

Emotional expressivity as a moderator between self-esteem and prosocial behavior among undergraduate university students in Pakistan

 Asia Kausar^{1*},  Norzaliza Alis²,  Suzila Ismail³

¹University Utara Malaysia, Malaysia.

¹The Islamia University of Bahawalpur, Pakistan.

²University Utara Malaysia, Malaysia.

³University Utara Malaysia, Malaysia.

*Corresponding author: Asia Kausar (Email: asia.kausar@iub.edu.pk)

ABSTRACT

Purpose: The current study focuses on how emotional expressivity influences the link between prosocial activities and self-esteem in undergraduate students.

Design/Methodology/Approach: The study's sample consisted of 528 college students, with ages ranging from 17 to 24 years. Of the participants, 52.8% identified as female and 47.2% identified as male. The participants in the study were provided with Rosenberg's self-esteem scale, a measure of prosocial propensity, and an emotional expressivity scale. Statistical Package for Social Science was used to generate the results.

Findings: The findings reveal the relationship between self-esteem and prosocial behavior, as well as the contribution of emotional expressivity as a modifier in that correlation. It was further explored that people who scored high on self-esteem and emotional expressivity were more likely to engage in prosocial behaviors.

Conclusion: Gaining insight into the underlying factors that contribute to the correlation between self-esteem and prosocial behaviour is crucial to the advancement of strategies aimed at fostering and demonstrating prosocial behaviour.

Research Limitation: One possible limitation of the study is its reliance on self-reported measures, which may be subject to bias regarding social desirability and may not completely capture individuals' actual behaviours. To supplement self-reported data, future studies could use observational or experimental approaches.

Practical Implication: The study's conclusions have consequences for educators, counselors, and policymakers. Understanding the function of emotional expressivity in encouraging prosocial behavior can help guide initiatives aimed at creating a pleasant and supportive atmosphere in educational institutions and communities.

Contribution to Literature: This study improves the existing body of facts by looking into the relationship between self-esteem, emotional expressivity, and prosocial behaviors. It enhances our understanding of the aspects that drive prosocial behavior and emphasizes the status of moderation for emotional expressivity in the context of this connection.

Keywords: Emotional expressivity, Prosocial behavior, Self-esteem, Undergraduate students.

1. INTRODUCTION

Prosocial behaviour, characterised by cooperation, sharing, and assistance, serves as an indicator of social appropriateness across the lifespan. The exhibition of prosocial behaviour has a positive correlation with several socially beneficial outcomes, such as engaging in helpful actions, maintaining a cheerful attitude, receiving social acceptability, fostering goodwill among peers and individuals, and gaining favorability from educators, peers, family members, and the general public (Choi & Seo, 2017). It is fair that society, teachers, friends, family, and young people themselves strongly encourage prosocial behavior. Moreover, prosocial behavior has received rising and recent attention from the instructor due, in part, to concern for enhancing the positive characteristics of adjustment and psychological functioning instead of permissiveness and maladaptive forms of others' behavior once they happen (Wentzel, 2015).

Prosocial behavior is defined as those behaviors that are generally advantageous to society. Among the many elements that influence prosocial behavior, self-esteem has received a lot of attention as a possible predictor. Self-esteem, which reflects an individual's overall assessment of their own value and competence, is thought to be intimately related to a variety of psychological and behavioral outcomes (von Soest, Wichstrøm, & Kvaalem, 2016). Previous studies have found that those with higher self-esteem engage in more good behaviors, including prosocial activities (Fu, Padilla-Walker, & Brown, 2017). However, the relationship between self-esteem and prosocial behaviors may be more complicated than it appears. Several studies have found conflicting results, implying that other aspects play a role in regulating this connection. One such factor that has gained importance recently is emotional expressivity, which refers to a person's propensity to express their emotions and feelings in public (Lazarus, 2006). Prosocial behavior may be influenced by emotional expressivity, which can affect how people perceive and react to social events (DeWall, Deckman, Pond Jr, & Bonser, 2011). While there is a rising interest in self-esteem and emotional expressivity as indicators of prosocial behavior, little research on the interplay between these two constructs has been done, particularly among undergraduate university students.

