Need Satisfaction, Partner Attachment, and Romantic Relationship Quality: A Multiple Mediation Model[1]

Ali Serdar SAĞKAL[2], Yalçın ÖZDEMİR[3]

Abstract

Research findings underscore the importance of need satisfaction on romantic relationship quality. However, there is a need for research to explore the mechanism that account for the relationship between need satisfaction and relationship quality. The present study examines direct and indirect effects of need satisfaction on romantic relationship quality through partner attachment avoidance and anxiety. Data were collected from 309 emerging adults (Mage = 20.91 years, SD = 1.96; 81.6% female) currently being in a romantic relationship. Participants completed a battery of measures assessing need satisfaction, partner attachment, and relationship quality. After removing missing values and outliers, a total of 290 cases were retained for the analyses. Consistent with self-determination theory, results indicated that need satisfaction was associated with relationship quality and that this association was partially mediated through partner attachment avoidance. Counter to expectations, partner attachment anxiety did not mediate the relationship between need satisfaction and relationship quality. Findings highlight the role of need satisfaction and partner attachment avoidance in contributing to emerging adults' relationship quality. Limitations, implications, and future directions are discussed.

Keywords: Need satisfaction, partner attachment, romantic relationship quality, emerging adults

---

Introduction

A large body of evidence indicates that there has been strong links between need supportive social-contextual conditions and individuals' growth and development (Ryan & Deci, 2000). While most research are now examining the role of need fulfillment in nonreciprocal social contexts like parent-child relationships, there has been very little research investigating the role of need satisfaction in reciprocal contexts like romantic relationships (La Guardia & Patrick, 2008). Importantly, a recent research has shown that experiencing need fulfillment in romantic relationship is associated with optimal relationship functioning and greater well-being (Patrick, Knee, Canevello, & Lonsbary, 2007). Although self-determination theory (SDT) provides conceptual framework for understanding underpinnings of optimal relational functioning and well-being, more empirical evidence is needed to understand the link between need satisfaction and relationship quality (La Guardia & Patrick, 2008). Therefore, the present study further examines the relationship between need satisfaction and relationship quality, and explore the mechanism that might underlie this relationship.

According to SDT, there are three basic psychological needs, namely, autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2000). Basic needs refers to innate, essential, and universal psychological nutriments that promote personal growth and well-being regardless of gender, upbringing, and cultural context (Ryan & Deci, 2000). In particular, autonomy concerns the volition, willingness, and self-endorsement; competence concerns feeling effective in one's actions, behaviors, or goals; and relatedness concerns reciprocal care and feeling connected with important others (Knee, Hadden, Porter, & Rodriguez, 2013). SDT posits that while satisfaction of all these basic psychological needs promotes higher well-being, frustration of any of these three needs leads to ill-being (Deci & Ryan, 2015). Accordingly, it is possible to make following deduction that when partners

actively supports each others' needs in their romantic relationship, they will likely experience fully functioning relationship, in addition to increased psychological well-being. However, frustration of these needs result invariantly in negative outcomes, such as less relationship quality, less commitment, and more conflict. Numerous studies have also confirmed that within need-supportive romantic relationships, partners experience greater relationship satisfaction and more personal well-being (e.g., Leak & Cooney, 2001; Patrick et al., 2007).

While the link between need satisfaction and relationship quality has been supported, mechanisms underlying this association are sparse. One possible mediating mechanism for this association is partner attachment. According to Bowlby, early interactions with caregivers help infants develop internal working models and these early attachment patterns are likely to persist into adulthood and potentially impact subsequent relationships (Bowlby, 1973, 1980). From attachment theory's perspective, early attachment patterns are assumed to have some degree of stability over time and across relationships. Despite attachment theory's emphasis on between-person variability in attachment, self-determination theory explains that people show significant systematic within-person variability in attachment styles across relationships and this variation stems from either promotion or frustration of autonomy, competence, and relatedness needs (Deci & Ryan, 2000; Knee et al., 2013; La Guardia & Patrick, 2008). Based on self-determination theory, people are likely to develop secure attachments with romantic partners who support their need for autonomy, competence, and relatedness. Accordingly, empirical support for this view comes from La Guardia, Ryan, Couchman, and Deci (2000) and Patrick et al.'s (2007) studies indicating that relationship specific need fulfillment predicts relationship specific attachment pattern. As need satisfaction predicts secure partner attachment (less avoidant and anxious attachment), it is also possible that a secure attachment style helps individuals to experience greater relationship satisfaction. Indeed, a meta-analytic study based on 73 studies with a total of 21602 participants indicated that both avoidant and

