Articles

# Falling in Love and Passionate Love in an Iranian Sample

Suzanne Riela[a], Hafez Bajoghli[b], Xiaomeng (Mona) Xu[c], Vahid Farnia*[d], Sanobar Golshani[d], Jalal Shakeri[d]

[a] Dutchess Community College, Poughkeepsie, NY, USA. [b] Iranian National Center for Addiction Studies (INCAS), Tehran University of Medical Sciences, Teheran, Iran. [c] Idaho State University, Pocatello, ID, USA. [d] Kermanshah University of Medical Sciences, Kermanshah, Iran.

## Abstract

Romantic relationships and passionate love are topics of perennial interest to scientists and the lay public alike. While there is evidence of romantic love across many cultures, with some suggesting it is a universal human experience, the majority of research has been conducted in Western countries (e.g., the U.S.). When other cultures have been researched, the focus has typically been on Eastern countries (e.g., Japan). Much less is known about love experiences in countries such as Iran. The current study sought to address this gap and assessed 220 Iranian students. Participants completed a set of measures (translated into Farsi) and reported both qualitatively and quantitatively about love experiences (e.g., narrative account of their most recent falling in love experience, ratings about their relationship if they were currently in one). The majority of participants reported having fallen in love, although this was a notably smaller proportion (55%) than seen in past research. Similarly, content-analysis of narratives revealed fewer instances of 12 common precursors to falling in love found in past samples, though Iranian participants did highly endorse precursors when explicitly asked about them. Those in a relationship reported passionate love and high levels of closeness to their partner. This study highlights the need for additional love research in under-studied cultures, including research that can elucidate whether these results are due to actual differences in experiences, differences in reporting norms, third variables, or some combination.

*Keywords:* Iran, passionate love, falling in love, precursors, relationships

There has been considerable interest and research into the different conceptualizations and types of romantic love (e.g., Hatfield & Rapson, 1993; Hendrick & Hendrick, 1986; Pines, 2005; Sternberg, 1986) including passionate love, which has been defined as "a state of intense longing for union with another" (Hatfield & Walster, 1978, p. 9). Research has also explored the falling in love (FIL) process, defined as the "rapid onset of a strong romantic attraction" (Aron, Dutton, Aron, & Iverson, 1989, p. 244), though more recent research has found that onset is not necessarily rapid (Riela, Rodriguez, Aron, Xu, & Acevedo, 2010). To better understand the FIL experience, researchers sometimes investigate precursors to FIL—that is, the factors that people typically report preceding and/or facilitating the FIL experience. Riela et al. (2010) conducted cross-cultural research on 12 common precursors (see Table 1 for definitions of these FIL precursors) using samples from the

U.S. and China. The precursors were selected based on past research done by Aron et al. (1989) and Sprecher et al. (1994).

Table 1

*Definitions of Falling in Love Precursors*

| Precursor | Definition |
|---|---|
| Reciprocal liking | Interest expressed between two people, through mutual disclosure and other such actions |
| Appearance | Attractiveness of the other's general physical characteristics |
| Personality | Attractiveness of the other's personality (e.g., intelligent, humorous) |
| Similarity | Having things in common (e.g., attitudes, experiences, interests) |
| Familiarity | Exposure to the other or spending time together |
| Social influence | Approval or disapproval expressed by the self's or the other's social network of friends and family |
| Filling needs | Having the self's needs met or meeting the needs of the other (e.g., compassion, respect, happiness) |
| Arousal | Strong physiological reactions when meeting in an unexpected situation and/or the misattribution of arousal to attraction |
| Readiness | Being emotionally or physically prepared for a romantic relationship |
| Specific cues | Particular characteristics of the other (e.g., smile, shape of the eyes), that are relevant to the perceiver in producing strong attractions |
| Isolation | Being alone with the other |
| Mysteriousness | A trait of the other (e.g., there's something I want to know about him/her) or uncertainty about the circumstances |

*Note*. Definitions extracted from Riela et al., 2010, pp. 474-475, with the authors' permission.