Consequently, the primary objective of this study is to address a research gap by examining the moderating influence of emotional expressivity on the relationship between self-esteem and prosocial behaviours within the context of undergraduate university students. By studying how emotional expressivity may boost or diminish the impact of self-esteem on prosocial acts, this study aims to provide important insights into the mechanisms underlying prosocial behavior among young people. This study begins by examining important literature on self-esteem, emotional expressivity, and prosocial behaviors and then delves into the existing theories and empirical evidence relating to these topics. Following that, the aims and hypotheses of the study will be provided, defining the precise research questions motivating the investigation. The methodology section will outline the sample, measures used, and data analysis procedures used to assess the research's major assertions. Subsequently, the study's findings will be reviewed, shedding light on the patterns seen in the relationship between self-esteem, emotional expressivity, and prosocial behaviors. The practical consequences of these findings for educational institutions, counselors, and policymakers will be discussed, as will prospective future study directions. Overall, the purpose of this research is to contribute to the growing body of information concerning the variables that impact prosocial behavior by encouraging a greater understanding of how emotional and psychological factors interact to influence young adults' participation in prosocial actions.

2. LITERATURE REVIEW

Prosocial behaviour motivations, according to researchers, are linked to the urge to exist (Baumeister & Leary, 1995; Bowlby, 1969). This proposes that prosocial behavior benefits others but enhances community sense too. Such behaviors can also empower social bonds due to the desire to help others, acknowledge us, and esteem us. Individuals fascinated by this crave to be valued and cherished in their social gatherings (Fiske, 1992). Self-esteem is also considered a fundamental part of someone's personality that is linked with prosocial behavior. The importance of self-esteem has been frequently emphasized to the point where low self-esteem is regarded as the root of all evil and high self-esteem is regarded as the root of all good (Manning, Bear, & Minke, 2006).

2.1. Self-Esteem and its Relationship to Prosocial Behavior

Self-esteem has been extensively recognized as one of the more closely linked indicators of prosocial behavior. Zuffianò et al. (2013) demonstrated the longitudinal association of self-esteem with prosocial behavior. Remarkably, Arshad, Zaidi, and Mahmood (2015) researched the facts that self-esteem has spread throughout the world. Instructors, parents, educators, and other professionals have focused intensively on improving self-esteem on the premise that higher self-esteem can lead to numerous positive results and incentives, one of which is prosocial behavior in children. Therefore, the connection between self-esteem and supporting actions appears to be based on encouragement. Individuals can be believed to be engaging in supportive activities to boost their self-esteem and thus enhance their general well-being. Self-esteem is linked to prosocial behavior, and prosocial behavior is linked to future self-esteem. So, Fu et al. (2017) investigated the longitudinal association between prosocial behavior and adolescent self-esteem among family, friends, and strangers. Data have been collected from 681 adolescents in the US. The results showed that self-esteem was associated with prosocial behavior in strangers and that previous prosocial behavior towards strangers aided subsequent self-esteem. The authors also mentioned the multifaceted nature of prosocial behavior and self-esteem as complications of teenage growth.

2.2. Emotional Expressivity and its Relationship with Prosocial Behavior

Meanwhile, thoughtful practices are believed to manage prosocial behavior, enhance self-awareness, and mitigate psychological issues. [Kemeny et al. \(2012\)](#) found that emotional training decreases the negative behavior of emotions and raises prosocial responses. A total of 82 female school instructors were involved in the present study. The authors concluded that the experimental tasks and self-reports changed emotional behavior. The group training reported a decreased effect of negative traits such as depression, anxiety, and rumination and a raised effect of positive traits such as mindfulness in comparison to the control group. [Kaltwasser, Hildebrandt, Wilhelm, and Sommer \(2017\)](#) shed light on the relationship between prosocial behavior and emotional abilities. For estimating the relationship between prosocial behavior and expressive emotional abilities, the authors used a questionnaire from 113 young adults from the university's participant pool. The structural equation modeling explored that there is a significant association between prosocial behavior and emotion recognition accuracy, and the modeling of emotion-specific determinants indicated that more individuals who are prosocial are good at awareness of fear and expressing emotions. Additionally, [Pérez-Fuentes et al. \(2019\)](#) presented that emotional expressivity moderates the influence of emotional intelligence, self-esteem, and agreeableness on prosocial behavior and knowledge. So, he examined the associations between self-esteem, prosocial knowledge, traits, and performance among 299 participants in a survey. Partial Least Squares (PLS) analysis indicated that the association between prosocial behavior, emotional intelligence, and agreeableness is moderated through emotional expressivity.

