

Rejection Sensitivity and Psychological Well-Being: Moderating Role of Self-Esteem and Socio-Demographics

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Rejection and sensitivity towards being rejected damages self-concept and psychological well-being. The present study aimed to examine the relationship between rejection sensitivity and psychological well-being. Another aim of the study was to examine the moderating effects of self-esteem and socio-demographics of gender, age, family system, and the number of friends on the relationship between rejection sensitivity and psychological well-being. A quantitative survey research design was used, and a series of moderation models were tested. Participants' age range was between 13-26 years. Adolescents ($n = 112$; $M = 16$ years, $SD = 2.49$) and emerging adults ($n = 189$; $M = 23$ years, $SD = 2.12$) who belonged to nuclear or combined family systems and had limited friends or numerous friends were selected. Almost an equal number of boys and girls responded to the Rejection Sensitivity Questionnaire (Downey & Feldman, 1996), Rosenberg Self-esteem Scale (Rosenberg, 1965), and Ryff's Psychological Well-being Scale (Ryff, 1995). Findings indicated that rejection sensitivity was a significant negative predictor of psychological well-being and accounted for 14% of the variance in the outcome measure. Self-esteem was a nonsignificant predictor and a weak moderator in relating rejection sensitivity and psychological well-being. Participants, who identified as boys, emerging adults, belonging to the joint family system, and with more friends reported having greater psychological well-being than their counterparts. The study has

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intrapersonal and interpersonal behavioral implications at individual, social, and community levels to safeguard from counterproductive behaviors and implement prevention-intervention support.

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Healthy living and adjustment depend on psychological well-being (Hernandez et al., 2018). According to Ryff (1995, p. 99), psychological well-being is characterized by “an individual functioning satisfactorily in emotional and behavioral adjustment.” Realizing one's potential, productivity, overcoming life stressors, and contributing to one's community are all positive behaviors linked to well-being. According to Ryff, there are six positively correlated and empirically validated aspects of well-being: Self-acceptance, positive relationships with others, environmental mastery, personal progress, and autonomy. The first two characteristics of psychological well-being are particularly examined in this study and are more closely aligned with the study objectives.

Poor psychological well-being is caused by internalizing and externalizing problems (Arslan, 2023) as well as stressful life events from the past, such as family conflicts, intimate partner conflicts, and changes in the relationship with parents and family (Matud et al., 2023) according to empirical evidence on the correlates or predictors of psychological well-being. In a Pakistani study, Yasmin et al. (2015) found that adolescents with low levels of psychological well-being had higher scores on depression. Contrarily, positive psychological well-being was reported among adolescents with low internalizing and externalizing problems (Arslan, 2023).

Rejection Sensitivity and Psychological Wellbeing

Humans have an innate drive to form smooth social relationships. Rejection sensitivity is “the dispositional inclination to defensively expect, readily perceive, and overreact to rejection” (Downey & Feldman, 1996, p. 1328). It stems from early experiences of rejection in social interactions with parents, friends, and other adults that carry over into later stages of development. According to Downey's rejection sensitivity model, people acquire acceptance and prevent rejection in social relationships. A slight interpretation of real or imagined rejection triggers defensive reactions among sensitive people, which intensifies over time (Downey & Feldman, 1996). The feelings of being rejected become salient during adolescence and the

transitional period of emerging adulthood, which extends from the end of adolescence to the young adult responsibilities of a stable job, marriage, and parenthood (Arnett, 2023). Prior literature shows fragmentary findings on the association of rejection sensitivity with psychological well-being among adolescents and emerging adults. Thus, the present study addresses this limitation.

Scholars claim that threats to positive social relationships have serious consequences on psychological well-being and self-esteem during adolescence and adulthood (Ding et al., 2021; Efeoglu & Sen, 2022; Goldstein et al., 2005). Ayduk et al. (2000) early work provides insight into the association between rejection sensitivity and psychological well-being among children and adolescents. They found a high level of rejection sensitivity among preschool and middle school children which, in turn, predicted diminished well-being (e.g., low self-worth, higher drug use), psychological distress (e.g., anxiety, depression, stress), interpersonal difficulties (e.g., aggression, peer rejection), and maladaptive behavioral outcomes (e.g., poor social functioning). These associations were consistent with a higher level of rejection sensitivity 20 years later (Ayduk et al., 2000). In a five-year longitudinal study, researchers found that changes in the pattern of rejection sensitivity predicted a constant increase or decrease in social anxiety among Australian adolescents (Zimmer-Gembeck et al., 2021). Another study showed that rejection sensitivity was a significant predictor of internalizing behavior problems among Chinese students and their healthy emotional regulation reduced the negative effects of rejection sensitivity on psychological adjustment (Ding et al., 2021).

