



## The role of basic psychological need satisfaction as a mediator between friendship quality and life satisfaction

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**Abstract:** Friendship quality plays an essential role for adolescents in achieving optimal life satisfaction. However, previous studies have failed to explain friendship quality and life satisfaction fully. This study examines the role of basic psychological need satisfaction in the relationship between friendship quality and life satisfaction. A total of 450 respondents consisting of three groups of 150 early, middle, and late adolescents participated in this study. Data were collected using quota and convenience sampling methods. Friendship quality, basic psychological need satisfaction, and life satisfaction were measured using the McGill Friendship Questionnaire–Friend’s Functions, Sub-scale Satisfaction of the Basic Psychological Need Satisfaction and Frustration Scale, and the Indonesian version of the Satisfaction with Life Scale. The hypothesis was tested using regression analysis and SOBEL macro for SPSS. The results show that basic psychological need satisfaction acts as a full mediator between friendship quality and life satisfaction (indirect effect = .330,  $z = 8.383$ ,  $p < .05$ ). In addition, the satisfaction of the need for autonomy, competence, and relatedness can also be a full mediator between friendship quality and life satisfaction. This finding can be an alternative in explaining this relationship between friendship quality and life satisfaction. In addition, the findings can also be used to develop mental health programs for adolescents.

**Keywords:** adolescent; basic psychological need satisfaction; friendship quality; life satisfaction

**Abstrak:** Kualitas pertemanan memiliki peranan penting bagi remaja dalam mencapai kepuasan hidup yang optimal. Namun, penelitian sebelumnya belum sepenuhnya menjelaskan hubungan antara kualitas pertemanan dan kepuasan hidup. Penelitian ini bertujuan untuk menguji peran kepuasan kebutuhan dasar psikologis dalam hubungan antara kualitas pertemanan dan kepuasan hidup. Sebanyak 450 responden yang terdiri dari tiga kelompok yaitu 150 remaja awal, tengah, dan akhir berpartisipasi dalam penelitian ini. Data dikumpulkan menggunakan metode quota dan convenience sampling. Kualitas pertemanan, kepuasan kebutuhan dasar psikologis, dan kepuasan hidup diukur dengan menggunakan *McGill Friendship Questionnaire–Friend’s Functions, Sub-skala Satisfaction dari Basic Psychological Need Satisfaction and Frustration Scale*, dan *Satisfaction with Life Scale* versi Indonesia. Pengujian hipotesis menggunakan analisis regresi dan makro SOBEL untuk SPSS. Hasil menunjukkan bahwa kepuasan kebutuhan dasar psikologis berperan sebagai mediator penuh dalam hubungan antara kualitas pertemanan dan kepuasan hidup (peranan tidak langsung = 0,330,  $z = 8,383$ ,  $p < 0,05$ ). Selain itu, kepuasan dari kebutuhan kemandirian, kompetensi, dan keterhubungan juga dapat menjadi mediator penuh antara kualitas pertemanan dan kepuasan hidup. Temuan ini dapat menjadi alternatif dalam menjelaskan hubungan antara kualitas pertemanan dan kualitas hidup. Selain itu, temuan ini juga dapat digunakan untuk mengembangkan program kesehatan mental bagi remaja.

**Kata Kunci:** remaja; kepuasan kebutuhan dasar psikologis; kualitas pertemanan; kepuasan hidup

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## Introduction

Friendship plays an important role in adolescents' lives during the transition from childhood to adulthood as their relationships are considered a source of social support and comparison (Santrock, 2019). Therefore, adolescents spend more time with their peers than their families. The theory of evolution explains that individuals have intrinsic motivation to establish and maintain beneficial relationships (Zukauskiene et al., 2018). Previous studies concur that adolescents with positive peers tend to develop self-efficacy (McCauley et al., 2019), empathy (Smith, 2015), and prosocial skills (French et al., 2016; Linden-Andersen et al., 2009; Smorti & Ponti, 2018), which prevent them from withdrawing socially (Collibee et al., 2016) and displaying aggressive behavior (Baumgardner & Boyatzis, 2018; Kokkinos et al., 2016; Soenens et al., 2008).

Generally, friendship is defined as a voluntary relationship between two individuals based on mutual dependence (Demir & Özdemir, 2010). Parker and Asher (1993) explain that positive peers provide validation and caring, companionship and recreation, help and guidance, conflict resolution, and intimate exchange (Parker & Asher, 1993). In addition, Bukowski et al. (1994) propose five aspects of such friendship: companionship, less conflict, help, closeness, and security. Mendelson and Aboud (1999) attempted to develop friendship quality in adolescence through stimulating companionship (activities performed with friends); help (providing help, information, and advice to fulfil the needs of friends); intimacy (acceptance of the thoughts and feelings expressed by friends openly); reliable alliance (constant loyalty to friends); self-validation (friends' efforts to convince and approve individuals as competent and valuable); and emotional security (the comfort and trust shown by friends).