2.3. Emotional Expressivity as a Moderator of Self-Esteem and Prosocial Behavior

Moreover, [Coulombe and Yates \(2021\)](#) assessed the relationship between self-esteem, prosocial behavior, and maternal caregiving. This research has used a sample of 250 young children in order to investigate the association between child reports of self-esteem and the observational recognition of sensitive parental caregiving mediated through the reports of teachers of the prosocial behavior of children. Findings revealed that there is a significant and indirect pathway between prosocial behavior and self-esteem. The gap between low and high self-esteem might shape various competence levels in slabs with emotional situations and prosocial emergencies ([Zuffianò et al., 2013](#)). Because the presumed evidence elaborates on the association between prosocial behavior and competence feelings ([Zuffianò et al., 2016](#)). It is obvious that adolescents with strong self-esteem levels should engage in more prosocial behavior. Impressively, apart from self-esteem, emotional expressivity is also linked with prosocial behavior. It has been debated whether a nonverbal indicator, i.e., emotional expressivity, might work as a cooperative behavior marker or a trustworthiness marker ([Bartlett, Condon, Cruz, Baumann, & Desteno, 2012](#); [Frank, 1988](#); [Scharlemann, Eckel, Kacelnik, & Wilson, 2001](#)). Expressivity might be helpful in recognizing cooperative people since they show a higher level of positive emotions, for example, spontaneous smiles, than non-cooperators ([Brown, Collins, & Schmidt, 1988](#)). The facial actions linked to joy predicted the decisions of cooperation during a consequent one-shot game, while the contempt expression predicted the non-cooperative decisions ([Kaltwasser et al., 2017](#)).

2.4. Current Study

The goal of this study is to understand how emotional expressivity can influence undergraduate students' prosocial behavior and self-esteem in Pakistan. To achieve this aim, a few research hypotheses have been articulated here and set the basis for a hypothesized model for the present study, which has not been examined among Pakistani undergraduate university students. We hypothesized that 1) self-esteem is associated with prosocial behavior among undergraduate university students, and 2) association is moderator by emotional expressivity.

3. METHODS AND MATERIALS

3.1. Participants

This correlational analysis employed a multistage sampling technique. Initially, a random selection was made among nine public institutions located in Punjab, Pakistan. During the second step, a total of 528 students were selected for the study. The selection process included a technique known as stratified random sampling, where each year of the BS degree (comprising a 4-year curriculum) was treated as a separate stratum. This approach was based on predetermined criteria. As a result, the study included both male and female students enrolled in the above-mentioned graduate degrees at the selected institutions, whereas students enrolled in programs other than these at the selected universities were excluded.

3.2. Research Design

In this research, a cross-sectional design is used to operate on different groups of undergraduate university students who differ in the variables of self-esteem, prosocial behavior, and emotional expressivity but share additional characteristics such as educational background and age. The main purpose of selecting a quantitative technique for the cross-sectional correlational survey design is due to the necessary degree of generalization of results.

3.3. Instruments

3.3.1. Self-Esteem Scale

Rosenberg's Self-Esteem Scale (Rosenberg, 1965) includes ten items. Subjects' answers were rated on a 4-point Likert scale (strongly disagree, disagree, agree, and strongly agree). Sardar (1998) translated this scale into Urdu, and Rizwan, Malik, Malik, and Siddiqui (2017) improved it. As a result, URSES now has an internal consistency of 0.87, which is considered to be a strong internal consistency. SD = 0, SA = 3, A = 2, D = 1. Item numbers 2, 5, 6, 8, and 9 are scored in reverse, i.e., SA = 0, A = 1, D = 2, SD = 3. Add the results of the 10 items. The higher the score, the greater one's self-esteem.

