



Friendship Quality and Subjective Happiness: The Mediator Role of Subjective Vitality

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Abstract

The aim of the present study is to examine the mediating effect of subjective vitality on the relationship between friendship quality and subjective happiness. Participants were 271 university students who completed a questionnaire package that included the Friendship Quality Scale, the Subjective Vitality Scale, and the Subjective Happiness Scale. According to the results, both subjective happiness and subjective vitality were predicted positively by friendship quality. On the other hand, subjective happiness was predicted positively by subjective vitality. In addition, subjective vitality mediated on the relationship between friendship quality and subjective happiness. The results were discussed in the light of the related literature and dependent recommendations to the area were given.

Keywords

Friendship quality
Subjective vitality
Subjective happiness
Hierarchical regression analysis

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Introduction

Since friendship relationships play a major role throughout daily life (Demir, Ozdemir, & Weitekamp, 2006) it is considered as a noteworthy form of social relationship and the importance of friendships was highlighted over decades ago. Friendship is assumed as a powerful presence in the life of developing children (Sullivan, 1953) and is empirically proved able to protect children against being bullied and victimized by peers (Hodges, Boivin, Vitaro, & Bukowski, 1999). Friends help and share with each other in various life domains (Berndt, 2002) and so friendship provide a plethora of benefits such as fulfillment of social-emotional needs and nurturing of intimacy, affection, and companionship (Furman & Buhrmester, 1985).

It is well-known that the quality of interactions in sustaining a friendship, which can be named as friendship quality, is more important than the quantity and identity of one's friends (Hartup & Stevens 1997). In other words, it is not just whether people have friendships that are important but rather the quality of these friendships that makes a difference in terms of the function of that friendship. Friendship quality has generally been used to describe the nature of friendships and the quality of interactions among people (Berndt & Perry, 1986) and has been characterized by a high level of positive features such as high levels of pro-social behavior, loyalty, and intimacy and low levels of negative features such as conflicts and rivalry (Berndt, 2002; Thien & Abd Razak, 2013). Moreover it has been documented that friendship quality creates various psychological advantages that affect

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individuals' development and adjustment (Ladd, Kochenderfer, & Coleman, 1996) such as later school adjustment (Ladd et al., 1996), low level of feelings of loneliness and social isolation (Asher & Parker, 1993), and psychopathological symptoms (Bagwell, Bender, Andreassi et al., 2005). People with higher quality friendships are also generally more competent, better adjusted (Buhrmester, 1990; Updegraff & Obeidallah, 1999), and possess higher self-esteem (Keefe & Berndt, 1996).

There are some friendship quality models in the literature that consist of positive and negative features of friendships (Thien, Abd Razak, & Jamil, 2012). The most adopted model is Bukowski and Hoza's (1989) which comprises four elements of positive friendship features: (1) acceptance, (2) safety, (3) help, and (4) closeness and one negative feature: conflict (Bukowski, Hoza, & Boivin, 1994; Thien & Abd Razak, 2013). Acceptance involves an outcome of children's social success and adjustment with peers (Asher & Parker, 1993) and is defined as being generally well-liked by a group of peers (Lindsey, 2002). Safety demonstrates a reliable alliance which refers to the belief of need a friend can be relied upon and trusted. Help indicates the provided assistance and guidance in terms of material resources and emotional supports (Berndt, 1996). And last closeness has been considered by Bukowski and Hoza (1989) as the foundational elements of friendship and means as intimacy, self-disclosure, and sharing of feelings. In friendship context it also includes the level of attachment by friends (Thien & Abd Razak, 2013).

Research on friendship has consistently demonstrated that high-quality friendships are related to psychological adaptive variables. In these studies it was found that friendship quality associated positively with need satisfaction (Demir & Ozdemir, 2010; Demir et al., 2007), life satisfaction, positive affect (Demir et al., 2007), student engagement (Thien & Abd Razak, 2013), ability to cope with stressors (Hartup & Stevens, 1999) and negatively with negative affect (Demir et al., 2007), friend antisocial behavior, peer group antisocial behavior (Lansford, Criss, Pettit, Dodge, & Bates, 2013). Moreover, other studies have indicated the correlations of friendship quality with indicators of social adjustment such as quality of school life (Thien & Abd Razak, 2013), improved social adjustment (Hartup & Stevens, 1999), greater involvement in school and peer group affiliation (Lansford et al., 2013), higher self-perceived social acceptance (Berndt & Keefe, 1995; Keefe & Berndt, 1996), and low levels of social anxiety (La Greca & Lopez 1998; La Greca & Moore Harrison 2005).

