience and Subjective Well-being in College Students

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Abstract

Social support has been linked to numerous adaptive psychosocial health outcomes. The Brief Perceived Social Support Questionnaire (BPSSQ) is a newly developed measure of general social support. This study aimed to test the psychometric properties and dimensionality of the BPSSQ in Turkish language and tested the mediating effect of resilience in the relationship between social support and satisfaction with life. Participants included 202 college students (69.3% females), with a mean age of 22.58 years ($SD=1.26$) who completed online measures of social support, resilience, and satisfaction with life. As expected, the BPSSQ provided a one-factor structure with a satisfactory internal consistency. Social support significantly predicted resilience and satisfaction with life. Resilience also predicted satisfaction with life. Furthermore, the results supported the hypothesis of mediating role of resilience in the relationship between social support and satisfaction with life. These results are important in terms of providing evidence of the underlying mechanism between social support and satisfaction with life. Future intervention efforts aimed at increasing social support and satisfaction with life may benefit from resilience.

Keywords: Social support, resilience, subjective well-being, reliability, validity, Turkish validation

With the emergence of positive psychology, research has extensively focused on individuals' strengths and abilities that lead to ultimate functioning (Seligman, 2005). With this movement, the focus has been switched from ill-being to well-being. Researchers have investigated the strengths that contribute to the development of individuals and society. Positive concepts like social support, resilience, and subjective well-being have become focal point of research. This study evaluates the hypothesis that social support influences satisfaction with life, while resilience is presented and tested as a potential mediator of that relationship.

Social support is a multidimensional construct which is widely studied within mental and well-being research. Social support is defined as function and quality of social relationships that one receives from

other people such as help and support (Schwarzer, Knoll, & Rieckmann, 2004). Based on previous research and theoretical basis, social support can be classified by types of support (i.e., instrumental, emotional, companionship), sources of support (i.e., family, friends, significant others), or qualitative and quantitative aspects (i.e., adequacy, availability, seeking) (Lin, Hirschfeld, & Margraf, 2018). Having social support is important for physical health and well-being. It enhances one's close ties with other people, helps them to be a part of a group, develops social bonds, and feeling affiliated (Schwarzer et al., 2004). It supports individuals' life to be more meaningful. Receiving different forms of social support (i.e., emotional support) from family, friends, and significant others help people to deal with adversities in their life (Bloom, Stewart, Johnston, Banks, & Fobair, 2001).

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Empirical evidence seems to confirm that social support enhances well-being and quality of life (Castellá Sarriera, Bedin, Tiago Calza, & Casas, 2015; Bennett et al., 2001), hope (Yadav, 2010), life satisfaction (Ergh, Hanks, Rapport, & Coleman, 2003), and resilience (Ozbay et al., 2007) and decreases a wide range of mental health symptoms such as anxiety and depression (Henry et al., 2019). A meta-analysis study of the relationship between social support and health outcomes showed that social support can significantly predict health outcomes such as well-being, quality of life, health status, psychological symptoms, physical symptoms, depression, stress, psychological adjustment, coping strategies, health promoting behaviours, health beliefs, and self-actualization (Wang, Wu, & Liu, 2003). Pietrzak et al. (2010) found that lower social support was associated with higher post-traumatic stress disorders (PTSD) and depressive symptoms and lower resilience and psychosocial functioning.

Subjective well-being (SWB) is interchangeably used with happiness in the relevant literature by some researchers. A concise definition of SWB is proposed by Diener, Suh, Lucas, and Smith (1999), who defined SWB as including three interrelated components: (i) presence of positive emotions, (ii) absence of negative emotions, and (iii) satisfaction with life. The former two refer to affect balance and are typically affected by situational factors. Satisfaction with life refers to cognitive evaluation of one's own life and is a long-lasting characteristic compared to affect balance (Diener, 1984; Diener, Emmons, Larsen, & Griffin, 1985). People with high SWB tend to report more positive affect and satisfaction with life and less negative affect. Satisfaction with life is an indispensable element of SWB, thereby this study used satisfaction with life as an important indicator of SWB.

