Development of a Jealousy Scale in Romantic Relationship: A Validity and Reliability Scale

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Abstract

The aim of this study is to present the validity and reliability analyzes of the Romantic Jealousy in Relationships Scale (JRRS), which was developed to assess romantic jealousy in individuals aged 18 and over. The scale was developed through a literature review and tailored to the Turkish culture. The exploratory factor analysis revealed a three-dimensional structure, with the first dimension explaining 32.94% of the total variance, the second dimension explaining 11.34%, and the third dimension explaining 9.21%. The total variance explained by all three dimensions was 53.50%. The moderate correlation between the Anxious Attachment subdimension of the Experiences in Close Relationships Scale-Short Form (ECRS-SF) and the JRRS provided evidence of criterion-related validity, consistent with previous findings in the literature. As a result of the reliability analysis, the reliability value of the measurement tool was found to be .85 according to the Cronbach alpha. According to the sub-dimensions, reliability results were obtained as .83 for the social environment and past relationships factor, .83 for the jealousy perception factor and .71 for the perception of the self-perception factor. The JRRS was compared to other established scales measuring jealousy in romantic relationships, and the results further supported its reliability and validity. Overall, the study showed that the JRRS is a valid and reliable tool for assessing romantic jealousy in individuals.

Keywords: Romantic relationship, Jealousy in romantic relationship scale, Jealousy, Romantic jealousy, Scale development

Introduction

Adulthood is a life transition which includes great changes or adaptations in almost every part of life. Schulenberg, Bryant, and O’Malley (2004), who call adulthood a hold on life, defines romantic success as being able to maintain a romantic relationship without any separation history from 18 to 26 years old while Arnett (2003) states that following social rules and roles and committing oneself to marriage or a romantic relationship are some of the common traits of adults. Therefore, we might assume that an individual, after completing his educational studies and gaining financial independence, will seek to find his soulmate and a romantic relationship to be happy.

Love and passion underlie romantic relationships. Love, which has existed throughout history, is one of the feelings that anyone has wished to experience in his life (Atak & Taştan, 2012). Although the aim of romantic relationships is to experience such good feelings, it is not surprising to come into conflicts and have problems with one’s partner, some of which are caused by romantic jealousy.

Jealousy is a feeling experienced when someone has lost or is about to lose his or her romantic relationships because his or her partner has started a romantic affair with somebody else (Parrott, 1991). Jealousy might exist in friendships, work, academic, and family relationships as well. The understanding of romantic jealousy in romantic relationships might differ greatly from person to person and from culture to culture. White (1981) defined romantic jealousy as the body of feelings, thoughts and behaviors threatening the future and quality of the relationship. The threat is thinking that there is a rival (real or imagined) who can be the cause of losing the partner. Similarly, Pines (1998) interprets romantic jealousy as the whole of one’s reactions given to the circumstances that might result in ending the relationship that is valued by that person.

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Ellis and Weinstein (1986) identify three foundations of romantic jealousy, which are (1) an attachment between two persons, (2) the valuable resources emerged around the commitment, and (3) being the receiver of these resources or the deconstruction of the commitment to rebuild the resources by a third party. Problems in any of these foundations may produce different reactions. In other words, someone might try to damage a couple’s relationship; however, the couple might not feel jealous as long as they do not perceive it as a threat. Therefore, jealousy completely depends on an individual’s perception of the situation.

Mattingly, Whitson, and Mattingly (2012) express that jealousy is an emotional experience that can strain and stress the relationship out. Jealous behavior is usually demonstrated when a person is afraid to lose his/her partner or when s/he thinks s/he will lose the relationship because of another person (Sardelíc & Perak, 2021). Önder (2019) claims that jealous behavior is observed when a person feels bad and is unable to settle the matter with the relationship whereas Tortamış (2014) points out that romantic jealousy is any response given to the possible threats that can harm the structure of the relationship.

