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Gender differences in romantic jealousy and attachment styles

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ABSTRACT

Objective: We examined the gender differences and attachment styles with regard to the phenomenology of jealousy among married individuals.

Method: The study included 86 married couples who presented to the Marriage Counselling Centre at the Bakırköy Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery. Subjects were evaluated in terms of sociodemographic data, the Romantic Jealousy Questionnaire, and the Adult Attachment Style Scale.

Results: In our population, 79% of males and 66% of females defined themselves as jealous. Females had higher emotional and cognitive scores than male participants. Females had higher scores on the negative effects of jealousy. Female commitment scores were higher than those of males. Ambivalent attachment was positively correlated with physical, emotional, and behavioural responses to jealousy and inadequacy as a reason for jealousy. **Conclusions:** We suggest that a multidimensional approach permits to identify and guide

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Romantic jealousy: attachment; gender differences

Introduction

It is known that jealousy is one of the most frequent causes of marital arguments [1]. The ability to regulate one's emotional and behavioural reactions to jealousy may be critical to maintaining dyadic adjustment. "Romantic jealousy" is the cluster of affective, behavioural, and cognitive responses that occurs when the existence of a relationship is threatened by a third party [2]. The jealousy experience implies cognitive and emotional reactions, whereas the expression of jealousy implies a behavioural aspect [3].

responses to the challenge of romantic jealousy.

White and Mullen [4] pointed out that anger, fear, and sadness were three of the six basic sets of jealousy-related emotions. The anger set includes hate, contempt, and annoyance. The fear set is composed of anxiety, tension, worry, and distress; and the sadness set concerns depression and hopelessness. White and Mullen also identified three additional emotion clusters: an envy cluster (envy, resentment, and greed), a sexual arousal cluster (sexual arousal, lust, and passion), and a guilt cluster (guilt, regret, and embarrassment). A seventh cluster, "positive affect," was proposed by Guerrero and Andersen [5], and this includes emotions related to love, attraction, and appreciation.

Cognitive responses regarding jealousy primarily involve blaming oneself or the rival and making comparisons. There are also several somatic symptoms of jealousy, including flushing, stomach ache, nausea, tremor, lethargy, and sleep disturbances [6].

Behavioural responses may be defined as expressions of negative affect. Distributive communications, such as yelling or making accusations, surveillance behaviours, active distancing, engaging in avoidance behaviours, disregarding the partner's privacy, and talking directly with the rival, are the most commonly observed behaviours in jealousy [7].

Lazarus identified different responses, such as attacking with anger, moving away from harm with fear, disengaging from the person with sadness, and repairing and/or apologizing with guilt, but multiple responses frequently occur together. Surveillance is associated with jealousy-related fear, but it may also be seen as an attack [8].

Attachment theory has been extended to adult romantic bonding [9]. Attachment styles provide the capacity for intimacy and security as well as the potential for anxiety, insecurity, and avoidance in close relationships [10]. The attachment figure of an adult individual is most commonly a peer, and the fear of losing the partner and his/her presence can trigger romantic jealousy [11]. Romantic jealousy and attachment may be conceptualized as an intent to maintain the partnership [12], which induces a sense of safety when the other is close and an opposite response when he or she is distant [13]. Several studies have reported that, on a phenomenological level, both involve the same basic emotions, such as fear, anger, and sadness. Those with avoidant attachment styles are characterized as afraid of intimacy, as experiencing emotional highs and lows during relationships, and as experiencing considerable jealousy. Those with anxious/ambivalent attachment styles are highly dependent and extremely sensitive to possibly threatening events; they have a strong need for constant reciprocation and validation, along with emotional highs and lows and feelings of jealousy.

The aim of the present study was to examine the possible relationships among several dimensions of jealousy and romantic attachment styles. A second objective was to explore how these vary by gender.

