

## The Effect Size of the Five-Factor Model of Personality on the Relational Satisfaction of Roommates

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### ABSTRACT

Students may find it exhilarating to leave the comfort of their homes and hope to get better educational or professional prospects. Finding a suitable roommate is one of the biggest obstacles in this change, though there are others as well. According to a review of previous work, studies examining the significance of personality traits in supporting relationship satisfaction, particularly among people in platonic relationships, are scarce. The Big Five personality scale factors are examined in this study's analysis of the relationship satisfaction survey results for roommates who remained together both during and after COVID-19. Through an online survey using a self-created questionnaire "Codee Compatibility Inventory-Roommates (CCI-R)," information from 222 pairs of college students and the millennial workforce was gathered. The findings of this study show that relational satisfaction of roommates who are living together is highly impacted by five-factor personality traits. The considerable effects of openness, neuroticism, conscientiousness, and agreeableness are large.

**Keywords:** Big-Five, Personality, Effect size, Relational Satisfaction, Roommates, COVID-19

The biggest difficulty that comes with transitioning from childhood to adulthood is leaving our familiar hometown for a new city. However, while this stage of life is thrilling and exciting, it also brings with it unexpected responsibilities and adjustments.

Moving to a new location, locating suitable property, settling on a rent amount, and managing all the household responsibilities can be difficult, particularly for those who are living alone for the first time. Since human beings are social beings, they constantly seek to affiliate and connect with others. Thus, staying away from home in unfamiliar surroundings urges them to search for a roommate with whom they can share their living space.

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Finding a similar roommate or flatmate is a hidden blessing. Being conscious of one's roommate's personality is a technique to find matching roommate pairings and satisfy comfortable living.

Individual differences in opinions, values, and attitudes stem from personality variations, which eventually affect one's interpersonal relationships. Gonzaga, G. C., Campos, B., & Bradbury, T. (2007) investigated "how personality and interpersonal processes combine to predict change in relationship quality." This study showed that similarity and convergence in personality positively impact relationship quality.

Bahns Crandall, Canevello, and Jennifer (2013) also investigated the factors that predicted roommate breakup, including self-characteristics, roommate characteristics, and relationship characteristics. This study highlighted how our personality traits affect our satisfaction with roommates.

Furthermore, relationship satisfaction can be described as a subjective evaluation of the quality of one's relationship with others. Relationship satisfaction is a powerful predictor of happiness, health, and psychological well-being.

In addition, Berry & Worthington, (2001) found that the lower the level of relationship satisfaction, the higher the stress levels. Individuals in satisfying long-term romantic relationships are happier, healthier, and have longer lives (Diamond, Fagundes & Butterworth, 2010).

### LITERATURE REVIEW

Researchers investigated how the Big Five Model (BFM) of personality domains relates to romantic relationship outcomes, particularly marital satisfaction. The findings suggested that while initial levels of conscientiousness may predict decreased marital satisfaction, changes in neuroticism and conscientiousness over time are detrimental to the relationship. (Meara and South, 2019)

In a study by Barber (2015) examining the relationship between personality similarity and roommate satisfaction, it was found that an individual finds more satisfaction with their roommate if their personalities are similar regarding the personality dimension of Openness to Experience.

Schaffhauser, Alleman, and Martin (2014) focused on three different perspectives on the Big Five personality traits to examine dyadic associations with relationship satisfaction of intimate couples. By collecting and analyzing data of 216 couples, they found that neuroticism was negatively related to relationship satisfaction, whereas agreeableness and conscientiousness were positively related to relationship satisfaction across all perspectives (the self-, partner-, and meta perceptions). Substantial associations between extraversion and relationship satisfaction were exclusively evident regarding the partner- and meta-perception.

Malouff, J. M., et al. (2010) conducted a meta-analysis that included 19 samples and 3848 participants, the levels of relationship satisfaction among intimate heterosexual partners were strongly connected with the scores on four of the Five-Factor Model of personality

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characteristics. The four personality qualities were low neuroticism, high agreeableness, high conscientiousness, and high extraversion.

Numerous previous studies with dyadic designs determining interpersonal effects, which indicate to what extent an individual's personality influences the relationship quality of their partner, have found Neuroticism to be the most influential trait in this regard (*Malouff, Thorsteinsson, Schutte, Bhullar, & Rooke, 2010; Mund et al., 2016*).

### **METHODOLOGY**

#### *Purpose*

The purpose of the study is to investigate the effect size of the five-factor model of personality on the relational satisfaction of roommates.

#### **Objectives**

- To investigate the effectiveness of openness on relational satisfaction of roommates.
- To investigate the effectiveness of neuroticism on relational satisfaction of roommates.
- To investigate the effectiveness of conscientiousness on relational satisfaction of roommates staying.
- To investigate the effectiveness of extraversion on relational satisfaction of roommates.
- To investigate the effectiveness of agreeableness on relational satisfaction of roommates.

