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**RESEARCH PAPER****Prosocial Behavior and Life Satisfaction: Exploring Age and Gender Differences Among Higher Education Students**

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**ABSTRACT**

This study assessed the relationship between prosocial behavior and life satisfaction. Furthermore, it also explored age and gender differences. Convenient sampling method was used to collect the data. Data was collected through structured questionnaires from 200 participants of three higher education institutes of Balochistan. The results revealed prosocial behavior was positively associated with life satisfaction of the higher education students. The results further showed significant differences in prosocial behavior for different age groups. However, there weren't any significant differences found in life satisfaction of different age groups. Moreover, prosocial behavior and life satisfaction had no significant differences between men and women. Finally, results observed that though the correlation between prosocial behavior and life satisfaction was stronger for females than males, the differences were only marginal, and both correlations were in high effect size range.

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**KEYWORDS** Age, Gender, Life Satisfaction, Prosocial Behavior

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**Introduction**

Prosocial behavior has its roots in ancient times. People are seen to appreciate this behavior in almost any culture and religion. Through human evaluation, prosocial behavior is practiced and less likely to decrease with passage of time. Therefore, some researchers have suggested that our very survival was dependent on helping each other and as the result of our heritage, we are more likely to support and help those closest to us such as blood relationships (Dennis & David, n.d.).

People are not limited to help their relatives only. Since we live in groups, which also include people not related to us, we often help people other than our relatives, such as neighbors or strangers. This happens due to the reciprocal altruism (Trivers, 1971). Reciprocal altruism plays a role in people having their future well off in the end long. If helping people increases chances of being helped in return, then people's overall survival chances will increase too.

Humans have been always dependent on each other one way or another. Philosopher Aristotle once said that man is a social animal. The growth of any society has always been sustained through cooperation. People in the past always relied on

cooperation for their survival. According to the author Mark Manson (2016), the human crisis is no longer materialistic, they are existential and spiritual. Psychological traits such as emotional intelligence help human deal with emergency and crises situations (Dilawar, et al., 2021; Durrani, et al., 2017). Since materialistically people are sound now, people tend to fulfill their own needs only which does not seem to be helping them emotionally and spiritually. So, for having satisfaction in life, helping others (pro-socialness) may play a vital role, so this study will primarily relate prosocial behavior with life satisfaction. Since above mentioned literature concludes that prosocial behavior is related to life satisfaction, current study is important in terms that no such documented study was conducted before in the context of Balochistan among higher education students. So, to make studies conducted earlier more generalizable, this study not only explains the relationship between prosocial behavior and life satisfaction but also explores gender and age differences among students.

This study will highlight that university students who adopt prosocial behavior will likely have life satisfaction or not. Moreover, this will also explore gender and age differences on the relationship of pro social behavior.

### **Literature Review**

Prosocial in its broad-spectrum, is a behavior which includes activities such as helping, comforting, rescuing and sharing etc. Researchers explain that "Prosocial behavior refers to voluntary actions that are intended to help or benefit another individual or group of individuals" (Eisenberg & Mussen, 1989). Sometimes, prosocial behavior is confused with the concept of altruism. Both are basically different concepts. Prosocial behavior is a form of activities of assisting others, whereas altruism is based on motivation based on helping others regardless of any personal gain. Examples of altruism could be giving charity anonymously, to public institutions, groups of people or individuals without getting any social recognition.

Life satisfaction is often confused with happiness. Life satisfaction is the analysis of one's life as a whole, instead of one's existing level of happiness. There are multiple definitions of life satisfaction characterized by some authors/ researchers according to their understanding. For example, a researcher defines life satisfaction as "an overall assessment of feelings and attitudes about one's life at a particular point in time ranging from negative to positive" (Buetell, 2006).

Another scholar such as Ruut Veenhoven (1996) explains "life satisfaction as the degree to which a person positively assesses the overall quality of his/her life as a whole. In other words, how much the person likes the life he/she leads". Finally, Ellison et al (1989) describes life satisfaction as: "a cognitive assessment of an underlying state thought to be relatively consistent and influenced by social factors". Despite the differences among definitions, the fundamental concept is the same thus life satisfaction is referred to as the overall attitude towards life.

### **Relationship of prosocial behavior and life satisfaction**

Multiple studies have suggested a relation of prosocial behavior and life satisfaction. One study conducted a survey on adolescents, university students and adults which concluded that people with high levels of self-discipline tend to involve in more prosocial behavior, which further relates with better life satisfaction (Kai Dou et al., 2019).