The nature of the romantic jealousy seems to evolve in accordance with the social changes throughout the history. Until the 1960s, jealousy was often taken naturally within some limits and considered as a sign of being valued. With the emphasis put on personal space and freedom during the sexual revolution of the 1960s, jealousy began to be considered as a learned feeling and a manifestation of negative personality traits such as low self-esteem. In the early 1970s, some women’s magazines called jealousy as a useless feeling that has no place in romantic relations (Clanton, 1996).

The definitions above seem to converge on certain aspects of jealousy. The main drive of jealousy might be the fear of abandonment, being degraded, competing with a rival, or being deceived depending on the person (Pines, 1998). Regardless of the underlying reason, all those definitions include a partner who is feared to be lost and a romantic relationship that is on edge. It should also be noted that jealousy is a combination of feelings and reactions rather than being a single concept (Demirtaş, 2004). In addition, jealousy is present only when the relationship is ended due to the problems arising from a third party. Thinking that the compassion and love that one has will be lost to someone else might be one of the reasons of the complicated reactions (Wreen, 1989).

Although jealousy is associated with negative feelings such as anxiety, anger, and fear, most people tend to feel jealous from time to time and may wish their partners to be jealous to some extent because jealousy might be perceived as an indicator of a partner’s intention to carry on the relationship (Nazlı & Karaman, 2021). The criterion here is the dose of romantic jealousy. Clinically, there are two forms of jealousy, which are normal and abnormal jealousy. The normal level of jealousy, which is not found odd, is related to a real threat to the relationship whereas pathological, or abnormal, jealousy exists even though there are no such real threats (Al-Dehaiman, 2021). Normal jealousy is present as long as faith and loyalty continue and it is a reaction to a threat to the relationship. Abnormal jealousy, on the other hand, has no defined limits. One of the reasons is culture and society because the things approved or not approved by the society differs from culture to culture. As mentioned above, the highlights in history and the changes in mindsets have a determining effect on the interpretation of jealousy as normal or abnormal (Costa, Sophia, Sanches, Tavares, & Zilberman, 2015).

Abnormal jealousy, which has been used interchangeably with fancied, pathological, or morbid jealousy, differs from normal jealousy in that abnormal jealousy is associated with intense emotional reactions lacking objectivity and normality. Pathological jealousy involves behaviors and opinions about the partner’s unfaithfulness that do not have a realistic basis and that cannot be proved to be true. These kind of unsupportable ideas and behaviors not only might have detrimental effects at the individual level but also can do physical and psychological harm to the partner. In a study where individuals with normal and pathological jealousy were compared for their jealousy concerns, the researchers found that participants with normal jealousy were reported to think about the probability of ending the relationship evaluating and restricting their partner’s behavior for 1-4 hours a day whereas the participants with pathological jealousy did the same for 4-8 hours a day, which makes up one third of a day (Costa et al., 2015; Marazziti et al., 2003).

Romantic jealousy is often the result of the interaction between a triggering event and the person’s predisposition towards jealousy. There are various factors triggering jealousy. Pines and Aronson (1983) found that people tend to be more jealous when the third person is someone they know well and that they are less jealous when it is someone they do not know. They also reported that people with psychological and physical conditions are more likely to be jealous of their partners.

Kaplan and Tasa (2022) worked with college students and concluded that people with a more traditional understanding of social gender roles are often more jealous of their partners in their romantic relationship.

Sheets, Fredendall and Claypool (1997) identified 4 jealousy-evoking situations which are (1) partner showing interest in another (e.g., “Your partner says that someone else is attractive and good-looking” or “your partner is dancing with another person in a party”); (2) another person showing interest in your partner (e.g., “your partner tells you that another is interested in your partner”, “your partner’s friend says that another is interested in your partner” or “Your partner shows you a letter from a secret admirer”; (3) prior relationships (e.g., “Your partner mentions past relationships”, “Your partner talks to his/her ex-boyfriend/girlfriend’s mother”); (4) ambiguous scenes (e.g., “Your partner gets very dressed up and goes out with friends, leaving you behind”, “Your partner
goes to another (guy's/girl's) house and calls you from there”). The results of the study also showed that when
people feel jealous, they tend to fight with their partners rather than breaking up with them. Jealousy
experiences may also differ by attachment style. Sharpsteen and Kirkpatrick (1997) reported that participants
with a secure attachment style were more likely to express their anger when they felt jealous while participants
with anxious attachment said even though they felt furious they avoided confronting their partners and
expressing their feelings. Although the participants with avoidant attachment felt angrier compared to the
participants with secure attachment, they stated that they had a more intense feeling of sadness and that they
grew/would grow away from their partners in order not to tarnish their self-respect.

