

# A Study On The Usage and Psychological Impact Of Online Dating Apps Among College Students

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## Abstract

The rapid expansion of internet dating applications, particularly among college students, has significantly altered how young adults engage with one another. The current study examines the psychological implications of college students using online dating applications, with a focus on underlying motivational factors, emotional consequences, and possible coping techniques. A sample of 160 college students, ages 18 to 23, was given a structured, self-developed questionnaire. A mixed-method approach that combined quantitative statistical analysis and qualitative interpretation was utilised, along with purposeful sampling. The findings show that dating apps use is influenced by a number of factors, including curiosity, peer pressure, loneliness, and the need for social validation. While some reported greater social involvement, a significant portion of individuals reported negative outcomes, such as anxiety, feelings of rejection, low self-esteem, and emotional discomfort. Male and female participants showed distinct psychological responses and motivations, indicating gender-based differences. The null hypothesis was rejected after statistical analysis utilising the chi-square test showed a significant association between dating app use and psychological repercussions. With implications for mental health professionals and educational institutions, the study highlights the significance of prompting appropriate and balanced digital.

**Keywords:** Dating App Usage; Self-Esteem; Anxiety; Social Validation

## Introduction

The digital revolution has significantly changed the terrain of human social contact and interpersonal relationships may be the sector that most clearly illustrates this shift. Over the past ten years, online dating apps have evolved from specialised platforms into a pervasive cultural phenomenon that has drastically changed how people look for, build and maintain close relationships. Applications like Tinder, Bumble, Hinge and OkCupid have hundreds of millions of users worldwide and produce billions of interactions everyday [15]. According to research, the usage of dating apps by young adults has increased dramatically in several areas, mirroring global patterns in North America, Europe, and Asia-Pacific [25]. One of the most common and psychologically sensitive demographic groups using dating apps is college students. As they negotiate identity formation, academic pressures, social belonging, and close relationships for the first time in a mature setting, people between the ages of 18 and 25 are both the biggest users of dating apps and among those most vulnerable to their psychological effects [13]. This evolutionary process is made much more difficult by the rise of digital mediation in relationship pursuits.

Algorithmic relationships are used by dating apps to pair users based on location, common preferences and compatibility criteria. Researchers have compared the gamified interface created by the swiping mechanism – accepting or rejecting a potential partner with a straightforward left or right gesture – to slot machine reward systems, resulting in variable-ratio reinforcement schedules that resemble those seen in gambling behaviours [19]. Serious questions concerning the psychological effects were raised by this design architecture, especially at a formative time when self-concept and emotional control are still developing. The psychological effects of using online dating apps are complex and affect many aspects of mental health and wellbeing. Excessive usage of dating apps has been associated in empirical research with lower self-esteem, greater anxiety and depressive symptoms, increased body image worries, increased loneliness, and decreased life satisfaction [20][16]. On the other hand, an increasing amount of research also recognizes benefits, such as increased social networks, less stigma associated with relationship-seeking, and improved self-presentation abilities [17]. The coexistence of these results highlights the necessity for careful, empirically supported research into the circumstances in which using dating apps becomes advantageous or detrimental to one's health.

## Significance of the study

The current study has important ramifications for students, university counsellors, and mental health professionals. More focused prevention and intervention measures are made possible by better knowledge of the psychological dangers associated with dating apps, which are becoming more and more commonplace in college social life. The results can guide the creation of psychoeducational programmes that provide students the emotional intelligence and digital literacy they need to use these platforms in a healthier way.

## Theoretical Framework

According to social comparison theory, people assess their own qualities by contrasting them with those of others; on dating apps, constant exposure to carefully chosen profiles encourages upward social comparisons that worsen body image dissatisfaction and undermine self-esteem [22]. According to [2], attachment theory offers a lens through which users' emotional reactions to matches and rejections are shaped by pre-existing relational schemas, especially anxious or avoidant attachment patterns. By shifting the analytical focus to what users actively seek out from media, Uses and Gratifications Theory makes it possible to examine motivational diversity, such as social engagement, causal connection, and validation-seeking [17].