Methods

This study included 86 married (n = 172) (presumed) heterosexual couples who presented to the Marriage Counselling Centre at the Bakırköy Research and Training Hospital for Psychiatry, Neurology, and Neurosurgery in Istanbul, Turkey, which is the only such facility located at a psychiatric hospital. Using a family system perspective, we provided both counselling services and treat patients with several conditions. In marriage counselling centre a senior psychiatrist conducted the structured clinical psychiatric interviews for all counsellors. If the person has any depressive, anxiety, and psychotic symptoms he would be guided to individual therapy. The patients who were diagnosed with any mental disorders, neurological diseases, or mental retardation according to their medical records and also via the psychiatric interview conducted by the senior psychiatrist were not included in the study. Prior to the assessment, after a complete description of the study, the volunteers to participate the study were evaluated. The written informed consents were obtained and the study was approved by our hospital's Ethics Committee. The couple therapy process was sustained for all the participants according to their own demand independent from our study.

Subjects were evaluated in terms of sociodemographic data, the Romantic Jealousy Questionnaire, and the Adult Attachment Style Scale before therapy sessions began. In the preliminary interview none of the participants reported an actual experience of infidelity involving their current relationship. We aimed to determine how jealousy reactions evolved, relying on emotional, cognitive, and behavioural responses to hypothetical infidelity scenarios.

Instruments

Sociodemographic Data Form: This semi-structured evaluation tool was developed by researchers to assess sociodemographic features (age, gender,

educational level) and relationship variables (dating, numbers and ages of children, duration of marriage, relational satisfaction, and physical attractiveness of the partner).

Romantic Jealousy Questionnaire: This scale, which was developed by Pines and Aronson [14], is a selfreport instrument on which items are scored on a seven-point Likert scale, with one indicating strongly disagree and seven indicating strongly agree. It includes five subscales: jealousy level, response to jealousy (physical emotional, cognitive), how to cope with jealousy, effects of jealousy, and reasons for jealousy. Its application to Turkish culture was reported by Demirtaş [15]. Participants responded to a mate's imagined sexual or emotional infidelity using a forced-choice response format.

Adult Attachment Style Scale: The first part of this scale, developed by Hazan and Shaver [9], is composed of three different statements that address secure, avoidant, and anxious/ambivalent attachment styles. In the second part, developed by Mikulincer [16], each attachment style is represented by five items, and the one with the highest score defines the attachment style of the person. This instrument includes 15 items that are rated on a Likert-type scale ranging from 1 to 7: scores on items 1, 3, 7, 10, and 15 reflect secure attachment; scores on items 2, 4, 8, 12, and 13 reflect avoidant attachment; and scores on items 5, 6, 9, 11, and 14 reflect anxious/ambivalent attachment.

Statistical analysis

Statistical analyses were performed with the SPSS version 19.0 for Windows (SPSS Inc., Chicago, IL, U.S.A.). The distribution of data was determined with the Shapiro-Wilk test. Continuous variables are expressed as means ± standard deviations, and categorical variables are expressed as frequencies and percentages. Continuous variables were compared with the independentsamples t-test or the Mann-Whitney U test, and categorical variables were compared using Pearson's χ^2 test. As it is not a normal distribution, the age and the length of marriage variables were compared with Mann-Whitney U test (Table 1). Also we used Mann-Whitney U test for the ambivalent and secure attachment variables as it is not a normal distribution (Table 2). The independent sample t-test was used for the avoidant attachment variable as the distribution is normal (Table 2) Spearman's correlation analysis was performed to examine the relationship between continuous variables. P-values < .05 were considered to indicate statistical significance in all analyses.

Results

This study included 172 married individuals: 86 male and 86 female members of married couples.

Table 1. Sociodemographic data.

