

Parasocial Relationships as a Predictor of Loneliness among University Students in
Pakistan

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ABSTRACT

Parasocial relationships (PSRs), one-sided emotional bonds with media figures, have become commonplace among Pakistani university students. Earlier work has gone back and forth on whether such bonds ease loneliness or instead grow out of it, but the question had rarely been tested outside Western settings. This study examined the intensity of PSR as a predictor of loneliness among Pakistani university students (N = 268), using the Celebrity Persona Identification Scale and the UCLA Loneliness Scale-Version 3, both of which showed strong reliability. On average, students reported moderate parasocial attachment and low-to-moderate loneliness. The two moved together rather than apart: parasocial intensity was positively and significantly correlated with loneliness ($r = .336, p < .001$) and predicted it in regression, accounting for about 11% of the variance. Men and women reported almost identical levels of parasocial intensity, with no significant gender difference. The positive direction fits the social-compensation view, that lonelier students seek out parasocial bonds, rather than the idea that a digital companion relieves loneliness. The implications for university mental-health support are discussed.

Keywords: Parasocial relationships, loneliness, university students, social media, persona, Pakistan, Celebrity Persona Identification Scale, UCLA Loneliness Scale.

INTRODUCTION

Digital media is rising day by day. The media's main purpose is to inform, educate, and entertain people. Everyone uses social media, whether they are a celebrity or a member of the public. People use social media to gratify their needs (Katz et al., 1974). Social media sites such as YouTube, Instagram, Facebook, and TikTok provide people with a platform to interact with each other. However, these sites also developed a relationship between people and digital influencers, athletes, politicians, and many other celebrities from different fields. The one-sided relationship with a media persona is called a parasocial relationship. Like real-life social relationships, PSRs are long-lasting socioemotional bonds of intimacy that viewers form with media personas. In today's world, where social media revolves around influencers, YouTubers, athletes, and politicians, these parasocial relationships are increasing rapidly. The audience

builds up their personal relationship with these media personas (Bond, 2018; Hartmann & Goldhoorn, 2011; Katz et al., 1974).

The major audience of social media is youth, particularly university students. These individuals use social media on a daily basis, which provides them with a wide range of content and exposes them to different celebrities. They may develop feelings for them and make a parasocial bond with them. Over time, people may develop an innate sense of friendship with the personas they watch. Some studies show that these Parasocial relationships affect individual social wellbeing and social life. Loneliness has been seen as a significant psychological issue among youth. It is a common experience that may affect individuals of any age, gender, or other sociodemographic background at any point in their lives, and it is consistently linked to poorer mental health (Erzen & Çikrikci, 2018). Previous studies suggest that Parasocial relationships may function as a compensatory mechanism for individuals experiencing loneliness (Gadekar & Ang, 2020). According to the compensatory hypothesis, people who experience social isolation may form closer relationships with media figures to satisfy unmet emotional and social needs. Audiences may experience a sense of belonging and friendship that, in part, replaces real-life relationships by interacting with stuff made by influencers or fictional characters repeatedly. Nevertheless, several variables, such as the kind of media figure being followed and the gender of the audience, might affect the quality and strength of these connections (Derrick et al., 2009; Perse & Rubin, 1989; Russell et al., 1984).

One of the important theoretical questions in parasocial relationship research is the direction of causality between PSRs and loneliness. Are parasocial relationships a way of alleviating loneliness, or does loneliness lead to parasocial relationships? The substitution hypothesis and the compensation hypothesis are the two possibilities. According to the substitution hypothesis, repeatedly interacting with media figures offers feelings of companionship and emotional support, thus alleviating loneliness. (Riles & Adams, 2021). In contrast, the compensation hypothesis suggests that parasocial relationships are actively pursued by social isolation to satisfy socially and emotionally unfulfilled needs. (Gadekar & Ang, 2020). These competing explanations combine to form what this study calls the digital companionship paradox: When media use is viewed as an antidote to social disconnection, it is considered a symptom of social disconnection. This study empirically tests the directionality of this paradox and provides a theoretical understanding from a non-Western perspective, where this paradox has never been explored.