The intimacy and positive experiences that individuals have in their romantic relationships play an important
role in their social development, adaptive skills and psychological well-being. These experiences have positive
effects on individual as well as the relationship itself. Some behaviors, like jealousy, that might be perceived as
a sign of love may do real harm to relationships. Whether it is perceived or imagined, romantic jealousy might
have a substantial and destructive effect on a relationship. An individual may resort to violence and restricting
behaviors or even more devastating acts. Statistics show that 5 in every 50 women who were in news stories in
2013 were reported to be killed by an ex-husband or boyfriend because of jealousy (Atakay, 2014).

When the literature is examined, it is seen that there are measurement tools related to romantic jealousy. When
the measurement tools developed to measure the jealousy tendencies of individuals in romantic relationships are
examined, it is seen that the first scale is the “Self-Reported Jealousy Scale” revised by Bringle, Roach, Andler,
and Evenbeck (1979). The scale developed for adult individuals consists of three sub-dimensions: minor
romantic, non-romantic, and major romantic jealousy. The Chronic Jealousy Scale, which was developed by
White (1981), measures a person's tendency to be chronically jealous. It consists of 6 items and one dimension.
The Relationship Jealousy Scale, which was also developed by White (1981), consists of 6 items and 32, and
evaluates whether the person sees himself or herself as jealous in his romantic relationship. In the jealousy scale
developed by Mather and Severa (1981), it was aimed to test various beliefs about jealousy. Individuals with a
dating relationship or married university students participated in the study. The first dimension of the
measurement tool, which consists of 6 factors, is related to the partner's flirting behaviors with others, the
second dimension is related to threats arising from the popularity of the partner, the third dimension is the
threatening behaviors of the insecure partner, the fourth dimension is about the partner's past relationships, and
the fifth dimension is the indifferent attitudes of the partner. The last dimension includes the gender differences
related to jealousy. When the measurement tools used to evaluate romantic jealousy in Turkey were evaluated, it
was revealed that almost all of them were adaptations of tools developed in other countries and cultures. For
example, the Romantic Jealousy Scale developed by Pines and Aronson (1983) was adapted into Turkish by
Demirtaş (2004). However, there are problems in adapting the scale to Turkish culture (Demir, 2019). There is a
tool developed by Turkish researchers; but it only measures emotional jealousy, which is one of the components
of romantic jealousy. Since jealousy in romantic relationships is a multidimensional concept on which most
researchers agree, there is a need for an established and comprehensive tool (Elphinston, Feeney, & Noller,
2011). Therefore, the development of a scale to measure jealousy in romantic relationships can help individuals
gain insight into themselves in order to secure new relationships or relationships they already have.

Method

For this purpose, primarily a literature review on romantic jealousy was conducted. An item pool was created
through the information obtained after the literature review. It is a 5-point Likert-type scale, which consist of 16
items. The results of the validity and reliability analysis of the measurement tool are presented in the findings
section.

Study Group

A study group of 400 people was formed for the study. Validity and reliability analyzes were carried out using a
400-person data set.