The World Happiness Report (2019) has collected evidence-based research about how prosocial behavior improves quality of life. It has mentioned in the report, which is based on correlational studies, that spending time assisting others is related with emotional benefit of the benefactor. The report further says that the documented research showed a strong relation of volunteering with, positive affect, life satisfaction and the reduction in depression.

Another study was conducted in Vanuatu which extended their study based on an already conducted study that indicated that giving to others is emotionally pleasing. The researchers were driven to assess the profits of giving indicate a collective feature of human behavior. So, they conducted two studies. In study I, researchers have asked adults to purchase candies either for themselves or for others. Studies showed that those adults who purchased candies for others stated better positive emotion than adults who purchased for themselves. In study II, children were asked to share candy with puppets, consistent with study 1, children showed more pleasure giving away candies than receiving themselves (Aknin et al., 2015).

### **Exploring factors influencing Prosocial behavior and Life satisfaction**

Studies have explored multiple factors that affect prosocial behavior. Two of those factors age and gender differences affecting prosocial behavior. One of the studies explored social behavior and how its gender specific in economic games. The study found out that social framing inclined to strengthen social behavior in women than men and encouraging reflection decreases prosociality in men and not in women (Espinosa & Kovářík, 2015).

Another study suggested, that level of prosocial behavior in boys, were consistent until the age of 14 and increased until the age of 17, after that, to some extent it decreased. Whereas prosocial in girls, increased until the age of 16 and to some extent, it decreased. The study furthered by the view that earlier prosocial suggests empathy associated traits, but for girls only (Graaff et al., 2018).

Another study conducted by Zakriski et al, (2005), who reported that girls are expected to display more of (prosocial behavior and withdrawn) in context of clash resolution in peer pressure. However, another study concluded that men are more probable to assist in courteous, valiant ways. Whereas women are probable to aid in nurturant ways including long term relationship (Alice H & Maureen, 1986). Another study conducted by Vaculik et al, (2007), same way concluded that gender has no effect on inclination to PSB but impact the tendency to demand PSB. Women have stronger tendency to demand PSB than men. Studies have also explored gender differences and the regulating role of gender in the relationship among variables such as work effort, career satisfaction and empowerment (Yalalova, & Durrani, 2017; Durrani, 2017).

A study conducted, demonstrated that prosocial behavior increased with age past early adulthood when they played in five economic games. Those games were separated by a few months. Same study further measured participants' belief, that manipulating others is a wise approach for social achievement and found that this belief decreased with age. This study further concluded that participants' satisfaction with the one-sided exploitation in one of games also declined with age (Matsumoto & Yamagishi, 2016). Studies have also shown that variables such as tenure moderate the different psychological aspects such as the feeling of psychological contract breach and violation (Babar, et al., 2022). Bano, et al. (2022) and Khan et al. (2022) argued that the relationship

between social media dependency and narcissistic behavior was different for different age groups such millennials and baby boomers.

Another study was conducted, where emotional empathy and prosocial behavior were evaluated in older, middle-aged, and young adults where participants were shown two films portraying individuals in need. The study concluded that emotional empathy and prosocial behavior progressed with age. Further the study concluded that empathic concern and cardiac reactivity to both films, along with personal distress to the distressing film only, were related with greater prosocial behavior (Sze et al, 2012).

Considering the above, this study proposes the following hypotheses.

H1. There is a positive relationship between prosocial behavior and life satisfaction.

H2. Prosocial behavior will be significantly different among different age groups.

H3: Life satisfaction level will be significantly different among different age groups.

H4. The Prosocial behavior of women will be significantly different from men.

H5. Life satisfaction level of women will be significantly different from men.

## Material and Methods

### Research Design

This study followed cross sectional design, as data was collected only once from a selected set of respondents. Moreover, the study followed a correlational research design as the relationship between the variables was analyzed through correlation and simple linear regression.