anxious partner attachment were negatively correlated with relationship quality (Li & Chan, 2012). In addition, it was also reported that compared to attachment anxiety, attachment avoidance had more stronger effects on relationship quality. Given that need satisfaction is related with secure partner attachment (less avoidant and anxious attachment), and secure partner attachment is associated with increased relationship quality, it is possible that partner attachment may serve as a mediating mechanism accounting for the effects of need satisfaction on relationship quality.

Accordingly and informed by self-determination theory, the goal of the present study was to investigate the role of attachment avoidance and anxiety between need satisfaction and relationship quality. We examine the direct and indirect effects of need satisfaction on relationship quality through attachment avoidance and attachment anxiety in a single-step multiple mediation model. To our knowledge, this is the first study to test multiple dimensions of partner attachment as mediating mechanisms in close relationships literature. An additional unique contribution of this study is to further advance researchers and practitioners' understanding of the dynamics of romantic relationships in emerging adulthood. On the basis of self-determination theory and empirical evidences of previous studies, we hypothesize that partner attachment (avoidance and anxiety) mediates the link between need satisfaction and relationship quality. Furthermore, we hypothesize that the specific indirect effect of need satisfaction on relationship quality through attachment avoidance is significantly larger than the effect through attachment anxiety.

Method

Participants

The participants were 309 emerging adults (252 females, 81.6%; 57 males, 18.4%) recruited through convenience sampling strategy from a western university in Turkey. The

participants' ages ranged between 18 and 25 with a mean age of 20.91 (SD = 1.96). Being in a romantic relationship and an age between 18 and 25 were prerequisites to participate in the research. All participants were unmarried and romantic relationship duration ranged from 1 month to 144 months (12 years) with a mean length of 21.3 months. After removing missing values and outliers, a totol of 290 cases were retained for the analyses (M_{age} = 20.86 years, SD = 1.93; 81.7% female; a mean length of 21.84 months relationship duration).

Measures

Need satisfaction. The Turkish version of the Need Satisfaction Scale (NSS; La Guardia et al., 2000; Özdemir & Sağkal, 2017) was used to measure need satisfaction in romantic relationship. It was measured by means of three items each for autonomy, competence, and relatedness subscales such as "When I am with my romantic partner, I feel free to be who I am", "When I am with my romantic partner, I feel like a competent person", and "When I am with my romantic partner, I feel loved and cared about", respectively. Items were rated on a 7-point Likert scale. An overall need satisfaction score was calculated based on all nine items such that higher scores reflect greater need satisfaction. Reliability and validity of the NSS have been established as satisfactory both in the original (La Guardia et al., 2000) and Turkish adaptation studies (Özdemir & Sağkal, 2017). Three-factor second-order hypothesized model of the NSS in the Turkish sample showed an adequate fit to the data: χ^2 (23) = 72.121, p < .001, χ^2/df = 3.14, RMSEA = .07, 90% CI [.05, .09], NFI = .90, CFI = .93, GFI = .97, AGFI = .94. Cronbach's alpha and 4-week interval test-retest reliability coefficients were reported as .68 and .78 for the total scale, respectively (Özdemir & Sağkal, 2017). In this study, Cronbach's alpha for NSS was calculated to be .72.