Table 1. Demographic characteristics of the participants

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-23</td>
<td>167</td>
<td>41,8</td>
</tr>
<tr>
<td>24-29</td>
<td>140</td>
<td>35,0</td>
</tr>
<tr>
<td>30 or older</td>
<td>93</td>
<td>23,3</td>
</tr>
<tr>
<td>Romantic Relationship Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Relationship</td>
<td>146</td>
<td>36,5</td>
</tr>
<tr>
<td>Date/Boyfriend/Girlfriend</td>
<td>67</td>
<td>16,8</td>
</tr>
<tr>
<td>Engaged</td>
<td>82</td>
<td>20,5</td>
</tr>
<tr>
<td>Married</td>
<td>105</td>
<td>26,3</td>
</tr>
</tbody>
</table>
Demographic characteristics of the participants are presented in Table 1. Most of the participants’ age (N=167, %41.8) ranged between 18 and 23. 146 of the participants (%36.5) had no romantic relationship, 82 of the participants (%20.5) were engaged and 105 of the participants (%26.3) were married.

Data Collection Tools

Within the scope of the study, The Experiences In Close Relationships Scale Short Form was used to examine the validity of the Romantic Jealousy Scale. In addition, the participants were asked to answer demographic questions such as age, romantic relationship status through the Personal Information Form. The Experiences in Close Relationships Scale- Short Form (ECRS-SF), which was developed by Wei et al. (2007), was adapted to Turkish by Savcı and Aysan (2016). The original version of the scale has 12 items rated on a 7-point Likert scale (1- strongly disagreee, 7- strongly agree) whereas the Turkish version with 12 items is rated on 5-point Likert scale (1- strongly disagreee, 7- strongly agree). The scale has two factors, which are Anxiety and Avoidance. Higher scores in each factor indicate higher levels of that factor. Items 1, 5, 8, and 9 are reverse-coded. The adaptation study of the scale were carried out with 773 college students. The Cronbach’s alpha for Avoidance and Anxiety were .90. Exploratory and Confirmatory Factor Analyses were used for the construct validity. Kaiser-Meyer-Olkin (KMO= .90) and the Bartlett’s Test of Sphericity ($\chi^2 = 2864.712$) showed that the data was suitable for factor analysis. Two factors were extracted because there were two eigenvalues greater than 1. The EFA results showed that the two-factor scale explained %72.1 of the total variance. For this study, the cronbach alpha value of the ECRS-SF was found to be .70.

The Development of the Assessment Tool

First, an item pool was developed for the JRRS after reviewing the national and international studies in the literature. An initial pool of 50 items was formulated based on the opinions of Psychological Counselling and Guidance experts to support the content validity of the JRRS. Two field experts conducted research on romantic relationships, one field expert worked on measurement and evaluation, and two field experts conducted studies on relationships and adolescents. Experts rated the proposed items as Appropriate or Not Appropriate explaining their reasons as in the following example:

“.....I’m not sure this item will help to determine the level of jealousy. You may need to revise or reevaluate it.”

“...sometimes the accompanying emotion might not be just anger.”

A pilot study was carried out to test the reliability and validity of the preliminary form with 22 items. KMO (.87) and the Bartlett’s Test of Sphericity [$\chi^2 (153) =2530.113; .00 (p<.05)$] values show that the correlations between the items were suitable for EFA. Principal component analysis was run to reveal the number of factors of the scale. The results showed a 4-factor model with eigenvalues greater than 1. The first, second, third and fourth factors explained %22.188, %14.102, %12.863, and %8.201 of the total variance of the scale,respectively. The four factors together explained %57.354 of the total scale variance. Items related to each other are gathered together through sub-dimensions. In other words, the items form the factors, and the factors combine to form the scale. Varimax rotation analysis was performed in order to explain which items the sub-dimensions consisted of. Varimax rotation was used to clarify the relationship between the factors and the items. The items fell under 4 factors. In order to achieve scientific construct and content validity, subscales should include at least three items (Viswanathan, 2010). Accordingly, the four-factor model was not suitable and Item 10 was removed from the scale in order to reduce the number of the factors to three. It is recommended that the difference between the maximum value of an item in a factor and the second highest value of that item in another factor should be at least .10. If an item has more than one significant loading, it is called a cross-loading, which should be eliminated from the scale (Büyükköztürk, 2012). The results showed that Item 5 was a cross-loading and therefore, it was removed from the scale for further analysis. The factor structure of the 16-item scale was investigated.