Empirical studies and research reviews augment such claims. Arslan (2021) found adolescents with high levels of social exclusion experienced more mental health issues. The subjective well-being significantly predicted mental health and mediated its association with social inclusion and exclusion. In a study with 323 emerging adults, Efeoglu and Sen (2022) found that people with high scores on rejection sensitivity had low psychological well-being scores, and people with low rejection sensitivity scores had high psychological well-being scores. Gao and colleagues (2017) conducted a research review of 75 empirical studies on rejection sensitivity and five mental health outcomes. They found a moderate degree of significant associations of rejection sensitivity with depression, anxiety, loneliness, borderline personality disorder, and body dysmorphic disorder for clinical and nonclinical samples (Gao et al., 2017).

Moderation Effects of Self-esteem

Self-esteem is defined as “a person’s representations of general or typical feelings of self-worth or how an individual feels about oneself” (Kernis, 2005, p.1570). In the light of Leary et al. (1995) socio-meter theory, self-esteem develops because of a person’s perceived degree of social inclusion or exclusion in a group. Thus, it determines psychological well-being based on social experiences. An individual’s self-esteem is affected by the way others evaluate him or her. A low level of self-esteem undermines psychological well-being independently, or interactively with heightened feelings of rejection sensitivity (Leary et al., 1995). Research shows that rejection sensitivity as a defensive mechanism to shield oneself from adverse judgments by others and to recover lost social standing triggers low self-esteem (Berenson & Downey, 2013), which is associated with a range of negative outcomes, including depression, anxiety, and other psychological problems (Javaid et al. 2021). Khoshkam et al. (2012) have provided empirical evidence that repeated experiences of rejection in social relationships resulted in heightened rejection sensitivity among Iranian university students, which, in turn, contributed to lower levels of self-esteem. Moreover, students with low self-esteem had poorer psychological well-being as compared to people with high self-esteem (Khoshkam et al., 2012). High or low levels of self-esteem lead to different psychological outcomes. People with high self-esteem engage in productive tasks and assume responsible roles that increase their psychological well-being (Leung et al., 2011). People with low self-esteem experience daily discrimination and problematic social relationships that further lower their psychological well-being (Huynh & Fuligni, 2010).

Moderation Effects of Socio-demographics

Some socio-demographic variables moderate the relationship between rejection sensitivity and psychological well-being. However, the existing literature mostly explains the direct effects of age, gender, family system, and the number of friends on the study variables. It is interesting to investigate if psychological well-being increases or decreases with the growing age or by being male or female, etc.

Gender

The literature contains evidence about the role of gender in the psychological well-being of adolescents and emerging adults. Research with adolescents showed that the gender gap in psychological well-being begins at the age of 12 and adolescent girls

than adolescent boys had lower scores in purpose in life as an indicator of psychological well-being (Esteban-Gonzalo et al., 2020). Yasmin et al. (2015) in their study with Pakistani adolescents showed that boys ($n = 154$) aged 12 to 18 years had higher psychological well-being, on average than girls of the same age group ($n = 191$). Gestsdottir et al. (2015) conducted a longitudinal study on gender differences in the long-term development of psychological well-being of 385 adolescents in Iceland. They reported that adolescent boys had relatively higher psychological well-being than adolescent girls at age 15 and age 23. Boys also had lower scores on measures of anxiety, depression, and somatic complaints than girls. However, their psychological well-being did not improve much from adolescence to emerging adulthood. Findings showed that the psychological well-being of girls and women steadily improved eight years later (Gestsdottir et al., 2015). Another study found that gender moderated the association between rejection sensitivity and anxiety used as a measure of mental health, and men felt more anxious (Gao et al., 2017). More adolescent girls showed high rejection sensitivity and poor psychological well-being than adolescent boys (e.g., Gómez-Baya et al., 2018). Research with Spanish emerging adults aged 21-64 years showed that men with high masculinity and women with high femininity had better psychological well-being than their counterparts because of stereotypical gender roles. Besides traditional gender roles, self-concept characterized as masculine-instrumental and feminine-expressive, and social support predicted better psychological well-being (Matud et al., 2022).

Age Groups

In a Pakistani study, Yasmin et al. (2015) sampled 154 boys and 191 girls from grades 6th-10th with a mean age of 14.64 years ($SD = 1.27$). They reported that 43.4% of 345 adolescents had moderate levels of psychological well-being and 23.2% had low psychological well-being. Maroof and Khan (2016) investigated age and gender differences in psychological well-being in a sample of 400 adolescents and adults (men = 185 and women = 215) in Khyber Pukhtunkhwa Pakistan within an age range of 17 to 50 years. They used Ryff's Psychological Well-being Scale and found significant gender differences, favoring boys. Psychological well-being increased with age and older individuals, on average, were psychologically much better than their younger counterparts. A comparative longitudinal study found that older age was associated with better psychological well-being than adolescence (Bruine de Bruin et al., 2020).