Previous studies have shown that adolescents with positive friendships tend to have good mental health (Bakalim & Taşdelen Karçkay, 2016; Pang, 2018; Shi et al., 2019). According to Demir and Davidson (2013), friendship quality enables adolescents to share personal experiences and understand their roles and positions when problems occur. Therefore, they enjoy a source of positive energy in life, helping them achieve happiness and subjective well-being (Akin & Akin, 2015). Nevertheless, this depends on mutual trust, low levels of stress, and the availability of social support in friendship relations (Fiori et al., 2020; van der Horst & Coffé, 2012). This is in line with the concept of life satisfaction (Pavot & Diener, 1993) as it allows individuals to have more positive experiences than adverse events in their lives.

Life satisfaction can be explained using self-determination theory that focus on the fulfilment of individuals' basic needs. Basic psychological need theory explains the autonomy, competence, and relatedness (Deci & Ryan, 2000) that enable adolescents to achieve life satisfaction. In addition, friendship quality is one source of fulfilling these universal needs at the stage of adolescence (Demir & Davidson, 2013).

Adolescents can receive autonomy support when surrounded by positive friendships, which enable them to be autonomous when acting in line with their wishes (Deci et al., 2006; Demir & Orthel, 2011; La Guardia & Patrick, 2008). Moreover, friendship quality provides opportunities for individuals to deal with conflict issues (Demir & Orthel, 2011; La Guardia & Patrick, 2008; Scharf, 2014). Positive friendships create caring relationships which enable adolescents to feel they have an emotional relationship with their friends (Deci & Ryan, 2014).

The fulfilment of basic psychological needs from friendship quality is considered a positive

experience in adolescents' lives. Previous studies show that those with positive friendships tend to have good self-efficacy and self-esteem (Corsano et al., 2017; Kim et al., 2017; McCauley et al., 2019). On the other hand, those lacking friendship tend to have various psychological problems, including aggression (Soekoto et al., 2020; Wibowo & Wimbari, 2019; Wright, 2019); loneliness (Corsano et al., 2017; Lodder et al., 2017; Soenens et al., 2008); stress (Collibee et al., 2016; Kawabata & Tseng, 2019; Schwartz-Mette & Smith, 2018; You & Bellmore, 2012); and depression (Marengo et al., 2018; Smith, 2015). Therefore, adolescents can achieve life satisfaction if they have positive friendships.

Previous research has also shown that basic psychological need satisfaction can mediate the quality of relationships with others and well-being. For example, if adolescents have a positive relationship with their parents, this makes them feel satisfied with their basic psychological needs and able to avoid depression (Costa et al., 2016; Sağkal et al., 2018). Conversely, if their relationship are negative, it tends to make them dissatisfied with these needs, resulting in various problems such as deviant behavior (Van Petegem et al., 2015) and lower academic achievement (Collie et al., 2019).

Based on the discussion above, it can be seen that quality friendship relations have positive effects on adolescents' life satisfaction. However, the relationship between friendship quality and life satisfaction has not previously been explained. Therefore, this study examines basic psychological need satisfaction in this relationship between friendship quality and adolescents' life satisfaction. According to the self-determination theory perspective, life satisfaction can be achieved if individuals feel their basic psychological needs are satisfied. One source of such satisfaction in adolescence is friendship, as friends can provide support and emotional bonding. Finally, if

adolescents feel that their basic psychological needs are satisfied, they will feel that their lives are satisfying. Therefore, the hypothesis proposed is that the satisfaction of basic psychological needs can mediate the relationship between friendship quality and adolescents' life satisfaction.

## Method

This study was conducted using a quantitative-survey design and involved three variables: the quality of friendship as an independent variable; life satisfaction as a dependent variable; and basic psychological need satisfaction as a mediator variable. A total of 450 adolescents aged 12-21 ( $M=16.055$  and  $SD=2.58$ ), comprising 29.56% males and 70.44% females, were selected as study participants. They were divided into three groups of 150, representing early-period, middle-period, and late-period adolescents in Surabaya. In addition, quota sampling was used to determine the same number of participants in each group, while convenience sampling facilitated contact with them directly and dissemination of information on social media. The respondents were asked to complete an informed consent form and a questionnaire delivered online.