Data Analysis and Interpretation

While developing the Jealousy in Romantic Relationship scale, exploratory factor analysis and criterion validity were used within the scope of validity analysis, Cronbach alpha and McDoanld Omega coefficient and test-retest result were used within the scope of reliability analysis. Pearson Correlation coefficient was evaluated in order to determine the relationships between the determined sub-dimensions. SPSS 25 and Jamovi 2.3 package program were used while performing these analyzes.
Findings

Exploratory Factor Analysis (EFA)

The EFA results showing the construct validity of the scale are presented below. 16 items were included in the factor analysis based on the results of the item-total and item-remainder analysis. KMO and Bartlett’s Test of Spherecity values are shown in Table 2.

Table 2. Kaiser-Meyer-Olkin and Bartlett’s Test of Spherecity Results for JRRS

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin (KMO)</th>
<th>Bartlett’s Test of Spherecity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$x^2$</td>
</tr>
<tr>
<td></td>
<td>2423,143</td>
</tr>
</tbody>
</table>

EFA for the 16-item scale revealed that KMO (.884) and the Bartlett’s (.2423,143; p=.00) were significant. The item removal seemed to increase the correlations between the items on the scale. The factor structure of the 16-item scale was investigated and the results are presented in Table 3.

Table 3. Factor eigenvalues, variance and cumulative variance values for JRRS

<table>
<thead>
<tr>
<th>Factor</th>
<th>Initial Eigenvalues</th>
<th>Sums of Squared Loadings After Rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% Variance</td>
</tr>
<tr>
<td>1</td>
<td>5.271</td>
<td>32.943</td>
</tr>
<tr>
<td>2</td>
<td>1.815</td>
<td>11.346</td>
</tr>
<tr>
<td>3</td>
<td>1.474</td>
<td>9.215</td>
</tr>
</tbody>
</table>

The analysis revealed that the 16 items of the JRRS fell under 3 factors with eigenvalues greater than 1. The first, second, and third factor explained %32.943, %11.346 and %9.215 of the total variance of the scale, respectively. The three factors together explained %53.504 of the total scale variance. Table 4 shows the factor loadings of the items. The fact that the measurement tool explains at least 50% of the total variance means that the scale has the ability to explain the target concept (Yaşlıoğlu, 2017).

Table 4. Factor loadings of the items

<table>
<thead>
<tr>
<th>Item No</th>
<th>1st Factor</th>
<th>2nd Factor</th>
<th>3rd Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Environment and Past Relationships</td>
<td>Jealousy Perception</td>
<td>Self- Perception</td>
</tr>
<tr>
<td>Item 1</td>
<td>.728</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 4</td>
<td>.707</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 8</td>
<td>.706</td>
<td>.894</td>
<td></td>
</tr>
<tr>
<td>Item 13</td>
<td>.682</td>
<td>.868</td>
<td>.707</td>
</tr>
<tr>
<td>Item 2</td>
<td>.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 3</td>
<td>.640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 7</td>
<td>.608</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 9</td>
<td>.505</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 16</td>
<td></td>
<td></td>
<td>.704</td>
</tr>
<tr>
<td>Item 5</td>
<td></td>
<td>.562</td>
<td></td>
</tr>
<tr>
<td>Item 15</td>
<td></td>
<td>.560</td>
<td></td>
</tr>
<tr>
<td>Item 10</td>
<td></td>
<td>.637</td>
<td></td>
</tr>
<tr>
<td>Item 8</td>
<td></td>
<td>.603</td>
<td></td>
</tr>
</tbody>
</table>

The first factor included 8 items (1, 2, 3, 4, 6, 7, 9, and 13) with factor loadings ranging from .555 to .728. The items in the first factor, which was called “the Social Environment and Past Relationships” were concerned with the jealousy evoking situations or behaviors related to partner’s social environment and past relationships. The second factor included 3 items (11, 12, and 14) with factor loadings ranging from .707 to .894. The items in the second factor, the Jealousy Perception, were related to one’s understanding of jealousy and its effects on a romantic relationship. The third factor included 5 items (5, 8, 10, 15, and 16) with factor loadings ranging from .652 to .771. As these items were about the effects of jealousy on the individual, it was named the “Self-Perception”. After the factor analysis, Pearson Correlation analysis was run to investigate the correlations between the factors. The results are presented in Table 5.
Table 5. Pearson correlations between the factors