The digital companionship paradox is a highly significant phenomenon to examine in the context of Pakistan, as the conditions in Pakistan are very different from those in Western countries, in which the frameworks have been developed. In Pakistan, university students are spending considerable time on platforms such as TikTok, Instagram, YouTube, and Facebook, where cricketers, influencers, religious speakers, and politicians have very active online profiles that have a lot of interaction (Ameen et al., 2025). This provides ample and regular contact with media stars, which is exactly the setting in which parasocial relationships develop and deepen. More significantly, Pakistan has collectivist social norms, which influence the way that fans consume celebrity culture, and an emotional bonding with public figures, as well as the lack of emotional expression among the youth, which are very different from the Western environments in which the majority of PSR research has taken place (Safwan & Ali, 2025). In societies based on collective, social identity is not a choice but a fundamental part of the identity, and thus, feelings of loneliness are more harmful in a collectivist society than in an individualistic one. As a result of academic stress, social pressures, and urban isolation of the Pakistani students, media personalities become an emotional support mechanism that is not socially shamed. It is suggested that the PSR-loneliness dynamic might be different here than in the other frameworks, which were derived from the West. So, this research study is not only filling a geographic gap, but it is also an examination of the applicability of existing theory in an environment that is quite different culturally.

This study explored Parasocial relationships as a predictor of loneliness in the Pakistani context, among university students. Specifically, the study aimed to explore the intensity of Parasocial bonds that university students form with digital influencers and media personalities. It also aimed to determine whether these digital bonds serve as a compensatory mechanism for feelings of loneliness. In addition, the study investigates whether the type of media persona moderates the relationship between Parasocial attachment and loneliness, and whether significant gender differences exist in the formation of Parasocial relationships and their impact on students' social well-being.

Research Objectives

The following are the objectives of this study:

- To examine the strength of the Parasocial relationships (one-sided emotional connections) that university students establish with media personalities and digital influencers.
- To assess whether these digital bonds serve as a compensatory mechanism for feelings of social loneliness.

Research Questions

- **RQ1:** What is the connection between the severity of Parasocial interactions and loneliness in Pakistani university students?
- **RQ2:** Does loneliness predict the stronger formation of parasocial relationships among university students?
- **RQ3:** Does the effect of Parasocial connections on social well-being vary greatly by gender?

Hypothesis

H1: There is a strong correlation between the intensity of Parasocial relationships and levels of reported loneliness.

H2: PSR intensity significantly predicts loneliness levels among university students.

H3: There are notable gender variations in the impact of Parasocial connections on social well-being.

LITERATURE REVIEW

Horton and Wohl (1956) originally presented the idea of parasocial interactions in their groundbreaking study "Mass Communication and Para-Social Interaction". They found that television viewers form one-sided emotional connections with performers that resemble the closeness of real friendships; the performer directly addresses the audience, shares personal emotions, and creates an illusion of conversational exchange that viewers perceive as genuine social interaction. They claimed this is a natural aspect of media spectatorship, organized by repeated exposure to a coherent media persona over time, not delusional. This fundamental framework is still the theoretical foundation for all subsequent PSR research and has been shown to be just as relevant in social media settings, where digital platforms enhance the conditions of repeated exposure, direct address, and perceived accessibility that Horton and Wohl (1956) initially identified.

In the age of social media, people have formed one-sided emotional bonds with media personalities known as Parasocial relationships (PSRs). Digital platforms allow for a feeling of intimacy via continuous accessibility, self-disclosure, and interaction, which is unachievable with conventional media. Parasocial relationships strengthen because of repeated exposure and the public's perception of media stars' trustworthiness. Due to their relatability and assumed credibility, social media influencers have been shown to encourage more parasocial connections, particularly among young people (Safwan & Ali, 2025). PSRs are becoming more and more vital as college students are utilizing social media more and more. Sharing personal content helps people feel closer to influencers by fostering an emotional connection (Baek et al., 2013; Liebers & Schramm, 2019; Sokolova & Kefi, 2020).