3.3.2. Prosocial Tendency Measure

A scale for measuring prosocial behavior established by Prosocial Tendency Measure (PTM-R) by Carlo and Randall (2002) was used for the current study. The scale consists of 23 items. This measure is designed to assess six different types of prosocial tendencies. Each item was measured on a five-point Likert scale. Options for a Likert scale are Does not describe me at all (indicates 1), describes me a little (indicates 2), somewhat describes me (indicates 3), describes me well (indicates 4), and describes me greatly (indicates 5).

Table 1. Subscales of Prosocial Tendency Measure with number of items and reversed scoring.

Subscales	Items	Items with reversed scored
Public	1, 3, 5, 13	Nil
Anonymous	8, 11, 15, 19, 22	Nil
Compliant	7, 18	Nil
Altruistic	4, 10, 16, 20, 23	4, 10, 16, 20, 23
Emotional	2, 12, 17, 21	Nil
Dire	6,9,14	Nil

Table 1 shows that the prosocial tendency measure's subscales like public, anonymous, complaint, emotional, and dire consist of 4, 5, 2, 4, and 3 items, respectively, and there is no reverse scoring for these items, while altruistic has 5 items with reverse scoring.

3.3.3. Berkeley Emotional Expressivity Scale

The Berkeley Emotion Expressivity Questionnaire (BEEQ) comprised sixteen items (Gross & John, 1995). Its subscales examined positive expressivity (4 items: 1, 4, 6, and 10), negative expressivity (6 items: 3, 5, 8, 9, 13, and 16), and impulse reactivity strength (6 items: 2, 7, 11, 12, 14, and 15). BEEQ was used in this study to assess different aspects of university students' affective dimensions. It also generates total scores. The Urdu version of BEEQ has been used in this study. Fahd and Hanif (2019) have translated this into Urdu. Items 3, 8, and 9 have reversed scoring. The current study's data demonstrated the internal consistency of three BEEQ subscales ranging from 0.65 to 0.80.

3.3.4. Reliability of the Scales

The questionnaire on Prosocial behavior has satisfactory reliability ($\alpha = 0.790$). The reliability of the self-esteem measure is 0.919, which is considered excellent. On the other hand, emotional expressivity has a consistency just above the acceptance range ($\alpha = 0.704$).

4. RESULTS

The results of the study unveiled the correlation between self-esteem and prosocial behaviour in a sample of undergraduate university students, with emotional expressivity serving as a moderating factor. It begins with the demographic characteristics of the respondents, and then relationships among variables studied, i.e., self-esteem,

prosocial behavior, and emotional expressivity, are explored. Additionally, a description of their dimensions using an independent sample t-test for self-esteem according to gender and year of study follows it. Lastly, the mediation role of emotional expressivity was identified between self-esteem and prosocial behavior by using a hierarchical regression model.

Table 2. Mean and standard deviation for self-esteem, prosocial tendency measure, and emotional expressivity.

Variable	Subscales	Mean	Standard deviation
Self-esteem	Nil	21.04	4.33
Prosocial tendency measure	Public	13.96	3.9
	Emotion	16.05	2.7
	Altruistic	15.4	5.2
	Dire	11.92	2.4
	Complaint	8.21	1.5
	Anonymous	20	3.4
Emotional expressivity	Positive	15.35	2.9
	Negative	17.04	3.2
	Impulse strength	22.63	4.6

The mean and standard deviation of students' self-esteem and prosocial behavior are shown in Table 2. According to the data presented above, the average level of self-esteem among undergraduate university students is high. As compared to the complaint, the mean score of prosocial behavior is high in Anonymous, Emotion, Altruistic, Public, and Dire. This demonstrates more prosocial behavior. Similarly, negative emotional expressivity outnumbers good emotional expressivity in terms of impulse strength.