Partner attachment. Experience in Close Relationships-Relationship Structures (ECR-RS) developed by Fraley, Heffernan, Vicary, and Brumbaugh (2011) was adapted into

Turkish and then used to assess attachment to romantic partner in this study. For the adaptation process, we performed forward and back-translation method with an expert committee. Construct validity and reliability of the Turkish version of the ECR-RS was conducted using the present research data. Attachment Avoidance and Anxiety subscales consist of 6 and 3 items, respectively and they are responded on a 7-point Likert scale ranging from "*Strongly Disagree*" to "*Strongly Agree*". Example items include, "I usually discuss my problems and concerns with my romantic partner" and "I often worry that my romantic partner doesn't really care for me". Overall avoidance and anxiety scores are computed based on all respective items such that higher scores reflecting greater attachment avoidance and anxiety. Psychometric properties of the original version of the ECR-RS have been reported to be satisfactory (Fraley et al., 2011). In this study, two-factor original structure of the ECR-RS with two modifications showed an adequate fit to the data: S-B χ^2 (24) = 53.35, *p* < .001, χ^2/df = 2.22, RMSEA = .07, 90% CI [.04, .09], NFI = .96, CFI = .98, GFI = .95, AGFI = .91. The standardized factor loadings ranged between .32 to .77 for Attachment Avoidance subscale and .57 to .85 for Attachment Anxiety subscale (all *p* < .01). The correlation between Attachment Avoidance and Anxiety subscales was calculated to be .68. Cronbach's alpha coefficients were .66 and .75 for Attachment Avoidance and Anxiety subscales, respectively.

Romantic relationship quality. Romantic relationship quality was measured with the 6-items short version of the Perceived Relationship Quality Components Inventory (PRQC; Fletcher, Simpson, & Thomas, 2000). All items are scored on a Likert scale ranging from 1 (= *not at all*) to 7 (= *extremely*). Sample items include "How satisfied are you with your relationship?" and "How committed are you to your relationship?". Overall perceived relationship quality was calculated based on all 6-items such that higher scores reflect greater romantic relationship quality. The Turkish version of the PRQC was reported as a valid and reliable instrument to assess relationship quality in emerging adults (Sağkal & Özdemir,

2018). A one-factor structure of the original scale showed an adequate fit to the data: S-B χ^2 (9) = 22.97, $p < .01$, χ^2/df = 2.55, RMSEA = .07, 90% CI [.03, .10], NFI = .98, CFI = .99, GFI = .97, AGFI = .93. It was reported that all the factor loadings were statistically significant ($p < .01$) and ranged between .49 and .84. Cronbach's alpha and 4-week interval test-retest reliability coefficients were reported as .86 and .81, respectively (Sağkal & Özdemir, 2018). In the current research, Cronbach's alpha for the 6-items version of the PRQC was .82.

Procedure

All the participants were undergraduate students and recruited from a western university in Turkey. Individuals who are voluntary and being in a romantic relationship were invited to complete a battery of paper-pencil questionnaires. Informed consents were obtained from all participants prior to administration and American Psychological Association (APA) ethical guidelines were followed in the whole research process. In general, it took 15 to 20 minutes to complete the questionnaires and the respondents were given extra course credit for their voluntary participation.

Data Analysis

Prior to main analyses, several preliminary analyses including checks for missing values, outliers, normality, multicollinearity, autocorrelation, and psychometric properties of the research instruments (e.g., confirmatory factor analysis and Cronbach's alpha coefficients) were conducted. SPSS 24.0 and LISREL 8.80 were used for the analyses. Following preliminary analyses, descriptive statistics and bivariate correlations between need satisfaction, attachment avoidance, attachment anxiety, and relationship quality were calculated. In order to test whether the relationship between need satisfaction and relationship