### *Instrument*

#### *Life Satisfaction*

The Indonesian version of the Satisfaction With Life Scale (SWLS) (Diener et al., 1985; Muttaqin et al., 2020) consisting of five items was used to measure life satisfaction, an example item being "In most ways my life is close to my ideal". The SWLS involves seven response options, ranging from strongly disagree (1) to strongly agree (7). In this study, the SWLS had a Cronbach's alpha coefficient of .845.

#### *Friendship Quality*

The McGill Friendship Questionnaire-Friend's Functions (MFQ-FF) (Mendelson & Aboud, 1999)

was used to measure friendship quality. The MFQ-FF consists of 30 items that cover six dimensions, namely stimulating companionship (“My friend has good ideas about entertaining things to do.”); help (“My friend helps me when I need it.”); intimacy (“My friend is someone I can tell private things to.”); reliable alliance (“My friend would want to stay my friend if we didn't see each other for a few months.”); self-validation (“My friend makes me feel smart.”); and emotional security (“My friend would make me feel comfortable in a new situation.”). The questionnaire uses nine response options, ranging from never (0) to always (8). The MFQ-FF was adapted to Indonesian using the guidelines of the International Test Commission (2017). The adaptation process involved two translators from English to Indonesian, two reviewers, and two translators from Indonesian to English. In the study, MFQ-FF had a Cronbach's alpha coefficient of .960.

#### *Basic Psychological Need Satisfaction*

The satisfaction subscale of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS) (Chen et al., 2015) was used to measure basic psychological needs. The BPNSFS consists of 12 items covering three dimensions, those of autonomy (“I feel a sense of choice and freedom in the things I undertake.”); relatedness (“I feel that the people I care about also care about me.”); and competence (“I feel confident that I can do things well.”). It provides five response options, ranging from not true at all (1) to completely true (5). The BPNSFS was adapted to Indonesian using forward-back translation according to the guidelines of the International Test Commission (2017). Two translators from English to Indonesian, two reviewers, and two translators from Indonesian to English were involved in the adaptation process. In this study, the BPNSFS had a Cronbach's alpha coefficient of .885.

#### *Data Analysis*

The data were analyzed using the IBM SPSS version 23 program to test basic psychological need satisfaction as a mediator between friendship quality and life satisfaction. Baron and Kenny's (1986) approach was adopted, with regression analysis conducted including: (1) friendship quality to basic psychological need (path a); (2) friendship quality (path c) and psychological basic need satisfaction (path b) to life satisfaction; and (3) friendship quality to life satisfaction (path c) (Baron & Kenny, 1986). The analysis was completed with a simple mediation procedure (SOBEL) macro for SPSS to determine the indirect effect. Basic psychological need satisfaction will be a mediator between friendship quality and life satisfaction if the significance of the indirect effect is less than .05.

#### **Results**

Table 1 shows that friendship quality is positively correlated with basic psychological need satisfaction ( $r = .474, p < .001$ ) and life satisfaction ( $r = .217, p < .001$ ). Moreover, basic psychological need satisfaction is related to life satisfaction ( $r = .539, p < .001$ ), and autonomy, competence, and relatedness satisfaction are also positively correlated with friendship quality and life satisfaction.

Figure 1 shows that friendship quality can predict basic psychological need satisfaction ( $\beta = .474, p < .001$ ). In addition, the quality of friendship can also predict the satisfaction of autonomy needs ( $\beta = .337, p < .001$ ); satisfaction of competence needs ( $\beta = .419, p < .001$ ); and satisfaction of relatedness needs ( $\beta = .479, p < .001$ ). On the other hand, basic psychological need satisfaction can predict life satisfaction ( $\beta = .562, p < .001$ ).

In addition, satisfaction of autonomy needs ( $\beta = .438, p < .001$ ); satisfaction of competence needs ( $\beta = .432, p < .001$ ); and satisfaction of relatedness

needs ( $\beta = .510, p < .001$ ) can also predict life satisfaction.

The total, direct, and indirect relationships effects of friendship quality on life satisfaction are shown in Table 2. Friendship quality has a total effect of .270 ( $t = 4.711, p < .05$ ) on life satisfaction. However, it does not directly contribute to life satisfaction (direct effect =  $-.061, t = -1.085, p > .05$ ), but does indirectly predict life satisfaction through basic psychological need satisfaction (indirect effect =  $.330, z = 8.383, p < .05$ ). This analysis indicates that basic psychological needs satisfaction is a full mediator between friendship quality and life satisfaction.

