

To be or not to be : A comparative study of psychological well-being among users and non-users of dating apps and their frequency of use

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Abstract : Swipe-Based Dating Apps (SBDAs) have become an integral part of our world today, acting as one of the primary sources of seeking and developing interpersonal relationships. With a plethora of such opportunities available virtually, the consequences related to an individual's well-being become crucial to study. Thus, the present study aimed to explore the differences in levels of Psychological Well-being (PWB) between users of Swipe-Based Dating Apps and non-users in the Indian context. Moreover, the frequency of usage of SBDA was also hypothesized to have an impact on the levels of PWB. 250 young adults between the ages of 18-25 years were recruited for this study using convenience sampling. The measure used was the Psychological Well-being (PWB) Scale (Ryff, 1995). The findings of the study indicated a lack of significant difference in PWB levels between users and non-users of SBDAs. Additionally, no differences were found in levels of PWB based on frequency of usage. Limitations and possible directions for future research are also discussed.

Keywords: dating apps, well-being, frequency of use, tinder, India

The advent of the internet and social media has permanently changed the way our lives work. One of the many impacts of the internet can be observed in the way people find love and companionship with the emergence of online dating and dating apps. These apps, usually made for the specific purpose of “dating” or finding partners function like other social media applications, with the added feature of swiping left or right on potential applicants. Each user has a profile that other users can approve or reject by swiping the screen to the right or the left. While initially these applications were considered destructive and seen negatively - as seen by the highly viewed New York Post story called “Tinder Is Tearing Society Apart” (Riley, 2015), these applications are now widely accepted as a good way to meet people (Smith & Anderson, 2016). These SBDAs have found a large database of users in India as well. According to statista.com, the number of users is expected to amount to 28.41 million Indian users in the online dating segment, making India the second-largest market for the same.

Many studies have focused on the motivations behind the usage of SBDAs (Chisom, 2021; Joshi et al., 2020; Sumter et al., 2017). As nurturing healthy and trustworthy romantic relationships can enhance

people's quality of life (Gable et al., 2004), individuals look for such opportunities on online dating applications. One research (Bonilla-Zorita et al., 2020) found that personality correlates such as neuroticism, sociability, sensation-seeking, and sexual permissiveness are related to greater use of online dating services. Studies have also examined the effect of using SBDAs on body image, self-esteem, and clinical mental health outcomes (Blake et al., 2022; Cacioppo et al., 2006; Strubel & Petrie, 2017). Online dating is a convenient way to form meaningful connections and long-term relationships, but not everyone has a positive experience. A study by Woerner (2022) revealed that dating app facilitated sexual violence (DAFSV) frequency was associated with higher depression and anxiety symptoms, higher loneliness, lower self-esteem, and lower perceived control. Research on the benefits of using dating apps is relatively scarce, but it has been stressed that these tools are making life and relationships easier for many people worldwide (Castro & Barrada, 2020). Studies focusing on users of SBDAs have shown that frequency of usage also has significant linkages with mental health. For instance, a study by Holtzhausen et al (2020) found a significantly higher rate of psychological distress among daily users.

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Psychological well-being and Swipe Based Dating Apps (SBDA)

Few studies have examined the association between SBDAs and mental health outcomes (Holtzhausen et al., 2020; Langert, 2021; Portingale et al., 2022). One study by Holtzhausen and colleagues (2020) found significantly higher rates of psychological distress, anxiety, and depression in users of dating apps as compared to non-users. Another study by Zervoulis and colleagues (2019) focused on gay dating apps and found a lower sense of community, higher levels of loneliness, and lower levels of satisfaction with life in frequent users of dating apps. A survey conducted by the Pew Research Center on 4,860 US adults saw that 57% of the users had an overall positive experience. 35% of dating app users said that online dating made them feel more pessimistic; on the other hand, 29% of the users believed that it had left them feeling more optimistic (Vogels, 2020).