		Male	Female
Age		37.3 ± 8.3	33.6 ± 8.4
Year of marriage		10.7 ± 8.4	
Engagement period		10.1 ± 9.4	
Length of marriage		25.8 ± 3.7	22.1 ± 4.1
Number of children		1.6 ± 0.8	
Education	Primary	13 (15.1%)	21 (24.4%)
	Secondary	16 (18.6%)	8 (9.3%)
	High school	22 (25.6%)	31 (36%)
	University	35 (40.7%)	26 (30.2%)
Working status	Housewife	-	53 (61.6%)
3	Worker	47 (54.7%)	13 (15.1%)
	Officer	16 (18.6%)	12 (%14)
	Trades	9 (10.5%)	2 (2.3%)
	No job	2 (2.3%)	1 (1.2%)
	Retired	7 (8.1%)	5 (5.8%)
Type of marriage	Loving	46 (53.2%)	5 (51070)
Type of manage	Arranged	38 (44.2%)	
	Without family permission	2 (2.3%)	
Dating	Present	54 (62.8%)	
Duting	Absent	32 (37.2%)	
Age of children	0–6	21 (24.4%)	
Age of children	6–12	14 (16.3%)	
	12–18	10 (11.6%)	
	Bigger than 18	6 (7%)	
Contraseption	Oral cont.pil	0 (7 70)	4 (4.7%)
Contraseption	Condom		18 (21%)
	Control on ejac.		21 (24.4%)
	Others		4 (4.7%)
Divorce of parents	Present	8 (9.3%)	9 (10.5%)
Divorce of parents	Absent	78 (90.7%)	77 (89.5%)
Relativeness	Present	9 (10.5%)	77 (69.5%)
Relativeness		• ,	
Living with family of aviate	Absent	77 (89.5%)	
Living with family of origin	Present	28 (32.6%)	
Face and a difficulty.	Absent	58 (67.4%)	10 (11 (0/)
Economic difficulty	Hard	7 (8.1%)	10 (11.6%)
	Medium	28 (32.6%)	35 (40.7%)
	Mild	23 (26.7%)	14 (16.3%)
	Absent	28 (32.6%)	27 (31.4%)
Communication	Good comm.	23 (26.7%)	16 (18.6%)
	Slightly distressed	40 (46.5%)	31 (36%)
	Serious problems	16 (18.6%)	24 (27.9%)
	No communication	7 (8.1%)	15 (17.4%)
Physical attraction	None	-	9 (10.5%)
	Poor	5 (5.8%)	11 (12.8%)
	Fair	32 (37.2%)	33 (38.4%)
	Very	49 (57%)	33 (38.4%)
Marr. satisfaction	None	4 (4.7%)	16 (18.6%)
	Poor	21 (24.4%)	18 (20.9%)
	Fair	37 (43%)	38 (44.2%)
	Very	24 (27.9%)	14 (16.3%)

The mean age of males was 37.3 ± 8.3 years and that of females was 33.6 ± 8.4 years. The duration of marriages ranged between 1 and 32 years, with a mean of 10.7 \pm 8.4 years. In total, 40.7% (n = 35) of the males and 30.2% (n = 26) of the females had graduated from university, and 25.6% (n = 22) of the males and 36% (n = 22) 31) of the females had graduated from high school (Table 1).

In total, 68 males and 57 females defined themselves as jealous ($\chi^2 = 3.542$, p = .08). Participants significantly differed with regard to whether they found their partner physically attractive. Those who defined themselves as "jealous" found their partner to be very much attractive, whereas those who defined themselves as "not jealous" found their partners to be fairly attractive ($\chi^2 = 11.150$, p = .01).

We evaluated total scores for jealousy and those for several relational parameters. No significant

relationships were observed with regard to dating, engagement period, type of marriage, or living with relatives. However, duration of marriage was related to both response to (r = -0.21, p = .007) and coping with (r = -0.23, p = .003) jealousy. Participants with poor marital satisfaction significantly differed from those who were very satisfied with their marriage with regard to their total scores for jealousy (p = .04).

Response to jealousy was assessed along three dimensions: physical, emotional, and cognitive. Using the Romantic Jealousy Questionnaire, we determined the emotional responses in terms of anger, fear, sadness, envy, arousal, guilt, and positive affect.

Females had higher scores for emotional (p = .032) and cognitive reaction items (p = .011) than male participants. We also examined the correlation between these reactions and attachment style. Ambivalent attachment was weakly positively correlated with all

Table 2. Attachment styles according to gender (Male n = 86; Female n = 86).

	9	Secure attachment			Avoidant attachment			Ambivalent attachment		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Mean	23.80	23.22	23.51	18.55	18.31	18.43	18.63	18.94	18.78	
SD	4.806	4.463	4.633	5.472	6.543	6.015	5.909	6.653	6.276	
Median	24.00	23.00	24.00	18.50	18.00	18.00	18.00	17.00	17.50	
Minimum	8	13	8	7	5	5	5	5	5	
Maximum	34	35	35	33	34	34	33	33	33	

SD = Standard deviation.

three dimensions. The attachment styles according to gender are shown in Table 2.