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 JRRS Total</td>
<td>1</td>
<td>.892**</td>
<td>.647**</td>
<td>.753**</td>
</tr>
<tr>
<td>2 Social Environment and Past Relationships</td>
<td>1</td>
<td>.400**</td>
<td>.483**</td>
<td></td>
</tr>
<tr>
<td>3 Jealousy Perception</td>
<td>1</td>
<td></td>
<td>.317**</td>
<td></td>
</tr>
<tr>
<td>4 Self-Perception</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10 shows that all the factors were positively correlated with each other and the whole scale. The JRRS was positively and very strongly associated with the Social Environment and Past Relationships and the Self-Perception factors ($r=.892$, $p<.01$; $r=.753$, $p<.01$). Similarly, there was a moderate association between the JARSS and the Jealousy Perception ($r=.647$, $p<.01$). The correlation between the factors should not exceed .60 because a strong relationship between the factors means that the highly correlated factors are measuring the same constructs in a statistical sense (Şencan, 2005). The Social Environment and Past Relationship factor was positively and moderately related to the Self-Perception and the Jealousy Perception factors ($r=.400$, $p<.01$; $r=.483$, $p<.01$). Similarly, there was a positive and moderate association between the Self-Perception and the Jealousy Perception factors ($r=.317$, $p<.01$).

**Criterion Related Validity**

The Experiences in Close Relationships Scale-Short Form (ECRS-SF) was used for the criterion related validity. The results are presented in Table 6.

Table 6. JRRS and ECRS-SF correlations

<table>
<thead>
<tr>
<th>Factors</th>
<th>JRRS Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidant Attachment</td>
<td>.002</td>
</tr>
<tr>
<td>Anxious Attachment</td>
<td>.400</td>
</tr>
</tbody>
</table>

As seen in Table 6, there is a positive and moderate relationship between the JRRS total scores and Anxious Attachment. Considering that people with anxious attachment style are very likely to worry about losing their partners, the correlation between jealousy in a relationship and anxious seems to be satisfying ($r=.400$). Therefore, we might conclude that the tool developed in the current study is good at assessing the target constructs.

**Reliability Analysis Results**

The means, standard deviations, Cronbach’s alpha and McDonald Omega values for JRRS and its subdimensions are presented in Table 7.

Table 7. Internal consistency coefficients for JRRS and subdimensions

<table>
<thead>
<tr>
<th>Items</th>
<th>$\bar{x}$</th>
<th>SD</th>
<th>$\alpha$</th>
<th>$\omega$</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRRS Total</td>
<td>55.06</td>
<td>11.03</td>
<td>.85</td>
<td>.88</td>
</tr>
<tr>
<td>Social Environment and past Relationship</td>
<td>30.38</td>
<td>6.25</td>
<td>.83</td>
<td>.80</td>
</tr>
<tr>
<td>Jealousy Perception</td>
<td>8.13</td>
<td>3.05</td>
<td>.83</td>
<td>.84</td>
</tr>
<tr>
<td>Self-Perception</td>
<td>7.11</td>
<td>2.90</td>
<td>.71</td>
<td>.67</td>
</tr>
</tbody>
</table>

As seen in Table 7, the Cronbach Alpha coefficient for the overall scale is .85. The Cronbach Alpha coefficients of Social Environment and Past Relationships, Jealousy Perception and Self Perception sub-dimensions are .83, .83 and .71, respectively.

Considering the McDonald Omega reliability coefficient, the omega value for the overall scale was found to be .88. When the sub-dimensions are examined, the omega value of the Social Environment and Past Relationships dimension is .80, the omega value of the Jealousy Perception sub-dimension is .84, and the omega value of the Self-Perception sub-dimension is .67.