Table 3. Correlation result between self-esteem, emotional expressivity total and individual subscales of prosocial behavior.

No.	Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	PBT	1											
2	D	0.646**	1										
3	Com	0.577**	0.566**	1									
4	Alt	-0.018	-0.474**	-0.314**	1								
5	Emo	0.680**	0.599*	0.499**	-0.376**	1							
6	Pub	0.402**	0.119**	-0.014	-0.284**	0.110*	1						
7	Anon	0.685**	0.688**	0.610**	-0.473**	0.619*	0.085*	1					
8	SE	-0.190**	-0.161**	-0.015**	0.121**	-0.109**	-0.237**	-0.159**	1				
9	EE	0.329**	0.254**	0.268**	-0.143**	0.212**	0.230**	0.268**	-0.227**	1			
10	EE(P)	0.781**	0.263**	0.278**	-0.153**	0.308**	0.253**	0.260**	-0.195**	0.781**	1		
11	EE(N)	0.623**	0.013	0.025	-0.019	-0.033	0.159**	0.008	-0.119**	0.623**	0.267**	1	
12	EE(IS)	0.859**	0.277**	0.285**	-0.146**	0.206*	0.139**	0.308**	-0.200**	0.859**	0.573**	0.249**	1

Note: PBT= Prosocial behavior total, D= Dire, Com=Complaint, Alt= Altruism, Emo= Emotional, Pub= Public, Anon= Anonymous, SE= Self-esteem, EE= Emotional expressivity, EE(P)=Emotional expressivity positive, EE(N)= Emotional expressivity negative, EE(IS): Emotional expressivity impulse strength. *p<.05, **p<.01.

The relationship between self-esteem and prosocial behavior is depicted in Table 3. Overall self-esteem was slightly related to prosocial behaviors ($r = -0.190, p < 0.05$). These data show that self-esteem has a negative relationship with prosocial behaviors. As a result, the increase in self-esteem reduces their prosocial behavior. The result shows that the hypothesis is accepted.

Table 4. Self-esteem according to gender.

Variable	Gender	N	Mean	Std. dev.	t
Self-esteem	Male	249	20.59	4.53	2.25
	Female	279	21.44	4.11	

The results showed a significant difference in self-esteem ($t = 2.25, p < 0.05$) between the genders. As a result, the hypothesis has been accepted, and Table 4 demonstrates that the mean self-esteem of male and female respondents differs significantly. Female students are more confident than male students.

4.1. Impact of the Year of Study on Self-Esteem

To examine the relationship between self-esteem, mean and standard deviation, and the study year, a one-way Analysis of Variance (ANOVA) was used.

Table 5. ANOVA comparisons of the year of study in university in terms of self-esteem.

Comparison	Sum of square	df	Mean square	F	Sig.
Between group	261.987	3	87.32	4.75	0.003
Within groups	9634.012	524	18.38		
total	9895.99	527			

Table 5 presents the between-group and within-group comparison, which is significant (as $p = .003, > .05$) and this comparison is further identified in Table 6.

Table 6. Mean difference results by multiple comparison of four years of study on self-esteem.

(I) Year in university	(J) Year in university	Mean difference (I-J)	Std. error	Sig.
1 st year	2nd year	-1.40*	0.433	0.007
	3rd year	0.29	0.569	0.953
	4th year	0.07	0.650	1.000
2 nd year	1 year	1.40*	0.433	0.007
	3rd year	1.70*	0.589	0.021
	4th year	1.47	0.667	0.120
3 rd year	1 year	-0.29	0.569	0.953
	2nd year	-1.70*	0.589	0.021
	4th year	-0.22	0.763	0.991
4 th year	1 year	-0.07	0.650	1.000
	2nd year	-1.47	0.667	0.120
	3rd year	0.22	0.763	0.991

Note: * $p < .05$.