Our understanding of romantic love (including passionate love and the FIL experience) tends to come from studies conducted in individualistic Western cultures (such as North America and Europe) utilizing measures that were developed within these cultures (e.g., Hendrick & Hendrick, 1989). Perhaps this skew is not problematic—some researchers theorize that romantic love is a human universal, similar across all cultures, as it is based on a mammalian brain system for mate choice (e.g., Fisher, Aron, & Brown, 2006) and facilitates pair-bonding in *Homo sapiens* (e.g., Fletcher, Simpson, Campbell, & Overall, 2015). They point to studies such as Buss et al. (1990) and Jankowiak and Fischer (1992), which found evidence of romantic attraction across 37 countries and in 147 cultures around the world, respectively. However, others point out that while romantic love in general may be a common experience, culture can affect people's experiences with love, reflected in cross-cultural studies comparing individualistic Western cultures (e.g., North American and Europe) to more collectivistic Eastern cultures (e.g., East Asia). For example, Dion and Dion (1993) found that love is experienced more strongly in individualistic cultures (compared with collectivistic cultures). Others have found that those from Western cultures (compared with those from Eastern cultures) are more emotionally expressive (Kito, 2005; Tsai & Levenson, 1997) and report emotional experiences (including passion) more strongly (Gao, 2001; Markus & Kitayama, 1991).

Compared to what is known about love in the United States, other Western countries, and some East Asian countries, very little is known about how romantic love is perceived and experienced in countries such as Iran which fall outside of these more commonly studied groups. Iran (officially the Islamic Republic of Iran; formerly known as Persia) is a country located in southwestern Asia which uses Persian (locally known as Farsi or Parsi) as its official language. The United Nations classifies Iran within Southern Asian (United Nations Statistics Division, 2014) or as part of the Asia-Pacific group (United Nations DGACM, 2014), while other organizations classify Iran as part of the Middle East (Council on Foreign Relations, 2016).

There is a paucity of research on romantic love in the Iranian population. The research that does exist focuses on clinical issues associated with romantic love such as hypomania, sleep problems, depression, and anxiety (Bajoghli, Joshaghani, Mohammadi, Holsboer-Trachsler, & Brand, 2011; Bajoghli et al., 2014; Bajoghli et al., 2013; Brand et al., 2015), determinants of marital satisfaction (e.g., frequency of positive interactions; Tadinac et al., 2012), and maladaptive schemas as a predictor of divorce (Yoosefi, Etemadi, Bahrami, Fatehizade, & Ahmadi, 2010). Very little is known about Iranians in regards to experiences with passionate love and the process of FIL. Bajoghli, Holsboer-Trachsler, and Brand (2009) explored themes of love in the works of the 14th century Persian poet, Hafez, and found that views of romantic love among Iranian and Swiss participants were consistent with Hafez's themes (with few cultural differences). Ahmadi, Davoudi, Ghazaei, Mardani, and Seifi (2013) found that the prevalence of obsessive love (measured using the Passionate Love Scale, Hatfield & Sprecher, 1986) was 17.9% in their sample of Iranian university students, and that obsessive love was significantly positively correlated with ambivalent attachment.

The purpose of the present study was to investigate love—particularly, FIL and passionate love—in Iranians, a population that has been extremely understudied. We were interested in replicating Study 2 of Riela et al. (2010), which investigated precursors to FIL using both quantitative (questionnaires) and qualitative (narratives) methods among American and Chinese samples, in this new population. We were also interested in examining additional variables (passionate love and closeness) that have not been studied among Iranians.

Given that the Iranian population has been understudied, and for some of our variables of interest there was no past literature to draw upon to form strong hypotheses, this study was conducted in an exploratory manner. This exploratory framework is consistent with past research on romantic love when insufficient literature exists to support hypothesis testing. One example is the landmark study conducted by Sprecher et al. (1994), which investigated and compared reports of love among American, Russian, and Japanese participants. The authors emphasize in the paper "the exploratory nature of these comparisons" and their reluctance "to develop firm and specific hypotheses concerning what cross-cultural differences and similarities might be found" because "there is so little cross-cultural theory and research on love" (p. 349). Similarly, Bajoghli et al. (2009) utilized descriptive methodology to compare themes from Hafez's love poems with themes from a love questionnaire (Fisher, 2004), and also utilized quantitative methodology to compare responses between Iranian and Swiss participants in an exploratory manner, without a priori hypotheses. Thus, the present study fell in with this tradition of utilizing an exploratory framework for initial scientific inquiry into new territory.

# Method

## Participants

Students were recruited from two public universities in a major urban area in northwestern Iran. These universities had both undergraduate and graduate programs. The study was open to all students, thus participants were those pursuing undergraduate and graduate studies. Of the 220 participants, 142 were men, 66 were women, and 12 individuals did not indicate their gender. The skew in gender was due in part to fewer women than men attending the universities during the time period of data collection. The average age was 25.10 years old ($SD$ = 5.12, Range = 18 to 45). Regarding relationship status, 130 participants reported that they were currently single, 48 dating, 33 married, and 9 did not respond.

Gender was not significantly associated with age or relationship status. There was an overall significant difference between relationship status groups with respect to age, $F(2,202)$ = 21.09, $p$ < .001. Participants who were single or dating did not differ significantly on age ($M$s = 23.97 and 24.77, respectively), but both groups were significantly younger than participants who were married ($M$ = 29.88, $p$s < .001).