Table 8. Pearson Correlations for the JRRS Test-Retest

<table>
<thead>
<tr>
<th>Scale</th>
<th>$\bar{x}$</th>
<th>SS</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 JRRS First Administration</td>
<td>3.152</td>
<td>0.780</td>
<td>-</td>
<td>.956**</td>
</tr>
<tr>
<td>2 JRRS Second Administration</td>
<td>3.157</td>
<td>0.659</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
As demonstrated in Table 8, there is a strong association between the first and second administration of the scale (.95; \( r > .60, p < .01 \)), which means that the participants responded to the scale consistently at two different time points.

### Discussion, Results and Suggestions for Further Study

Romantic jealousy is a complex emotion that has been extensively studied in the field of psychology. From an evolutionary perspective, jealousy can be seen as an adaptive emotion that helps individuals protect their romantic relationships from potential threats. It functions as a mechanism that alerts individuals to the possibility of a competitor or a partner's infidelity and encourages them to take action to protect their relationships (Attridge, 2013). At the same time, excessive or unfounded jealousy can damage romantic relationships, leading to conflict, insecurity, and even violence. Therefore, understanding the role that jealousy plays in romantic relationships and how to manage it in a healthy way is important. Developing a measurement tool that assesses the level of romantic jealousy can help produce more reliable and consistent results in research conducted in this field. However, it is important to consider cultural factors when developing such a tool. Therefore, this study aims to develop a measurement tool that is suitable for Turkish culture and can help determine the level of romantic jealousy.

In this study, a 50-item scale developed to measure the attitudes and perceptions of individuals over the age of 18 with or without a romantic relationship about romantic jealousy was applied to 500 participants and the data obtained from 400 individuals were analyzed. Since the data collection process coincided with the pandemic period, data were collected through online channels. Therefore, in some data, the answers proceeded as the same answer for each question, and these data were removed from the data set.

While developing the jealousy in romantic relationship scale, a literature review was conducted and the items were written considering Turkish culture. The 50-item item pool was reduced to 22 items after the first interview, and after the pilot study, the 16-item scale of Jealousy in romantic relationship was prepared. Both validity and reliability analysis were applied to the measurement tool. After the exploratory factor analysis, it was seen that the scale had a 3-dimensional structure. Considering the eigenvalues of the components and the explained variance, the first dimension explains 32.94% of the total variance, the second dimension explains 11.34% of the total variance, and the third dimension explains 9.21% of the total variance, and all dimensions explain 53.50% of the total variance. When this result is evaluated, it is seen that the scale of Jealousy in romantic relationship is a valid measurement tool to measure the romantic jealousy status of individuals.

In order to establish the criterion related validity, we examined the relationship between the Experiences in Close Relationships Scale-Short Form (ECRS-SF; Savcı & Aysan, 2016) and the JRRS. The results indicated a moderate relationship between the Anxious Attachment subdimension of the ECRS-SF and the JRRS as expected. Individuals who tended to feel more attached to their partners had higher jealousy scores on Anticipated Sexual Jealousy Scale as reported by Buunk (1982). It is possible that an individual with an anxious attachment style might have higher levels of jealousy as they tend to be worried about losing his/her partner or getting abandoned more often. Therefore, we might suggest that the moderate correlation between the Anxious Attachment and JRRS total scores is in line with the literature in terms of criterion validity.

The tools used to assess jealousy in romantic relationships often have at least two subdimensions. For instance, the Self-Report Jealousy Scale (Bringle et al., 1979) has three subdimensions. The internal consistency coefficients for the subdimensions ranged between .79 and .87 while it was .88 for the overall scale. The moderate correlation (\( r = .36 \)) between being anxious and jealous is similar to the findings of the current study. The Interpersonal Jealousy Scale, which was developed by Mathes and Severa (1981), had an internal consistency of .92. The scale has a six-factor model which explained the %62.2 of the total variance. The Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989) has been adapted to various cultures and used in Turkey as well. It has three subdimensions just like JRRS. The reliability coefficients ranged between .83 and .89 for the subdimensions. The Spouse Emotional Jealousy Scale (Kızıldağ & Yıldırım, 2017) might be given as an example from Turkey. The scale, which was designed for married individuals, has three subdimensions, which is also similar to the JRRS. The model explained %59.75 of the total variance. The overall internal consistency coefficient was .95 and its subdimensions were satisfactorily realiable as well. All these examples further supports the reliability and validity of the JRRS as it is consistent with previously developed scales.