## Objectives

- To study the underlying factors contributing to the use of dating apps among college students.

- To examine the psychological impact of dating apps on college students.
- To suggest measures and overcome the psychological impact.
- **Null Hypothesis (H<sub>0</sub>):** There was no significant relationship between the use of online dating applications and the psychological consequences among college students.

**Alternative Hypothesis (H<sub>1</sub>):** There was a significant relationship between the use of online dating applications and the psychological consequences among college students.

## Review of Literature

Over the past decade, the body of research on dating apps and psychological health has expanded significantly, producing both consistent findings and enduring points of contention. This section summarises important theoretical and empirical contributions arranged according to the main concepts of the current study. Garuda and Karhulathi (2012) conducted a critical analysis of the gamification of online dating interfaces as the primary psychological mechanism driving college students' sustained engagement with platforms such as Tinder. They found that female students disproportionately cited social validation and mood enhancement as core motivators, while male students were primarily drawn by the thrill of the search and entertainment value. Similar to how slot machine behaviour is affected by sporadic reinforcement, match outcomes are unpredictable.

Orosz et al. (2020) The problematic tinder use scale (PTUS) was created and validated by using six fundamental dimensions: salience, mood modification, tolerance, withdrawal, conflict, and relapse. The study showed that loneliness acted as both a cause and an effect of frequent use, with boredom and the need for an ego boost being the biggest predictors. A counterintuitive factor that increased usage frequency while lowering overall satisfaction was choice overload. Castro and Barrada (2020), using latent class analysis, were able to pinpoint a certain subset of frequent users for whom the site serves as their main social outlet, replacing in-person interactions with virtual ones. Adverse psychological effects were disproportionately linked to this compensatory usage patterns. [21] showed that Fear of Missing Out (FoMO) served as the crucial psychological link between underlying social deficiencies and growing app dependency, with compulsive checking behaviour causing major disruptions to sleep and academic performance.

Elias and Gill (2021) showed that teaching students about algorithmic mechanics—that is, how platform economic models, not users' intrinsic social worth, motivate match frequency—produced significant reductions in rejection sensitivity and self-blame. According to [24], students reported significantly richer in-person relational ties after purposefully deleting an app, which resulted in an instantaneous boost in self-esteem and a considerable decrease in social appearance anxiety. Holtzhausen et al. (2025) over a twelve-week period monitored psychological decline and found that frequent swiping and the ubiquitous experience of ghosting were responsible for steady increases in emotional tiredness. Compared to traditional in-person rejection, digital rejection resulted in more severe depressed symptoms. According to [9], compulsive app use causes depressive symptoms downstream, and dispositional impulsivity serves as both a vulnerability factor and a mediation mechanism.

## Methodology

### Study design and sample

It used a mixed-method approach that combined qualitative interpretation with quantitative statistical analysis. 160 college students between the ages of 18 and 23 were given a structured, self-developed questionnaire via Google Forms. About twenty-one items made up the questionnaire, which evaluated social influences, emotional experiences, involvement patterns, and reasons

for use. A five-point Likert Scale (from 'Strongly Agree' to Strongly Disagree') was used to record responses. To facilitate gender-comparative analysis, demographic data, such as age, gender, and educational status, were gathered before the main questionnaire.

### Statistical Analysis

The Chi-square ( $\chi^2$ ) test was used to investigate relationships between categorical variables, namely gender and (a) the psychological effects of using dating apps and (b) the underlying factors that contribute to their use. With statistical significance set at  $p < 0.05$ , the Chi-square test assesses whether observed frequency distributions deviate significantly from expected distributions. The dataset was analysed for four parameters: psychological impact, gender variations in psychological impact, underlying factors contributing to use, and gender differences in underlying factors.

### Ethical Considerations

Before filling out the questionnaire, participants received a thorough debriefing. Prior to participation, informed consent was requested, and response confidentiality was guaranteed. The opportunity to withdraw at any time was explained to the participants. No personally identifiable information was gathered, and anonymity was upheld throughout.