## Procedure and Measures

A member of the research team approached potential participants in university hallways. The experimenter asked those who were walking by whether they had time to participate in a study. The experimenter explained that participation was voluntary and asked if students would be interested in completing surveys on social-psychological topics including FIL and passionate love. Students who agreed to participate were provided with the surveys. Questions were presented in the order listed below, with FIL questions appearing before narratives, narratives before self-ratings, and self-ratings before passionate love and closeness. All measures were written in Farsi. The measures originally written in English were independently translated and back-translated by two of the authors fluent in English and Farsi. This study was approved by the ethics committee of the Kermanshah University of Medical Sciences.

### Falling in Love (FIL)

General questions about one's love experiences focused on whether or not a participant had ever fallen in love and the number of times he/she had been in love. Following procedures used by Riela and colleagues (2008, 2010), participants who had fallen in love at least once were asked to write a description of their most recent experience (including their feelings and the circumstances preceding it), indicate when it had occurred, rate speed (from 1 = very slow to 4 = very fast) and intensity (from 1 = not at all to 4 = very much), as well as self-rate the FIL precursors.

### Narrative Precursors

Narrative accounts, which averaged 43.10 words ($SD$ = 46.92, Range = 3 to 360), were content-analyzed for the 12 precursors to FIL: reciprocal liking, appearance, personality, similarity, familiarity, social influence, filling needs, arousal, readiness, specific cues, isolation, and mysteriousness. The two independent coders were fluent in Farsi. Precursors were coded as either present (mentioned) or absent (not mentioned), and when coders disagreed, the precursor was counted as present (Aron et al., 1989; Riela et al., 2010). Inter-rater

reliability for each precursor was computed using Cohen's kappa (Cohen, 1968), and all reliabilities were greater than .95, which is considered excellent (Cohen, 2008).

## Self-Rated Precursors

For the precursor self-ratings (Riela et al., 2010), participants responded to 24 items on a continuum from did not happen / not at all influential (0) to extremely influential (4). Example items include *you thought ___ was physically attractive* and *you discovered that ___ filled some of your needs* (Riela, Damanakis, Harel, Diaz, & Aron, 2008). Some precursors were singular (e.g., mysteriousness) while other precursors could be represented by multiple items (e.g., arousal); when needed, items were aggregated to represent the applicable precursor (Aron et al., 1989; Riela et al., 2010).

## Passionate Love and Closeness

Participants currently in relationships were asked whether or not they were in love with their current partner, how passionately in love they felt, and how close they felt to their partner. Passionate love was measured using the 15-item version of the Passionate Love Scale (PLS; Hatfield & Sprecher, 1986), which measures passionate love using items such as *I have an endless appetite for affection from X* and *knowing that X cares about me makes me feel complete* (with *X* in these cases indicating the partner). The original PLS scores items on a 1 (not at all true) to 9 (definitely true) scale. For this study, we scored items on a 1 (untrue) to 6 (true) scale as these were the procedures used by Riela et al., 2010. A total score was created by averaging items; the scale's inter-item reliability, per Cronbach's alpha, was .94. Closeness was measured using the single-item Inclusion of Other in the Self scale (IOS; Aron, Aron, & Smollan, 1992), which presents seven pairs of circles that overlap to varying degrees from not at all (1) to almost completely (7), with higher ratings indicating greater closeness. Additionally, participants in relationships were asked about their perception of the partner's level of passion as compared with their own (more passionate, just as passionate, less passionate, or unknown) and the percentage of daily time typically spent thinking about the partner.

# Results

## Incidence of Falling in Love (FIL)

For the question "Have you ever fallen in love?" a mere 55% of the sample (120 out of 220) reported that they had. Gender was not significantly associated with the occurrence of FIL. But participants who had experienced FIL were significantly older than participants who had not (*M*s = 26.23 vs. 23.85), $t(203) = 3.38$, $p = .001$. There was also a significant association between FIL and relationship status, $\chi^2(2, N = 208) = 81.55$, $p < .001$. Among participants who had experienced FIL, 33% were single, 40% were dating, and 27% were married. In contrast, among participants who had not experienced FIL, 95% were single, 3% were dating, and 2% were married.