Jealousy had positive and negative effects. We did not find any significant difference in the positive effects between males and females, whereas females had higher scores for the negative effects of jealousy (p = .043). We also analysed the correlation between these effects and attachment styles. Only secure attachment was positively correlated with the positive effects of jealousy.

We evaluated the reasons for jealousy in terms of two cognitive aspects, inadequacy and fear of loss, and no significant difference between males and females was observed in this regard. Inadequacy was positively but weakly correlated with ambivalent attachment, and length of marriage was correlated with total scores on reasons for jealousy (r = 0.163, p = .042).

We identified four dimensions related to coping with jealousy: exit, loyalty, neglect, and voice. Exit (active and disruptive) involved a threatened end of the relationship. Loyalty (passive and constructive) referred to waiting with hope for an improvement in circumstances. Neglect (passive and disruptive) referred to not caring about and even letting circumstances worsen. Voice (active and constructive) referred to talking clearly to solve the problem. The loyalty scores of females were higher than those of males (p < .001). Ambivalent attachment was positively but weakly correlated with exit, loyalty, and voice.

Discussion

It was hypothesized in the present study that several relational features and, in particular, distinct attachment styles would be associated with specific dimensions of jealousy. Jealousy is a heterogeneous phenomenon that finds expression according to factors such as culture, personality, and relational features [4,17,18].

We evaluated a set of variables related to relationship status to determine intrapopulation variation. These included living with family of origin and whether marriage was the result of love or an arrangement, both of which are important cultural variables with social consequences, but we did not find a significant correlation. Age, number of children, and use of contraception were examined because they may be linked to both reproductive values and life-cycle crises, but we found no significant correlation.

Among the relational parameters, we found a correlation only between duration of marriage and total scores for reasons for jealousy. Additionally, duration of marriage was related to both response to (r =-0.21, p = .007) and coping with (r = -0.23, p = .003)jealousy. It was reported that jealousy decreased as the length of the marriage increased. Some have explained this in terms of aging and gender-differentiated hormonal changes [19,20]. Buunk [18] noted that it could also be due to trust in the partner and growth in the relationship over time, whereas Perlman and Duck [21] indicated that the decreasing physical attractiveness of a partner over time was relevant to this association.

In our study population, those who defined themselves as "jealous" also found their partner to be much more attractive. Demirtaş [22] described the same result, and the perceived physical attractiveness of a partner may be experienced as both rewarding and threatening. We found significant differences in the jealousy response scores of those who defined their relational satisfaction as "fair" and those who defined their relational satisfaction as "none." This may be interpreted as a more important threat and may be considered to be a part of "mate value," as described by Stieglitz [1].

Several studies have proposed that gender affects the intensity of jealousy [23]. In our study, men and women reported a similar intensity of jealousy during imagined potential infidelity, which is consistent with the study conducted by Shackelford et al. [24]. Similarly, Scelza [25] stated that the magnitude of gender differences could be reduced in a manner related to intercultural variation.

It has been suggested that gender differences in jealousy was related to "power" [26]. In social circumstances, men had much more economic power, and women were dependent and thus relatively powerless [19]. However, the increasing worldwide prevalence of more symmetrical relationships has changed the power struggle. However, 61.6% of our female participants were housewives and dependent on their husbands' economic power.

An evolutionary approach may help to clarify gender differences in the context of reproductive relationships. Men are jealous of sexual infidelity because of questions of paternity. Several studies have provided evidence that men showed greater physiological reactions when imagining their partner having sexual intercourse with a rival compared with imagining their partner falling in love with a rival [27-30]. In our study, we did not focus on gender differences in sexual or emotional jealousy but rather on gender differences in the emotional, cognitive, and behavioural facets of jealousy from an attachment perspective.

In our study, females had higher emotional (p = .032) and cognitive reaction scores (p = .011)than males. This finding was consistent with results from previous studies [14,31,32].

It was reported that female participants had higher cognitive jealousy levels than men and pointed out that females did not choose to act on these thoughts. Indeed, the behaviour of females may not reflect their cognitions, and they may even hesitate to allude to certain behaviours [33]. Karakurt [34] stated that behavioural jealousy could be controlled more readily than cognitive and emotional jealousy. This may be why the behavioural scores did not significantly differ between males and females.