Family System

Adolescents belonging to large families reported low depression and better psychological well-being, after controlling for the family negative network (Fuller-Iglesias et al., 2015). A study found that men with high masculinity and women with high femininity had better psychological well-being than their counterparts because of stereotypical gender roles (Matud et al., 2019). Another study focused on studying adolescents' well-being in different family structures in Germany. Findings gained from 6838 students aged 12-13 years show that family cohesion and quality relationships predicted better well-being (Herke et al., 2020). Recently, Janjua et al. (2024) examined the potential moderating effects of the nuclear versus combined family systems on the psychological well-being of 274 university students from Pakistan with neurotic personality traits. The age range of the sample was 18 to 30 years old. Findings showed that the family system, particularly, the combined family system, significantly positively increased the psychological well-being of students possessing neurotic personality traits.

Quantity of Friendships

Social networking with friends is a valuable source of social support during adolescence and emerging adulthood. A study shows that the density of friendships and having a larger number of close friends predicted psychological well-being (Falki & Khatoon, 2016). In the same year, Miething et al. (2016) found a positive association between friendship quality and psychological well-being during the transition from late adolescence to young adulthood. Bruine de Bruin et al. (2020) surveyed the social network quality, number of close friends, and psychological well-being among 496 emerging and young adults. The number of close friends, though unrelated to age, was a salient predictor of psychological well-being.

Interestingly, younger adults had larger social networks than older adults (Bruine de Bruin et al., 2020). Testing the advantages of the quantity of friendship, Thompson et al. (2022) explored the role of the number of friends to benefit from positive outcomes of psychological well-being that were measured in terms of depression, anxiety, and stress in 350 older adults. Results showed that the number of friends was significantly negatively associated with each dependent variable. However, this association becomes curvilinear in a way that increasing the number of friends decreases closeness with friends and thus lowers its benefits. They found that having at least

two or three close friends can help diminish the negative impact of depression, anxiety, and stress on mental health (Thompson et al., 2022). Pezirkianidis et al. (2023) reviewed 38 research articles on the link between friendships and psychological well-being, published in scholarly journals between 2000-2019. Adult friendship was, in general, a positive predictor and correlation of psychological well-being and its components. The greater number of friends predicted a higher level of well-being than having fewer friends.

Considering theoretical and empirical literature, the current study aimed to explore the association between rejection sensitivity and psychological well-being in adolescents and emerging adults. The moderating role of self-esteem and socio-demographics of age, gender, family system, and the number of friends on the relationship between rejection sensitivity and psychological well-being among adolescents and emerging adults were also explored. Because of sparse research on the association of rejection sensitivity with psychological well-being among adolescents and emerging adults, participants between the ages of 13 and 26 years are categorized as adolescents and emerging adults to compare their behavioral profiles. Another strength of the current study is the examination of the main effects and interaction effects of the family system and the quantity of friendship in the Pakistani context to address the limitation of fragmentary empirical evidence. By identifying factors that moderate this relationship, the study provides a more nuanced understanding of the complex interplay between rejection sensitivity, self-esteem, socio-demographic variables, and psychological well-being. The findings may have implications for the development of interventions that target rejection sensitivity and related psychological outcomes in at-risk populations. The following hypotheses were tested.

1. Rejection sensitivity predicts poor psychological well-being among adolescents and emerging adults.
2. High self-esteem will reduce the negative impact of rejection sensitivity on psychological well-being among adolescents and emerging adults, and vice versa.
3. Socio-demographic factors will moderate the relationship between rejection sensitivity and psychological well-being in a way that being an adolescent, or boy, belonging to the nuclear family system, and having more friends will buffer the negative impact of rejection sensitivity on psychological well-being than their counterparts.

Method

Research Design

The present cross-sectional survey study is a correlational research. It adopts a comparative quantitative approach to examine differences based on age, gender, family system, and number of friends. Data are collected on self-reported measures.

Participants

A total of 301 participants were chosen through purposive sampling to facilitate comparisons on socio-demographic variables. The inclusion criterion was the participants' age range between 13 -26 years. Those students who were above or below this age range were excluded from participation. The age range of adolescents was 13-19 years ($n = 112$, $M = 16$ years, $SD = 2.49$), and the age range of emerging adults was 20-26 years ($n = 189$, $M = 23$ years; $SD = 2.12$). Almost an equal number of boys ($n = 150$) and girls ($n = 151$) were selected who belonged to nuclear family system ($n = 181$) or combined family system ($n = 120$). Those who had one to three friends were specified as having limited friends ($n = 185$) and those with four or more friends were specified as having numerous friends ($n = 116$).

Measures

Rejection Sensitivity Questionnaire (RSQ)

The 18-item version of the Rejection Sensitivity Questionnaire is used in the present study. [Downey and Feldman \(1996\)](#) developed this questionnaire to measure individual differences in readiness to perceive and overly react to rejection in social relationships with significant people in life. Two experts reviewed the items and deleted nine items (i.e., 2, 3, 4, 10, 14, 15, 16, 17, 18) to make the measure culturally more relevant for the chosen population. For instance, two excluded items stated, "You ask your boyfriend/girlfriend to move in with you." And "You ask your boyfriend/girlfriend if he/she really loves you."

Items were responded to five-point response categories ranging from *not at all concerned* to *extremely concerned* and *not at all likely* to *extremely likely*. These were scored from 1 to 5 and total scores ranged from 11 to 55. In this study, rejection sensitivity was

operationalized using the following formula: Rejection sensitivity = rejection concern * 7-acceptance expectancy.