The satisfaction of autonomy, competence, and relatedness need can also be a full mediator between friendship quality and life satisfaction. This is because friendship quality can only indirectly predict life satisfaction through the satisfaction of autonomy needs (indirect effect =  $.183, z = 5.993, p < .05$ ). Likewise, friendship quality does not have a direct effect on life satisfaction (direct effect =  $.045, t = .779, p > .05$ ), but indirectly through the satisfaction of competence needs (indirect effect =  $.224, z = 6.707, p < .05$ ). Finally, friendship quality also indirectly predicts life satisfaction through the satisfaction of relatedness needs (indirect effect =  $.303, z = 7.919, p < .05$ ).

**Table 1**

*Correlation between Friendship Quality, Life Satisfaction, and Basic Psychological Need*

	M	Range	SD	1	2	3	4	5	6
1.Friendship Quality	6.765	0-8	0.944	(.960)					
2.Life Satisfaction	4.856	1-7	1.172	.217*	(.845)				
3.Basic Psychological Need	4.127	1-5	0.590	.474*	.539*	(.885)			
4. Autonomy	4.135	1-5	0.679	.337*	.462*	.884*	(.757)		
5.Competence	4.064	1-5	0.687	.419*	.447*	.872*	.674*	(.815)	
6.Relatedness	4.182	1-5	0.671	.479*	.497*	.851*	.630*	.596*	(.718)

\* $p < .00$

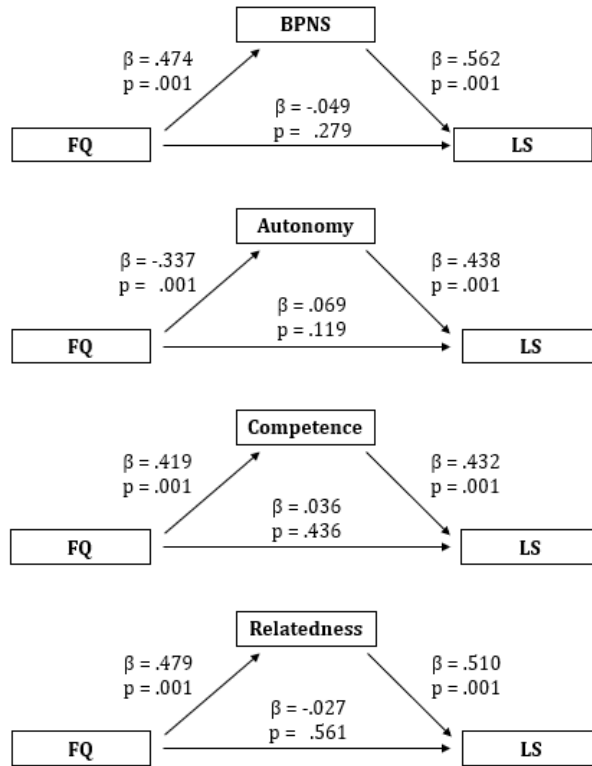
**Table 2**

*Total, Direct, and Indirect Effects of Friendship Quality on Life Satisfaction*

	Value	S.E.	t/z	p
Total effect				
FQ → LS	.270	.057	4.711	.001
Direct effect				
FQ → BPNS → LS	-.061	.056	-1.085	.279
FQ → Autonomy → LS	.086	.055	1.560	.119
FQ → Competence → LS	.045	.058	0.779	.436
FQ → Relatedness → LS	-.034	.058	-0.582	.561
Indirect effect				
FQ → BPNS → LS	.330	.039	8.383	.001
FQ → Autonomy → LS	.183	.030	5.993	.001
FQ → Competence → LS	.224	.033	6.707	.001
FQ → Relatedness → LS	.303	.038	7.919	.001

FQ = Friendship quality; BPNS = Basic psychological need satisfaction; LS = Life satisfaction

**Figure 1**  
*Regression Analysis of Friendship Quality, Basic Psychological Need Satisfaction, and Life Satisfaction*



These results indicate that the indirect effect of friendship quality on life satisfaction is greater through relatedness satisfaction than through autonomy and competence satisfaction.

**Discussion**

The study examines the basic role of psychological need as a mediator in the relationship between friendship quality and life satisfaction. The results show a relationship between friendship quality and life satisfaction through basic psychological need satisfaction. This finding indicates that when adolescents have quality friendships, they will have the opportunity to achieve their basic psychological needs and thus

tend to feel satisfied with life. This indicates that friendship quality does not directly predict life satisfaction. However, the quality of friendship makes adolescents feel satisfied with their basic psychological needs. If this is so, they can achieve life satisfaction.