quality is mediated by attachment avoidance and anxiety, a single-step multiple mediation model was conducted using the Hayes' PROCESS macro for SPSS. This method enables simultaneous testing of multiple indirect effects and reduces potential parameter biases (Hayes, 2013). To assess total and specific indirect effects in multiple mediator model, bootstrapping method (with 5000 bootstrap resamples and 95% bias-corrected confidence intervals) that does not impose the assumption of multivariate normal distribution was performed (Preacher & Hayes, 2008). Figure 1 depicts the hypothesized single-step multiple mediation model and indicates by what means need satisfaction affects relationship quality through attachment avoidance and attachment anxiety. While Path a_1 and a_2 represent the effect of need satisfaction on the attachment avoidance and attachment anxiety, respectively, path b_1 and b_2 represent the effect of attachment avoidance and anxiety on relationship quality partialling out the effect of need satisfaction. Path c' is the strength of the direct effect of need satisfaction on the relationship quality when the mediating mechanisms are statistically controlled. Also, the indirect effects are quantified as a_1b_1 and a_2b_2.
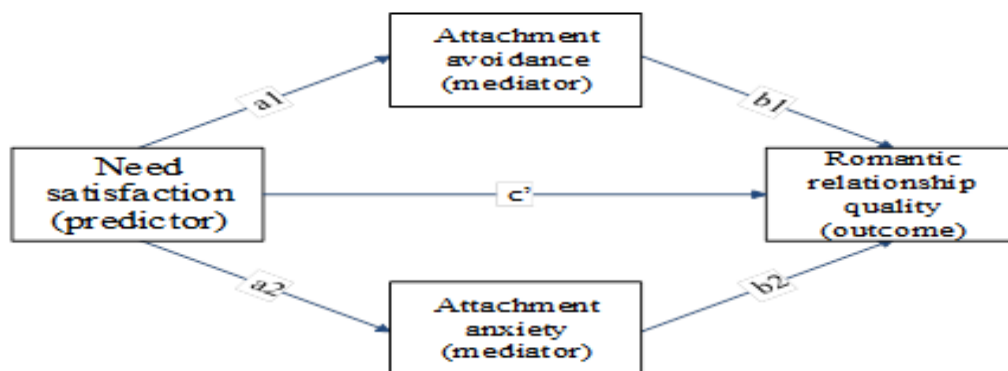

Figure 1. Hypotesized single-step multiple mediation model.

Results

Preliminary Analyses

As missing values were fewer than 5%, eleven cases with missing values were deleted from the data set. In addition, six cases with standardized scores in excess of ±3.29 deemed to be univariate outliers and two cases identified as multivariate outliers ($p < .001$) were removed, which left a final sample of 290 for analysis in total (Tabachnick & Fidell, 2007). Absolute values of skewness ranged from .991 to 1.271 and absolute values of kurtosis ranged from .115 to .916, indicating the assumption of univariate normal distribution being supported (Kline, 2011). Because the multivariate kurtosis critical ratio (8.889) was above the Byrne's (2010) cut-point and the data were deemed to be multivariately non-normal, 95% bias-corrected confidence intervals were calculated based on bootstrapping method by using 5000 resamples (Preacher & Hayes, 2008). Moderate correlations among the variables, tolerance indexes ranging from .64 to .70, and variance inflation factor ranging between 1.43 to 1.57 indicated that there was no multi-collinearity problem in the model. Moreover, the Durbin-Watson value of 2.088 suggested that there is no autocorrelation issue in the data set.

Descriptive Statistics and Bivariate Correlations

Means, standard deviations, and inter-correlations between variables are shown in Table 1. The correlations between need satisfaction, attachment avoidance, attachment anxiety, and relationship quality were all statistically significant at the .01 level. As expected, the participants who reported more need satisfaction scored lower in both attachment avoidance and anxiety. Moreover, individuals relatively lower in attachment avoidance and anxiety reported higher relationship quality. Finally, it is also observed that need satisfaction is positively correlated with relationship quality.

Table 1

Means (M), Standard Deviations (SD), Reliabilities, and Bivariate Correlations

Variables	*M*	*SD*	α	1	2	3	4
1. Need satisfaction	6.08	.66	.72	-			
2. Attachment avoidance	1.71	.75	.66	-.55**	-		
3. Attachment anxiety	2.27	1.47	.75	-.49**	.48**	-	
4. Romantic relationship quality	6.07	.77	.82	.57**	-.65**	-.43**	-