Most studies conducted on dating apps and mental health have focused on general well-being and body image. Studies conducted in the Indian context have focused on body image, and motivations behind usage and have focused specifically on the LGBTQ+ community (Bhan, 2021; Bhatia, 2020; Singh et al., 2021). Relationship needs and the need for belongingness (and lack thereof) form an important aspect of psychological well-being. To our limited knowledge, no study has specifically focused on the comparison of psychological well-being in users and non-users of SBDAs. Despite a large database of SBDA users in India, there is a serious lack of research in this domain in India. It is hence necessary to address this literature gap and examine the relationship between psychological well-being and usage (or non-usage) of SBDAs in the Indian context. Based on the literature reviewed, our study proposes the following hypotheses:

H₁ - There will be a significant difference in the levels of Psychological Well-Being (PWB) of Swipe-Based Dating App (SBDAs) users and non-users.

H₂ - There will be a significant difference on Psychological Well-being (PWB) between the various groups categorised according to the frequency of usage of Swipe-Based Dating App (SBDAs).

Method

Sample

The sample was recruited through convenience sampling and consisted of 250 participants (Males = 93, Females = 152, Non-binary/Gender Fluid = 5). A non-probability sample was used since dating apps still hold a negative connotation in India. Stigma is attached to the use of dating apps due to many reasons like the belief that these apps are only used to seek sexual fulfilments, the fear of getting catfished or stalked online, the disapproval of parents to use such apps, and so on. Hence, the sample was obtained by directly reaching out to users and non-users of these apps.

The age range of the sample was 18-25 years. Participants belonged to different parts of India, with majority of the sample residing in Gujarat and New Delhi. 125 participants were users of SBDAs while 125 were non-users. Users were operationalized as those participants who had used any dating app within the past six months, and non-users those who had not.

Design

A survey design was followed in the present study. Psychological Well Being (PWB) was treated as a dependent variable that was affected by the usage of Swipe-Based Dating App (SBDAs) (Independent Variable).

Measures

Demographic profile. A demographic questionnaire was circulated alongside the standardised tools. Questions included email address, age, gender, sexual orientation, and current state of residence. The questionnaire also included basic information on SBDAs usage. First, the participants were asked if they had used any dating app within the past six months and were segregated accordingly, into users and non-users. For users, the questionnaire also included a question on the frequency of SBDAs usage (almost never, once a month, multiple times a month, once a week, multiple times a week, every day) (Holtzhausen et al., 2020).

Psychological Well-Being Scale (Ryff & Keyes, 1995). The current study utilised the short version of the

Psychological Well-being (PWB) Scale developed by Ryff (1995). This scale consists of 18 items using a 7-point scale (1 = strongly agree; 7 = strongly disagree). The scale has six subscales - Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life, and Self-acceptance, with three questions in each of the subscales. The statements were negatively and positively framed. For this study, only the total score was considered. Higher scores indicated higher levels of psychological well-being. Satisfactory psychometric properties have been reported by the authors using American data (Ryff, 1995). The Cronbach's alpha for the current sample was 0.69.

Procedure

The items of the scale were transcribed into a google form and were disseminated to individuals over a one-month period (December 2022 - January 2023). Prior permission was obtained from relevant authorities to use the measures. Participants were recruited mainly through different social media platforms like WhatsApp and Instagram. The form link was also circulated on different swipe-based dating apps like Hinge and Bumble through personal profiles. Consent was obtained at the beginning of the questionnaire and confidentiality of personal information was assured. Data analysis was carried out using Statistical Package for Social Sciences (SPSS) version 23.

Results

Table 1

t test Comparing Psychological Well-being Among Users and Non-users

Variable	n	Mean	SD	t value	p value
Users	125	92.34	11.28	.509	.611
Non-users	125	93.12	12.79		

For assessing the second hypothesis (H2), a one-way ANOVA between groups was performed using SPSS 23, to find the differences between the frequency of usage of SBDA users and their Psychological Well-Being. The independent variable was the Frequency of usage having six levels (Almost never, Once a month,

A total of 250 participants completed the online form. The sample was equally divided into users and non-users (125 participants in each). Out of the total sample, the majority were females (n=153, 61%). In the 'users' category, the distribution included 55 females, 66 males and 5 participants in the 'other' section. Whereas in the category of 'non-users', the participants included 98 females, 26 males and 1 from the 'other' section. Among those who used SBDAs (n = 125), 19.2% of them used the SBDA almost never (n = 24) or once a month (n = 24). 17.6% of the users used the app multiple times a month (n = 22) while 26.4% used it multiple times a week (n = 33). Only 14 SBDA users (11.2%) used it once a week and 0.06% (n = 8) used the SBDA every day.