### Recommendations

This study focused on the development and validity of the jealousy scale in romantic relationships for individuals in Turkey. Future research may explore the generalizability of this scale to other cultures and countries. For this, the reliability and validity results of the scale in different populations can be evaluated and potential cultural differences in romantic jealousy can be investigated. Although there are three sub-dimensions
of the Romantic Jealousy Scale developed through this study, there may also be different factors contributing to the romantic jealousy experience. Future research may explore the potential impact of other variables, such as personality traits, socio-demographic factors, and relationship quality, on romantic jealousy. Due to the COVID-19 outbreak, data collection for this study was carried out through online channels. New research can compare the validity and reliability of data collected through online channels with data collected through traditional face-to-face methods. By addressing these suggestions, researchers can further develop and validate romantic jealousy scales that may better capture the complex nature of romantic jealousy and shed light on the mechanisms and consequences of this phenomenon. Compared to the JRRS with the Closely Relationship Experiences Scale–Short Form (ECRS–SF), future research could further explore the relationship between the JRRS and other established jealousy scales to assess convergent and divergent validity.

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Author (s) Contribution Rate
Both authors contributed equally to the writing of this article.

Conflicts of Interest
There was no conflict of interest during the study.

Ethical Approval
Ethical permission (03/2022-13/03) was obtained University Fatih Sultan Mehmet Vakıf University this research.

References


**Appendix 1. Romantic Jealousy in Relationships Scale (JRRS)**

<table>
<thead>
<tr>
<th>MADDELER</th>
<th>Hiç Katılmıyorum</th>
<th>Katılmıyorum</th>
<th>Kararsızım</th>
<th>Katılıyorum</th>
<th>Tamamen Katılıyorum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Partnerimin bir başkasıyla fiziksel olarak yaklaşımasını kıskanırım.</td>
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<td>2  Partnerimin yapımandayken gizli gizli mesajlaşmasından rahatsız olurum.</td>
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<td>3  Partnerimle beraber eski sevgilisinin olduğu bir ortamda bulunmaktan rahatsız olurum.</td>
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<td>4  Partnerimin bir başkasına duyduğu beğeniyi ifade etmesinden rahatsız olurum.</td>
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<td>5  Partnerim arkadaşları ile dışarı çıktığında ne yaptığını öğrenmek için görüntülü ararım.</td>
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<td>6  Partnerim eski ilişkisinden bahsederse rahatsız olurum.</td>
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<td>7  Partnerimin bir ortamda hem cinsine iltilat etmesinden hoşlanmam.</td>
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<td>8  Partnerimin beğeni duyduğu kişilere benzemek için çaba sarf ederim.</td>
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<td>9  İlişkimizde kendime güvenmediğim konularda, partnerimin başkasıyla iletişim kurmasından rahatsız olurum.</td>
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<td>10 Partnerimin bana seslenirken farklı olmada başka bir isim kullanmasından rahatsız olurum.</td>
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<td>11 Partnerime duyduğum kıskançlık, başkalarımı güçlendirir.</td>
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<td>12 Partnerime duyduğum kıskançlık, ilişkimizin monotonlaşmasını önler.</td>
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<td>13 Partnerimin kalabalık bir ortamda başkasıyla ilgilenmesi beni rahatsız eder.</td>
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<td>14 Partnerimi kiskanmadım ona değer verdüğim göstergesidir.</td>
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<td>15 Partnerimi kiskandığım zaman sosyal medya hesaplarını kontrol ederim.</td>
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<td>16 Partnerimi kiskanmadım günlük hayatımı olumsuz etkiler.</td>
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