Satisfaction with life has been frequently studied in relation to social support. Accumulating evidence suggests that satisfaction with life is determined by the positive effect of social support (Ali et al., 2010). Studies have reported that social support can explain a significant amount of variance in satisfaction with life among adolescents (Castellá Sarriera et al., 2015), university students (Mahanta, & Aggarwal, 2013) and elderly people (Şahin, Özer, & Yanardağ, 2019). Past research has also reported that satisfaction with life was associated with better psychological adjustment and lower stress, anxiety, and depression symptoms (Yıldırım, & Solmaz, 2020). While satisfaction with

life is generally considered as an outcome variable (Yıldırım, 2019; Yıldırım, & Alanazi, 2018), in some studies, it has been considered as a mediator or moderator variable too. For example, Chioqueta and Stiles (2007) found that satisfaction with life functions as a moderator to reduce the effects of stress on symptoms of psychological distress. Other studies have found that satisfaction with life is an important mediator in the relationship between gratitude and materialism (Lambert, Fincham, Stillman, & Dean, 2009). The results suggest that satisfaction with life is an important construct both as an outcome variable and a mediator or moderator variable.

Resilience is one of the constructs more often linked to social support and satisfaction with life. One of the definitions of resilience is "the ability to adapt to stress and adversity" (Liu, Reed & Girard, 2017). Also, resilience refers to the personal qualities and social resources that positively influence adverse outcomes (Connor & Davidson, 2003). Resilient individuals have many positive characteristics such as optimism, self-enhancement, hardiness, and adaptive coping strategies and experience fewer adverse psychological outcomes such as depression, PTSD, and other sorts of psychopathology as compared to counterparts (Bonanno, 2008).

Empirical research has demonstrated that resilience is an important psychological resource that can help to maintain well-being of those who suffer from traumatic stress (Wolf et al., 2018; Yıldırım, & Arslan, 2020). Resilient people can protect their psychosocial and mental health status while facing with life's adversities by mitigating the adverse outcomes of stressful situations (Arslan, & Yıldırım, Wong, 2020; Liu, Chang, Wu, & Tsai, 2015; Yıldırım, & Arslan, Özaslan, 2020). Earlier research has reported that resilient people are more likely to use various coping strategies and experience positive emotions alongside being optimistic and using humour to overcome from difficult situations (Fredrickson, Tugade, Waugh, & Larkin, 2003). Resilience is an important determinant of life satisfaction (Yıldırım, 2019). Research conducted in Turkey reported that resilience is an important protective factor against emotional and behaviours problems (Arslan, 2016) and for promotion of subjective well-being and flourishing (Yıldırım, & Belen, 2019). Studies have found that resilience mediates the relationship between social support and psychosocial functioning (Pietrzak et al., 2010), health, social relationship, and work (Kansky & Diener, 2017),

and fear of happiness and affect balance, satisfaction with life, and flourishing (Yildirim, 2019). Receiving high social support from other people can increase resilience to stress, and help individuals to protect their mental health against developing trauma-related psychopathology (Ozbay et al., 2007). Thus, it can be assumed that resilience could function as a mediator between social support and satisfaction with life.

The existing research has indicated the associations between social support, resilience, and satisfaction with life (Cao & Zhou, 2019). Although researchers have investigated the associations among variables of this study, there is no available research directly testing the impact of resilience in the relationship between the newly developed scale of the BPSSQ and satisfaction with life. Firstly, the present cross-sectional study aimed to test psychometric properties and dimensionality of the Brief Perceived Social Support Questionnaire (BPSSQ) in Turkish language. The BPSSQ is a short form of Social Support Questionnaire (F-SozU; Fydrich, Geyer, Hessel, Sommer, & Brähler, 1999), which was developed to measure social support that one receives from other people in general (Kliem et al., 2015). The BPSSQ is a unidimensional scale including six items and has been shown to be a reliable and valid measure of general social support. Higher scores on the BPSSQ are related to decreased levels of anxiety, stress, and depression symptoms, and increased levels of life satisfaction, subjective happiness, and positive mental health (Lin et al., 2018). The unidimensional factor structure and cross-cultural measurement invariance of the BPSSQ have been established across different samples recruited from the United States, Germany, Russia, and China (Lin et al., 2018). However, evidence regarding the psychometric properties and factorial structure of the scale is not yet available in many cultures including Turkey and it is necessary to provide additional support for the validity of the scale.

Secondly, the study directly examined the mediating role of resilience in the relationship between social support using the BPSSQ and satisfaction with life. Based on previous research, we hypothesised the following: (i) the BPSSQ would have a one-factor structure with a satisfactory internal consistency reliability in Turkish language; (ii) social support would have a significant positive effect on resilience and satisfaction with life; (iii) resilience would have a significant positive effect on satisfaction with life; (iv) resilience would mediate the effect of social support on satisfaction with life.