### Questionnaire Dimensions

The survey evaluated two main aspects: (1) Underlying Factors Contributing to Use, which looked at reasons like peer pressure, loneliness, curiosity, social comparison, and escape; and

(2) Psychological Impact, which looked at things like anxiety, emotional, rejection sensitivity, academic distraction, self-consciousness, trust issues, and FOMO. For both dimensions, gender-based sub-analysis were performed

## Results and Discussions

To determine if gender and the chosen variables were significantly associated, the chi-square test was used on the data collected from the questionnaire. The findings showed statistically significant correlations for each of the four factors analysed, suggesting that gender had a major impact on the psychological experiences and usage patterns related to online dating apps.

### Underlying Factors Contributing to Use

The underlying factors impacting the use of dating apps were found to have a chi-square value of 68.012 and a p-value less than 0.001. The distribution of replies across categories (strongly agree, agree, neutral, disagree, and strongly disagree) was inconsistent between male and female participants, according to this highly significant result. There were significant gender-based disparities in motivations, including curiosity, social interaction, peer pressure, and emotional demands. A Chi-square value of 22.763 ( $p=0.0001$ ) was obtained from additional study of gender differences in underlying factors, indicating that not only did men and women use dating apps differently, but the particular factors driving their use also differed significantly.

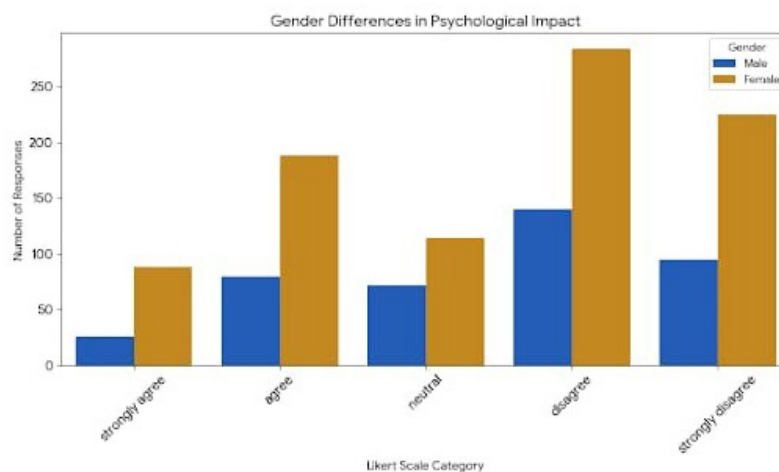
### Psychological Impact

There is a statistically significant correlation between gender and psychological experience, according to the Chi-square analysis of psychological effect, which produced a score of 12.624 ( $p=0.0133$ ). Although emotional repercussions such as anxiety, rejection sensitivity, and changes in self-esteem were reported by both genders, the intensity and type of these experiences differed. The Chi-square value for gender differences in psychological effect was 9.755 ( $p=0.0448$ ), just below the 0.05 cutoff, indicating that although there were gender-based variations in psychological impact, they were not as noticeable as differences in

motivating factors.

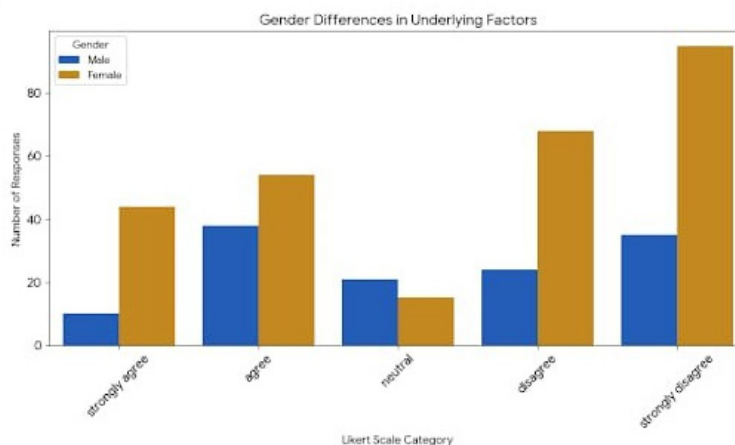
**Table 1:** Chi-square analysis examining associations between underlying factors, psychological impact, and gender.

