

Original Article

How Attachment Relates to Psychological Health: The Role of Parasocial Bonds and Sexual Orientation

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Article History:

Date received: April 9, 2026

Date revised: May 13, 2026

Date accepted: May 28, 2026

Recommended citation:

Nanao, D.A. (2026). How attachment relates to psychological health: The role of parasocial bonds and sexual orientation. *Journal of Interdisciplinary Perspectives*, 4(6), 452-464.

<https://doi.org/10.69569/jip.2026.028>

Abstract. This study examined whether parasocial bond tendency and sexual orientation mediate the relationship between attachment-related anxiety and psychological health among single Filipino emerging adults, while controlling for daily social media use. The study addressed the limited evidence on how attachment-related anxiety may influence psychological health through parasocial and identity-related factors in this population. Using a quantitative cross-sectional design, data were collected through an online survey from 247 single Filipino social media users aged 18–29. Participants completed the Revised Adult Attachment Scale (RAAS), Celebrity–Persona Parasocial Interaction Scale (CPPI), and World Health Organization Quality of Life–BREF (WHOQOL–BREF). Hayes’ PROCESS Macro Model 6 was used to test the direct and indirect effects. Results showed that attachment-related anxiety significantly and negatively predicted psychological health ($B = -7.89, p < .001$). Attachment-related anxiety also significantly predicted parasocial bond tendency. However, parasocial bond tendency and sexual orientation did not significantly mediate the relationship between attachment-related anxiety and psychological health, and none of the indirect or serial mediation paths were significant. Daily social media use also did not significantly predict psychological health. The nonsignificant indirect effects suggest that the relationship between attachment-related anxiety and psychological health may operate more directly rather than through parasocial bond tendency, sexual orientation, or daily social media use. These findings indicate that attachment-related anxiety remains a robust predictor of psychological health among single Filipino emerging adults, whereas the proposed mediating variables demonstrated limited explanatory influence within the serial mediation model. The study underscores the clinical and theoretical relevance of attachment-related anxiety in understanding psychological vulnerability among emerging adults. It highlights the need for future research to explore alternative psychological and contextual mechanisms that may better account for variations in psychological health within this population.

Keywords: Attachment style; Emerging adults; Parasocial bond; Psychological health; Sexual orientation

The interplay between early relationships and psychological health has long been studied in psychology. Attachment theory explains that early experiences with caregivers shape how people view themselves and others in relationships, and these views often continue into adulthood (Mikulincer & Shaver, 2016). One important dimension is attachment-related anxiety, which is marked by fear of abandonment, strong need for closeness, and difficulty managing negative emotions. Studies have shown that people with high attachment anxiety are more likely to report poorer psychological health, including anxiety, depression, and negative self-view (Tee et al., 2020). Among single Filipino emerging adults, this concern may be especially important because this life stage involves identity exploration, relational uncertainty, and increasing emotional demands. In the Filipino context, where close family ties, social belonging, and relational approval are highly valued, fear of rejection or emotional disconnection may further shape how young adults experience attachment anxiety and psychological health.

Research also shows that insecure attachment is linked to parasocial bonds, or one-sided emotional ties with celebrities, influencers, or fictional characters. People with attachment insecurity may turn to these bonds to meet emotional needs when real relationships feel difficult or unsafe (de Bérail et al., 2019). Parasocial bonds may be especially appealing to emerging adults because they are easy to access and carry little risk of rejection (Greenwood & Long, 2011). In this sense, parasocial ties may serve as a coping response for individuals who struggle with closeness, loneliness, or unmet relational needs.

However, studies on parasocial bonds and psychological health show mixed results. Some studies suggest that parasocial ties can provide comfort, emotional support, and temporary self-regulation. Other studies warn that too much reliance on these one-sided relationships may reduce real-life social connections and weaken healthy coping over time (Schramm et al., 2024). These mixed findings suggest that parasocial bonds may help some individuals but may also place others at risk, depending on their personal and social conditions. This makes it important to study parasocial bonds together with attachment-related anxiety and psychological health.

Sexual orientation is also relevant when studying psychological health, especially within the framework of Minority Stress Theory. Sexual minority individuals often face stigma, rejection, and pressure to hide their identity, and these experiences can harm mental health (Newcomb & Mustanski, 2010; Pachankis et al., 2020). In the Philippines, conservative social beliefs, religious values, and family expectations may increase these stressors, placing sexual minority youth and emerging adults at greater risk for anxiety, depression, and social withdrawal. At the same time, some studies suggest that sexual minority individuals may use media figures and online spaces as sources of validation, belonging, and identity support, especially when acceptance in real life is limited (Russell & Fish, 2016).

This makes the link among attachment anxiety, parasocial bonds, sexual orientation, and psychological health worth examining more closely. Existing studies have often examined these variables in isolation. Some studies focus on attachment and mental health, while others examine parasocial bonds as emotional coping, and still others explain the psychological burden linked to minority stress. Although these studies are related, they differ in focus, population, and context. Very few studies have examined these factors within a single model, and fewer still have done so among Filipino emerging adults. This leaves an important gap in understanding how relational insecurity, media-based attachment, and identity-related stress may work together in shaping psychological health.

Daily social media use may also shape these relationships. Greater time spent online can increase opportunities for parasocial bonding and exposure to both affirming and distressing content (Tukachinsky & Stever, 2019; Jensen-Campbell et al., 2023). For many emerging adults, especially those who spend much of their social time online, social media may strengthen both the helpful and harmful effects of parasocial ties. Because of this, social media use should be taken into account when examining the psychological health of young adults in digital spaces.