Notes. n = 290, α = Cronbach's alpha, ** $p < .01$

Single-Step Multiple Mediation Analysis

We hypothesized that need satisfaction is related to relationship quality and that link is mediated by attachment avoidance and anxiety. The path analysis corresponding to Figure 1 was conducted using the bootstrapped single-step multiple mediation model. Because preliminary analyses showed that age is linked with increased attachment avoidance ($r = .13$, $p < .05$) and decreased relationship quality ($r = -.14$, $p < .05$); and romantic relationship duration is linked with decreased attachment avoidance ($r = -.13$, $p < .05$) and increased relationship quality ($r = .13$, $p < .05$), we included age and romantic relationship duration as covariates in the model. Age and romantic relationship duration were significant covariates for attachment avoidance (Age: $\beta = .34$, 95% CI [.1029, .5743]; Romantic relationship duration: $\beta = -.02$, 95% CI [-.0413, -.0014]) and relationship quality (Age: $\beta = -.38$, 95% CI [-.6352, -.1319]; Romantic relationship duration: $\beta = .02$, 95% CI [.0043, .0416]). The direct and indirect effects of need satisfaction on perceived relationship quality through attachment avoidance and anxiety are presented in Table 2.

Table 2

Unstandardized Regression Coefficients and Indirect Effects

	β	SE	p
c Total effect of need satisfaction on romantic relationship quality	.44	.04	< .001
a_1 Need satisfaction → Attachment avoidance	-.40	.04	< .001
a_2 Need satisfaction → Attachment anxiety	-.36	.04	< .001
b_1 Attachment avoidance → Romantic relationship quality	-.45	.06	< .001
b_2 Attachment anxiety → Romantic relationship quality	-.07	.05	ns
c' Need satisfaction → Romantic relationship quality	.23	.04	< .001
Specific indirect effect 1 (Need satisfaction → Attachment avoidance → Romantic relationship quality)	.18	.03	< .001
Specific indirect effect 2 (Need satisfaction → Attachment anxiety → Romantic relationship quality)	.03	.02	ns
Total indirect effect	.21	.03	< .001

Notes. 95% bias-corrected confidence intervals based on 5.000 bootstrap resamples: Need satisfaction → Attachment avoidance → Romantic relationship quality = .1275 to .2439; Need satisfaction → Attachment anxiety → Romantic relationship quality = -.0130 to .0658; Total indirect effect = .1485 to .2755. *ns* = non-significant

The results showed that the total indirect effect of need satisfaction on relationship quality via the mediators attachment avoidance and anxiety was significant (β = .21, 95% CI [.1485, .2755]). Furthermore, significant direct effect of need satisfaction on relationship quality was also detected. A closer look at the specific indirect effects revealed that the indirect effect of need satisfaction on relationship quality through attachment avoidance was significant (β = .18, 95% CI [.1275, .2439], *p* = .000), but *not* attachment anxiety (β = .03, 95% CI [-.0130, .0658], *p* = .1864). As the direct effect of need satisfaction on relationship quality was significant, attachment avoidance appears to be a partial mediator in the link between need satisfaction and relationship quality. Overall, the total model explained 50% of the variance in relationship quality (R^2 = .50, *F* = 51.37, *p* < .001).

Discussion

Based on self-determination theory, the main purpose of the present study was to address the gap in the literature by examining underlying mechanisms through which need satisfaction is associated with relationship quality. Although self-determination theory proposes that need satisfaction increases relationship quality, this research is the first to examine multiple dimensions of partner attachment (avoidance and anxiety) as viable mechanisms and to test this multiple mediation model in close relationships literature. In terms of covariates, age was correlated with increased attachment avoidance and decreased relationship quality; and romantic relationship duration was correlated with decreased attachment avoidance and increased relationship quality. Results of hypothesized single-step multiple mediation analysis indicated that the total indirect effect of need satisfaction on relationship quality and the specific indirect effect of need satisfaction on relationship quality through partner attachment avoidance were significant. Counter to expectations, partner attachment anxiety did not mediate the relationship between need satisfaction and relationship quality. Results also indicated that the total effect of need satisfaction along with attachment avoidance and attachment anxiety accounted for 50% of the variance in relationship quality. The findings expanded the scope of existing literature by providing new empirical evidences regarding through which attachment style, need satisfaction is linked with relationship quality.