| Parameter                                  | Total Samples | Chi-Square ( $\chi^2$ ) | P-Value (p) | Significance       |
|--------------------------------------------|---------------|-------------------------|-------------|--------------------|
| Underlying factors contributing to use     | 3,451         | 68.012                  | <0.001      | Highly Significant |
| Gender Differences Underlying Factors      | 404           | 22.763                  | 0.0001      | Highly Significant |
| Psychological Impact                       | 3,980         | 12.624                  | 0.0133      | Significant        |
| Gender Differences In Psychological Impact | 1,312         | 9.755                   | 0.0448      | Significant        |

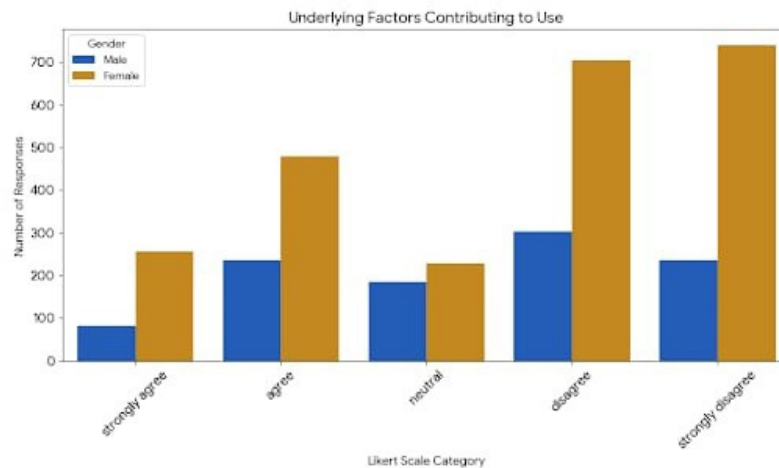


**Figure 1:** Distribution of psychological impact of online dating app usage among male and female college students

The majority of Likert scale categories, especially “agree” and “strongly agree”, showed higher frequency among female respondents, indicating that dating app use had a greater psychological impact on women than on males. Female participants were more likely to report anxiety, emotional distress, and rejection sensitivity. Male replies were more evenly dispersed across categories, suggesting experiences that were either less strong or poorly expressed. The distribution of psychological effect among male and female college students is shown in Figure 1, which highlights the larger polarisation and frequency of female responses.