A hierarchical binary logistic regression analysis (for a review, see Warner, 2008) was computed to determine what combination of gender, age, and relationship status (as well as their interactions) could best predict whether a person reported having ever fallen in love. Given that relationship status is a three-level categorical predictor, it was represented in the regression by two, contrast-coded, orthogonal variables: single vs. relationship and dating vs. married. The baseline model, which determines whether FIL could be predicted without any explanatory variables, was not significant. When the block of main effects was entered into the

equation, the overall model differed significantly from baseline, $\chi^2$(4, $N$ = 201) = 95.69, $p$ < .001. The predictors accounted for over 25% of the variance in FIL (Nagelkerke $R^2$ = .51) and correctly predicted its occurrence 76.9% of the time. But, of the individual predictors, only relationship status: single vs. relationship was significant, $Wald$ = 44.92, $p$ < .001. The odds of having had an experience of falling in love were 97% lower when someone was currently single (OR = .03). Neither the block of two-way interactions, nor the block of three-way interactions, achieved significance.

## Characteristics of Participants Who Had Experienced FIL

The FIL subgroup ($N$ = 120) had fallen in love an average of 1.62 times ($SD$ = 0.88). Participants' most recent experiences occurred an average of 3.66 years prior to the study ($SD$ = 4.52); however, that estimate is based on the 66 participants who provided the date of FIL. FIL experiences were typically slow (70% responded slow or very slow) and intense (78% responded somewhat or very intense).

Number of times in love and amount of time since experiencing FIL were not significantly associated with one another or with speed, but both were significantly related to intensity. As the number of times in love increased, the intensity of FIL experiences decreased ($r$ = -.26, $p$ = .005). In contrast, as the amount of time since experiencing FIL increased, the intensity of FIL experiences also increased ($r$ = .26, $p$ = .038). Additionally, there was a small, positive correlation between speed and intensity ($r$ = .20, $p$ = .039).

The FIL characteristics were also examined in terms of gender and age. No significant gender differences emerged for any characteristic. Age was positively correlated with the amount of time since experiencing FIL ($r$ = .50, $p$ < .001), as well as the intensity of FIL ($r$ = .23, $p$ = .020). (Relationship status was not examined because the characteristics reported weren't necessarily based on one's *current* relationship.)

## FIL Narrative and Self-Rated Experiences

Among those participants who had ever fallen in love, 57% wrote narratives (see Figure 1 for an example) and 87% completed self-ratings. The number of precursors identified in the narratives averaged 0.84 ($SD$ = 0.98, Range = 0 to 4); for 47% of narratives, *none* of the precursors were identified. To directly compare with the narrative coding, participants' self-ratings were dichotomized, in terms of whether a precursor did occur (1) or did not occur (0), and a total sum computed. The number of precursors identified in the self-ratings averaged 11.19 ($SD$ = 1.29, Range = 6 to 12); for 57% of self-ratings, *all* of the precursors were identified.

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می‌توانم بگویم من کاملا تصادفی عاشق شدم.

جذابیت‌های دوطرفه احساسات ما را تحریک می‌کرد طوری که ما فکر میکردیم با هم می‌توانیم بر تمام مشکلات   غلبه کنیم.
بر واقع ما یکدیگر را کامل کرده ایم
برخورد با احساس و توام با غرور او حقیقتا یک منش عالی بود.
بر ابتدا مراقبت و حمایت او بسیار لذت بخش بود
تا زمانی که بدبیاری ما را از هم جدا کرد.
بی‌وفایی او به مدت یک سال ویرانگر بود ولی رابطه ما قطع نشد و ما سعی کردیم بر این مشکل غلبه کنیم و با دوستی از عهده آن برامدیم.

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*Figure 1.* Example Narrative. Translation: I can say it was completely an accident when I fell in love. Mutual attraction made us feel that we should move forward together. Like the way we thought that together we can conquer all of our problems. In fact we made each other whole. Her sentimental face and her pride were great. At first her care and support were quite a pleasure. Until misfortune arose and set us apart. The most devastating part was her being unfaithful which lasted for 1 year, but it didn't end our relationship. We tried to overcome that problem and we did get over it peacefully.

The low number of narratives was surprising. Crosstabs indicated no significant association between narrative presence (having a narrative or not) and gender. The two groups did not differ significantly in terms of age, number of times in love, recency of FIL, speed, or intensity. But there was a significant association between narrative presence and current relationship status, $\chi^2(2, N = 114) = 6.42$, $p = .04$. Married people submitted fewer narratives (38.7%) than those in dating relationships (60%) or those who were currently single (68.4%).

Table 2 provides descriptive statistics and ranks for the narrative and self-rated precursors. For narratives, those most frequently mentioned were personality, similarity, and appearance; the remaining precursors were mentioned in less than 5% of narratives. For the dichotomized self-ratings, those most frequently occurring were personality, similarity, and reciprocal liking. The remaining self-rated precursors were reported as having occurred by over 90% of participants, with the exception of isolation which was only selected by 71%. While it is apparent that frequency varies greatly between the narrative and self-rating methods, it is interesting that the precursors' rankings were similar *within* each method (Spearman $r = .88$, $p < .001$).