To obtain a mean rejection sensitivity score for each participant, their responses to the questionnaire's nine items were multiplied, and the result was divided by the total number of items. The Cronbach's alpha for the questionnaire was .80, and the test-retest was above .80 at different times with the same individuals (Berenson et al., 2016).

Rosenberg Self-esteem Scale (RSS)

Rosenberg (1965) developed this 10-item Likert scale to measure the level of an individual's self-esteem. This scale was chosen because of its excellent psychometric properties, standardization, and wide use. Items were responded to on a four-point rating scale. Responses ranged from 3 (*strongly agree*) to 0 (*strongly disagree*). Items number 1, 2, 4, 6, 7, and 9 were scored from 3 to 0, whereas items number 3, 5, 8, and 10 were reverse scored from 0 to 3. The total score ranged from 0 to 30 and the cut-off point was 15. The scores below 15 indicate low self-esteem, scores between 15-25 indicate normal range, and scores >25 indicate high self-esteem. Rosenberg (1979) reported excellent internal consistency, construct, and criterion validity of the scale. It had a .92 Guttman coefficient of reproducibility and .85 and .88 test-retest reliability over two weeks. RSE significantly correlated with other measures of self-esteem as evidence of convergent validity and with measures of anxiety, stress, and depression as evidence of discriminant validity (Rosenberg, 1979).

Ryff's Psychological Well-being Scale (PWB)

Ryff (1995) developed this 42-item scale to measure 6 dimensions of well-being, namely Autonomy, Environmental Mastery, Personal Growth, Positive Relationship with Others, Purpose in Life, and Self-acceptance. Each subscale had seven items and a score range of 1-42. Respondents answered all items on a 6-point rating scale, labeled from 1 (*strongly disagree*) to 6 (*strongly agree*). There were 20 positively worded items and 22 negatively worded items. The total scale score range was 1-252. The sum of all 6 subscale scores was used to compute the total score of an individual's psychological well-being. The high score indicated a high level of psychological well-being. The rationale for the use of this measure is its established psychometric properties. This scale is a reliable and valid measure and previous studies reported internal consistency between .71-.85 (Manchiraju, 2020), and .93-.86 and test-retest reliability ranging from .88-.81 over 6 weeks (Ryff, 1995). Abbott et

al. (2006) reported a $-.45$ and $-.57$ correlation between psychological well-being and the General Health Questionnaire as evidence of its predictive validity and criterion validity, respectively.

Procedure

After seeking approval for the proposed study from the Departmental Ethics Review Committee, the University of Haripur, two schools, and two colleges in district Haripur that provided consent for participation were contacted. The heads of the targeted institutions, participants, and their parents signed an informed consent form for research participation. Students were provided with information about their studies. Researchers collected in-person data through group administration of the survey questionnaires from September to November 2020. They were assured of the confidentiality of their provided information, and its use only for research. The participants' anonymity and the right to quit the study at any time were ensured. Participants were instructed to imagine themselves in their respective situations while responding to each statement on the Rejection Sensitivity Questionnaire. They were asked to share their personal feelings while responding to Rosenberg's Self-esteem Scale and agreement with each statement while responding to the Psychological Well-being Scale.

Results

Statistical analyses were performed in SPSS software version 25 on the collected data. The sociodemographic variables of gender, age, family system, and number of friends were categorized. Age was treated as a ratio-level variable. Adolescents, boys, belonging to the nuclear family system, and having a few friends were coded 0 and used as a reference category. The emerging adults, girls, belonging to a combined family system, and having numerous friends were coded as 1. The alpha reliability of the Rejection Sensitivity Questionnaire is $.89$, the Rosenberg Self-esteem Scale is $.77$, and the Psychological Well-being Scale is $.90$.

First, descriptive statistics and Pearson's Product Moment correlation coefficients were computed. The mean score of the total sample for rejection sensitivity was 53.33 ($SD = 11.72$). Only 11 participants had self-esteem scores lower than the cutoff point of 15; on average, it was 21.24 ($SD = 3.38$) for all participants. The average of Ryff's Psychological Well-being Scale Score ($M = 161.83$; $SD = 25.90$) showed that participants had moderate to high levels of psychological well-being.

Table 1 reveals that rejection sensitivity is significantly negatively correlated with both self-esteem and psychological well-being. Specifically, as rejection sensitivity increases, levels of self-esteem and well-being decrease. These findings suggest a strong negative association between rejection sensitivity and positive psychological outcomes. Most correlation coefficients between study variables and among four demographic variables are significantly positive within the range of $-.22$ and $.82$ at $p < .01$. Except, self-esteem has a significant negative correlation with participants' gender and age. It has a nonsignificant positive correlation with the family system and the number of friends.