The focus on single Filipino emerging adults is important for both theoretical and practical reasons. Emerging adulthood, often defined as ages 18 to 29, is a period of identity exploration, instability, and psychological vulnerability (Arnett, 2015; Arnett, 2018). Being single during this stage may also increase feelings of loneliness or emotional uncertainty, especially in settings where romantic partnership and family expectations are highly valued (Adamczyk, 2017; Jensen-Campbell et al., 2023). In the Filipino setting, these experiences may become more

complex for individuals who are also navigating mental health concerns, identity issues, and strong online involvement. However, this population remains underexplored in psychological research.

Thus, this study aims to examine whether parasocial bond tendency and sexual orientation help explain the relationship between attachment-related anxiety and psychological health among single Filipino emerging adults, while controlling for daily social media use. By addressing this gap, the study adds to current knowledge on attachment, media-based relationships, and minority stress in a local cultural context. The findings may help inform future mental health support, media literacy efforts, and more inclusive programs for Filipino emerging adults.

Conceptual Framework

This study is anchored in a serial mediation model that investigates how attachment style indirectly influences psychological health through the sequential mediating roles of parasocial bonds and sexual orientation. The framework is grounded in four interrelated psychological theories: Attachment Theory, Parasocial Interaction Theory, Minority Stress Theory, and the Biopsychosocial Model. These theoretical lenses collectively illuminate the interplay of early relational schemas, media-based coping mechanisms, and identity-based stressors in shaping psychological outcomes among single Filipino emerging adults.

In the proposed model, attachment style functions as the independent variable (X). According to Attachment Theory (Bowlby, 1982, as cited in Mikulincer & Shaver, 2016), individuals with high attachment anxiety often fear abandonment and seek constant reassurance. When real-life interpersonal relationships feel unsafe or insufficient, such individuals may turn to alternative strategies for emotional regulation. One such strategy is the formation of parasocial bonds—emotionally significant yet one-sided attachments to media figures, celebrities, or fictional characters. These attachments offer perceived intimacy, validation, and emotional safety in lieu of secure real-world relationships (Greenwood & Long, 2011). Thus, parasocial bond tendency is conceptualized as the first mediator (M1) in the model.

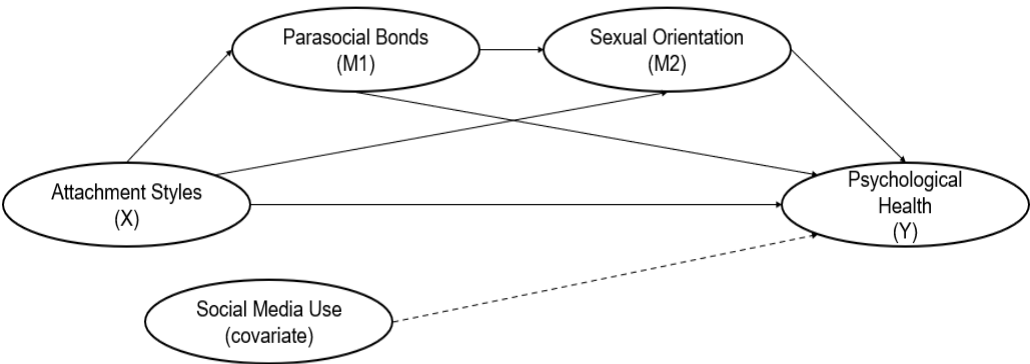


Figure 1. Conceptual Framework Illustrating the Hypothesized Serial Mediation Model

Following this, sexual orientation is introduced as the second mediator (M2), not merely as a demographic variable, but as a psychological identity construct that influences vulnerability to stress and psychological health. Drawing from Minority Stress Theory (Zelaya & DeBlare, 2024), individuals from sexual minority groups experience heightened levels of internalized stigma, social marginalization, and identity concealment, all of which can compound the emotional consequences of both insecure attachment and parasocial coping. While parasocial bonds may offer temporary affirmation, they may be insufficient in buffering the chronic stress associated with minority identity. Thus, sexual orientation mediates the psychological toll of attachment anxiety and media-based emotional surrogacy.

The dependent variable (Y) is psychological health, conceptualized using the psychological domain of the WHOQOL-BREF (World Health Organization, n.d.; WHOQOL Group, 1998; Ramji et al., 2023) and enriched by Keyes’ Mental Health Continuum (as cited in Mason-Stephens et al., 2025). Psychological health is defined here as a multidimensional construct encompassing emotional well-being, positive self-regard, cognitive clarity, life meaning, and resilience—not merely the absence of psychopathology, but the presence of adaptive functioning

and personal fulfillment. To statistically control for behavioral variables that may influence the core psychological processes, social media use (measured in average hours per day) is included as a covariate. Extensive engagement with social media increases exposure to parasocial opportunities and identity-related content, which may amplify or attenuate pathways within the model (Schramm et al., 2024). While not a focal point of the mediation sequence, social media use provides a necessary control for isolating the psychological mechanisms of interest.

In sum, this conceptual framework articulates a theory-driven model wherein attachment anxiety indirectly predicts psychological health through parasocial bonding and sexual orientation, accounting for the broader social media context. The model addresses a critical gap in understanding how relational insecurity, identity development, and media engagement interact in the psychological experiences of single Filipino emerging adults, particularly those navigating minority stress and emotional disconnection in a digitally saturated environment.

Methodology

Research Design

This study used a quantitative, cross-sectional, correlational design. It examined whether parasocial bond tendency and sexual orientation serially mediated the relationship between attachment-related anxiety and psychological health among single Filipino emerging adults. Daily social media use was included as a control variable. A cross-sectional design was appropriate because the data were collected at one point in time, while a correlational approach was suitable because the variables were measured as they naturally occurred and were not manipulated (Creswell & Creswell, 2018).