It has been proven that loneliness, which is defined as a perceived difference between desired and actual social ties, is associated with increased media consumption and Parasocial interactions. Research suggests that lonely people are more prone to participate in Parasocial interactions on social media. Further studies by de Bérail et al. (2019) reveal a link between emotional reliance on digital characters and social isolation as well as excessive media consumption. Additional research has been carried out to support this relationship. Another study found that the intensity of Parasocial interaction is a strong predictor of loneliness and emotional dependence in young people, as it provides stability, emotional support, and a sense of community (Boursier et al., 2020; de Bérail et al., 2019; Tukachinsky et al., 2021; Zsila et al., 2021). But the compensatory role of PSRs is questioned. Even though they may provide a short-term cure for loneliness, overdependence on them can increase social isolation. Digital companionship may not be a complete substitute for actual human interaction, which may result in persistent emotional dependency. The duality of PSRs is that they can be both helpful and potentially dangerous, depending on how they are used (Kowert & Daniel, 2021).

The strongest theoretical account of the positive association between PSR intensity and loneliness comes from the Social Compensation Hypothesis (McKenna & Bargh, 2000). One of the hypotheses is that when people are feeling socially deprived, socially marginalized, or socially isolated in their offline lives, they are actively looking for digital and mediated relationships to fill the voids in their offline lives. For lonely people in the context of PSRs, media personalities are not only entertainment, but they also replace the emotional roles of relationships, such as belonging, validation, companionship, and regular social interactions (McKenna & Bargh, 2000).

The type of persona indicates the level and nature of the parasocial relationship. Because influencers are seen as more approachable and genuine than traditional celebrities, they create deeper emotional connections. In recent literature, gender differences in Parasocial relationships have been repeatedly documented. Research has found that women are more likely to create emotionally charged Parasocial connections, whereas males often engage in more observational or admiration-based interactions (Boursier et al., 2020; Sokolova & Kefi, 2020).

The UCLA Loneliness Scale has had a significant impact on the empirical study of loneliness. The scale was originally created by Russell, Peplau, and Cutrona (1980), as a one-dimensional self-report instrument that included subjective measures of social isolation and disconnectedness. This instrument was later revised and validated by Russell (1996) as a 20-item instrument, Version 3, with improved psychometric properties for a variety of populations, including college students, in terms of internal consistency, test-retest reliability, and construct validity. The development papers presented here make the UCLA Loneliness Scale the gold standard instrument for measuring perceived loneliness and are the most widely used instrument in PSR-loneliness research (Russell et al., 1980; Russell, 1996).

Moreover, the qualities of media personalities seem to have a greater impact on the development of Parasocial bonds than the social inadequacies of consumers. The formation of these ties is greatly

influenced by factors such as talent, relatability, authenticity, and value fit. Particularly appealing to audiences are media personalities who show sensitivity, relate personal stories, or reflect comparable life events to promote emotional connection and identification. This implies that Parasocial relationships are driven by admiration, inspiration, and entertainment, besides being compensatory. A variety of variables, such as a person's personality qualities, social needs, and media use habits, affect their experience and advantages from PSRs (Hoffner & Bond, 2022; Ravi & Patki, 2025).

Ameen et al. (2025) examine the authenticity-building process and the Parasocial relationships that are developed by underage vloggers in Pakistan through the creation of YouTube content. The researchers found that young vloggers tend to copy the successful content creators and adopt storytelling in everyday life to create a feeling of “connectiveness” with viewers, thereby becoming more emotional. The research also highlights the need for parental support to achieve regular participation and exposes difficulties related to negative audience feedback, technical problems, and irregular schedules with regard to content quality and sustainability.

Zaheer (2019) studied Parasocial interaction between TV drama viewers and concluded that viewing of Pakistani dramas with such celebrities causes the Pakistani drama watchers to believe that they are emotionally close to the drama celebrities, even though they do not interact with them. The study also indicates that this Parasocial bond is not necessarily strong with viewing time, but there is more influence from the demographic and motivational factors, which include age, gender, level of education, income, and viewing reasons.