First, we examined the association between need satisfaction, attachment avoidance, and relationship quality. Consistent with previous studies (e.g., Patrick et al., 2007), we found that participants who perceived higher need satisfaction also reported lower levels of attachment avoidance and higher levels of relationship quality. In line with our expectations, need satisfaction was significantly directly and indirectly related to relationship quality through attachment avoidance. This finding builds upon a study by La Guardia and Patrick

(2008), which reported that fulfillment of basic psychological needs impacts relational processes like attachment and that in turn helps to predict well-being as well as optimal relational functioning. Notably, the finding also provides support for the self-determination theory that fulfillment of autonomy, competence, and relatedness needs of a partner in a romantic relationship may help the individual to develop less avoidant attachment and that, to some extent, may contribute to subsequent relational outcomes (Deci & Ryan, 2000; La Guardia et al., 2000). Overall, it is possible to put forward that need supportive romantic relationships provide a safe relational context for emerging adults and it helps partners form more secure attachment and feel greater relationship satisfaction.

Contrary to prediction, however, our findings did not support the hypothesis that attachment anxiety would mediate the relation between need satisfaction and relationship quality. On the one hand, need satisfaction was negatively associated with attachment anxiety. This finding is consistent with the SDT's notion that experiencing greater autonomy, relatedness, and competence need fulfillment may decrease attachment anxiety (Deci & Ryan, 2000; La Guardia et al., 2000). The finding is also in accordance with the literature that showed greater need fulfillment is associated with less attachment anxiety (Patrick et al., 2007). On the other hand, attachment anxiety did not predict relationship quality. There are some possible explanations for this finding. First of all, in a meta-analytic study based on 73 studies with a total of 21602 participants, Li and Chan (2012) found that compared to attachment anxiety, attachment avoidance has more detrimental effects on relationship quality. Since individuals with anxious attachment struggle for closeness and connectedness with their romantic partners in spite of their worry about being abandoned, it is proposed that anxious attachment is more likely to be associated with negative indicators of relationship quality like general conflict rather than positive indicators like relationship satisfaction (Li & Chan, 2012). Secondly, based on Li and Chan's (2012) findings, it is likely that anxious

attachment may increase conflict in romantic relationship and that in turn, subsequently decrease relationship quality in the long run. However, a process oriented longitudinal research is needed to gain more insight about the link between attachment anxiety and relationship quality. Furthermore, previous studies (e.g., Hadden, Smith, & Webster, 2014; Shaver, Schachner, & Mikulincer, 2005) also indicate that compared to anxious attachment, avoidant attachment is more strongly and negatively related with relationship quality. As a result, research results also confirm our hypothesis that the specific indirect effect of need satisfaction on relationship quality through attachment avoidance would be significantly larger than the effect through attachment anxiety.

Although the present study addresses an important gap in the close relationships literature, there are also some limitations worth noting. To begin with, the data are cross-sectional and longitudinal researches are necessary to draw any firm conclusions regarding causality. Additionally, recruiting participants currently being in a romantic relationship from a university sample may introduce a selection bias and limit the generalizability of the findings to emerging adults in community samples. Future research is needed to replicate and extent our findings in diverse sample groups. Furthermore, including both partners would provide a broader perspective on the links between need satisfaction and relationship quality. Moreover, even after accounting for the contribution of attachment avoidance and anxiety, need satisfaction was still related to relationship quality. This finding indicates that there might be other additional mechanisms in explaining the link between need satisfaction and relationship quality that our model does not account for. Lastly, majority of the research sample were females. This could be another limitation to be controlled in future studies.

In conclusion, this was the first study to compare multiple aspects of attachment (avoidance and anxiety) in mediating the link between need satisfaction and relationship quality. Research findings highlight the distinct role that attachment avoidance may play in