Method

Participants

Of the 202 participants who took part in the study, 62 (30.7%) were males, and 140 (69.3%) were females. Their age ranges between 18 and 30 years, with a mean age of 22.58 years ($SD=1.26$). With regard to their grade, 673 (36.1%) were freshmen, 52 (25.7%) were seniors, 27 (13.4%) were postgraduates, 25 (12.4%) were sophomores, 22 (10.9%) were juniors, and 3 (1.5%) were in preparatory year. Based on perceived socioeconomic status, 141 (69.8%) were belong to medium socioeconomic status, 56 (27.7%) were high, 4 (2.0%) were low, and 1 (0.5%) were very high. Participants were recruited from the Düzce University in Turkey via an online survey. The inclusion criterion was to be 18 years old or older college students.

Measures

Brief Perceived Social Support Questionnaire (BPSSQ). The BPSSQ is a scale developed to assess individual differences in social support at general level (Kliem et al., 2015). The scale is a 6-item measure (e.g., “I know a very close person whose help I can always count on.”). Participants rated each item on a 5-point scale format ranging from 1 (not true at all) to 5 (very true). To obtain an overall score, all items are added together. Higher scores reflect higher levels of perceived social support. Psychometric properties of this scale are assessed in the results section.

Brief Resilience Scale (BRS). This scale is an extensively used self-reported instrument for assessing general resilience developed by Smith et al. (2008). The BRS includes 6 items (e.g., “I tend to bounce back quickly after hard times”) and all items are answered using a 5-point Likert scale format ranging from 1 (strongly disagree) to 5 (strongly agree). Items 2, 4, and 6 are reversely scored before scoring. The sum score for 6 items is computed to generate an overall score, with higher scores indicating greater ability to “bounce back” from stressful situation. The Turkish adaptation of the scale has sound psychometric properties (Doğan, 2015). In the present study, the BRS had high internal consistency reliability ($\alpha = 0.88$).

The Satisfaction with Life Scale (SWLS). The SWLS is a widely used self-reported scale for evaluating one’s global judgements of life satisfaction (Diener et al., 1985). The SWLS comprises 5 items (e.g., “In most ways my life is close to my ideal”). Responses were rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scale had good psychometric properties in Turkish (Durak, Senol-Durak, & Gencoz, 2010). In the present

study, the SWLS had high internal consistency reliability ($\alpha = 0.90$).

Procedure

This study was approved by and was conducted in accordance with the recommendations of the Düzce University Institutional Review Board. All respondents provided online informed consent before involvement in this study. Those who took part in this study were asked to complete an anonymous online questionnaire, including the study measures and demographic information. The participants did not receive any incentive for their involvement.

The BPSSQ was translated into Turkish using the standard method of forward-backward translation (Brislin, 1970). The authors of the present study completed the translation of the items of the BPSSQ into Turkish language. Another researcher who blinded to the original version of the scale conducted the back translation. All translators were bilingual but native to Turkish speaker. The results of the back translation of the scale were very similar to the original English version. Following the necessary corrections, a final version of the BPSSQ was formed.

Data analysis

Initially, we tested the factor structure of the BPSSQ using confirmatory factor analyses. The mean, standard deviations, measures of normality (i.e., kurtosis and skewness), and internal consistency reliability were then reported. In light of Baron and Kenny's (1986) approach, three separate regression models were tested to examine the mediating effect of resilience on the relationship between social support and satisfaction

with life. In the first regression model, we tested the predictive role of social support on satisfaction with life. In the second regression model, we tested the predictive role of social support on resilience. Following, in the third step, we entered both social support and resilience as predictors of satisfaction with life. If the predictive role of social support on satisfaction with life was no longer significant after controlling for the effect of resilience, this would suggest a full mediation. However, if the predictive role of social support on satisfaction with life remained significant after controlling for the effect of resilience, this would imply a partial mediation. Furthermore, the Sobel test (Sobel, 1982) was conducted to determine if the indirect effects of social support on satisfaction with life through the mediating role of resilience was statistically significant. All analyses were executed using SPSS and AMOS (v.24).

Results

Item Analysis

We computed internal consistency reliability with Cronbach's alpha and adopted a criterion of >0.70 to show adequate reliability (Nunnally, 1978). The results indicated that the six items exhibited adequate internal consistency reliability of $\alpha=.77$. In terms of distribution of the items, skewness values ranged between $-.16$ and -1.69 and kurtosis scores ranged between $-.08$ and 3.45 . Participants mainly scored above the mean score on each item.

Confirmatory Factor Analysis (CFA)

We used CFA to investigate whether the proposed single-factor model of the BPSSQ could be verified.