In summary, the literature explains Parasocial interactions as a multidimensional phenomenon with positive and negative influences on well-being. Even though they can make them feel less lonely or even replace actual relationships, their potential to aid in alleviating loneliness or even replacing real relationships remains limited. The coexistence of opposing results emphasizes the need for more investigation, especially in non-Western settings like Pakistan, where parasocial bonds with local television and drama figures are documented (Zaheer, 2019) and where social dynamics and cultural norms could have a particular influence on digital companionship. As a result, the goal of this study is to examine Parasocial connections as predictors of loneliness in Pakistani university students, considering individual variances and the traits of the media personality.

METHODOLOGY

Research Design

The approach used in this study is a quantitative, cross-sectional survey. The purpose of this research is to investigate the Parasocial connections between college students and media figures or digital influencers and whether these connections satisfy their social loneliness. Quantitative research is the method employed for this purpose, which is a rigorous way to gain a thorough and in-depth understanding of a group or sample (Ghanad, 2023) (Ghanad, 2023).

Population of the Study

The target audience for this research included all undergraduate and graduate students currently enrolled in Pakistani universities. The two primary reasons for choosing this group are as follows. To begin with, university students are the primary consumers of influencer material on social media since they spend a lot of time on sites like YouTube, Instagram, TikTok, and Facebook every day, which makes them more likely to have developed Parasocial relationships with online media stars (Hoffner & Bond, 2022). Second, for many students, the experience of university life itself may be isolating. Students often

experience academic stress, lose their former social network, and have more difficulty making new acquaintances when they leave home or relocate to a new city, all of which can contribute to feelings of isolation (Erzen & Çikrikci, 2018). University students seemed like the ideal population to investigate this specific study subject for these two reasons.

Sample and Sample Size

The ultimate sample consisted of 268 usable responses from Pakistani university students after data gathering. Originally, there were 272 answers, but during data cleaning, four of them were eliminated due to excessive missing information. For the statistical analyses utilized in this investigation, a sample size of 268 was deemed sufficient. This study satisfies the minimum of 200 participants required by Hair et al. (2019) for research involving two to four measured constructs on Likert-type scales.

Sampling Strategy

The people to be used in this study were recruited using convenience sampling. This merely indicates that the individuals who were contacted to participate were the people who were easiest to get in touch with and who met the requirements of the study. The primary reason why convenience sampling was selected is the ease of convenience sampling. This study could not randomly select participants using an official list of all Pakistani university students since there was not enough time or money available. The survey link was shared on WhatsApp groups and Facebook groups connected to different Pakistani universities. Participants were also requested to share the link with other eligible pupils they knew and thereby increasing the number of potential responses.

Data Collection Tool

Data was gathered using a structured internet questionnaire produced with Google Forms and shared through social media. The poll had three main parts. (Section A) collected basic demographic data like age, gender, favorite celebrity name, and categories from which they belong including politician, entertainment, digital influencer etc. Using the Celebrity Persona Identification Scale, the second half (Section B) assessed the intensity of the participants' Parasocial interactions. Using the UCLA Loneliness Scale, the third section (Section C) assessed how lonely the study participants were. Before the questions started, there was a quick overview of the study's objectives and a consent declaration. In Google Forms, all questions were made required to ensure that no answers would be inadvertently left unfinished. The two measurement scales are described in full below.

Parasocial Relationships

The Celebrity Persona Identification Scale (CPIS), which was first created and validated by Brown and Bocarnea (2007), was used in this study to evaluate how closely participants felt affiliated with a media figure. The CPIS has 20 items and is intended to determine a person's level of identification with affinity for, and emotional connection to a particular media character they follow. Participants in this section were asked at the beginning to list the name of a digital influencer, celebrity, athlete, or media personality with whom they felt the closest. With that individual in mind, every one of the 20 questions was then answered. The scale assesses three essential aspects of Parasocial connection: identification, which is the degree to which a person perceives themselves to share similar opinions and beliefs with the media personality; perceived friendship, which is the level to which they feel familiar with and personally close to them; and empathic engagement, which is the degree to which they are concerned with what happens to them. Among the questions on the scale are "I think of this person as a friend" and "I feel as though this person and I have a lot in common". Each inquiry is addressed using a five-point scale spanning 1

(Strongly Disagree) to 5 (Strongly Agree). A stronger Parasocial relationship is shown by an overall higher score (Brown & Bocarnea, 2007).