Table 1

Inter-correlations for Study Variables (N = 301)

Variables	1	2	3	4	5	6	7
1 Rejection Sensitivity	-	-.15**	-.38**	.72**	.82**	.52**	.54**
2 Self-esteem		-	-.05	-.22**	-.17**	.03	-.05
3 Wellbeing			-	.25**	.37**	.33**	.33**
4 Gender				-	.70**	.22**	.26**
5 Age					-	.45**	.35**
6 Family						-	.38**
7 Friend							-

Note. Code 0 = adolescents, boys, belonging to a nuclear family system, and having limited friends; Code 1 = emerging adults, girls, belonging to a combined family system, and having numerous friends.

** $p < .01$.

The standardized scores of the variables were used to compute the centered terms of the predictors so that moderation analysis could be performed. Table 2 shows the findings of six models of regression analyses to test study objectives. Models 1 - 2 show the main and interactional effects of rejection sensitivity and self-esteem on participants' psychological well-being. Models 3 - 6 show the moderation effects of categorical socio-demographic variables. Model 1 examines rejection sensitivity as a predictor of psychological well-being. Findings show that rejection sensitivity has a significant negative impact on psychological well-being. The standardized beta value shows that psychological well-being decreased by .38 units with one standard unit increase in rejection sensitivity. The model accounted for a 14% variance in the outcome variable and the relationship between rejection sensitivity and psychological well-being is negative.

Model 2 shows the main and interaction effects of rejection sensitivity and self-esteem in predicting psychological well-being. The main effect shows a clear negative relationship between rejection

sensitivity and psychological well-being. As rejection sensitivity increases, psychological well-being decreases. The interaction effect is also significant and explains a 15% variance in psychological well-being with only a one percent difference from the main effect. However, psychological well-being decreased by 11 units with one standard unit increase in rejection sensitivity and self-esteem. It implies that self-esteem buffers the negative effects of rejection sensitivity on psychological well-being for individuals with higher self-esteem than those with low self-esteem and having the same magnitude of rejection sensitivity.

Table 2

Main and Interaction Effects of Rejection Sensitivity, Self-Esteem, and Socio-Demographic Variables on Psychological Wellbeing (N = 301)

Models	B	SE	β	R ²
Model 1				
Rejection Sensitivity	-.83	.12	-.38**	.14
Model 2				
Rejection Sensitivity	-.84	.12	-.38**	.14
Self-esteem	.33	.44	.04	.14
Rejection Sensitivity x Self-esteem	-3.10	1.58	-.11**	.15
Model 3				
Rejection Sensitivity	-.87	.12	-.39**	.15
Gender	-3.81	2.82	-.07	.15
Rejection Sensitivity x Gender	9.19	2.07	-.25**	.15
Model 4				
Rejection Sensitivity	-.49	.21	-.22**	.14
Age	-2.96	2.87	-.06	.15
Rejection Sensitivity x Age	-6.08	2.96	-.19**	.16
Model 5				
Rejection Sensitivity	-.62	.14	-.28**	.14
Family System	-2.48	2.81	-.05	.15
Rejection Sensitivity x Family System	-9.08	3.12	-.18**	.17
Model 6				
Rejection Sensitivity	-.65	.14	-.29**	.14
Number of Friends	2.90	2.84	.05	.14
Rejection Sensitivity x Number of Friends	-8.17	3.04	-.17**	.17

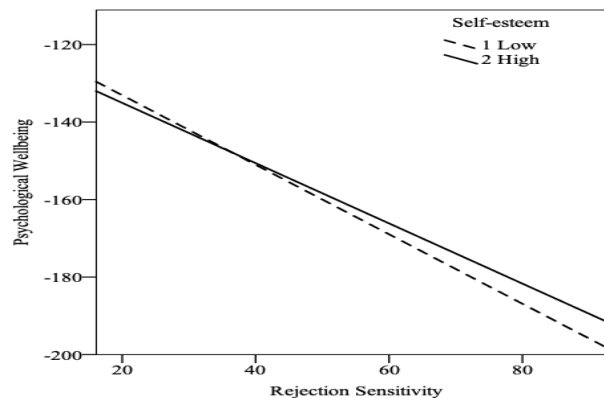
Note. Code 0 = adolescents, boys, belonging to a nuclear family system, and having limited friends; Code 1 = emerging adults, girls, belonging to a combined family system, and having numerous friends.

** $p < .01$.

Self-esteem appears to be a significant moderator (see [Figure 1](#)) in the association between rejection sensitivity and psychological well-being. It is further analyzed for the groups of low self-esteem ($n = 113$) and high self-esteem ($n = 188$) individuals. The impact of rejection sensitivity on psychological well-being differs depending on the levels of self-esteem, specifically when rejection sensitivity is high with $t(297) = -1.97, p = .05$. The dashed line depicts scores of individuals with low self-esteem. As a negative outcome of rejection sensitivity, the steeper slope of the dashed line as compared to the solid line shows a sharp decline in the psychological well-being of those with low self-esteem than those with high self-esteem. Thus, self-esteem is a significant moderator for both groups of individuals with low and high self-esteem. Different slopes indicate that self-esteem moderates the relationship between rejection sensitivity and psychological well-being ($\beta = -11, p < .05$). However, this effect is less sharp for participants with high self-esteem. Whereas those with low self-esteem had a steeper decline in psychological well-being as a result of rejection sensitivity.