Table 6 provides an overview of the self-esteem findings from numerous comparisons covering four years of university study. It shows the mean differences, standard errors, and statistical significance (p -values) for each comparison between various years. It is an important result that there was a mean difference in self-esteem between the first and second years of -1.40 ($p = 0.007$). Significant differences also exist between the second and third years (mean difference = 1.70 ; $p = 0.021$). However, there were no discernible differences between the third and fourth years or the fourth year and any other year.

4.2. Emotional Expressivity Moderates the Relationship between Self-esteem and Prosocial Behavior

The influence of emotional expressivity on regulating self-esteem and prosocial behavior is seen in Table 7. The model summary table's R^2 value of 0.11 indicates that the self-esteem variable has changed by 11% as a result of

changes in the moderator variables, while the impact on prosocial behavior has been minimal ($R^2 < .15$). The dependent variable and the moderator variable had a significant relationship at the .05 significance level, according to the results table.

Table 7. Hierarchical multiple regression between self-esteem and emotional expressivity.

Steps of model	R ²	R ² change	β	t
Step 1 Self esteem	0.03	0.03	-0.358	-4.42
Step2 Self esteem Emotional expressivity	0.12	0.09	-0.013	7.11
F	50.546			
df	1,526			
Sig	0.000			
Durbin Watson	1.935			

After controlling for the moderating variable, the addition of the independent variable, attention, to the regression model predicted up to 9% of the increased variance in the dependent variable (R^2 change = 0.09, < 0.15). As a result, incorporating emotional expressivity into the hierarchical multiple regression model had only a moderate impact on prosocial behavior. The Durbin-Watson value of 1.93 is within the allowed range of 1.50-2.50, showing that the premise of error term independence has not been neglected.

Furthermore, there was a significant interaction between emotional expressivity and self-esteem [$F(1,526) = 50.54$, $p < 0.001$] with a significant beta value ($\beta = 0.01$, $t = 7.11$, $p < 0.05$), confirming that emotional expressivity is a strong moderator between self-esteem and prosocial behavior. Self-esteem is a significant predictor with a strong beta ($\beta = -0.35$, $t = -4.42$, $p < 0.05$) for the outcome variable.

The results of this study showed that self-esteem has a significant impact on students' prosocial behavior. The negative beta value indicates that the higher the self-esteem of students, the lower the level of prosocial behavior. In addition, the moderating variable (emotional expressivity) also affects the prosocial behavior of respondents with high impact and negative value; the lower the emotional expressivity, the higher the prosocial behavior. Thus, the hypothesis is accepted.

5. DISCUSSION

Current findings were presented in this section, which was discussed theoretically. It was also done to check whether current findings were either consistent with past literature or gave new directions. As well as the core hypothesis that was discussed, there are differences by gender and year of study in core constructs. Similarly, moderator effects and correlations between components were also taken into account for core constructs. Thus, the role of these considered differences, relationships, and effects with currently focused variables was discussed in this section. So, the current results depict the hypothesized difference. Between males, there were discernible mean differences, such as in the context of self-esteem ($M = 20.59$) and females ($M = 21.44$), as the t-score was 2.26 with a significance value of less than 0.05.

These results had a stronger literature foundation, which strengthened their validity. Such as the theoretical work of different researchers who perceived belief as crucial to comprehending gender distinctions and human psychology and behavior? Findings indicated that during a person's life, there are variances across females and males in the patterns of gender disparities in self-esteem. Likewise, Ojihara (2019) found that the inclination of the self-esteem trend for men was $\beta = 0.009$ and that for women was $\beta = 0.010$, suggesting that the line for women was considerably higher compared to men, when investigated age variations in self-esteem by gender. Also, it has been demonstrated in Subon's work that both parties have high levels of self-esteem because the mean scores for men and women for the self-esteem evaluation among genders are $M = 79.55$ and $M = 80.35$, respectively. The findings showed that both genders had high levels of self-esteem, which is likely what has helped them achieve or improve in other areas such as self-efficacy, emotional intelligence, prosocial conduct, and academic success (Subon, Unin, & Sulaiman, 2020).