Research Participants

The participants were single Filipino emerging adults aged 18 to 29 years who lived in the Philippines and actively used social media. To qualify, participants had to be unmarried, not cohabiting, and not in a committed romantic relationship. They also had to use social media for at least one hour per day on at least five days per week. Social media use included both active behaviors, such as liking, commenting, and messaging, and passive behaviors, such as viewing, scrolling, and reading content from celebrities, influencers, or fictional characters. Participants also needed reliable internet access and sufficient proficiency in English or Filipino to understand the survey.

Individuals were excluded if they reported being married, cohabiting, or in a committed romantic relationship. Those who self-reported severe psychological or cognitive conditions that could affect informed consent or the accuracy of self-report responses were also excluded. A total of 247 participants were included in the final dataset. This sample size was considered adequate for serial mediation analysis with bootstrapping and for checking the internal consistency of the study measures. The study used purposive sampling. The survey link was shared through social media platforms, university groups, and online communities, and participation was voluntary. Because the participants were recruited online and were selected based on specific inclusion criteria, the sample may not fully represent all single Filipino emerging adults in the Philippines. Those without regular internet access, those who are less active online, or those who are not connected to the online groups where the survey was shared may have been underrepresented. Therefore, the findings should be interpreted with caution and should be generalized only to populations with similar characteristics.

Research Instruments

The study used four measures. First, attachment-related anxiety was measured using the Anxiety subscale of the Revised Adult Attachment Scale (RAAS). The RAAS is an 18-item self-report scale with responses rated on a 5-point Likert scale. Although the full RAAS includes the Close, Depend, and Anxiety subscales, only the Anxiety subscale was retained for the main analysis because it demonstrated acceptable internal consistency in the present study. The Anxiety subscale had a Cronbach's alpha of .850.

Second, the tendency toward parasocial bonds was measured using the Celebrity–Persona Parasocial Interaction Scale (CPPI) developed by Bocarnea and Brown (2007). The CPPI has 20 items answered on a 5-point Likert scale, with three reverse-scored items. To improve clarity for Filipino emerging adults, some media terms in the original items were updated to refer to current digital platforms such as YouTube, TikTok, Instagram, and Facebook. These wording changes were intended only to improve contextual fit and did not change the meaning of the items. In this study, the CPPI showed excellent internal consistency ($\alpha = .891$).

Third, psychological health was measured using the Psychological Health domain of the World Health

Organization Quality of Life-BREF (WHOQOL-BREF). The WHOQOL-BREF is a 26-item instrument, but only the Psychological Health domain was used in this study because it directly reflects emotional well-being, self-esteem, and related internal experiences. Responses were scored following the standard WHOQOL-BREF procedure, and the domain score was transformed to a 0 to 100 scale, with higher scores indicating better psychological health.

Fourth, daily social media use was measured using a single self-report item asking participants to report their average number of hours spent on social media per day. Demographic questions were also included, such as age and sexual orientation. Sexual orientation was self-reported using inclusive response options, namely heterosexual or straight, lesbian, gay, bisexual, pansexual, asexual, queer, questioning, or unsure, and preferred to self-describe.

Data Gathering Procedure

Data were collected through an online self-administered survey using Google Forms. Before answering the questionnaire, participants first read a digital informed consent form that explained the purpose of the study, the procedures, possible risks and benefits, the voluntary nature of participation, and the protection of their data. Only those who gave consent were allowed to continue. The questionnaire included the RAAS, the adapted CPPI, the Psychological Health domain of the WHOQOL-BREF, one item on daily social media use, and demographic questions. The survey link was distributed through social media platforms, university groups, online communities, and related networks likely to reach the target population. Respondents were asked to answer only once. After data collection, the responses were screened for completeness, duplicate entries, and invalid responses. Responses that did not meet the inclusion criteria or were incomplete were removed from the dataset. The cleaned data were then coded for statistical analysis.

Data Analysis

Data were analyzed using IBM SPSS Statistics Version 31. Descriptive statistics were first computed. Frequencies and percentages were used for categorical variables, and means and standard deviations for continuous variables. Internal consistency reliability was assessed using Cronbach's alpha. The RAAS Close and Depend subscales had alpha values below the commonly accepted level, while the Anxiety subscale showed acceptable reliability ($\alpha = .850$). For this reason, only attachment-related anxiety was included as the predictor in the final mediation model. The CPPI also showed strong internal consistency ($\alpha = .891$).

Pearson correlation was used to examine the relationships among attachment-related anxiety, parasocial bond tendency, psychological health, and daily social media use. To test the serial mediation model, Hayes' PROCESS macro for SPSS (Model 6) was used with 5,000 bootstrap samples. In the model, attachment-related anxiety served as the independent variable, parasocial bond tendency as the first mediator, sexual orientation as the second mediator, psychological health as the dependent variable, and daily social media use as the covariate. Indirect effects were considered significant when the 95% bias-corrected bootstrap confidence interval did not include zero.

Ethical Considerations

The study involved human participants and dealt with sensitive psychological and identity-related topics. For this reason, ethical safeguards were observed throughout the research process. Participation was voluntary, and participants were informed that they could stop answering the survey at any time without penalty. No personally identifying information was collected, and responses were kept anonymous. The data were stored in password-protected files accessible only to the researcher, and the results were reported only in summarized form.

Because some questions could cause discomfort or emotional reflection, participants were informed of this possible risk before starting the survey. Information on available psychological support services was also provided. The study also considered cultural sensitivity by using respectful language and contextually appropriate wording in the survey. Before data collection began, ethical clearance was obtained from the Graduate School Research Ethics Committee.

Results and Discussion

Distribution of the Respondents in Terms of Their Sexual Orientation

The respondents were asked to self-identify their sexual orientation to describe the sample's diversity and to support the subsequent mediation analysis. The results (Table 1) show that most respondents identified as straight

or heterosexual (69.64%).