Figure 1

Self-esteem as a Moderator for Rejection Sensitivity in Predicting Psychological Wellbeing

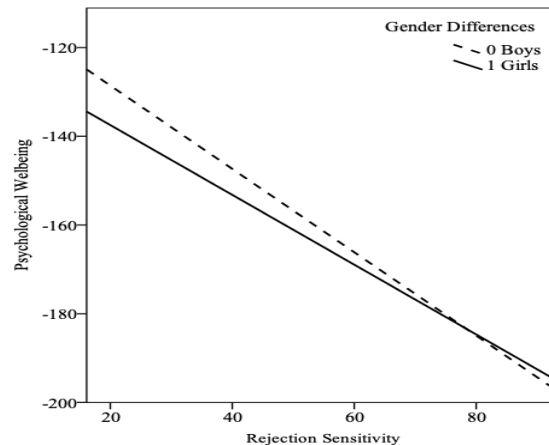


Next, the moderation effects of categorical socio-demographic predictors are examined during models 3 - 6. The main effect of rejection sensitivity on psychological well-being remained unchanged. As mentioned before, adolescents, boys, from nuclear families, and having limited friends are used as a reference group. Results indicate that all four demographic variables have statistically nonsignificant effects on psychological well-being with small variances. However, their interaction effects are significant.

Gender is a significant moderator ($\beta = -.25^{**}$, $p < .01$), and with rejection sensitivity, participants have different scores on psychological well-being according to their gender (see Figure 2). The conditional effects of rejection sensitivity on psychological well-being are analyzed as shown in the moderation graph (see Figure 2). Boys have slightly better psychological well-being than girls and seem to be less affected by the negative impact of rejection sensitivity. Girls show a steeper decline in psychological well-being as rejection sensitivity increases, however, at the point of intersection increase in rejection sensitivity among boys marked an effect on boys' psychological well-being than girls.

Figure 2

Gender as a Moderator Between Rejection Sensitivity and Psychological Wellbeing



The interaction effect of rejection sensitivity and age is also statistically significant ($\beta = -.19^{**}$, $p < .04$) with a moderate amount of variance in the outcome variable. Figure 3 of the moderation graph shows the conditional effect of rejection sensitivity on psychological well-being across two age groups. The dashed line represents adolescents, and the solid line represents emerging adults. The solid line has a steeper slope, which shows a greater decline in the psychological well-being of emerging adults than adolescents with increasing rejection sensitivity with $t(297) = -2.05$, $p = .04$.

The results of Model 5 significantly depict the contrast of both nuclear and combined family systems and examine its moderating effects. In figure 4, the nuclear family system is represented by the solid line that shows a steeper decrease in psychological well-being with an increase in rejection sensitivity. The nuclear family system is represented by the dashed line and shows a gradual decrease in psychological well-being with increasing rejection sensitivity. Though participants from both family systems experience a

decline in psychological well-being, the joint family system buffers against the negative impact of rejection sensitivity on psychological well-being. The plausible reasons could be family cohesion (Herke et al., 2020) and less likelihood of experiencing mental issues that harm psychological well-being (Fuller-Iglesias et al., 2015). The standardized beta values confirm the significant moderating effect of the family system ($\beta = -.18^{**}$, $p < .01$) that is varied across groups ($t(297) = -2.91$, $p = .00$).

Figure 3

Age as a Moderator Between Rejection Sensitivity and Psychological Wellbeing

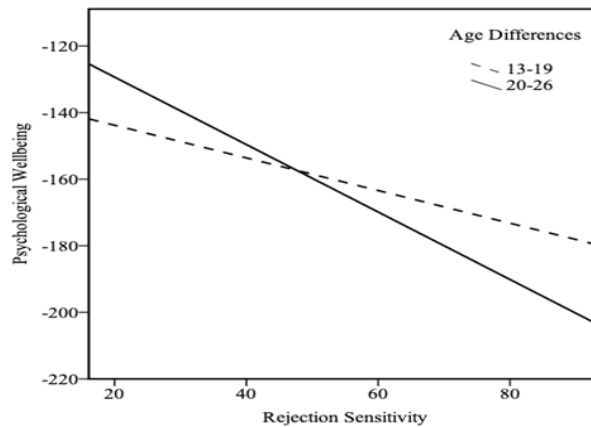
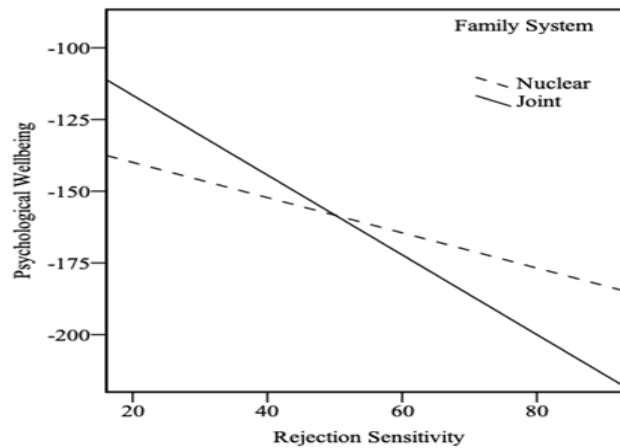