Table 2

*FIL Narrative and Self-Rated Precursors' Descriptive Statistics and Ranks*

| | Narratives | | | Self-Ratings | | | Self-Ratings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Present/Absent | | | Did/Not Occur | | | Original Scores | | |
| Precursor | Freq | Pct | Rank | Freq | Pct | Rank | *M* | *SD* | Rank |
| Reciprocal Liking | 2 | 2.9 | 6.5 | 102 | 98.1 | 2.5 | 2.36 | 0.90 | 5 |
| Appearance | 10 | 14.7 | 2.5 | 101 | 97.1 | 4 | 2.66 | 1.00 | 2 |
| Personality | 24 | 35.3 | 1 | 104 | 100.0 | 1 | 2.75 | 0.78 | 1 |
| Similarity | 10 | 14.7 | 2.5 | 102 | 98.1 | 2.5 | 2.50 | 0.84 | 4 |
| Familiarity | 1 | 1.5 | 9 | 97 | 93.3 | 8.5 | 2.31 | 1.13 | 6 |
| Social Influences | 2 | 2.9 | 6.5 | 98 | 94.2 | 7 | 1.65 | 0.59 | 11 |
| Filling Needs | 1 | 1.5 | 9 | 94 | 90.4 | 11 | 2.08 | 1.05 | 9 |
| Arousal | 3 | 4.4 | 4.5 | 100 | 96.2 | 5.5 | 1.71 | 0.63 | 10 |
| Readiness | 0 | 0.0 | 11.5 | 97 | 93.3 | 8.5 | 2.18 | 1.10 | 7 |
| Specific Cues | 3 | 4.4 | 4.5 | 100 | 96.2 | 5.5 | 2.63 | 1.08 | 3 |
| Isolation | 0 | 0.0 | 11.5 | 74 | 71.2 | 12 | 1.45 | 1.26 | 12 |
| Mysteriousness | 1 | 1.5 | 9 | 95 | 91.3 | 10 | 2.14 | 1.20 | 8 |

*Note*. Frequencies and percentages for narratives reflect the number of participants who mentioned the particular precursor. Frequencies and percentages for the dichotomized self-ratings reflect the number of participants who selected any response from "a little bit" to "extremely" influential (thus indicating that the precursor had occurred). Means and standard deviations for the original self-ratings (based on a 0 to 4 scale) are also included.

Correlations among the original, untransformed, self-rated precursors were computed. The strongest correlation, at .77, was between appearance and specific cues. Reciprocal liking, personality, and filling needs were each correlated with 7 or more precursors. Readiness, specific cues, and mysteriousness were each correlated with 3 or less precursors. (All correlations can be requested from the corresponding author.)

The self-rated precursors were examined in terms of gender, speed, and intensity. There were no significant gender differences. Speed was negatively correlated with personality ($r = -.32$, $p = .001$) and reciprocal liking ($r = -.24$, $p = .014$); those falling in love slowly were more likely to mention these characteristics. Intensity was

positively correlated with familiarity (*r* = .23, *p* = .019), specific cues (*r* = .21, *p* = .033), and reciprocal liking (*r* = .20, *p* = .041).

## Passionate Love, Closeness, and Falling in Love Precursors

Of the 120 participants who had ever experienced FIL, 63.3% (*n* = 76) indicated they were currently in a romantic relationship (45 dating, 31 married). The majority of these participants reported being in love with their current partner (83%; *n* = 63) and about half of them (49%; *n* = 37) indicated feeling extremely close to the partner (by selecting the maximum score of 7 on the IOS). Interestingly, 66% (*n* = 50) perceived that their partners were more passionate as compared with themselves.

Passionate love for one's partner (*M* = 4.70, *SD* = 0.94) was strongly, positively correlated with feeling close to the partner (*M* = 5.47, *SD* = 2.06), *r* = .64, *p* < .001, and percentage of time spent thinking about the partner daily (*M* = 57.52, *SD* = 25.27), *r* = .71, *p* < .001. Closeness to and thinking about one's partner were also strongly correlated (*r* = .55, *p* < .001). In terms of FIL precursors, passionate love was positively correlated with personality (*r* = .45, *p* < .001) and readiness (*r* = .25, *p* = .044). Closeness was positively correlated with arousal (*r* = .38, *p* = .002) and reciprocal liking (*r* = .30, *p* = .016). No other correlations achieved significance.