Table 1. *Frequency Table of Respondents by Sexual Orientation*

Sexual Orientation	Frequency	Percentage
Straight/Heterosexual	172	69.64%
Bisexual	28	11.34%
Pansexual	16	6.48%
Gay	9	3.64%
Prefer not to say	9	3.64%
Asexual	5	2.02%
Lesbian	4	1.62%
Questioning	2	0.81%
Non-Binary	1	0.40%
Ace lesbian	1	0.40%

This pattern suggests that while heteronormative identities remain the majority in the sample, the participants also reflect a broader range of sexual identities among single Filipino emerging adults. The combined proportion of bisexual and pansexual respondents alone shows that a notable part of the sample identified outside a strictly heterosexual orientation. This is important because emerging adulthood is often described as a period of exploration, including identity, attraction, and relationships (Arnett, 2015). In this context, the presence of diverse sexual orientations in the sample is not unexpected and supports the view that sexual identity may still be developing, becoming clearer, or being more openly expressed during this life stage.

The presence of respondents who identified as gay, lesbian, asexual, and questioning also points to the importance of recognizing sexual diversity even when these groups appear in smaller numbers. These categories may represent different ways in which participants understand and describe their attraction, emotional experience, or personal identity. At the same time, caution is needed when interpreting these smaller groups because their frequencies are low, and broad conclusions should not be drawn from them alone. Still, their inclusion strengthens the study's descriptive value and underscores the need for psychological research to remain inclusive and respectful of varied identity labels (Galupo et al., 2015; Calzo & Blashill, 2018).

The 3.64% of respondents who preferred not to disclose their sexual orientation should be understood as a non-disclosure response rather than as a distinct orientation category. This finding may suggest discomfort, privacy concerns, uncertainty, or hesitation to disclose a personal identity label. In the Philippine context, such hesitation may still be shaped by stigma, fear of judgment, or limited psychological safety for LGBTQ+ individuals, especially within more traditional social environments (Aguilar & Rungduin, 2022). For this reason, the non-disclosure response is also meaningful, as it points to the social conditions that may affect how freely participants report identity-related information.

The result also shows the value of using inclusive response options in survey research. The appearance of identities such as ace lesbian, along with the open reporting of non-binary by one respondent, suggests that some participants do not fit neatly into traditional fixed categories. Although non-binary is more commonly treated as a gender identity rather than a sexual orientation, its inclusion in the responses still signals the importance of giving participants space to describe themselves in ways that reflect their lived experience (Pachankis et al., 2020). This supports the recommendation that future studies use clearly defined yet inclusive measures when asking about identity-related variables.

Average Number of Hours per Day That Participants Spend on Social Media

Daily social media use was measured by self-reported hours spent actively engaging with online platforms, including scrolling, posting, messaging, and viewing media content. The respondents reported a mean of 6.01 hours per day, with a standard deviation of 2.94, and a range from 1 to 20 hours. This result suggests that social media use is a regular and substantial part of participants' daily routines. On average, spending about six hours per day on social media reflects a generally high level of digital engagement among single Filipino emerging adults in the sample.

The frequency distribution provides a clearer view of this usage pattern. The most commonly reported durations were 5 hours (14.17%), 8 hours (12.15%), 6 hours (11.34%), and 10 hours (11.34%), followed by 3 hours (10.12%) and 7 hours (8.10%). These values indicate that many respondents reported 5 to 10 hours of daily use, suggesting

that moderate-to-high social media exposure is common in this group. Although a small number of participants reported very high use, such as 15, 18, or 20 hours per day, these cases were relatively few and should be treated as extreme values rather than the typical pattern.

Extent of Attachment Among Single Filipino Emerging Adults

The extent of attachment-related anxiety among the respondents was examined using the RAAS Anxiety subscale (see Table 2). The respondents obtained a mean score of 3.41 with a standard deviation of 0.98, which indicates a moderate level of attachment-related anxiety. This finding suggests that many single Filipino emerging adults in the sample experience some degree of worry about closeness, reassurance, and emotional security in relationships. A moderate level of anxiety means that concerns about being rejected, left behind, or not receiving enough emotional response may already be present, even if these concerns are not extreme. This pattern is important because attachment anxiety has long been linked with emotional vulnerability and difficulty managing relationship-related stress (Mikulincer & Shaver, 2016).

Table 2. *Extent of Attachment-Related Anxiety Using the RAAS Anxiety Subscale*

Levels	Frequency	Percentage	Mean	SD	Interpretation
High Attachment-Related Anxiety	83	33.60%	3.41	0.98	Moderate attachment-related anxiety
Moderate Levels of Anxiety	88	35.63%			
Low Attachment-Related Anxiety	76	30.77%			

Although the percentages are fairly close, the combined share of respondents with moderate and high anxiety shows that most of the sample reported notable attachment-related concerns. This suggests that relational insecurity is not uncommon among single Filipino emerging adults. Such a pattern may reflect the developmental nature of emerging adulthood, a life stage often marked by identity exploration, emotional uncertainty, and changing expectations in close relationships. During this period, individuals may strongly desire intimacy while still struggling with stability and self-assurance, which can increase anxiety in relational settings (Arnett, 2015).

The 30.77% of respondents who showed low attachment-related anxiety may reflect a more secure pattern of relating to others. These individuals are more likely to feel comfortable with both closeness and independence, and they may be less fearful of abandonment or rejection. Prior work suggests that people with more secure attachment patterns tend to have better emotional control, healthier boundaries, and more stable ways of handling conflict and closeness (Bartholomew & Horowitz, 1991; as cited in Mikulincer & Shaver, 2016; Del Giudice, 2018). In the present study, this group may represent respondents who are better able to maintain emotional balance, even without a romantic partner.