the link between need satisfaction and relationship quality in a sample of emerging adults. Even when accounting for the role of attachment styles, the direct effect of need satisfaction on relationship quality was significant. This implies that attachment is not the only mechanism at work in explaining the association between need satisfaction and relationship quality. In order to better understand the process in which need satisfaction can lead to relationship quality in emerging adulthood, we recommend that future researches should include other potential mediating and/or moderating variables like relationship motivation for being in the relationship. Based on research results, it is regarded that understanding the mechanisms underpinning relationship quality help practitioners to plan more effective intervention programs. As possible practical implication, relationship enhancement programs for premarital couples might aim at helping partners to support each others' autonomy, competence, and relatedness needs and to build more positive internal working model of partner attachment. Following this perspective, individuals who take those trainings may experience the fulfillment of psychological needs in their romantic relationship and develop more secure partner attachment patterns, which in turn, increase the relationship satisfaction. Particularly, psychological counseling and guidance services of universities might offer relationship enhancement programs as well as couple therapies to promote healthy functioning and committed romantic relationships. Additionally, intervention studies aiming to promote healthy romantic relationships might also have the potential to develop well-being and mental health of the emerging adults. Considering the effects of age and relationship duration on attachment avoidance and relationship quality, practitioners especially may aim to conduct intervention studies with newly couples and older emerging adults.

References

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York, NY: Basic Books.

Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York, NY: Basic Books.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York, NY: Routledge.

Deci, E. L., & Ryan, R. M. (2015). Self-determination theory. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (2nd ed.) (pp. 486-491). Rochester, NY: Elsevier.

Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227-268. https://doi.org/10.1207/S15327965PLI1104_01.

Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, *26*(3), 340-354. http://dx.doi.org/10.1177/0146167200265007.

Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The Experiences in Close Relationships-Relationship Structures Questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, *23*(3), 615–625. http://dx.doi.org/10.1037/ a0022898.

Hadden, B. W., Smith, C. V., & Webster, G. D. (2014). Relationship duration moderates associations between attachment and relationship quality: Meta-analytic support for the temporal adult romantic attachment model. *Personality and Social Psychology*, *18*(1), 42-58. http://dx.doi.org/10.1177/1088868313501885.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: The Guilford Press.

Knee, C. R., Hadden, B. W., Porter, B., & Rodriguez, L. M. (2013). Self-determination theory and romantic relationship processes. *Personality and Social Psychology Review*, *17*(4), 307-324. http://dx.doi.org/10.1177/1088868313498000.

La Guardia, J. G., & Patrick, H. (2008). Self-determination theory as a fundamental theory of close relationships. *Canadian Psychology*, *49*(3), 201-209. http://dx.doi.org/10.1037/a0012760.

La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology*, *79*(3), 367-384. http://dx.doi.org/10.1037/0022-3514.79.3.367.

Leak, G. K., & Cooney, R. R. (2001). Self-determination, attachment styles, and well-being in adult romantic relationships. *Representative Research in Social Psychology*, *25*, 55-62.

Li, T., & Chan, D. K-S. (2012). How anxious and avoidant attachment affect romantic relationship quality differently: A meta-analytic review. *European Journal of Social Psychology, 42*(4), 406-419. http://dx.doi.org/10.1002/ejsp.1842.

Özdemir, Y., & Sağkal, A. S. (2017, October). *Turkish adaptation of the Need Satisfaction in Romantic Relationship Scale*. Paper presented at the meeting of II. International Youth Researches Congress, Fethiye, Muğla.

Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C. (2007). The role of need fulfillment in relationship functioning and well-being: A self-determination theory perspective.

Journal of Personality and Social Psychology, *92*(3), 434-457. http://dx.doi.org/10.1037/0022-3514.92.3.434.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. http://dx.doi.org/10.3758/BRM.40.3.879.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68-78. http://dx.doi.org/10.1037110003-066X.55.1.68.

Sağkal, A. S., & Özdemir, Y. (2018). Algılanan Romantik İlişki Kalitesi Ölçeği'nin (ARİKÖ) Türkçe'ye uyarlanması: Geçerlik ve güvenirlik çalışması [Turkish adaptation of Perceived Romantic Relationship Quality Scale (PRRQS): Validity and reliability study. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, *42*, 22-40. http://dx.doi.org/10.21764/ maeuefd.329888.

Shaver, P. R., Schachner, D. A., & Mikulincer, M. (2005). Attachment style, excessive reassurance seeking, relationship processes, and depression. *Personality and Social Psychology Bulletin*, *31*(3), 343-359. http://dx.doi.org/10.1177/0146167204271709.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson Education, Inc.