Figure 4

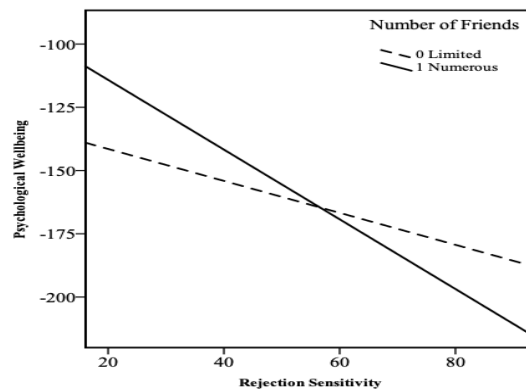
Family System as a Moderator Between Rejection Sensitivity and Psychological Wellbeing



The interaction effect between rejection sensitivity and the number of friends was significant ($\beta = -.17^{**}$, $p < .01$). Moreover, the interpretation line depicts the conditional effects of rejection sensitivity on psychological well-being across two levels of the number of friends in Figure 5. The t -test value $t(297) = -2.68$, $p = .01$ reflects these differences in terms that participants with numerous friends have better psychological well-being in response to rejection sensitivity than their counterparts with a limited number of friends. The downward slope of the dashed line is less steep indicating a less decrease in psychological well-being with increasing rejection sensitivity among those who have limited friends than those with numerous friends after the point of intersection.

Figure 5

Number of Friends as a Moderator Between Rejection Sensitivity and Psychological Wellbeing



Discussion

The primary objective of the current study was to investigate the predictive effects of rejection sensitivity and the moderating effects of self-esteem and socio-demographic factors on psychological well-being. Data were gathered from adolescents and emerging adults within the age range of 13-26 years who belonged to nuclear and combined family systems. The prime objective of the study was to examine the moderating effects of self-esteem and demographics. Correlation and a series of moderation analyses were performed to test the hypotheses.

The first hypothesis stated that rejection sensitivity will have negative effects on the psychological well-being of adolescents and emerging adults. The results support the first hypothesis and rejection sensitivity scores significantly negatively correlated with

psychological well-being scores. At the same time, the standardized beta value of rejection sensitivity ($\beta = -.38$) revealed that psychological well-being decreased with an increase in rejection sensitivity scores. Past research also supports the negative association between rejection sensitivity and psychological well-being (e.g., [Ayduk et al., 2000](#); [Javaid et al., 2021](#)).

The second hypothesis tested the assumption that self-esteem and socio-demographics will moderate the relationship between rejection sensitivity and psychological well-being among adolescents and emerging adults. Five models were tested to examine the effects of moderators. First, the interaction effect of rejection sensitivity and self-esteem on psychological well-being was examined. The premise of this assumption is that having a high level of self-esteem can act as a buffer against the negative effects of rejection sensitivity on psychological well-being. Contrarily, a low level of self-esteem may further intensify sensitivity feelings towards being rejected and may lead to psychological ill-being. Findings show that self-esteem significantly moderated the association between rejection sensitivity and psychological well-being in a way that high self-esteem buffered the negative impact of rejection sensitivity on well-being whereas low self-esteem exacerbated the negative effects. This finding provides empirical support to the socio-meter theory of [Leary and colleagues \(1995\)](#) and is consistent with the findings of [Berenson and Downey \(2013\)](#).

The main effects and interaction effects of four socio-demographic variables of gender, age, family system, and number of friends, were examined on the association between rejection sensitivity and psychological well-being. The reference categories were adolescents, boys, belonging to nuclear families, and having a limited number of friends for analysis by the level of demographic variables. The direct effects of all four socio-demographic variables were nonsignificant and had zero or low variability. Participants particularly, girls, and adolescents, belonging to the combined family system, and with fewer friends had lower average scores on psychological well-being than their counterparts.

Results show that the relationship between rejection sensitivity and psychological well-being was moderated by participants' age. The interaction between rejection sensitivity and age accounted for 14% of the variance in psychological well-being. The reasons emerging adults score high on psychological well-being can be their positive self-concept ([Diehl & Hay, 2011](#)) or a greater supportive interaction with family and friends that were associated with individuals' daily experience of positive and negative emotion, satisfaction, and psychological well-being ([Montpetit et al., 2017](#)). A

takeaway from the findings is the relatively higher vulnerability of adolescents to the risk of rejection and its harmful effects on their mental health.