Loneliness

Loneliness was analyzed by the scale of UCLA Loneliness Scale-Version 3 (ULS-V3) (D. W. Russell, 1996). The UCLA Loneliness Scale has been one of the most popular and heavily studied scales in existence. It has been utilized in hundreds of studies with various populations, countries, and age groups. The scale consists of twenty questions that focus on the three central feelings of loneliness: rejection, lack of companionship, and alienation from others. Questions are responded to on a scale of 1 to 4 with 1 being "Never" and 4 being "Always". Scores can range from as low as 20 to as high as 80 with higher scores indicating loneliness. Ten out of the twenty questions are worded positively and must be reverse scored to calculate your total score. (Since then, the scale has been revised to fit these criteria.) Sample questions are "I feel left out" and "I lack companionship".

RESULTS

The findings of the quantitative studies conducted to examine the three study hypotheses are discussed here. Two standardized measures, the Celebrity Persona Identification Scale (CPIS) to assess the intensity of Parasocial relationship (PSR) and the UCLA Loneliness Scale Version 3 (ULS-3) to measure loneliness, were used to gather data by sampling 268 university students in Pakistan. IBM SPSS Statistics 26 was used to perform descriptive statistics, a Pearson correlation, a simple linear regression, and one-way ANOVA.

Participant Profile

A total of N = 268 university students participated in this study. All respondents reported a named celebrity as their parasocial relationship target. The sample was predominantly female (n = 195, 72.8%), consistent with the fan-celebrity literature showing higher female celebrity Parasocial involvement. Mean age was 24.7 years (SD = 5.4), reflecting a young adult university sample. Demographic details are presented in Table 1.

Table 1: Demographic Profile (N = 268)

Variable	Category	n (%)
Gender	Female	195 (72.8%)
	Male	73 (27.2%)
Age	M (SD)	24.7 (5.4) years
	Range	17–54 years
Education	Matric	7 (2.6%)
	Intermediate	23 (8.6%)
	Bachelors	141 (52.6%)
	Masters	94 (35.1%)

Reliability Analysis

Internal consistency of the two scales was assessed via Cronbach's alpha (Table 2). The Parasocial Relationship Scale (20 items) yielded alpha = 0.974, which represents exceptional reliability. The UCLA Loneliness Scale (20 items) yielded alpha = 0.840, indicating good internal consistency. Both values exceed the .80 benchmark (Kline, 1996) and are suitable for analysis (Kline, 1996).

Table 2: Reliability Statistics

Scale	Items	Cronbach's alpha	Interpretation
Parasocial Relationship Scale (PRS)	20	0.974	Exceptional
UCLA Loneliness Scale	20	0.840	Good

Descriptive Statistics

Descriptive statistics are presented in Table 3. Mean PSR score ($M = 2.939$, $SD = 1.013$) on a 1–5 Likert scale indicates moderate levels of parasocial attachment to celebrities in this sample. Loneliness scores ($M = 2.639$, $SD = 0.450$) suggest low-to-moderate loneliness levels, with the relatively low standard deviation indicating homogeneity in loneliness experience across respondents.

Table 3: Descriptive Statistics

Variable	N	M	SD	Scale
Parasocial Relationship (PSR)	268	2.939	1.013	1–5
Loneliness (UCLA)	268	2.639	0.450	1–4

Hypothesis Testing

H1: Correlation Between PSR and Loneliness

A Pearson product-moment correlation was computed between PSR and loneliness scores. Results revealed a significant positive correlation, $r(266) = 0.336$, $p < .001$. By the conventions of Cohen (1988), this represents a small-to-medium effect ($r = .10$ small, $.30$ medium). The positive direction, higher PSR scores associated with higher loneliness, is a theoretically important finding. Rather than parasocial relationships substituting for real-world social connections, this finding suggests that lonelier individuals seek out parasocial relationships as a compensatory mechanism, consistent with the Social Compensation Hypothesis (McKenna & Bargh, 2000). H1 is SUPPORTED, though the direction requires careful discussion (Cohen, 1988).