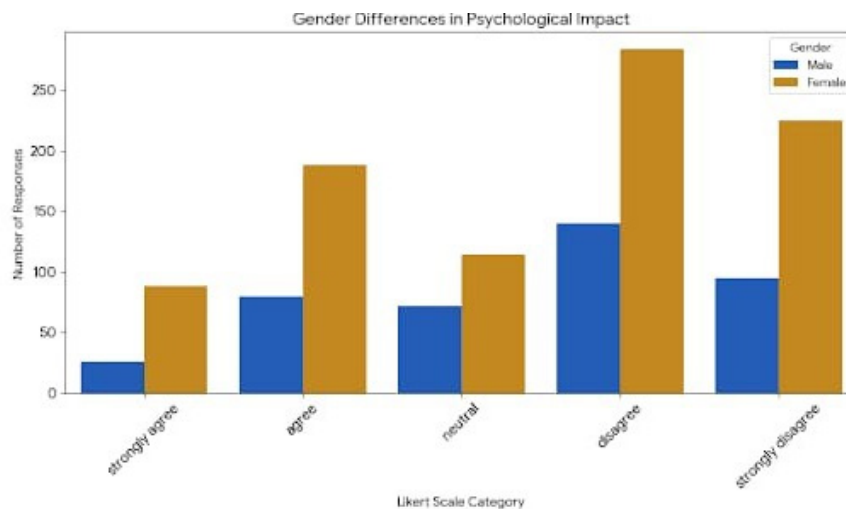


**Figure 2:** Gender differences in underlying factors influencing online dating app usage



**Figure 3:** Distribution of underlying factors contributing to online dating app usage among male and female students

In order to determine the factors impacting the use of online dating apps, the graph compares replies from male and female on a Likert scale. In every category, but particularly in “agree” and “strongly agree”, women responded more frequently, demonstrating a greater sense of affiliation with motivating factors. Additionally, their “strongly agree” and “disagree” replies were greater, indicating more distinct and divisive viewpoints. Males, on the other hand, were under-represented in all categories, which may indicate a lack of interest or passion in their opinions. In the “neutral” category, which may indicate a lack of interest or passion in their opinions. In the “neutral” category, both genders were comparatively comparable. Overall, the results show that women are more talkative and involved and that gender disparities have a big impact on how people view and use dating apps.



**Figure 4:** Gender differences in psychological impact of online dating app usage

This graph uses a Likert scale to look at how dating apps affect men and women psychologically. The “strongly agree” and “agree” replies were substantially higher among women, suggesting that more women encountered psychological effects such as worry, emotional anguish, and rejection. Females once again dominated the “disagree” and “strongly disagree” categories, showing stronger and more polarised sentiments, even though both genders displayed similar responses in the “neutral” category. Male reactions, on the other hand, were more evenly dispersed and lower, indicating less intense experiences. Overall, the results show that while males typically report milder and more moderate effects from using dating apps, women are more emotionally involved and mentally impacted.

In all categories, female respondents showed stronger and more divisive attitudes when looking at underlying reasons. Females students are more strongly associated with motivational aspects, including social engagement, emotional needs, and curiosity, as seen by the much larger percentage of female answers in the “strongly agree” group compared to male respondents. A less mild and less severe pattern of response was displayed by male participants. The significant difference in motivational clarity between genders is confirmed by Figure 2, which shows gender disparities in underlying causes.

In line with theoretical frameworks that emphasize gendered socialization and different relational orientations between men and women, the highly significant chi-square result ( $\chi^2=68.012$ ,  $p<0.001$ ) confirms that gender is a significant determinant of dating app motivation patterns [11][12]. The marginally significant result for gender differences in psychological impact ( $\chi^2=9.755$ ,  $p=0.0448$ ) indicates that although both genders experience psychological consequences, female students experience them somewhat more intensely. This could be due to higher emotional investment and greater sensitivity to social evaluation outcomes.

## Limitations

The study's broadening was limited because it used a small, purposefully chosen sample of college students between the ages of 18 and 23. In comparison to established instruments, the self-developed questionnaire, which was distributed via Google Forms, might have decreased criterion validity and created response bias. Casual inference is impossible with cross-sectional data, and the emphasis on gender as the main variable leaves out other potentially important variables like personality traits, socioeconomic status, and frequency of app use. Although useful for finding correlations between categorical variables, the chi-square test is unable to prove causality or directionality.

## Conclusion

The intricate psychological impacts of online dating apps on college students are better understood according to this study. The null hypothesis is rejected because the findings support a statistically significant link between using dating apps and psychological repercussions. Though variations in psychological impact were less noticeable than variations in motivation, gender was found to be a significant moderating factor that affected both psychological results and motivational patterns.

Dating apps presented significant mental health risks, such as anxiety, rejection sensitivity, emotional exhaustion, and swings in self-esteem, while also offering chances for social discovery and connection. Negative psychological states were caused by the virtual nature of interactions as well as elements like ambiguity, a lack of real connection, and repeated exposure to rejection. Due to their stronger emotional commitment and susceptibility to platform-mediated social judgement, female participants reported a slightly higher psychological impact.

The results highlight how crucial it is to encourage ethical, well-rounded, and emotionally stable use of digital social media. In order to provide students with the digital literacy and coping skills necessary to navigate these environments in a healthy way, educational institutions and mental health professionals play a crucial role. University mental health infrastructure should include awareness programmes that address the psychological challenges associated with dating app use, such as validation reliance, FOMO, and rejection sensitivity.

Longitudinal designs, standardised psychometric tools, and other moderating factors including attachment style, personality traits, cultural context, and app frequency should also be included in future studies. To meet the various psychological needs of all college students' users, gender-neutral, inclusive methods to digital health programming are advised.



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