Table 1. Factor loadings and descriptive statistics for the six items of BPSSQ

Items	<i>M</i>	<i>SD</i>	Skew	Kurt	r_{it}	α_{iid}	Loadings
1. I experience a lot of understanding and security from others.	3.01	1.04	-.16	-.58	.35	.77	.39
2. I know a very close person whose help I can always count on.	3.99	1.19	-1.04	-.08	.54	.72	.63
3. If necessary, I can easily borrow something I might need from neighbors or friends.	3.61	1.15	-.76	-.28	.54	.72	.64
4. I know several people with whom I like to do things.	4.36	.82	-1.69	3.45	.56	.73	.66
5. When I am sick, I can without hesitation ask friends and family to take care of important matters for me.	3.58	1.25	-.67	-.59	.59	.71	.68
6. If I am down, I know to whom I can go without hesitation.	3.53	1.31	-.57	-.75	.51	.73	.60

Note. *M*=mean; *SD*=standard deviation; Skew=Skewness; Kurt=Kurtosis; r_{it} =Corrected item-total correlation; α_{iid} =Cronbach's alpha if item deleted

Table 2. Descriptive statistics and correlations among the variables

Variable	α	Mean	SD	Skewness	Kurtosis	1.	2.	3.
1. Social support	.77	22.09	4.64	-.71	.37	—	.16*	.43**
2. Resilience	.88	18.93	4.93	-.26	.38		—	.40**
3. Satisfaction with life	.90	21.74	7.75	-.41	-.83			—

** $p < .01$. * $p < .05$

Assessment of the proposed model was based on the common data-model indices: confirmatory fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR).

The cut-points that present a “good” fit are demonstrated by CFI and TLI $\geq .95$, and RMSEA $\leq .08$ and SRMR $\leq .05$ (Hu & Bentler 1999; Kline 2015). The measurement model provided a good data-model fit statistic, ($\chi^2(9) = 12.14, p = .21, CFI = .99, TLI = .98, RMSEA = .04, \text{ and } SRMR = .03$). The standardised factor loadings ranged from .39 to .68.

Mediation analysis

A multiple regression analysis was performed to test the model that indicated the mediating function of resilience on perceived social support and satisfaction with life (see Table 3). In Step 1, perceived social support was used as a predictor of satisfaction with life and revealed a significant direct effect ($\beta = .43, p < .01$). In Step 2, social support was utilised as a predictor of resilience and this also resulted in a significant direct effect ($\beta = .16, p < .01$). In Step 3, both social support and resilience were entered into the regression model and the results demonstrated that both of these variables significantly contributed to the variance in satisfaction with life. These findings suggest that resilience partially mediated the relationship between perceived social support and satisfaction with life.

A Sobel test was conducted to statistically test the mediating effect of resilience on the relationship between perceived social support and satisfaction with life. The result was statistically significant ($z = 4.14,$

$p < .01$). This further reinforced our hypothesis in respect to mediating effect of resilience on the perceived social support and satisfaction with life. The proposed structural model is illustrated in Figure 1. As expected, perceived social support exerted a positive direct effect on resilience while resilience had a direct influence on satisfaction with life (path b). When resilience was entered into the mediation model, both perceived social support and resilience manifested direct effects on satisfaction with life (path c'). However, the influence of perceived social support on satisfaction with life reduced from $\beta = .43, p < .01$ to $\beta = .37, p < .01$. Overall, this provides evidence for partial mediation, which confirms the indirect influence of perceived social support on satisfaction with life through resilience.

Discussion

The current study presents the first attempt to investigate the reliability and validity of the Turkish version of BPSSQ in college students. The results of CFA indicated that the hypothesized one-factor structure had a good data-fit and all items significantly contributed to the single factor. The internal consistency reliability was satisfactory, and the scale was significantly correlated with resilience and satisfaction with life indicating evidence of convergent validity. Earlier studies carried out during the development of the BPSSQ support that the scale has convergent and construct validity as well as excellent measurement invariance and good reliability (Kliem et al., 2015).