Table 4: Pearson Correlation between PSR and Loneliness

Variable	PSR	Loneliness
PSR	—	0.336***
Loneliness	0.336***	—

*** $p < .001$ (two-tailed). $N = 268$.

H2: Regression, PSR as a Predictor of Loneliness

A simple linear regression was conducted with PSR as the predictor and loneliness as the outcome. The model was significant, $F(1, 266) = 33.844$, $p < .001$. PSR significantly predicted loneliness ($B = 0.149$, $\beta = 0.336$, $t = 5.818$, $p < .001$), explaining 11.3% of the variance in loneliness ($R^2 = 0.113$). For every one-unit increase in parasocial relationship intensity, loneliness increased by 0.149 units. H2 is SUPPORTED. Note: the R^2 of 0.113 indicates that 11.3% of loneliness variance is explained by PSR, leaving 88.7% unexplained by other factors, highlighting the complexity of loneliness as a multi-determined phenomenon.

Table 5: Simple Linear Regression: PSR Predicting Loneliness

Variable	B	SE	beta	t	p
Constant	2.200	0.080	—	27.573	< .001
PSR	0.149	0.026	0.336	5.818	< .001

Note. $R^2 = 0.113$; $F(1, 266) = 33.844$, $p < .001$.

H3: Gender Differences in Parasocial Relationships

A one-way ANOVA compared PSR scores across gender groups. Results yielded $F(1, 266) = 0.000$, $p > .05$. Remarkably, male ($M = 2.939$) and female ($M = 2.939$) participants reported virtually identical parasocial relationship scores. H3 (gender differences in PSR) is NOT SUPPORTED. This challenges prior research suggesting females form stronger parasocial bonds (Perse & Rubin, 1989) and may reflect the evolving nature of celebrity culture across gender lines in the contemporary Pakistani media environment.

Table 6: One-Way ANOVA: Gender Differences in PSR

Source	SS	df	MS	F
Between Groups	0.0000	1	0.0000	0.000
Within Groups	275.125	266	1.034	
Total	275.125	267		

Note. $p > .05$ (non-significant). Male $M = 2.939$; Female $M = 2.939$.

Summary of Findings

Table 7: Summary of Hypotheses and Results

Hypothesis	Key Statistic	Decision
H1: PSR positively correlates with Loneliness	$r = 0.336$, $p < .001$	SUPPORTED
H2: PSR significantly predicts Loneliness	$\beta = 0.336$, $R^2 = 0.113$, $F(1,266) = 33.844$, $p < .001$	SUPPORTED
H3: Gender differences in PSR	$F(1,266) = 0.000$, $p > .05$	NOT SUPPORTED

The positive relationship (PSR → Loneliness) suggests that Parasocial relationships do not compensate for real-world loneliness but may be sought by lonely individuals as a substitute that ultimately does not fulfill genuine social needs. This is consistent with the Social Compensation Hypothesis and challenges the notion of digital companionship as a loneliness remedy. The exceptional PSR reliability ($\alpha = 0.974$) and substantial sample ($N = 268$) strengthen confidence in these findings.

DISCUSSION

This study aimed to investigate parasocial relationship (PSR) as a predictor of loneliness among university students in Pakistan. Pearson correlation, simple linear regression, and a one-way ANOVA were used to test 3 hypotheses. The results yielded two confirmed and one non-confirmed hypotheses with plausible theoretical implications that are discussed below.

The results of this study are theoretically most significant in the positive direction of the correlation between PSR and loneliness ($r = 0.336$, $p < .001$). Higher PSR intensity was related to higher loneliness scores, rather than lower. This is not in line with the substitution theory that suggests that Parasocial relations decrease feelings of loneliness by providing companionship, emotional support, and a sense of social belonging (Riles & Adams, 2021). The correlation would be expected to be negative if substitution were present: the higher the PSR, the less the loneliness. This is not reflected in the data.