Passionate love, closeness, and amount of time thinking about the partner were examined in terms of gender and relationship status. As compared with participants in dating relationships, married participants reported higher levels of closeness to the partner (*M*s = 4.67 vs. 6.66), *t*(70) = 4.53, *p* < .001, as well as more passionate love (*M*s = 4.51 vs. 4.99), *t*(71) = 2.20, *p* = .031. There were no other significant effects.

An exploratory factor analysis was conducted on the PLS using the principal components analysis method (Boivin & Ng, 2006; Fabrigar, Wegener, MacCallum, & Strahan, 1999). Most of the PLS items were moderately inter-correlated (*r*s > .3, *p*s < .001), with one notable exception—the "obsessive" item was not significantly correlated with 9 of the 15 items. (These statistics can be requested from the corresponding author.) The KMO measure of sampling adequacy was .88, well above the .50 standard (Tabachnick & Fidell, 2001). Three non-rotated factors, accounting for 73% of the PLS's total variance, were extracted based on eigenvalues greater than 1 and inspection of the scree plot. The first factor, *passionate love*, had an eigenvalue of 8.30 and accounted for 55.31% of the total variance. The second factor, *uncontrolled thoughts*, had an eigenvalue of 1.51 and accounted for 10.05% of the total variance. The third factor, *powerful attraction*, had an eigenvalue of 1.16 and accounted for 7.71% of the total variance. While all factor loadings were greater than .6, note that two items had high loadings (greater than .5 but less than .6) on more than one factor (see Table 3). This non-rotated solution of factor loadings was easier to interpret than either the orthogonal (varimax) or oblique (oblimin) solutions computed.

Table 3

*Exploratory Factor Analysis of the Passionate Love Scale*

| Item | | Factor Components | | |
|------|------|------|------|------|
| | | 1 | 2 | 3 |
| 1. | Sometimes my body trembles with excitement at the sight of X. | **.633** | .526 | -.016 |
| 2. | Sometimes I feel I can't control my thoughts; they are obsessively on X. | .170 | **.849** | .155 |
| 3. | I would rather be with X than anyone else. | **.818** | .050 | .212 |
| 4. | I yearn to know all about X. | **.758** | .288 | -.315 |
| 5. | I will love X forever. | **.785** | -.354 | -.189 |
| 6. | I have an endless appetite for affection from X. | **.839** | .087 | -.265 |
| 7. | X is the person who can make me feel the happiest. | **.748** | -.301 | -.190 |
| 8. | I sense my body responding when X touches me. | **.803** | .180 | -.027 |
| 9. | If I were separated from X for a long time, I would feel intensely lonely. | **.843** | -.045 | .167 |
| 10. | I want X to know me—my thoughts, my fears, and my hopes. | **.784** | -.182 | -.348 |
| 11. | Knowing that X cares about me makes me feel complete. | **.849** | -.117 | -.150 |
| 12. | X can make me feel effervescent and bubbly. | **.656** | .012 | -.043 |
| 13. | An existence without X would be dark and dismal. | **.824** | -.169 | .351 |
| 14. | I possess a powerful attraction for X. | .515 | -.274 | **.687** |
| 15. | I get extremely depressed when things don't go right … with X. | **.825** | .125 | .277 |

*Note*. Bolded factor loadings indicate the variables associated with each factor.

# Discussion

This study is one of the first to investigate passionate love and the FIL experience with an Iranian sample. Our exploration of these topics yielded a rich set of results. One of the intriguing and notable findings from this study was that although participants were undergraduate and graduate students (who are commonly studied in the FIL and passionate love literature) and were on average 25.10 years old (*SD* = 5.12, Range 18 to 45), 45% of Iranian participants reported that they had never experienced FIL. This is quite different from past literature on college samples conducted in other cultures. In a study of 282 U.S. undergraduates (Aron et al., 1989, Study 3), only 5 individuals (1.77%) in the sample reported having never experienced FIL. Likewise, Sprecher et al. (1994) assessed Japanese (*N* = 223), Russian (*N* = 401), and U.S. (*N* = 1,043) undergraduates and found that 22%, 13%, and 11%, respectively, reported having never experienced FIL. Indeed, college samples are often studied in the literature not just because they are a convenient sample, but because they regularly experience FIL. For example, across two longitudinal studies, Aron et al. (1995) found that 28.81% (246 of 854) of U.S. undergraduates reported either being *currently* in love at the beginning of the study or experienced FIL during the course of just 10 weeks. Those undergraduates were younger than the current study's Iranian participants, so differences cannot be explained by the samples having had more time to experience FIL.