The 35.63% who fell under moderate attachment-related anxiety appear to show some level of concern about the availability and responsiveness of others, but not at a highly severe level. These individuals may still function well in relationships, yet they may become more sensitive during times of stress, uncertainty, or emotional distance. As Mikulincer and Shaver (2016) noted, people with moderate anxiety may show occasional reassurance-seeking and insecurity without displaying the more intense patterns seen in highly anxious individuals. This result is meaningful because it suggests that many respondents may not be in crisis. However, they may still carry emotional patterns that can affect how they interpret closeness, rejection, and relationship stability.

Meanwhile, the 33.60% of respondents with high attachment-related anxiety point to a sizable group with stronger relational fears and emotional dependence. These individuals may be more likely to become overly concerned with signs of rejection, seek constant reassurance, or react strongly to perceived distance in relationships. Mikulincer and Shaver (2016) and Fletcher et al. (2019) explained that highly anxious individuals often show behaviors such as rumination, jealousy, and intense efforts to maintain closeness. In the Filipino setting, where emotional closeness, family ties, and interpersonal connections are often highly valued, these behaviors may initially be seen as signs of care or loyalty. However, they may also lead to strain, emotional exhaustion, or conflict when they become too intense or persistent (Hoffner & Bond, 2022).

This overall pattern suggests that many single Filipino emerging adults may carry emotional concerns about security and closeness in relationships, which may place them at greater risk for distress when faced with rejection, uncertainty, or lack of support. The result supports the view that attachment processes remain highly relevant during emerging adulthood and may shape how young adults manage relationships, emotions, and psychological

well-being (Mikulincer & Shaver, 2016).

Extent of Parasocial Bond Tendency Among Single Filipino Emerging Adults

The tendency toward parasocial bonds was assessed using the Celebrity–Persona Parasocial Interaction Scale (see Table 3). The respondents obtained a mean score of 66.40 with a standard deviation of 13.39, which indicates a moderate level of parasocial bond tendency. This finding suggests that the participants generally form noticeable, but not excessive, one-sided emotional connections with celebrities, influencers, or other media personas. In practical terms, this means that many respondents may regularly follow media figures, feel emotionally invested in them, or identify with them to some extent, yet not rely on them for emotional fulfillment. This pattern is consistent with the view that parasocial bonds can serve as meaningful symbolic connections in everyday media use (de Bérail et al., 2019; Schramm et al., 2024).

Table 3. *Extent of Parasocial Bond Tendency Using the CPPI Subscale*

Levels	Frequency	Percentage	Mean	SD	Interpretation
High Parasocial Bond	75	30.36%	66.40	13.39	Moderate parasocial bond
Moderate Parasocial Bond	149	60.32%			
Low Parasocial Bond	23	9.31%			

The dominance of the moderate group suggests that parasocial interaction is a common part of the participants' social and emotional experience. At the same time, the sizable proportion of respondents in the high category shows that strong emotional closeness to media figures is also present in a notable part of the sample. Since only a small percentage reported low parasocial bond tendency, the overall pattern suggests that emotional engagement with media personas is widespread among these single Filipino emerging adults.

The 9.31% of respondents with low parasocial bond tendency appear to show limited emotional involvement with media figures. These individuals may be less likely to form strong imagined closeness with celebrities or online personalities and more likely to rely on real-life social ties for emotional connection. Prior research suggests that weaker parasocial involvement may be associated with greater emotional distance from mediated figures and stronger preference for direct interpersonal interaction (Liebers & Schramm, 2019). In the present study, however, this group represents only a small part of the sample, which indicates that low parasocial involvement is less common than moderate or high involvement.

The largest group, comprising 60.32% of respondents, showed a moderate tendency toward parasocial bonds. This suggests that for many participants, media figures may function as sources of inspiration, comfort, or symbolic companionship without replacing real relationships. They may admire certain traits of public figures, regularly follow their content, and experience emotional uplift from such engagement, while still maintaining a clear awareness that these relationships are one-sided. Greenwood and Long (2011) noted that this kind of moderate parasocial involvement can provide emotional comfort without necessarily becoming unhealthy. Similarly, Tukachinsky and Stever (2019) explained that parasocial relationships may serve as a form of social surrogacy, especially when individuals seek a sense of connection in the absence of strong, immediate intimacy.

Meanwhile, 30.36% of respondents fell into the high parasocial bond category, indicating a considerable group with greater emotional closeness and imagined intimacy toward media figures. While the present data do not directly measure problematic behavior, this finding may suggest that some participants experience more intense identification and emotional investment in media personas. Earlier studies have noted that stronger parasocial bonds may be linked to loneliness, anxious attachment, or unmet social needs, especially when media figures serve as important emotional substitutes for real-life connections (Giles, 2002; de Bérail et al., 2019; Giles & Stever, 2024). Among emerging adults, this may be especially relevant because this stage often involves identity development, emotional exploration, and heavy media exposure, all of which can make parasocial ties more meaningful.

Extent of Psychological Health Among Single Filipino Emerging Adults

The psychological health of the respondents was assessed using the psychological domain of the WHOQOL-BREF, which measures self-perceived emotional well-being, cognitive functioning, life satisfaction, and general mental wellness in daily life (see Table 4). The respondents obtained a mean score of 51.75 with a standard deviation of 18.54, which falls within the low psychological health range. This result suggests that, on average, participants

may experience limited psychological well-being, including difficulty maintaining a positive mood, coping effectively with stress, or finding satisfaction and meaning in everyday life. Since this domain reflects general mental functioning rather than clinical diagnosis, the finding should be understood as indicating potential psychological risk rather than a confirmed mental disorder.

Table 4. *Extent of Psychological Health Using the WHOQOL-BREF Subscale*

Levels	Frequency	Percentage	Mean	SD	Interpretation
High Psychological Health	33	13.36%	51.75	18.54	Low psychological health
Moderate Psychological Health	40	16.19%			
Low Psychological Health	174	70.45%			

This pattern shows a clear imbalance in the distribution, with the large majority of participants reporting lower levels of psychological well-being. The result suggests that psychological strain may be common in this group of single Filipino emerging adults. Emerging adulthood is often marked by uncertainty, identity formation, shifting social roles, and pressure about education, work, and relationships, all of which may affect mental well-being. For single young adults, these pressures may be further felt in the absence of stable romantic support, although this should not be taken to mean that being single alone causes poor psychological health.