Rather, the positive results reflect the Social Compensation Hypothesis (McKenna & Bargh, 2000) that socially isolated people seek to satisfy emotional and social needs via mediated and digital relationships. It is important to note a tension: H2 predicted PSR, while the compensation hypothesis predicted loneliness as a predictor of PSR. This is not an indication of a cause and effect. Linear regression is symmetrical; there is the same association in both directions, but neither model implies causality. The data do show a significant association ($\beta = 0.336$, $p < .001$) and the compensation hypothesis offers a theoretically plausible explanation for it. A valid future test would be one that had loneliness as the predictor variable and PSR as the outcome variable at two time points. It is important to note that PSRs can also have entertainment and identity and belonging functions that may be present in this sample (Hoffner & Bond, 2022).

This is in line with Kowert and Daniel (2021), who found that digital companionship can over time create an emotional dependence instead of reducing loneliness, and with research identifying a positive relationship between PSR intensity and feelings of loneliness in youth. Importantly, studies demonstrate that PSRs do have real emotional roles, stability, community, support, and so loneliness is not a sole attribute of PSRs. The data cannot be used to conclude whether these functions compensate for the social deficit, only that they co-occur (Zsila et al., 2021; Tukachinsky et al., 2021).

Back to the digital companionship paradox: the data provide some answers. The PSR-loneliness correlation is positive ($r = 0.336$), which is not consistent with the solution framing, where PSRs should be negatively associated with loneliness if they are decreasing it. The pattern is one in favor of symptom framing, which is consistent with the compensation hypothesis. It is not possible to achieve full resolution with a cross-sectional design, because there is a possibility of bidirectional reinforcement or of a third variable. This study concludes that the data is slightly biased towards PSRs as a symptom of loneliness as opposed to a cure for it in Pakistani university students.

The positive correlation of PSR with loneliness is consistent with the overall compensation literature. This pattern has also been reported elsewhere, together forming a consistent literature that challenges the substitution view. However, the R^2 (0.113) of the regression needs to be discussed: PSR accounts for 11.3% but not 88.7% of the variance in loneliness. This is not only a limitation, but it is also a sign of a fact of life: loneliness is a multi-determined phenomenon. Other factors that have been documented but not included here are the quality of face-to-face social interaction, family cohesion, academic stress, and personality traits (including social anxiety). Future studies should develop multivariate models with the incorporation of these variables instead of a bivariate association with PSR only. (Boursier et al., 2020) (de Bérail et al., 2019) (Zsila et al., 2021)

The one-way ANOVA revealed an F-statistic of 0.000, and the male and female participants reported almost the same average PSR ratings ($M = 2.939$ for both groups). Gender differences are one of the most ubiquitous patterns in the Western PSR literature, with women generally reported to form more emotionally intense bonds, and men more observationally or admiringly related bonds. A complete absence of a gender gap here disputes that assumption. (Boursier et al., 2020) (Perse & Rubin, 1989).

However, this methodological caveat is first: A sample of 72.8% females may have lowered the power for the study and should not be interpreted as definitive proof that there is no gender difference in this situation. A better representation of the sample is needed. It is speculated that the pattern may be due to several cultural factors. It is evident that the Parasocial targets shared by Pakistani media are cricketers, TikTokers, religious and political figures, and they get a lot of emotional investment from both genders. Parasocial bonds could serve a comparable socially acceptable private expression of emotion in a collectivist culture shared by both men and women, where emotional expression is socially regulated. When cross-gender socializing is limited, males may adopt a similar Parasocial approach to connect with others, perhaps for other reasons than females. All of these are interpretations after the fact and must be tested directly before any should be accepted as being true.

The results have implications for students' welfare practice. The positive correlation between PSR and loneliness does not indicate that the more strongly involved a student is in Parasocial interaction, the more socially connected that student is; it could be the opposite. Counselors should assume high levels of media attachment may indicate deeper levels of social isolation rather than a harmless social pastime and ask questions about social connection in the real world, as well as media consumption.