Table 3. Hierarchical multiple regression analysis on the mediating effect of resilience

Step	Outcome variable	Predictor variable	B	SE	β	t	p	R ²
Step 1 (path c)	Satisfaction with life	Social support	.71	.11	.43	6.51	.00	.18
Step 2 (path a)	Resilience	Social support	.16	.08	.16	2.16	.03	.02
Step 3 (path c')	Satisfaction with life	Social support	.62	.10	.37	6.06	.00	
		Resilience	.54	.10	.34	5.57	.00	.30

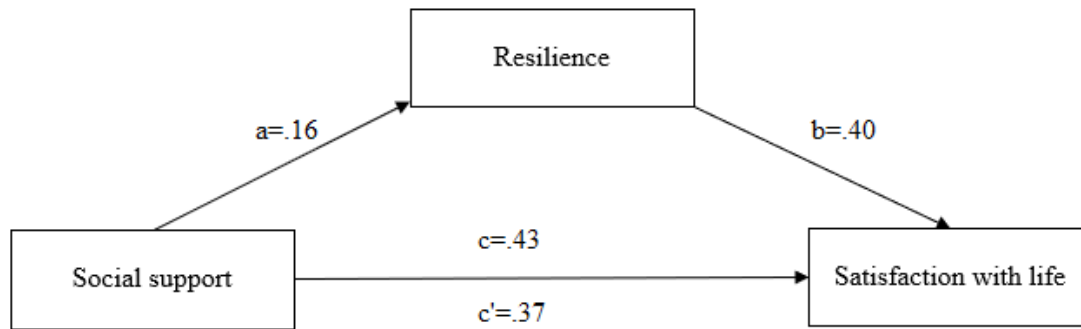


Figure 1. Final schematic diagram in the mediational effect of the resilience on the relation between perceived social support and satisfaction with life.

Note: All paths are significant at * $p < 0.01$.

More recent studies testing validation, norms and cross-cultural measurement invariance across different cultures (i.e., USA, German, Russia, and China) confirmed that the scale has good psychometric properties and measurement equivalence across cultures and can be employed in large-scale cross-cultural studies as a cost-effective and convenient screening tool of general perceived social support (Lin et al., 2019).

The second aim of this study was to examine the effect of social support on satisfaction with life through the mediating effect of resilience. It also sought to explore if resilience correlated significantly with social support and satisfaction with life. The results support the hypotheses that social support associates to satisfaction with life through the mediating effect of resilience. As expected, the association of social support to satisfaction with life was statistically significant, which is in line with findings of earlier empirical research (Castellá Sarriera et al., 2015; Mahanta, & Aggarwal, 2013; Şahin et al., 2019). This shows that having friends, family, and other significant people, with whom meaningful and fulfilling relationship can be built, positively affect satisfaction with life.

The ability to bounce back from stressful situations is associated with greater satisfaction with life, which is parallel with the results of past research (Pietrzak et al., 2010; Yıldırım, 2019). This implies that when young adults hold high levels of resilience, it is more likely that they will experience greater enjoyment, fulfilment, and satisfaction with their lives.

The most important contribution that present study adds to the available literature is that it offers a mechanism that could partially explain why social

support increases satisfaction with life in conjunction with the resilience. This signifies that when young adults have strong networks of friends, family, and other people with whom they can get social support, it is more likely that they would experience greater satisfaction in their lives, because being resilient would allow them to bounce back from adversities. Accordingly, social support is likely to promote the skill of resilience which in turn leads to increased satisfaction in life.

The current study contributes to the study of social support, resilience and satisfaction with life in meaningful ways. It confirms previously established relationships among the study variables using the newly adapted scale of BPSSQ into Turkish language. This study also contributes to the understanding of the relationship between social support and satisfaction with life by showing that resilience partially explained their relationship. Additionally, in the light of these findings, future intervention efforts might focus on resilience in increasing the positive effect of social support on satisfaction with life. Moreover, as the BPSSQ includes only 6 items, it would be very useful to facilitate efficient and comfortable use among different populations, thus, minimizing burden on respondents to complete it within an optimal timeframe. The scale can be used for social support assessment screening purposes and assessing the effect of social support-promotion interventions among young adults in Turkey.

This study suffers from several limitations that need to be acknowledged in future studies. The first limitation of this study was the use of self-reported measures to examine the associations among the measured variables. However, those measures are

subjected to social desirability bias. For example, participants may not have accurately remembered the amount of social support they received from the others; thereby they tend to provide a more desirable answer. Second, the study employed a young sample. It is unknown if the variables of this study function similarly among other samples such as adolescents, elderly people, and clinical samples. Therefore, future research that investigates the relationships between social support, resilience, and satisfaction with life in different samples is encouraged.

This study has expanded the knowledge and understanding among the three variables- social support, resilience and satisfaction with life- using Turkish validation of the BPSSQ. This research provides insights about the positive effect of social support in increasing satisfaction with life through resilience. It also provides further support for the validity and reliability of the BPSSQ, suggesting that the scale can be reliably used to measure social support among Turkish population.

Compliance with Ethical Standards

Ethical Standards

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study was approved by and was conducted in accordance with the recommendations of the Düzce University Institutional Review Board.


Declaration of Conflicting Interests

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