The 70.45% of respondents in the low psychological health group appear to represent those with reduced emotional well-being and lower perceived resilience in daily life. These individuals may be more likely to report sadness, stress, poor concentration, low self-worth, or difficulty managing personal challenges. However, these should be treated as possible tendencies rather than definite symptoms. The finding is consistent with studies indicating that Filipino youth may experience psychological strain from academic demands, economic insecurity, and social pressures, which can weaken emotional well-being over time (Tee et al., 2020; Baloran, 2020). Given that this is the largest group in the sample, the result suggests a meaningful mental health concern that warrants attention.

Meanwhile, 16.19% of the respondents showed moderate psychological health. This suggests that some participants may be functioning adequately in daily life but still experience occasional distress, dissatisfaction, or emotional instability. They may be able to cope with challenges to some extent, yet remain vulnerable during stressful periods. This interpretation aligns with Brito and Soares (2023), who noted that emerging adults often face uncertainty about relationships, future direction, and identity, which may affect their sense of well-being even when they continue to function normally in everyday tasks.

Only 13.36% of respondents were classified as having high psychological health, indicating flourishing mental well-being. This group likely includes individuals who perceive themselves as emotionally balanced, psychologically resilient, and generally satisfied with life. They may be better able to regulate emotions, manage stress, and maintain a positive sense of self. Prior literature suggests that higher psychological well-being is often linked with strong coping resources, purposeful living, and supportive relationships or environments (Tee et al., 2020). Although this group is the smallest, its presence indicates that positive psychological functioning remains possible within this developmental stage when protective factors are present.

Bivariate Relationships Among the Main Study Variables

Table 5. *Bivariate Correlations Among Study Variables (n = 247)*

Variable Pair	Correlation Test	Coefficient (<i>r</i> or ρ)	<i>p</i> -value	Effect Size	Hypothesis Decision
Attachment Anxiety – Parasocial Bond	Spearman	.220**	< .001	small to moderate	Reject Ho
Attachment Anxiety – Sexual Orientation	Spearman	-.161*	0.01	small negative	Reject Ho
Attachment Anxiety – Psychological Health	Spearman	-.409**	< .001	moderate negative	Reject Ho
Parasocial Bond – Sexual Orientation	Pearson	0.038	0.55	negligible (ns)	Retain Ho
Sexual Orientation – Psychological Health	Pearson	.235**	< .001	small to moderate	Reject Ho

Note. $p < .05^*$, $p < .01$. Tests selected based on Shapiro–Wilk normality results.

Effect sizes interpreted per Cohen (1988), as cited in Privitera (2022).

Bivariate correlation analyses were conducted to examine the direct relationships among attachment-related anxiety, parasocial bond tendency, sexual orientation, and psychological health. Spearman correlation was used for variable pairs that did not meet normality assumptions, while Pearson correlation was used for those that did. Visual inspection of the scatterplot for attachment-related anxiety and psychological health showed a reasonably

linear pattern with no clear funneling or curvilinear trend, suggesting that the assumptions of linearity and homoscedasticity were adequately met. The results are summarized in Table 5.

The results showed a positive and statistically significant relationship between attachment-related anxiety and parasocial bond tendency, $\rho = .220, p < .001$, with a small to moderate effect size. This means that respondents with higher attachment-related anxiety also tended to report higher parasocial bond tendency. Although the relationship was not strong, it suggests that individuals who feel more insecure in close relationships may also be somewhat more likely to form one-sided emotional bonds with media figures. This finding supports earlier work showing that insecurely attached individuals may turn to symbolic or mediated relationships as an alternative source of emotional connection (de Bérail et al., 2019; Greenwood & Long, 2011).

A statistically significant negative relationship was also found between attachment-related anxiety and sexual orientation, $\rho = -.161, p = .01$, with a small effect size. This indicates that attachment-related anxiety varied across sexual orientation scores. However, this result should be interpreted carefully because the direction of the correlation depends on how sexual orientation was coded in the analysis. At a minimum, the finding suggests that attachment-related anxiety was associated with differences in sexual orientation classification within the sample. This may be viewed alongside minority stress perspectives, which suggest that individuals with marginalized sexual identities may experience relational and social stressors that are relevant to attachment insecurity (Zelaya & DeBlaere, 2024; Fletcher et al., 2019).

Among all the variable pairs, the strongest association was found between attachment-related anxiety and psychological health, $\rho = -.409, p < .001$, with a moderate negative effect size. This means that higher attachment-related anxiety was associated with lower psychological health. In other words, respondents who reported more fear of abandonment, insecurity, and relational preoccupation also tended to report poorer emotional well-being and lower mental wellness. This finding is consistent with attachment theory and prior studies showing that anxious attachment is linked with rumination, emotional dysregulation, and greater vulnerability to psychological distress (Mikulincer & Shaver, 2019). Because this was the largest correlation in the analysis, it appears to be the most substantial direct relationship among the main study variables.

In contrast, the relationship between parasocial bond tendency and sexual orientation was not statistically significant ($r = .038, p = .55$), and the effect size was negligible. This suggests that the tendency toward parasocial bonds did not meaningfully vary by sexual orientation in the present sample. Put simply, respondents across sexual orientation categories appeared generally similar in their tendency to form parasocial bonds. Because the result was not significant, H_{04} was retained. This finding also suggests that parasocial bond tendency may be shaped more by other personal or relational factors than by sexual orientation alone (Möri & Fahr, 2023).