Therefore, it is important to note that there was no difference in the intensity of the PSR across gender; and therefore, wellbeing programs should not be directed at only female students (as is often the case with western-informed interventions). Male students in this sample develop similar Parasocial relationships but may be less likely to self-identify as lonely. A deficit can be met directly through help-seeking, such as peer support circles, mentorship, and planned group activities, which are all gender-inclusive activities. Gender-inclusive programming, including help-seeking such as peer support circles, mentorship, and planned group activities, is a more direct approach to the deficit than any media-based intervention. This is further reinforced by the fact that the variance about this figure is only 88.7% unexplained, meaning that campus social infrastructure plays a much greater role than media habits in driving student loneliness.

LIMITATION

There are several limitations to be recognized. Most importantly, the cross-sectional design does not allow for any causal statements. But going the other way around is equally possible: the compensation hypothesis itself suggests that PSR can cause loneliness, rather than the reverse, and a mutual cycle is not out of the question. The association $r = 0.336$ is associated with co-occurrence only.

Secondly, the participants chose their own celebrity, as the type of celebrity was not controlled. There are different kinds of PSR dynamics generated by musicians, athletes, influencers, and politicians. By considering the two as interchangeable, one might mask important differences and account for the lack of a significant difference between the two celebrity types and loneliness.

Third, the sample had two limitations of generalizability: the female representation of 72.8% would have led to poor statistical power if comparisons were made with males and the sample was student-only and convenience sampled to make the findings inconclusive rather than definitive; and the sample was young people attending university, and not generalizable to the wider population of youths attending school in Pakistan.

Fourth, the R^2 of the model is .113, indicating that 88.7% of the total variation in loneliness cannot be explained by the model. Social anxiety, quality of the social networks not used offline, screen time, and family support are also key unmeasured variables resulting in loneliness, which were not included in this model.

Finally, there is bias in self-report measures. There is a possibility that loneliness is underreported, particularly by the male participants in a collectivist setting, and Parasocial closeness is overreported, skewing the actual association in an unknown direction.

Longitudinal designs should be used in future studies to examine the direction of the relationship between PSR and loneliness, while experimental designs should be employed to establish the causal relationship more firmly between PSR and loneliness. Specificity of celebrity type, gender balanced samples, and the inclusion of social anxiety, social network quality offline, and screen time as covariates should also be considered during studies.

CONCLUSION

This study aimed to explore the relationship between Parasocial relationships and loneliness among university students in Pakistan, which has been overlooked in the existing literature on PSR in the non-Western context. Overall, three hypotheses were tested using the Celebrity Persona Identification Scale and the UCLA Loneliness Scale with a sample of 268 students. Two hypotheses were supported. The intensity of PSR was positively correlated with loneliness ($r = 0.336$, $p < .001$) and significantly predicted loneliness in regression ($\beta = 0.336$, $R^2 = .113$). Both results are contrary to the substitution hypothesis, which suggests that Parasocial relationships should be negatively associated with loneliness if they were to help alleviate that feeling. The data, however, support the compensation hypothesis, that is, the desire to form Parasocial relationships is motivated by the desire to meet unmet social needs, but such relationships do not seem to alleviate the underlying social need. One of the hypotheses was not confirmed: there was no difference in intensity of PSR by gender ($F = 0.000$, $p > .05$), which contradicts the whole body of Western literature on this subject that almost always reports that women form stronger Parasocial bonds. Similarly, this could be the influence of similar media culture and collectivist social structure in Pakistan, as the sample is female-dominated.

Overall, the results suggest that parasocial relationships are a symptom of loneliness, not a solution. This is important for university counselors and student welfare programs because there is a difference in the intensity of media attachment between male and female students, even though the two groups show comparable PSR intensity, and interventions should be gender-inclusive, as male students do not seek to be lonely.

Only 11.3% of the variance in loneliness is explained by the model, making PSR a genuine, but weak predictor. The larger offline social networks, family support, and social anxiety drivers are unmeasured. Longitudinal designs and experimental designs should be implemented in future research to make inferences about causality, stratifications to differentiate between the various types of celebrities, and modeling approaches to control for the unexplained variance of loneliness (88.7%) in this study.

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