The romantic love research that exists with Iranian samples also suggests that our FIL rate may be lower than expected. For example, Bajoghli et al. (2011) and Bajoghli et al. (2013) investigated romantic love in high school students in the context of clinical issues (e.g., anxiety, hypomania). Bajoghli et al. (2011) found that among their 86 high school students (100% female, mean age = 17.97 years), 44.19% reported having never experienced FIL. Bajoghli et al. (2013) found that among their 201 high school students (56.2% female, mean age = 17.73 years), 37.31% reported having never experienced FIL. These studies suggest that while FIL is not

something that all adolescents experience, it is not uncommon, and rates should be higher among undergraduate and graduate students as they will have had additional time to experience FIL. However, there is little data on FIL rates among college and graduate school-aged Iranians (rather than adolescents) as such studies have focused on individuals experiencing love at that point in time (e.g., Bajoghli et al., 2014; Brand et al., 2015).

The FIL results of the current study suggest that there may be cultural differences in the prevalence of the experience of FIL and/or its time-course; first experiences of FIL may occur later for Iranian undergraduate and graduate students than in previously studied cultures. Perhaps there are cultural differences in values, customs, and social acceptability (e.g., of young adults dating) that affect the actual experiences of Iranians and/or how they report on their experiences. It is possible that these cultural and social acceptability factors help explain the association between FIL and relationship status (e.g., 95% of those who reported having never experienced FIL were single, while only 33% of those who reported having experienced FIL were single).

However, it is important to be cautious when interpreting these findings as there are potential alternative explanations for the lower incidence of FIL. The students in our sample may be unique in some way and not representative of the general Iranian population. Indeed, the rate of FIL in our sample is lower than those from younger Iranian samples (Bajoghli et al., 2011; Bajoghli et al., 2013). Those past studies were conducted in Tehran, the capital of Iran which has almost a ten-fold larger population (8.15 million) than the city of Kermanshah (~851,000) where this study was conducted (UNdata, 2011). Thus our results on the prevalence of FIL may reflect cultural differences both in terms of those residing in Kermanshah vs. those residing in Tehran as well as participants from Iran vs. participants from other countries.

Cultural factors could also influence reporting of love experiences. Perhaps Iranian undergraduate and graduate students experience FIL at a similar rate as those from other cultures, but are less comfortable endorsing and discussing this experience. Past literature (e.g., Kito, 2005) has shown that culture influences self-disclosure about romantic relationships. Or perhaps Iranians understand, define, and evaluate FIL differently, holding a higher bar for what constitutes a FIL experience. (Note that to be consistent with prior studies, we did not define FIL in our surveys and allowed participants to interpret the question as they saw fit). Future research is necessary for us to fully understand why the lower prevalence of FIL occurred in our Iranian sample (i.e., what combination of factors contributed to these results and if the results reflect true experiential differences). We cannot conclude from the current data that the lower prevalence rate accurately reflects a true cultural difference in FIL experiences. Research that can account for or bypass self-report issues when comparing groups would be especially helpful. For example, recent neuroimaging studies utilizing functional magnetic resonance imaging (fMRI) have shown that patterns of brain activations in the context of romantic relationships are quite similar between men and women, heterosexual and homosexual individuals, and U.S. and Chinese participants (e.g., Xu et al., 2011; Zeki & Romaya, 2010) despite considerable literature on differences in self-reported experiences (e.g., Dion & Dion, 1993; Gao, 2001; Hatfield & Sprecher, 1995; Pines, 2001; Sprecher et al., 1994).

For those in this study who endorsed having experienced FIL ($N$ = 120), they reported having fallen in love an average of 1.62 times. This is consistent with college samples in the U.S. and China (Riela et al., 2010) reporting on average 2.13 and 1.72 FIL experiences. It is also consistent with college samples from Japan (2.19 FIL experiences), Russia (1.69), and the U.S. (1.81) (Sprecher et al., 1994). Iranian FIL experiences were

typically characterized as having occurred at a slow rate (70% responded slow or very slow), which is different from past U.S. and Chinese samples (34% Study 1, 44% Study 2; Riela et al., 2010), but is in line with the lower prevalence of FIL experiences (because if it takes longer for FIL to occur, first FIL experiences might happen at a later age than typically seen in other samples).