A positive and statistically significant relationship was found between sexual orientation and psychological health, $r = .235, p < .001$, with a small to moderate effect size. This indicates that psychological health differed across sexual orientation scores. However, this finding must also be interpreted with caution because its direction depends on how the sexual orientation variable is coded. Based on the coding used by the researchers, the result suggests that some groups within the sexual orientation variable reported better psychological health than others. While this may seem unexpected, previous studies have noted that identity affirmation, community belonging, and access to supportive spaces may serve as protective factors for some sexual minority individuals (Russell & Fish, 2016; Hoffner & Bond, 2022). At the same time, this result should not be generalized too broadly, especially given the uneven group sizes across categories.

Serial Mediation of the Relationship Between Attachment-Related Anxiety and Psychological Health

A serial mediation analysis was conducted using PROCESS Macro Model 6 (Hayes, 2018) to examine whether parasocial bond tendency and sexual orientation sequentially mediated the relationship between attachment-related anxiety and psychological health while controlling for daily social media use. Bootstrapping with 5,000 samples and 95% bias-corrected confidence intervals was used to estimate the indirect effects. The relevant regression assumptions were examined and found to be adequately met. The path coefficients for the serial mediation model are presented in Table 6.

Table 6. Path Coefficients for the Serial Mediation Model

Path	B	SE	t	p	95% CI
RAAS_Anxiety → CPPI_T	3.14	0.85	3.71	< .001	[1.48, 4.81]
CPPI_T → SexOr_N	0.01	0.01	0.98	0.33	[-0.01, 0.04]
RAAS_Anxiety → SexOr_N	-0.33	0.18	-1.82	.07	[-0.68, 0.03]
SexOr_N → WHOQOL_Psy	1.31	0.39	3.33	0.00	[0.54, 2.08]
CPPI_T → WHOQOL_Psy	0.14	0.08	1.71	0.09	[-0.02, 0.30]
RAAS_Anxiety → WHOQOL_Psy (Direct Effect)	-7.89	1.12	-7.08	< .001	[-10.09, -5.70]
Hours (Covariate) → WHOQOL_Psy	-0.34	0.28	-1.23	0.22	[-0.88, 0.21]

The path analysis results indicated that attachment-related anxiety significantly predicted parasocial bond tendency ($B = 3.14$, $SE = 0.85$, $p < .001$), suggesting that individuals with higher levels of attachment-related anxiety were more likely to report stronger parasocial bond tendencies. However, parasocial bond tendency did not significantly predict sexual orientation ($B = 0.01$, $SE = 0.01$, $p = .33$), indicating that the proposed pathway between the first and second mediators was not statistically supported. Similarly, the direct path from attachment-related anxiety to sexual orientation was not statistically significant ($B = -0.33$, $SE = 0.18$, $p = .07$). In the final outcome model, sexual orientation significantly predicted psychological health ($B = 1.31$, $SE = 0.39$, $p = .001$), whereas parasocial bond tendency did not significantly predict psychological health ($B = 0.14$, $SE = 0.08$, $p = .09$). More importantly, attachment-related anxiety continued to demonstrate a strong and statistically significant direct effect on psychological health ($B = -7.89$, $SE = 1.12$, $p < .001$), even after accounting for parasocial bond tendency, sexual orientation, and daily social media use. This finding suggests that higher attachment-related anxiety was associated with poorer psychological health, independent of the proposed mediating variables. Daily social media use also did not significantly predict psychological health ($B = -0.34$, $SE = 0.28$, $p = .22$).

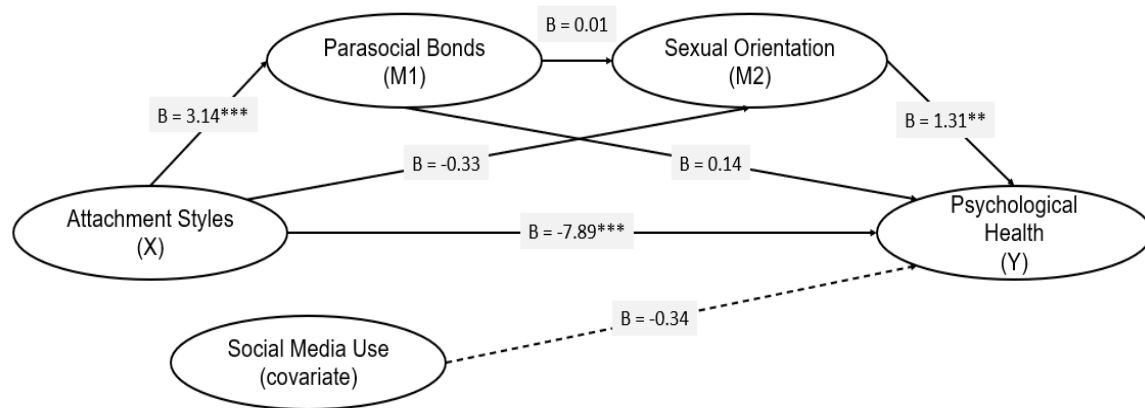


Figure 2. Serial Mediation Model of Attachment-Related Anxiety, Parasocial Bond Tendency, Sexual Orientation, and Psychological Health
Note. Values represent unstandardized regression coefficients. Solid lines indicate tested direct effects, whereas the dashed line represents the covariate effect of daily social media use. $^{**}p < .01$. $^{***}p < .001$.

Figure 2 presents the serial mediation model examining the relationship between attachment-related anxiety and psychological health through parasocial bond tendency and sexual orientation while controlling for daily social media use. The model shows that attachment-related anxiety significantly predicted parasocial bond tendency and psychological health, whereas several intermediary pathways were not statistically significant. Overall, the pattern of results suggests stronger evidence for a direct relationship between attachment-related anxiety and psychological health than for the proposed indirect pathways.