#### *Hypothesis*

- There will be a significant impact of openness on relational satisfaction of roommates.
- There will be a significant impact of neuroticism on relational satisfaction of roommates.
- There will be a significant impact of conscientiousness on relational satisfaction of roommates.
- There will be a significant impact of extraversion on relational satisfaction of roommates.
- There will be a significant impact of agreeableness on relational satisfaction of roommates.

#### *Sample*

The total number of participants in this study was 110 roommate pairs. (N=222, 80% females and 20% males).

#### *Research Design*

A quantitative, non-experimental design is used in the study. The statistical metric used was a one-way analysis of variance using SPSS (version 22.0).

#### *Measures*

##### *Codee Compatibility Inventory- Roommates (CCI-R)*

Participants were given the "codee Compatibility Inventory-Roommates (CCI-R)," a self-made questionnaire. 109 items from four standardised questionnaires were taken to create

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the CCI-R and Relational Satisfaction scale. Relational satisfaction and CCI-R combined reliability have been established which is 0.788. The internal consistency of CCI-R is 0.733.

The composition of CCI-R is explained below.

### *Composition of CCI-R*

| Name of the tool                                 | Developed by                        | No. of items derived |
|--|-------------------------------------|----------------------|
| Multidimensional Personality Questionnaire (MPQ) | Auke Tellegen in 1982               | 24                   |
| Big five personality Inventory                   | McCrae & Costa (1987)               | 27                   |
| Relationship Rating Form (RRF)                   | Davis & Mann, 1987.                 | 21                   |
| McGill Friendship Questionnaire                  | Mendelson, M. J. & Aboud, F. (1999) | 30                   |
| General lifestyle questions                      | Author constructed                  | 07                   |

### *Procedure*

The qualitative study included 35 individuals were conducted. The participants were asked to provide feedback on their roommate relationships and conflicts, which aided the development of the CCI-R questionnaire. The responses were recorded via an online survey created in the web domain "Survey Sparrow.". A web-based survey called "Survey Sparrow" was used to collect the replies. Confidentiality from each participant is maintained by filling out the informed consent form before the actual questionnaire. It was also assured that the responses would be used only for research purposes.

## RESULTS

The purpose of the study was to investigate the effect size of the five-factor model of personality on the relational satisfaction of roommates.

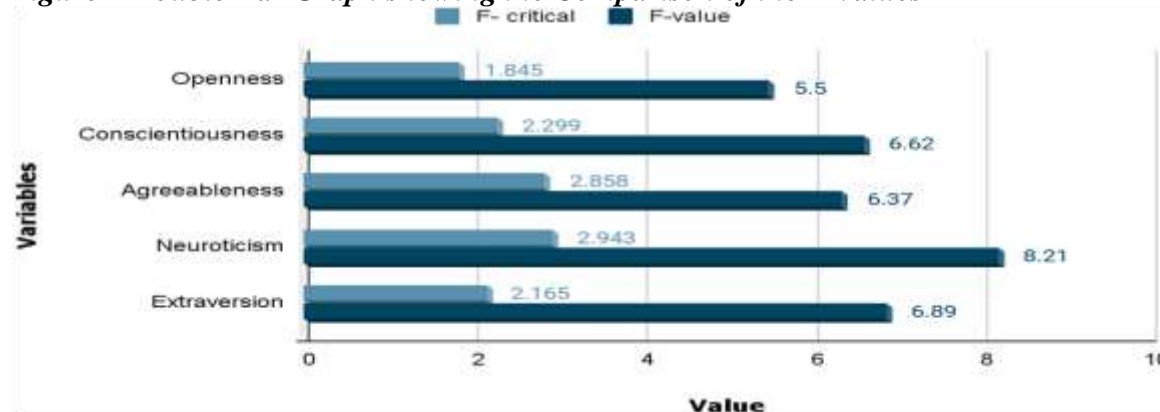
The following figures indicate the results of the present study through statistical analysis.