In our study, loyalty scores were higher in females than in males (p < .001). Consistent with the present research, it was shown that women usually used more constructive coping strategies than men, including rational discussion and efforts to improve the relationship [35].

Marazzitti [36] suggested that different attachment styles may explain individual qualitative features of jealousy. Many studies have shown that differences in attachment style seem to influence patterns of jealousy expression [37-39]. Yumbul et al. [40] stated individuals with anxious ambivalent attachment styles presented the most jealousy in romantic relationships, followed by those with avoidant and secure ones.

According to attachment theory, the long-term effects of early experiences with caregivers are due to the persistence of "internal working models," cognitive/affective schemas or representations of the self in relation to close relationship partners [33,41]. Theoretically, these representations influence a person's expectations, emotions, defences, and relational behaviour in all close relationships [37]. Bowlby [42] suggested that individuals interpret their current relationships through an internal working model. Crittenden [43] suggested that people with avoidant internal working models relied primarily on cognitive information, whereas people with anxious internal working models relied on affect and remained constantly aroused. Thus, in our study, we hypothesized that ambivalent attachment would be related to emotional responses and that avoidant attachment would be related to cognitive responses. However, we found that only ambivalent attachment was weakly positively correlated with all three dimensions. This

finding is consistent with studies reporting that ambivalent attachment is linked with unstable emotions and obsessional thoughts and that ambivalent attachment is correlated with behavioural jealousy [34]. Anxious individuals tend to use hyperactivating strategies, which include intensified efforts and often intrusive, angry, and controlling behaviours [44], whereas avoidant individuals are more likely to use deactivating strategies, such as denial, to cope with jealousy-inducing threats [5]. This may include avoiding communication with one's partner or denying that one feels jealous [45]. Jealous individuals may cry and express feelings of hurt as reflections of sadness, but they may also avoid their jealous feelings.

In our study, inadequacy was positively correlated with ambivalent attachment. Individuals with ambivalent attachment styles had a negative self-model, which evoked their feelings of inadequacy. Nevertheless, we did not find any differences related to fear of loss among attachment styles. However, given that it is accepted that jealousy is closely related to fear of loss and rejection [46], one would expect fear of losing a partner to be the "core" structure of the jealousy phenomenon [36].

In the current study, ambivalent attachment was positively correlated with exit, loyalty, and voice. This finding is consistent with being ambivalence about ending the relationship, hoping that it improves, and continuing to address the problem. Unfortunately, anxiously attached individuals often do not experience as much intimacy and commitment as they desire [16,47]. Additionally, avoidant individuals tend to report lower levels of commitment in their relationships [16] and to respond to jealousy-provoking situations with intensified fear, anger, and sadness [11,48].

Furthermore, in our study, only secure attachment was positively correlated with the positive effects of jealousy. Securely attached individuals have a positive view of both themselves and others [49] and perceive and process both cognitive and affective information in an integrated way [50]. From a different perspective, depending on how the jealous person deals with it, jealousy can function as an adaptive response that leads people to become more committed to their relationships [51,52].

In previous literature, romantic jealousy was evaluated for the samples such as university students and healthy individuals within a romantic relationship. Our sample may be considered original because all subjects were married couples experiencing several distresses except for infidelity. The present research illustrates the importance of insecure attachment with regard to the specific dimensions of jealousy rather than jealousy subtypes.

One possible limitation of our methodology is related to the risk of artefacts of measurement given that the use of a forced-choice response format is known to induce different and more effortful decisionmaking strategies for preference judgments [35]. One may question whether the gender difference in jealousy is an artefact of the use of the forced-choice method in response to the hypothetical scenarios. However, Sagarin et al. [53] pointed out that the clearest finding in their meta-analysis was the existence of a gender difference in responses to hypothetical infidelity scenarios. Consequently we would like to underscore the importance of a multidimensional approach to conceptualizing the emotional, cognitive, and behavioural complexity of romantic jealousy and propose further investigations of the correlates related to the plasticity in jealousy that derives from the fundamental human need to form attachments.

Disclosure statement

No potential conflict of interest was reported by the authors.

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