The interaction and conditional effects of gender were also significant but predicted a small amount of variability in psychological well-being ($R^2 = .06$). Findings indicate that boys have higher psychological well-being whereas girls experience a steeper decline in psychological well-being with an increasing rejection sensitivity. A potential reason for this difference can be the male-dominated culture and patriarchal society of Pakistan. Girls may experience more rejection, and become sensitive towards such negative social interactions, and their psychological well-being may be more affected. This finding is supported by research evidence (e.g., [Matud et al., 2019](#); [Miething et al., 2016](#)) that reports boys have better mental health status. Another study conducted by [Gómez-Baya et al. \(2018\)](#) found that girls have poorer psychological well-being than boys.

A model proposed in this research also highlights the moderation effect of the family system on participants' psychological well-being. The interaction effect of the family system and rejection sensitivity on psychological well-being was significant. Being a member of a joint family system predicted higher psychological well-being than being a member of a nuclear family system. This finding is supported by previous research evidence from [Fuller-Iglesias et al. \(2015\)](#) who reported better psychological well-being among adolescents living in a large family.

Likewise, another model tested the moderation and conditional effects of having a limited number of friends versus having more friends. Results show that psychological well-being decreased for both groups with an increase in rejection sensitivity. However, having more friends predicted a high level of psychological well-being when rejection sensitivity was examined in combination with the number of friends. The model predicted a 16% variance as a moderation effect on the outcome variable. It implies that having limited friends is more associated with psychological health risks in terms of rejection sensitivity. This finding provides empirical support to [Falki and Khatoon \(2016\)](#) which shows having better psychological health and well-being when an individual possesses many close friends.

Limitations and Future Recommendations

- All three instruments used for data collection were foreign-made and administered in the English language. Only the Rejection Sensitivity Questionnaire was culturally adapted, deleting seven

items to make the measure culturally more relevant for the chosen population. The omitted items questioned opposite-sex friendships and cohabitation which are not explicitly discussed in Pakistani culture. Though these foreign measures portrayed the nature and association among study variables, however, they did not portray the indigenous culture. That is the reason to culturally adapt these measures to get more reliable findings.

- The present study was based on a comparison between two broadly categorized age groups of adolescents and emerging adults. Salient developmental changes occur during this shortlisted span of years between 13 and 26 years. However, the present study does not consider the overtime developmental process and only relies on the cross-sectional measurement of these constructs. It is recommended to conduct longitudinal studies in the future, starting from puberty up to late adulthood, to better observe the pattern of developmental changes in the study variables.
- All three measures used in the present study were foreign-made tests. It is recommended to develop indigenous measures or at least use translation and adaptation of tests to maximize the validity of findings.
- Data on the main study variables and socio-demographic variables were participants' self-reports. They self-scored their self-esteem and psychological well-being and identified their belonging to either a nuclear or combined family or having more or fewer friends, etc. Obtaining other reports of an individual's psychological well-being and feelings of self-esteem through observation or interview data can help to ensure the full credibility of the information.
- The current study's findings have limited generalizability due to the small sample size and restricted demographic representation. To enhance the external validity of future research, it would be beneficial to increase the sample size.

Implications

The present study provided empirical insight to understand the associations among the study variables. The study emphasized how self-esteem can have positive effects and rejection sensitivity can have negative effects on the psychological well-being of adolescents and emerging adults. The varying levels of self-esteem moderate the link between rejection sensitivity and psychological well-being. It also highlights how social relationships impact a person's resilience to feelings of rejection and how promoting self-esteem may help mitigate the adverse effects of

rejection sensitivity on well-being. The understanding of this age group interests all, in particular, parents, teachers, policy-makers, psychologists, sociologists, and mental health practitioners can directly benefit from the first-hand information to promote positive behaviors among youth. The results not only expand understanding of the role of different social networks with family and friends in determining rejection sensitivity and consequent well-being or ill-being but also offer practical grounds for necessary interventions. Parents and caregivers can adopt positive socialization to avoid experiences of rejection, rejection sensitivity, low self-esteem, and poor psychological health. Mental health workers can use the obtained scores as a screening tool to plan prevention-intervention support. Further, academic institutions can plan a code of conduct for positive behavior development that can shield youth from risks of maladaptation and psychological ill-being. Thus, these findings have practical benefits at individual, social, and community levels, with intrapersonal and interpersonal implications.

Conclusion

Experiences of rejection and sensitivity towards such exposures hamper the mental health of youth. The research shows that a direct relationship exists between rejection sensitivity and psychological well-being. With an increase in rejection sensitivity, there is a decline in participants' psychological well-being. Self-esteem plays a protective role in well-being when an individual faces mild rejection but helps to decrease the harmful effects of rejection on well-being in case of high rejection. Results also show that the direct effects of gender, age, family system, and number of friends were nonsignificant. However, the interaction and conditional effects were significant. The emerging adults and boys, belonging to joint families and with numerous friends reported having better psychological well-being than their counterparts. It implies that age and gender promote psychological well-being, and increased social support from family and friends enhances psychological well-being.

Conflict of Interest

It is a unique publication using the dataset and no other manuscript has been published, accepted, or submitted for publication elsewhere. We have potentially no personal and institutional conflict of interest, financial, or business.

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