**Table 1 Homogeneity Analysis, Levene's Test of Equality of Error Variances Dependent Variable: RS**

| Variables         | F- critical | F-value | P-value | df1 | df2 | Sig* |
|-------------------|-------------|---------|---------|-----|-----|------|
| Openness          | 1.845       | 5.50    | .005541 | 34  | 187 | .006 |
| Conscientiousness | 2.299       | 6.62    | .00045  | 29  | 192 | .000 |
| Agreeableness     | 2.858       | 6.37    | .00001  | 30  | 191 | .000 |
| Neuroticism       | 2.943       | 8.21    | .000019 | 24  | 197 | .000 |
| Extraversion      | 2.165       | 6.89    | .001235 | 28  | 193 | .001 |

Note. Significant at **0.05** and **0.01** levels. Sig\* < 0.05,0.01)

**Figure 1 Double Bar Graph showing the Comparison of the F-values**



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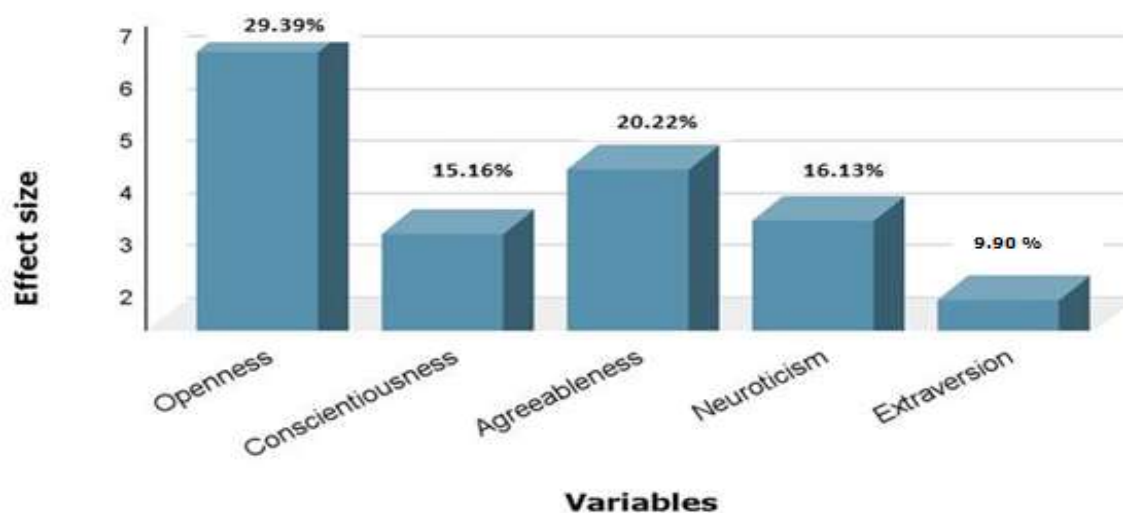
**Table 2 ANOVA: Tests of Between-Subjects Effects**

| Variable          | df | Mean square | F     | Sig* | Sum of squares | Corrected Total | R squared |
|-------------------|----|-------------|-------|------|----------------|-----------------|-----------|
| Openness          | 34 | 211.561     | 2.290 | .000 | 7193.090       | 24472.779       | .294      |
| Conscientiousness | 29 | 127.903     | 1.183 | .250 | 3709.198       | 24472.779       | .152      |
| Agreeableness     | 30 | 164.956     | 1.614 | .030 | 4948.682       | 24472.779       | .202      |
| Neuroticism       | 24 | 164.439     | 1.578 | .049 | 3946.529       | 24472.779       | .161      |
| Extraversion      | 28 | 86.529      | .757  | .806 | 2422.815       | 24472.779       | .099      |

**Table 3 Effect Size Analysis**

| Variables         | SS Effect | SS Total     | Eta square percentage | Interpretation     |
|-------------------|-----------|--------------|-----------------------|--------------------|
| Openness          | 7193.09   | 24472.779    | 29.39%                | Large effect size  |
| Conscientiousness | 3709.198  | 24472.779279 | 15.16%                | Large effect size  |
| Agreeableness     | 4948.682  | 24472.779279 | 20.22%                | Large effect size  |
| Neuroticism       | 3946.529  | 24472.779279 | 16.13%                | Large effect size  |
| Extraversion      | 2422.815  | 24472.779279 | 9.90%                 | Medium effect size |

**Figure 2 Bar Graph showing ETA Square Percentage of the Variables**



### DISCUSSION AND INTERPRETATION

The purpose of the study is to investigate the Effects of the Big-Five Variables on Relationship Satisfaction of Roommates. The five-factor model of personality dimensions (OCEAN) are essential in interpreting interpersonal experiences (Hines and Saudino, 2008).

The transition of life passes off at the 'Intimacy vs. Isolation' stage of psychosocial development (Erikson, 1958, 1963). This is when an individual enters the real world of meeting people around the globe, maintaining friendships, and making career goals.

To be 'open to experience' is to be curious about new experiences and circumstances. It entails embracing various viewpoints, ideals, and concepts. The results of the current study support our first hypothesis, which states that openness will have a considerable impact on roommates' relational satisfaction. As shown in Table 3, the ETA squared percentage of the **Openness** domain is **29.29 per cent** showing a significantly large effect size. Openness, one of the five personality traits, have the largest effect size, indicating a considerable influence on the satisfaction of relationships between roommates. This result is also consistent with

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the previous research by Barber (2015), which found that Openness to experience was the most important personality dimension when correlated with roommate satisfaction.