Table 7. Bootstrapped Indirect Effects of RAAS_Anxiety on WHOQOL_Psy

Indirect Path	B	Boot SE	LLCI	ULCI
Total Indirect Effect	0.06	0.42	-0.78	0.92
Ind1: RAAS_Anxiety → CPPI_T → WHOQOL_Psy	0.44	0.30	-0.05	1.12
Ind2: RAAS_Anxiety → SexOr_N → WHOQOL_Psy	-0.43	0.30	-1.11	0.08
Ind3: RAAS_Anxiety → CPPI_T → SexOr_N → WHOQOL_Psy	0.05	0.06	-0.05	0.18

The bootstrapped indirect effects analysis indicated that none of the proposed mediation pathways were statistically significant because all 95% bootstrap confidence intervals included zero. Specifically, the indirect effect of attachment-related anxiety on psychological health through parasocial bond tendency was not significant,

as the 95% bootstrap confidence interval included zero, $B = 0.44$, 95% CI $[-0.05, 1.12]$. Likewise, the indirect pathway through sexual orientation alone did not reach statistical significance, nor did the full serial mediation pathway involving parasocial bond tendency and sexual orientation in sequence. In addition, the total indirect effect of attachment-related anxiety on psychological health was not statistically significant. These findings indicate that parasocial bond tendency and sexual orientation did not significantly mediate the relationship between attachment-related anxiety and psychological health among single Filipino emerging adults. Taken together, the results suggest that the influence of attachment-related anxiety on psychological health may operate more directly rather than indirectly through the proposed mediating variables within the present serial mediation model.

Table 8. Model Summary: Variance Explained (r^2) for Each Regression Equation in the Serial Mediation Model

Dependent Variable	Predictors	R^2	$F(df1, df2)$	p
CPPI_T	RAAS_Anxiety, Hours	0.08	10.20 (2, 244)	< .001
SexOr_N	RAAS_Anxiety, CPPI_T, Hours	0.01	1.22 (3, 243)	0.30
WHOQOL_Psy	RAAS_Anxiety, CPPI_T, SexOr_N, Hours	0.23	17.75 (4, 242)	< .001

Note. R^2 represents the proportion of variance explained by the predictors in each regression equation within the serial mediation model.

To assess the effect size and model fit for each stage of the serial mediation analysis, the coefficient of determination (R^2) was examined for each regression equation. The model predicting parasocial bond tendency from attachment anxiety and social media use was statistically significant, $F(2, 244) = 10.20$, $p < .001$, and explained 8% of the variance in parasocial bond tendency ($R^2 = .08$). The regression model predicting sexual orientation from attachment anxiety, parasocial bonds, and social media use was not statistically significant, $F(3, 243) = 1.22$, $p = .30$, accounting for only 1% of the variance ($R^2 = .01$). Lastly, the model predicting psychological health from all predictors was statistically significant, $F(4, 242) = 17.75$, $p < .001$, and explained 23% of the variance in psychological health ($R^2 = .23$). Together, these regression models explain meaningful variance in psychological health but suggest minimal explanatory power for the intermediate variables, supporting the dominance of direct attachment anxiety effects.

Conclusion

This study examined whether parasocial bond tendency and sexual orientation serially mediate the relationship between attachment-related anxiety and psychological health among single Filipino emerging adults while controlling for daily social media use. The findings demonstrated that attachment-related anxiety significantly and negatively predicted psychological health, indicating that individuals with higher levels of relational insecurity, fear of abandonment, and emotional dependence tended to report poorer psychological well-being. Attachment-related anxiety also significantly predicted parasocial bond tendency, suggesting that individuals with greater attachment insecurity may be more likely to develop stronger one-sided emotional connections with media figures.

However, the serial mediation analysis revealed that neither parasocial bond tendency nor sexual orientation significantly mediated the relationship between attachment-related anxiety and psychological health. Likewise, the indirect pathways through parasocial bond tendency alone, sexual orientation alone, and the combined serial mediation pathway were all nonsignificant. These findings suggest that the influence of attachment-related anxiety on psychological health may operate more directly rather than through the proposed mediating mechanisms. Although sexual orientation significantly predicted psychological health in the regression model, its role as a mediator was not statistically supported. Daily social media use also did not significantly predict psychological health in the final outcome model.

The regression analyses further showed that attachment-related anxiety and social media use explained a modest proportion of variance in parasocial bond tendency. In contrast, the predictors explained minimal variance in sexual orientation. In contrast, the final regression model explained a meaningful proportion of variance in psychological health, further supporting the central role of attachment-related anxiety in understanding emotional well-being among emerging adults.

Several limitations should be acknowledged. First, the cross-sectional design limits the ability to establish causal relationships among variables. Second, the use of purposive online sampling may limit the generalizability of the findings to all Filipino emerging adults, particularly those with limited internet access or lower social media engagement. Third, the reliance on self-report measures may have introduced response bias and social desirability

effects. Additionally, the uneven distribution of sexual orientation categories may have limited the statistical sensitivity of some analyses involving identity-related variables. Despite these limitations, the study contributes to the growing literature on attachment processes, parasocial relationships, and psychological health within the Philippine context. The findings highlight the importance of addressing attachment-related anxiety in counseling, psychological intervention, and youth mental health programs. Future researchers may explore other psychological mechanisms that may better explain the relationship between attachment insecurity and psychological health, such as emotion regulation, loneliness, self-esteem, perceived social support, rejection sensitivity, and minority stress experiences. Longitudinal and mixed-method approaches are also recommended to provide a deeper understanding of how attachment-related processes develop over time among Filipino emerging adults.

Contributions of Authors

Not indicated

Funding

Not indicated

Conflict of Interests

The author declares that there are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgment

The author would like to acknowledge all individuals and institutions who directly and indirectly supported the completion of this study.

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