The importance of friendship quality on the psychological and social adjustment has been underscored by numerous theorists and researchers. Therefore a lot of research that focused on the psychological effects of individuals' level of friendship quality has been conducted. Subjective vitality and subjective happiness may be two of the variables which have influenced by friendship quality and have gained more importance with the positive psychology trend.

Subjective Vitality

Subjective vitality was firstly defined as "one's conscious experience of possessing energy and aliveness" (p. 530) by Ryan and Frederick (1997) and was supposed as derived from an internal source, not from specific threats in the environment, and is not driven or compelled (Bostic, Rubio, & Hood, 2000). Across cultures subjective vitality is called differently such as "chi" in Chinese culture as the feeling of being full of internal energy that is source of life (Bostic et al., 2000) or "ki" in Japanese culture as the power and energy by which helps a person to keep his/her physical and mental health (Ryan & Frederick, 1997). People with a sense of subjective vitality have more energy to perform all activities, cope with stress effectively, report being alert and energized, and report greater mental health.

Research on subjective vitality generally demonstrated its negative relations with negative affectivity, anxiety, neuroticism, physical symptoms, physical pain, external locus of control (Ryan & Frederick, 1997), poor self-control performance (Muraven, Gagne, & Rosman, 2008), sleep difficulties, somatic illnesses (Stewart, Hayes, & Ware, 1992), a-motivation (Balaguer, Castillo, Duda, & Garcia-Merita, 2011), internet addiction (Akin, 2012), and depressive symptoms (Niemic, Lynch, & Vansteenkiste et al., 2006). In their study, Ryan and Frederick (1997) found that subjective vitality is

positively related to satisfaction with life, self-actualization, conscientiousness, physical self-presentation confidence, positive affectivity, self-esteem, perceived physical ability, extraversion, and intrinsic motivation (Balaguer et al., 2011).

Subjective Happiness

Subjective happiness is considered a balance of positive-negative affect and overall life satisfaction (Diener, 2000), a psychological state of well-being, joy, and contentment (Lyubomirsky, 2001). It contains both an emotional and a cognitive aspect, while the former is usually further, divided into presence of positive affect and the absence of negative affect, the latter is mentioned to as life satisfaction. Individuals with higher subjective happiness level evaluate recent experiences in their lives as more pleasant (Matlin & Gawron, 1979), have more positive thoughts about themselves (Campbell, 1981; Lee & Im, 2007), feel more personal control (Larson, 1989), and give more intense emotional reactions to positive events, but less long lasting to negative events (Seidlitz, Wyer, & Diener, 1997).

Previous research has found that subjective happiness is positively related with self-perceptions of well-being (Diener, 2000; Suh, Diener, Oishi, & Triandi, 1998), positive self-evaluation in young (Cheng & Furnham, 2004), mental health (Liem, Lustig, & Dillon, 2010), life satisfaction (Garcia & Siddiqui, 2009), satisfying relationships, positive emotions (Diener & Seligman, 2002), and self-enhancing bias (Lee & Im, 2007). On the other hand subjective happiness has been found to relate negatively to the depressive symptoms (Chaplin, 2006) and internet addiction (Akin, 2012).