The second hypothesis of the current study is satisfied as we find a significant impact of Neuroticism on relational satisfaction of roommates. The ETA square percentage of the **Neuroticism** variable is **16.13per cent**, implying a slightly large impact on Relational Satisfaction of roommates. This shows that the extent to which an individual experiences negative emotion such as anger, sadness, moodiness, and emotional instability impacts the relationship quality with their roommate. Many previous studies with dyadic designs determining interpersonal effects, which show the extent an individual's personality influences the relationship quality of their partner and have found Neuroticism to be the most influential trait (Malouff, Thorsteinsson, Schutte, Bhullar, & Rooke, 2010; Mund et al., 2016).

The third hypothesis, which postulates that conscientiousness will significantly impact relational satisfaction of roommates, was accepted as the ETA value for **Conscientiousness** is **15.16per cent**, suggesting a large effect size. These findings imply that the individual's tendency to be organized, responsible, and adhere to rules and norms strongly affects their level of satisfaction with a roommate. Supporting our current findings, previous research by Schaffhuser, K., Allemand, M., & Martin, M. (2014) discovered that agreeableness and conscientiousness were positively related to relationship satisfaction across all perspectives. According to a study of adolescents, conscientious students were more likely to reciprocate their friendships and have better friendship quality (Jensen-Campbell & Malcolm, 2007).

The fourth hypothesis that 'extraversion will significantly impact relational satisfaction of roommates.' was also accepted. As depicted in table 3, the ETA square percentage for the **Extraversion** domain is **9.90per cent** which implies a medium effect size. Whether a person is outgoing, active, social, and thrill-seeking, it will moderately affect their relational satisfaction with the roommate. Supporting our present findings, Jain and Singh (2019) found a positive relationship between extraversion and general relationship satisfaction. This may be because extroverts are high on positive effects and are enthusiastic and effective communicators. In previous studies, extraversion has also been a substantial predictor of friendship satisfaction (Jensen-Campbell et al., 2002).

Finally, the fifth hypothesis, which postulates that there will be a significant impact of agreeableness on relational satisfaction of roommates, was also fulfilled as the ETA square percentage for the **Agreeableness** domain is **20.22 per cent** implying a large effect size. This means that the degree to which a person is warm, cooperative, and considerate significantly impacts their level of satisfaction in a relationship. Agreeableness is the attribute most concerned with interpersonal connections (Graziano et al., 1996).

In line with the current findings, a study by Gonzanga and his colleagues (2007) also suggested that all Big Five personality traits (extraversion, agreeableness, conscientiousness, Neuroticism, and Openness to experience) significantly predicted greater relationship quality for both men and women. According to Kurtz and Sherker (2003), good relationship quality was associated with higher other ratings than self-ratings on Agreeableness, Extraversion, and Conscientiousness and lower other ratings than self-ratings on Neuroticism, in a study examining self-other correlations for trait ratings using the NEO Five-Factor Inventory

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(NEO-FFI; Costa & McCrae, 1992) with 103 pairs of previously unacquainted female college students.

### CONCLUSION

Transitioning to adulthood involves independent living that brings with it excitement along with an unprecedented set of challenges. The population segment most susceptible to these are university students or individuals working in corporations. The aim of the present study is to investigate the effect size of the five-factor model of personality on relational satisfaction of roommates. The study hypothesized that there would be a significant impact of all the five-factor model of personality on relationship satisfaction. It was conducted on 222 participants. The findings of our research show that there was a significant difference among the big-five variables on relationship satisfaction. It was seen that the four variables, i.e., Openness, Agreeableness, Conscientiousness, and Neuroticism, have a large effect on the relationship of roommates, and only one variable, extraversion, has a medium effect on relationship satisfaction of roommates.

The research is significant because it emphasizes the role of personality traits in fostering relationship satisfaction among roommate relationships in India. We believe these findings will interest the readers of your journal as they reveal the dynamics of platonic friendships.

### *Limitations and Recommendations for Future Research*

The limited sample size (n = 222) the generalization is difficult. The sample size of the study was small because each sample was costing us too much. Secondly, the present research relied on self-report tools to collect data and, therefore, could be limited by self-report biases such as social desirability.

Another drawback of the study is that, in order to divide the comprehension of each personality model, we only used one approach, i.e., what is the effect size of the five-factor model of personality. It is also advised to use a variety of approaches to ensure platonic relationships are relationally fulfilled.

Furthermore, future studies can be made gender-neutral by considering the equal representation of both genders in the sample size. In addition, the present study only focuses on quantitative data so it is recommended to have qualitative data to better understand why personality factors affect roommate relationships.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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