An independent sample t-test was conducted using SPSS 23 to examine if there was a significant difference in Psychological Well Being (PWB) (Dependent Variable) of Swipe-Based Dating App (SBDAs) users and non-users (Independent Variable). The Shapiro-Wilk test was performed on the data (n = 250) with its results indicating values >0.05 (0.490 and 0.491 for non-users and users respectively), proving the normality of the data. A statistically insignificant difference was seen in the Psychological Well-Being of SBDAs users and non-users (t = .509, p = .611), rejecting the first hypothesis (H1). Table 1 summarises the above findings.

Multiple times a month, Once a week, Multiple times a week, Everyday) whose influence was studied on the dependent variable Psychological Well-Being (PWB). Table 2 summarises the research findings.

Table 2*Descriptive Statistics of Frequency of Usage and Psychological Well-Being*

Frequency of Use	n	Mean	Std. Deviation
Almost Never	24	95.21	13.30
Once a Month	24	88.54	14.86
Multiple Times a Month	22	94.82	12.13
Once a Week	14	90.64	13.86
Multiple Times a Week	33	93.55	10.31
Everyday	8	98.50	12.87
Total	125	93.12	12.79

Table 3*One Way Analyses of Frequency of Use and PWB scores*

	df	f value	p value
Between groups	5	1.227	.301

Normality tests on the data (n=125) revealed that the statistic values (-.176 and .430 for Skewness and Kurtosis, respectively) were less than an absolute value of 2.0, indicating that the data was normally distributed. The p-value obtained from conducting one-way ANOVA was .301 (>0.05). Thus, the second hypothesis (H2) that 'There will be a significant difference on Psychological Well-being (PWB) between the various groups categorised according to the frequency of usage of Swipe-Based Dating App (SBDAs)' was also rejected.

Discussion

Considering the increase in dating app users and the lack of previous research focusing on mental health outcomes of dating app usage in the Indian context, it is important to explore the effect of the usage of dating applications on well-being. The current study aimed to explore the differences in psychological well-being

between the users and non-users of swipe-based dating apps. Additionally, the study also explored whether the frequency of usage of swipe-based dating apps (SBDAs) users influenced their Psychological Well-being (PWB).

Our first hypothesis that there will be a significant difference in the levels of psychological well-being of SBDA users and non-users was rejected (Table 1). This implies that there were no significant differences in the well-being of SBDA users and non-users. Nevertheless, multiple studies have indicated a relationship, mostly a negative one between usage of SBDAs and psychological well-being (Salaric, 2022; Singh et al., 2021; Zervoulis et al., 2019). Studies have shown that users of dating apps report higher levels of distress, depression, anxiety, loneliness, all of which can influence the person's overall psychological well-being. While the findings of our study are surprising, there may be few explanations for the same.

One possible explanation could be the motives behind the usage of these apps. SBDAs can be used for multiple reasons - finding long lasting and meaningful relationships, for short-term dating, to find friends, for hooking up and only sexual reasons and even for entertainment. Bartsch and Oliver (2016) found that well-being may be influenced when individuals use SBDAs to fulfil their social, physical, and psychosocial needs or use it as a tool for entertainment experiences. Seeing online dating mainly as an act of joy and entertainment might positively affect users' well-being. However, seeing it as a form of building a relationship might imply a greater negative effect on users' wellbeing (Langert, 2021). Hence, if the individuals' motive for using the app is met, their psychological well-being levels may increase; however, if they are unable to make use of the apps for their motives, their psychological well-being levels may decrease. Since the present study did not tap the motives of using the SBDAs- whether it is the formation of a connection, or a temporary date for fun, entertainment or sex, it is difficult to understand the lack of effect of usage of SBDA on PWB.