Among Iranians who had ever fallen in love, only slightly more than half (57%) wrote narratives about their experiences as requested, resulting in a high rate of missing narrative data. Those who did provide narratives wrote an average of 43.10 words, which is less than what has been seen with U.S. college samples (82.81 Study 1, 63.79 for White/Caucasians and 70.36 for Asian-Americans in Study 2; Riela et al., 2010), but not less than what has been seen with a Chinese sample (34.00 Study 2; Riela et al., 2010). However, the content of the narratives was quite different from past samples as *none* of the 12 precursors were identified in 47% of the narratives (whereas for Riela et al., this occurred in 15% of the narratives in Study 1 and 6% of the narratives in Study 2). For the 53% of Iranian narratives where at least one precursor was identified, the most frequently mentioned precursors were personality, similarity, and appearance. As a comparison, for Study 2 of Riela et al. (2010), the most frequently mentioned precursors within the narratives were reciprocal liking, filling needs, and familiarity (with personality 4th, similarity 5th, and appearance 6th).

Although many Iranian participants who experienced FIL did not provide a narrative or provided a narrative with few or no precursors, 87% of these participants completed self-ratings about specific precursors and identified on average 11.19 (out of 12); for 57% of self-ratings, *all* of the precursors were identified. Riela et al. (2010) found that the top 7 precursors were (in order of highest first) personality, reciprocal liking, familiarity, specific cues, filling needs, appearance, and similarity. This shares some overlap with what was found in the Iranian sample, with the top 7 precursors being personality, appearance, specific cues, similarity, reciprocal liking, familiarity, and readiness (see Table 2). In addition, many of the precursors were significantly correlated with one another, and similar to Riela et al. (2010), there were no significant gender differences.

The low response rate and low number of precursors present for narratives compared to self-ratings in this sample is interesting and could be explained in multiple ways. As previously mentioned, it is possible that Iranians are less comfortable than other samples in writing about their FIL experiences (thus opting out of the narrative component or exhibiting more reserve when responding) but are more comfortable rating precursors quantitatively when explicitly asked about them. It is also possible that methodological differences (rather than cultural differences) led to these results. For example, past research utilizing college samples were typically conducted via standard research methodology where participants signed up for a study (e.g., with a university subject pool) and came into a lab to complete measures. In this study, because the universities where the research was conducted did not have these typical protocols involving subject pools, we approached potential participants in university hallways and asked them to complete a survey packet. Thus, non-cultural factors (e.g., participants being more pressed for time) might have contributed to participants not completing narratives and/or writing about fewer precursors. Along the same lines, it is possible that participants who looked ahead in the survey packet chose to skip the narrative because of the self-rated precursor section. However, given that married individuals were both older and less likely to provide narratives than other participants, it could be an indication of poorer recollection in more stable and/or longer relationships (though this could not be tested because of missing data in terms of recency of FIL).

In terms of relationship variables, 76 participants in our sample indicated that they were currently in a romantic relationship, and 88% of those provided information about their partner. The majority reported being in love with their current partner and feeling extremely close with their partner. Additionally, passionate love for one's partner, feeling close to one's partner, and percentage of daily time spent thinking about the partner were all strongly positively correlated with one another ($r$s ranging from .55 to .71), with no significant gender differences. Married participants reported higher levels of closeness and passionate love than those in dating relationships. Overall, these findings suggest that relationships in Iranian college samples tend to be positive and satisfactory for both men and women, and that passion and closeness are highly linked.

The high endorsement of love among those in relationships and the higher rates of closeness and passionate love reported by married participants suggests that these variables may increase when participants' relationships become more serious and formally committed (e.g., marriage). Alternatively, or in addition, people may feel more comfortable declaring and discussing things such as passionate love for their partner once they are married (perhaps due to perceptions of social acceptability). Future studies could test for (or control for) potential social desirability effects and directly investigate whether it is less acceptable in Iranian culture to declare passionate love towards a person who you are not married to (e.g., casual dating relationship or unrequited/undeclared love). Future studies could also include Iranian participants from across the country, varying in terms of age and education level, as well as a more even gender distribution. While there were significantly fewer women in this study than men, it is important to note that gender was not significantly associated with age, relationship status, reported occurrence of FIL, narrative presence, the self-rated precursors, passionate love, closeness, or amount of time thinking about the partner. Finally, future research could also explore historical and cultural factors that influence love research within Iran to better understand why this population is understudied within the close relationships field and how best to optimize culturally appropriate studies on a potentially sensitive topic.

This is the first study of Iranians to focus on falling in love and its precursors. Additionally, this study included commonly used romantic relationship measures (the PLS and IOS). Having both qualitative and quantitative methods resulted in interesting and rich data showing that Iranians' passionate love and FIL experiences are both similar to and different from other cultures studied. The purpose of this study was exploratory, to help us better understand the love experience in an Iranian sample. Further research is necessary to elucidate our findings and to determine which results were due to actual experiential differences/similarities and which were due to cultural and/or methodological factors. Hopefully this research provides groundwork for hypothesis testing in future studies of the Iranian population and others in the region.

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