Moreover, the researcher examined where the difference in self-esteem exists among students according to their year of study. So, the researcher found that the difference in self-esteem was that 2nd-year students had a

significantly higher level of self-esteem than 1st-year and 3rd-year students. While no significant difference was found between the 4th-year students and other groups. In a similar vein, researchers looked into grade level far less than other socio-demographic factors in the context of a self-esteem study, with some ambiguous results. Yet, this result was not entirely surprising and had been documented in cross-sectional research from many cultural backgrounds. For instance, [Rosli et al. \(2012\)](#) conducted a study including 110 undergraduate males and 110 undergraduate females and discovered no changes in self-esteem by grade level. [Gözüyılmaz and Baran \(2010\)](#) further stated that there was no change in self-esteem levels according to the grade variable. Our findings added to and expanded upon those from earlier research.

The researcher also hypothesized that self-esteem and emotional expressivity dimensions were significantly related to individual subscales of prosocial behavior (like direct, complaint, altruism, anonymous, emotional, and public). The explored results explained that all core variables were significantly related to each other. In the current research, it was outlined that self-esteem had a negative relationship with all core constructs of prosocial behavior, while only altruism and prosocial behavior had a positive relationship with self-esteem. The results are inconsistent with previous studies ([Preston & Rew, 2022](#)).

Meanwhile, emotional expressivity had a negative relationship with altruism, prosocial behavior and self-esteem, while all other constructs of prosocial behavior had a positive relationship with emotional expressivity. According to [Roberts and Strayer \(1996\)](#), relationships among emotional expressiveness, responsiveness, self-esteem, and prosocial behaviors were significant for practical and theoretical reasons, which were confirmed by many researchers ([Kaltwasser et al., 2017](#); [van Kleef & Lelieveld, 2022](#)).

Furthermore, the researcher developed a hypothesis in this study that "facets of emotional expressivity (i.e., negative, positive, and impulse strength) moderate the relationship between self-esteem and prosocial behavior." To evaluate the moderating impact of emotional expressivity, the researcher used hierarchical regression analysis. The researcher revealed the moderating impact of emotional expressivity on self-esteem and prosocial behavior as indicated in [Table 7](#) in the previous chapter. The result indicated that an 11% change in the self-esteem variable was due to the moderator variable and that a small impact on self-esteem was also discovered ($R^2 < 0.15$). Moreover, that result was significant at the 0.05 level.

The dependent variable was expected to have up to 9% higher variation (R^2 change = 0.09) once the independent variable, the moderating variable, was controlled. As a result, a hierarchical multiple regression model's addition of emotional expressivity had a minimal impact ($R^2 < 0.15$) on prosocial behavior. Because the Durbin-Watson value of 1.93 was also within the permissible range of +1.50 to +2.50, the premise of independence of error terms was upheld. This supported the finding that emotional expressivity significantly influenced prosocial behavior and self-esteem.

Although most studies have established the relationship between self-esteem and prosocial behavior ([Wang, Wu, Wang, & Wei, 2021](#)). It was unclear how emotional expressivity would influence prosocial behavior and self-esteem. According to earlier studies, a direct or indirect association between self-esteem and prosocial conduct may exist under specific circumstances or may be tempered by many factors. To promote prosocial conduct in individuals and give a strategy and foundation for creating college and university students' self-esteem, self-efficacy, and mental health courses, the moderating function of emotional expressivity needs to be further investigated.

For instance, some particular elements may be able to modify patterns of self-esteem disparities. It is crucial to identify these moderating elements because doing so can help us better understand how self-esteem develops throughout the course of a person's life. Parenting style, cultural beliefs, and emotional expression are some of these essential and potential variables ([Ogihara, 2020](#)). So, in the current research, the researcher discovered the significant moderating impact of emotional expressivity on self-esteem and prosocial behavior, which was the first study of its kind. In a wholesome world, emotional expressivity is the core construct that enhances the self-esteem, religiosity, and prosocial behavior of growing students or individuals. Thus, it was fruitfully described and assessed in current research.

6. CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

The current study looked at the role of emotional expressivity as a moderator in the link between self-esteem and prosocial behaviors in undergraduate university students. The results contribute to our knowledge of young people's prosocial behaviour by offering helpful insights into how these fundamental elements interact. The present study's results indicate notable discrepancies in self-esteem levels between males and females, with females exhibiting

higher average scores. The results of this study align with previous research that has demonstrated gender disparities in patterns of self-esteem. Additionally, the research findings revealed variations in self-esteem among students based on their academic year, with second-year students exhibiting greater levels of self-esteem compared to both first-year and third-year students. The investigation of the correlations among the key variables found that, with the exception of altruism, self-esteem had a negative link to all dimensions of prosocial behavior. Emotional expressivity, on the other hand, had a negative association with altruism and self-esteem but a good relationship with other dimensions of prosocial behavior. These findings differed from earlier research and shed light on the intricate relationship between emotional expressivity, self-esteem, and prosocial behavior. The study's most notable finding was the confirmation of emotional expressivity's moderating effect on the connection between self-esteem and prosocial behavior. According to the hierarchical regression analysis, emotional expressivity had a substantial influence on both self-esteem and prosocial behavior. This discovery is novel and provides new insights into the elements that influence prosocial behavior and self-esteem among university students.

The current research had certain limitations as well. For instance, only two demographic factors, gender and years of education, were primarily looked at. However, several other demographic factors, including the income, educational background, age, culture, learning environment, and so forth, of the parents can also have an impact on the strength of the association across self-esteem and prosocial conduct. Considering this, future studies can examine any of these demographic factors to produce more convincing results (Subon et al., 2020). Meanwhile, the study's dependence on self-reported measures, which were vulnerable to social desirability bias and fully reflected individuals' real behaviors, is one potential weakness. To supplement self-reported data, future studies could use observational or experimental approaches. Although the current research has certain limitations, there were some suggested recommendations for future research to explore more. Future studies should therefore strive to take an experimental approach to studying prosocial behavior while extending the sample size by including more institutions from other geopolitical and educational regions of Pakistan. Generally speaking, it is advised that universities give their students the chance to collaborate in small groups and take part in activities that advance social knowledge. Furthermore, it should be investigated and compared to the other dimensions of emotions in the context of children, adults, their parents, and teachers as well.

So, future researchers can explore the core constructs with different research designs, geographical expansion of the sample with a broader sample size, and methodological variations to add up the literature on different age groups. Moreover, these findings also have some major ramifications, notably for educators and policymakers. Understanding the role of emotional expressivity in modulating prosocial behavior can aid in the development of focused treatments to promote prosocial behavior and improve students' self-esteem and mental well-being. We can build more effective techniques to support good development in young people by identifying critical elements that may influence self-esteem discrepancies, such as parenting style, cultural views, and emotional expressiveness. While this work adds to the existing literature, it also opens up possibilities for future research. Further research into the events and contexts that influence the link between emotional expressivity, self-esteem, and prosocial behavior will provide a more complete knowledge of these psychological processes. Finally, such a study will contribute to the development of interventions that promote the development and well-being of college and university students. Finally, this research adds to our understanding of the complex dynamics of emotional expressivity, self-esteem, and prosocial behavior among undergraduate students. The validation of emotional expressivity as an important moderator adds to our understanding of the underlying mechanisms that determine prosocial behavior and self-esteem. We may support positive psychological growth and contribute to the well-being of individuals inside the academic community and beyond by continuing to investigate these linkages.

FUNDING

This study received no specific financial support.

INSTITUTIONAL REVIEW BOARD STATEMENT

The Ethical Committee of the Islamia University of Bahawalpur, Pakistan has granted approval for this study on 17 January 2023 (Ref. No. 3028-1/A. psy).

TRANSPARENCY

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

COMPETING INTERESTS

The authors declare that they have no competing interests.

AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

ARTICLE HISTORY

Received: 26 June 2023/ Revised: 15 August 2023/ Accepted: 6 September 2023/ Published: 12 September 2023

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