Previous studies have also found that usage of dating apps can lower self-image and self-esteem due to rejection and lack of matches on the SBDAs (Marston et al., 2020; Salaric, 2022; Strubel & Petrie, 2017). However, these apps do not have the feature of a direct, confrontative rejection. There is no form of absolute negative feedback in these apps - even if a person swipes left (i.e., rejects) on a person, the said person has no direct way of knowing this since the users are only made aware of the matches, and not the rejections. Orosz et al. (2016) found that any self-esteem enhancing experience of dating app usage might be temporary and has no or a relatively small effect on one's global self-esteem. Another reason could be the very importance of dating apps in the individual's life. It is possible that by itself, usage or non-usage of SBDAs cannot account for increasing or decreasing an individual's psychological well-being. Other situational factors in the person's life may play a higher or an overpowering role in influencing overall levels of well-being. The effects may also differ depending on the cultural context and norms surrounding dating in different societies (Chen et al., 2020). Research by Chandra and Priya (2020) analysing self-presentation of Indian individuals on

dating apps found that none of the participants revealed the reason for using dating apps. A possible reason for this could be the social desirability in expressing intentions of casual sex, as premarital sex is against the existing social norms in India (Chakraborty, 2019). This is in contrast to a study done in the United States, which found that 17.9% of women and 33.1% men reported using dating platforms for hook-ups (Lykens et al., 2019).

Our second hypothesis focused on the difference between the frequency of usage and psychological well-being of SBDA users. Table 2 focuses on the descriptive statistics concerning the different levels of frequency of usage of SBDAs among the users and their PWB scores. Out of all the six subcategories, interestingly, the one with the highest number of participants was the 'Multiple times a week', whereas the category with the least number of participants was 'Everyday'. Table 3 sheds light on the results obtained after carrying out one-way ANOVA on the concerned sample. As a result, the second hypothesis of the study was also rejected. This indicates that the frequency of usage has no impact on the psychological well-being of the individual. This finding was also inconsistent from past studies which have found that increased usage of dating apps results in lowered self-esteem, body image issues, and overall well-being (Holtzhausen et al., 2020; Langert, 2021). The current study measured frequency in broad terms (multiple times a week, once a month, and so on) instead of a specific count. This, hence, includes a range of users, from those who may install the SBDA once every month and uninstall it after their needs have been met, to those who use it diligently as and when they feel the need to. Accordingly, a difference in psychological well-being cannot be accounted for by the difference in frequency of use; rather, the specific number of hours used per day may be a better indicator for psychological well-being.

Limitations and Future Directions

The present study, despite consisting of a relatively wider sample, did not take into consideration the many mediating and contextual factors that may play a role in influencing a person's psychological well-being (such as presence of a mental illness, experience of a recent traumatic event particularly with reference to SBDAs and so on), be it a user or a non-user. Perhaps, future

research can expand the objectives of the current research, throwing light on such factors thereby also providing specific directions to the research. For the users of SBDAs, the study was restricted to individuals who had used any of these applications in the last six months. However, it did not control all the other possible conditions that may have directly affected the validity of the sample (for example participants who uninstalled applications despite falling in the time-limit). Thus, it can be inferred that the study did not have a robust exclusion criterion, which might have impacted our results. The findings of the present research can nonetheless act as a base for future studies, exploring the expectancies, motivations involved in SBDAs usage, types of interpersonal relationships that exist on SBDAs and their possible impact on PWB. Further research on this topic may also benefit from using more stringent measures and accounting for factors like participants' educational levels, occupations, socioeconomic status, urban or semi-urban living conditions, independent or family living arrangements. Future researchers may also benefit from using multiple variables and scales instead of using a single psychometric scale. A qualitative method can also be used to better explore these variables and their interrelations. Finally, like most research, the current study also uses convenience sampling and fails to thoroughly account for the population it is supposed to characterise. This form of sampling hence exposes the study to different forms of biases and can lead to a severe underrepresentation of different and relatively inaccessible populations, especially from rural parts of India.

Conclusion

The objective of the current study was to explore differences in the Psychological Well-being (PWB) of Swipe-Based Dating Apps (SBDAs) users and non-users, along with assessing the relationship between frequency of usage of SBDAs users and their PWB. The findings revealed an insignificant relationship, suggesting no difference in the levels of PWB among users and non-users of SBDAs. Moreover, the frequency of usage of the SBDAs was also seen to have no effect on PWB. These results hint towards the possibility of the mediation of various other unexplored factors in relation to SBDA use which can be responsible for changes in psychological well-being.

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