Subjective Vitality as a Mediator

Subjective vitality refers to a specific psychological experience of possessing enthusiasm and has both physical (e.g., states of illness and fatigue), psychological (e.g., being in love, being effective), and cognitive (e.g., having a mission) impacts on individuals' daily life. As it has a phenomenological centrality and its seeming covariance with both physical and psychological circumstances, subjective vitality is considered as a significant indicator of personal well-being. Regarding its extensive influences and concomitants, subjective vitality was conceptualized as the experience of having positive energy available to or within the regulatory control of one's self (Ryan & Fredrick, 1997). Therefore to the degree that one is free of interpersonal problems and unburdened by external controls (Ryan & Fredrick, 1997) then s/he can experience higher quality friendship and feel him/her happier. In addition, subjective vitality is positively related to some psycho-social adaptive constructs such as satisfaction with life, self-actualization, conscientiousness, positive affectivity, self-esteem, extraversion, and intrinsic motivation (Balaguer, et al., 2011) that may facilitate both individuals' quality of friendships and their level of subjective happiness. Considering the studies demonstrating the relationships of friendship quality, subjective vitality, and subjective happiness with positive mental health indicators, it seems possible that subjective vitality may enhanced by friendship quality and thus it also may help to improve subjective happiness. In the light of the reciprocal relationships between friendship quality, subjective vitality, and subjective happiness with adaptive and maladaptive constructs which have been proved by previous studies, friendship quality may influence to subjective happiness via subjective vitality. The goal of present study is to explore this mediating effect as well as the associations of friendship quality, subjective vitality, and subjective happiness. In this study it was hypothesized that as friendship quality increases, subjective happiness may increase or vice versa and that subjective vitality may have a mediating role in this relationship. This study poses the following hypotheses:

- 1) Hypothesis 1: Friendship quality is positively associated with subjective vitality.
- 2) Hypothesis 2: Friendship quality is positively associated with subjective happiness.
- 3) Hypothesis 3: Subjective vitality is positively associated with subjective happiness.
- 4) Hypothesis 4: Subjective vitality mediates the link between friendship quality and subjective happiness.

Method

Participants

The participants were 271 university students (145 (54%) were female and 126 (46%) were male) enrolled in various undergraduate programs at Sakarya University Faculty of Education, Turkey. Of the participants, 47 (18%) were first-year students, 93 (34%) were second-year students, 73 (27%) were third-year students, and 58 (21%) were fourth-year students. Their ages ranged from 18 to 26 and GPA scores ranged from 2.13 to 3.70.

Measures

Friendship Quality Scale (Thien, Abd Razak, & Jamil, 2012). The scale consists of 21 items and includes four subscales: closeness (6 items), help (3 items), acceptance (4 items), and safety (8 items). Each item ranging from 1 (strongly disagree) to 6 (strongly agree). Yield total scores from 21 to 126 where higher scores indicate more friendship quality level. Turkish adaptation of this scale had been done by Akin, Karduz Adam, and Akin (2014). The results of confirmatory factor analysis indicated that the four-dimensional model was well fit ($\chi^2= 374.29$, $df= 179$, $RMSEA= .063$, $CFI= .92$, $IFI= .92$). The internal consistency reliability coefficients of the scale were .75 for closeness subscale, .81 for help subscale, .77 for acceptance subscale, .82 for safety subscale, and .91 overall scale. The corrected item-total correlations ranged from .38 to .67. In the present study the internal consistency reliability coefficient of the scale was .89.

Subjective Happiness Scale. Subjective happiness was measured using the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). Turkish adaptation of this scale was done by Akin and Satici (2011). The Subjective Happiness Scale is a 4-item self-report instrument and each item was rated on a 7-point scale. This scale is a summative scale, with item 4 being reversed scored. All answers given will be totaled to indicate the level of subjective happiness, with a high number indicating a greater incidence of subjective happiness. Results of confirmatory factor analysis indicated that the uni-dimensional model was well fit to Turkish population ($\chi^2/df=0.71$, $p=0.49193$, $RMSEA=.000$, $NFI=.99$, $CFI=1.00$, $IFI=1.00$, $RFI=.98$, $GFI=1.00$, $AGFI=.99$, and $SRMR=.015$). The internal consistency reliability coefficient was .86 and the three-week test-retest reliability coefficient was .73. In the present study the internal consistency reliability coefficient of the scale was .77.

Subjective Vitality Scale (SVS). Subjective vitality was measured using the Turkish version of the Subjective Vitality Scale (Ryan & Frederick, 1997). The SVS measures vitality (seven items; e.g., In general, I feel alive and vital). Responses were made on a 7-point scale from 1 (not at all true) to 7 (very true). Turkish adaptation of this scale was done by Akin, Satici, Arslan, Akin and Kayis (2012). Confirmatory factor analysis demonstrated that the uni-dimensional model was well fit ($\chi^2= 12.17$, $df= 7$, $RMSEA=.047$, $NFI=.99$, $CFI=1.00$, $IFI=1.00$, $RFI=1.00$, $GFI=.99$, and $AGFI=.96$). The Cronbach alpha coefficient in the Turkish sample .84. In the present study the internal consistency reliability coefficient of the scale was .69.