In detail, the indirect effect of friendship quality on life satisfaction is more significant through relatedness satisfaction than through autonomy and competence satisfaction. This indicates that positive friendships can be a source of satisfaction of relatedness needs. The result is inseparable from the perspective of friendship relationships, ones that involve two people who interact with each other. Moreover, quality

friendships can provide support and emotional bonds for adolescents, so they will feel that their relatedness need is fulfilled.

Although there has been no similar research, this study supports previous studies which have found that friendship quality positively affects adolescents' mental health. For instance, those with positive peers tend to have lower tendencies towards depression and loneliness (Nangle et al., 2003; Pang, 2018; Smith, 2015). Furthermore, the findings of this study can provide an alternative explanation of the dynamics of the relationship between friendship quality and life satisfaction to those of previous studies (Amati et al., 2018). Friendship quality can indirectly enable adolescents to achieve life satisfaction through the satisfaction of their basic psychological needs.

Furthermore, stimulating companionship, help, intimacy, reliable alliance, self-validation, and emotional security contribute to forming friendship quality (Mendelson & Aboud, 1999). Therefore, adolescents will have the opportunity to achieve life satisfaction. Previous studies have shown that positive friendship can contribute to adolescents' happiness (Demir & Davidson, 2013). Friends not only function as a complementary aspect of social life, but also help achieve life satisfaction. Friendship quality leads to the achievement of optimal happiness and self-welfare because it helps adolescents obtain life satisfaction (Raboteg-Saric & Sakic, 2014). Those with positive friendships tend to feel more satisfied with their lives than others without a support system (Tariq, 2011).

This study has shown that friendship quality leads adolescents to feel satisfied with their basic psychological need before achieving life satisfaction. This finding is in line with those of previous studies (e.g., Demir & Davidson, 2013), which have demonstrated that basic psychological need satisfaction is a mediator between positive friendship quality and happiness. In addition,

friendship quality provides mutual support and attention because adolescents have the opportunity to achieve their autonomy, competence, and relatedness needs (Deci et al., 2006; Scharf, 2014). From the self-determination theory perspective were derived to explain the fulfillment of universal basic psychological needs (Deci & Ryan, 2000) to achieve life satisfaction (Demir & Özdemir, 2010).

Individuals have the opportunity to receive autonomy support and fulfill the needs for competence and the feeling of being related to others when involved in quality friendships. This fulfillment is achieved by giving each other the attention and support needed (Deci et al., 2006; Scharf, 2014). Friendship quality significantly contributes to relatedness needs when individuals feel a bond, intimacy, and warmth in the relationships formed with friends (Deci & Ryan, 2000). The fulfillment of relatedness needs allows adolescents to receive support for their autonomy and competence, which in turn provides prosperity and life satisfaction. Furthermore, the support provided by friends helps adolescents to understand things from various perspectives independently, to have choices, and to be responsible for all aspects of their lives. Individual involvement in positive friendships indirectly allows the achievement of optimal life satisfaction through the fulfillment of the three basic psychological needs (Ratelle et al., 2013).

This study has attempted to offer a new perspective on the explanation of the relationship between friendship quality and adolescents' life satisfaction; previous studies have only focused on the direct relationship. The results indicate that adolescents with positive friendships ultimately achieve their basic psychological needs, which then enable them to feel life satisfaction. Furthermore, friendship quality provides a variety of positive experiences in their lives.

The findings of the study can also be used for consideration by mental health practitioners when

designing mental health programs for adolescents. They need to develop programs that help teens become positive friends. Moreover, the phenomenon of toxic friendships is currently emerging. Therefore, the existence of programs on positive friendships could help adolescents achieve their basic psychological needs and ultimately feel life satisfaction.

The study does have some limitations despite explaining the role friendship quality relations on life satisfaction. It also uses an individual-centered approach that does not accommodate reciprocal relationships. Friendship relationships involve a minimum of two people, so the benefits of positive friendships are not only enjoyed by one person. Therefore, further studies should use the actor-partner-interdependence model to explain reciprocal relationships. Using this model would be possible to determine the effect of a positive friendship on the two people involved.

In addition, this study only examines the benefits of friendship quality on aspects of adolescents' well-being, even though such benefits concern not only personal aspects, but also other aspects of life, such as family (Weber & Huebner, 2015) and academic life (Zhou et al., 2021). Therefore, future research could explore the positive consequences of friendship quality and satisfaction of basic psychological needs in all aspects of adolescents' life.

### Conclusion

In conclusion, adolescents with quality friendships will achieve the basic psychological need satisfaction that contributes to the achievement of life satisfaction. Positive friendship is characterized by mutual help, openness to one another, and loyalty. It is an asset which enables teenagers to assess themselves by having satisfactory autonomy, competence, and relatedness.[]

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