Procedure and Data Analysis

Firstly permission for administration of the scales to the participants was obtained from related chief departments. Then participants were informed of the purpose and of the voluntary nature of study and were ensured anonymity for all responses given. Willing participants signed a consent form and returned the completed survey to the researcher. Self-report questionnaires were administered in a quiet classroom setting and the scales were administered to the students in groups in the classrooms. The measures were counterbalanced in administration.

Two hundred and eighty-six students participated in the study. However, 15 students were excluded from the study because 9 of them did not respond to the instruments as required and 6 were found to produce extreme scores. Therefore, the data obtained from 271 students were statistically analyzed.

To determine the relationships among friendship quality, subjective vitality, and subjective happiness; the Pearson correlation coefficient and hierarchical regression analyses were used. In order to test whether subjective vitality mediated the link between friendship quality and subjective happiness with hierarchical regression analyses, Baron and Kenny's (1986) recommendations were followed. These analyses were carried out via SPSS 13.0.

Results

Descriptive Data and Inter-correlations

Table 1 shows the means, descriptive statistics, inter-correlations, and internal consistency coefficients of the variables used.

Table 1. Descriptive Statistics and Inter-correlations of the Variables

Variables	1	2	3
1. Subjective vitality	1.00		
2. Subjective happiness	.39**	1.00	
3. Friendship quality	.38**	.29**	1.00
Mean	34,52	18,82	87,27
Standard deviation	8,98	4,92	20,46

** $p < .01$

When Table 1 is examined, it is seen that there are significant correlations between friendship quality, subjective vitality, and subjective happiness. Friendship quality related positively to subjective vitality ($r = .38$) and to subjective happiness ($r = .29$). On the other hand, subjective vitality was found to be positively ($r = .39$) related to subjective happiness.

Testing the Mediating Role of Subjective vitality in the Relationship between Friendship Quality and Subjective Happiness

Following the steps of the mediation procedure, firstly it was verified that friendship quality and subjective vitality were positively related ($\beta = .38$, $t = 6.801$, $p < .01$). The results are shown in Table 2.

Table 2. The Regression Results of the Relationship between Subjective Vitality and Friendship Quality

Variable	B	Standard Error of B	β	t	p
Friendship Quality	.168	.025	.38	6.801	.000

Dependent Variable: Subjective vitality, $R^2 = .15$, Adjusted $R^2 = .14$ ($p < .01$)

Then it was verified that subjective vitality and subjective happiness revealed a positive relationship ($\beta = .39$, $t = 7.032$, $p < .01$). The results are presented in Table 3.

Table 3. The Regression Results of the Relationship between Subjective Vitality and Subjective Happiness

Variable	B	Standard Error of B	β	t	p
Subjective Vitality	.216	.031	.39	7.032	.000

Dependent Variable: Subjective Happiness, $R^2 = .16$, Adjusted $R^2 = .15$ ($p < .01$)

To test the third and last step of mediation procedure, hierarchical regression analysis was done. The results of the hierarchical regression analysis demonstrated that friendship quality was positively associated with subjective happiness ($\beta = .29, t = 5.029, p = .000$). However, when subjective vitality and friendship quality were taken together in the regression analysis, the significance of the relationship between friendship quality and subjective happiness ($\beta = .17, t = 2.781, p < .01$) decreased, yet the relationship between friendship quality and subjective happiness was significant. According to Baron and Kenny (1986), this result indicated a partial mediation. Therefore, it can be said that subjective vitality partially explains the relationship between friendship quality and subjective happiness. The results are presented in Table 4.

Table 4. The Hierarchical Regression Results of Testing the Mediation Role of Subjective Vitality in the Relationship Between Friendship Quality and Subjective Happiness

Variable	B	Standard Error of B	β	t	p
Step 1					
Friendship Quality	.070	.014	.29	5.029	.000
Step 2					
Friendship Quality	.040	.014	.17	2.781	.006
Subjective Vitality	.181	.033	.33	5.511	.000

Dependent Variable: Subjective Happiness,

$R^2 = .09$, Adjusted $R^2 = .08$ ($p < .05$) for Step 1; $R^2 = .18$, Adjusted $R^2 = .17$ ($p < .05$) for Step 2.

The present model was tested using the Sobel z test (Sobel, 1982). The purpose of this test is to verify whether a mediator carries the influence of an interdependent variable to a dependent variable. The Sobel z test is characterized as being a restrictive test, and as such, assures that the verified results are not derived from collinearity issues. In the present study, the test value verified was $Z = 9.78171640$; $p = .000$.

Discussion, Conclusion and Suggestions

The purpose of this research was to investigate the mediating effect of the subjective vitality on the associations of friendship quality and subjective happiness. Results indicated that there are significant relationships between these variables. As expected, results indicated that the relationship between friendship quality and subjective happiness was partially mediated by subjective vitality. In other words, as friendship quality increases in this model, subjective happiness also increases and subjective vitality plays a mediating role in that increase. This result is important for several reasons. The study suggests the importance of subjective vitality among positive relational characteristics. In having more sense of subjective vitality people cope with stress in healthy ways and report being alert and energized (Ryan & Frederick, 1997) and thus they may be more effective in their friendships which in turn influence feelings of subjective happiness. Therefore people with high level of subjective vitality see other individuals and their social environment as less threatening and will have more healthy friendship relations. Greater feelings of subjective vitality bring also together the experiences of autonomy and integration (Deci & Ryan, 1991) and self-actualization (Sheldon & Kasser, 1995) which relating to the perception of oneself as a "happy" person (Ryan & Frederick, 1997). Feeling of loneliness in contrary, that people who suffer from a lack of quality friendships (Asher & Parker, 1993) experience is expected to diminish vitality.

In addition, some details of the results should be further addressed. First as hypothesized, friendship quality has positively predicted subjective vitality. Individuals who have quality friendships are also generally better adjusted (Buhrmester, 1990; Updegraff & Obeidallah, 1999), possess higher self-esteem (Keefe & Berndt, 1996), more satisfied with their lives, have more positive affect (Demir et al., 2007), and cope with stressors more effectively (Hartup & Stevens, 1999) which contributes to sense of subjective vitality. Therefore and consistent with the results of the present study, it appears that greater friendship quality is positively linked to subjective vitality.

Secondly, as anticipated, subjective happiness was positively predicted by subjective vitality. Because subjective happiness is related to mental health (Liem et al., 2010), life satisfaction (Garcia & Siddiqui, 2009), positive emotions (Diener & Seligman, 2002), and self-enhancing bias (Lee & Im, 2007) and subjective vitality related to a plethora of adaptive variables that given above such as satisfaction with life, self-actualization, conscientiousness, positive affectivity, self-esteem, extraversion, and intrinsic motivation (Balaguer, et al., 2011; Ryan & Frederick, 1997) the positive effect of subjective vitality on subjective happiness seems very reasonable. Therefore it appears that if individuals feel more vitality, then they may increase their feelings of subjective happiness.

Limitations of the study should be acknowledged. First of all, perhaps the most important limitation is that the results obtained in this study should not be generalized neither to all university students nor to other student populations, since the data were collected at just one campus in Sakarya University, Turkey. Therefore further study is required to assess the relationships between friendship quality, subjective vitality, and subjective happiness that targeting other student populations to generate more solid relationships among the constructs examined in this study. Secondly, as correlational statistics were utilized, no definitive statements can be made about causality. And last, the data reported here for friendship quality, subjective vitality, and subjective happiness are limited to self-reported data and did not use a qualitative measure of these variables.

In conclusion, this investigation shows that friendship quality affects subjective happiness both directly and indirectly via subjective vitality. People who have higher level of friendship quality are more likely to be high in subjective vitality and in subjective happiness. The results also suggest that subjective vitality plays a key role in supporting well-being. Mental health professionals may conduct research to assess the effectiveness of friendship relationships improvement programs to help university students to increase subjective vitality, to have better mental health, and ultimately to increase subjective happiness.

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