### Sample and Data Collection

A convenient sampling method was used to select a sample of 200 students from three higher education institutions in Quetta City namely University of Balochistan, Sardar Bahadur Khan Women University and Balochistan University of Information Technology, Engineering and Management Sciences. Similar related studies have been conducted among higher education institutes in Balochistan, Pakistan (kakar et al., 2023; Kakar et al., 2021; Kakar et al., 2018; Qahir et al., 2022; Samad & Saufi, 2017). The sample consisted of 101 (50.5%) male students and 99 (49.5%) female students. Out of the 200 sample size, 35 (17.5%) were in the age group between 18 to 24, the age group of 25 to 30 consisted of 74 (37%) students, 36 (18%) students were between the ages of 31 to 35, the age group of 36 to 40 contained 20 (10%) students, 25 (12.5%) students belonged to the age group of 41 45, and only 10 (5%) students were in the age group of 46 to 50. Data was collected through closed ended questionnaires.

**Measures.** A scale for measuring prosocial behavior established by Caprara et al, (2005), was used for the current study. The scale consists of 16 items. Each item was measured on a five-point Likert scale. Options of Likert scale are never/ almost never true (indicates 1), occasionally true (indicates 2), sometimes true (indicates 3), often true (indicates 4), and almost always/always true (indicates 5). The composite scores of the scale were calculated through summing the individual item responses. None of the

items were reverse coded. According to the study conducted by Caprara et al, (2005), Cronbach's  $\alpha$  for the entire set of items was .91.

Satisfaction with life scale is developed by Ed Diener, which measure life satisfaction. The scale consists of 5 items in total. SWLS is based on a 7-point Likert scale. The score on this scale ranges from 5-35. Scores of 5-9 represent extremely dissatisfied. 10-14 represents dissatisfaction. 15-19 represents slightly dissatisfied. Score of 20 represents a neutral point on the scale. Scores of 21-25 suggest the respondent is slightly satisfied with life, 26-30 indicates satisfied, whereas scores as 31-35 suggest the respondent is extremely satisfied.

The coefficient alpha for the scale has ranged from .79 to .89 which indicates that the scale has high internal consistency. The scale was also found to have good test-retest correlations (.84, .80 over a month interval).

Statistical Package for Social Sciences (SPSS), version 23 was used for the data analysis. Correlation and regression analysis were used to examine the relationship between variables. Further, independent T sample test was used identify gender defenses and one-way ANOVA was used to examine the age differences.

### Descriptive statistics, reliability, and correlations

The results from descriptive analysis, reliability and correlations among the variables are presented in table 1. The results showed that there was positive significant correlation between prosocial behaviour and life satisfaction ( $r = .555, p < .01$ ). The Cronbach's alpha values are given in the top rows diagonally. The Cronbach's alpha value for 16 items prosocial behavior scale was .98 showing high reliability. The Cronbach's alpha value of life satisfaction also showed high level of reliability ( $\alpha = .95$ ). The skewness value for the prosocial behavior and life satisfaction were -.640 and .165 respectively showing that the data was fairly normal. Moreover, as per the central limit theorem, the sampling distribution for a sample size greater than 30 tends to be normal regardless of the shape of the sample data. The means and the standard deviations of summated composite scores for prosocial behavior and life satisfaction were 55.68 (22.52) and 20.85 (9.59) respectively.

### Results and Discussion

**Table 1**  
Descriptive statistics, reliability, and correlations

	Prosocial Behaviour	Life Satisfaction
Prosocial Behaviour (PSB)	.98	
Life Satisfaction	.555**	.95
Mean	55.68	20.85
Standard Deviation	22.52	9.59
Skewness	-.640	.165

The results from regression analysis are given in table 2. The results revealed that prosocial behavior had a significant positive relationship with life satisfaction ( $\beta = .55, t = 9.382, p < .01$ ). It was found that our model explained significant proportion of the total variation in life satisfaction ( $R^2 = .30, F(1, 198) = 88.022, p < .01$ ). Thus, hypothesis 1 was supported.

**Table 2**  
**Regression Analysis**

Hypothesis	Unstandardized $\beta$	Standardized $\beta$	T	Sig.	R <sup>2</sup>	F	Sig. (F)
1. PSB => LS	.236	.555	9.382	.000	.30	88.022	.000

Note: PSB = Prosocial behavior, LS = Life satisfaction

One-way ANOVA was used to analyze age differences among the higher education students on the variables of prosocial behavior and life satisfaction. The results for one-way ANOVA for prosocial behavior are given in table 3. The results from one-way ANOVA showed that there were statistically significant differences among different age groups with regards to prosocial behavior ( $F_{5,194} = 11.394$ ,  $p < .05$ ). Hence hypothesis 2 was accepted.

**Table 3**  
**One-way ANOVA (Prosocial Behavior)**

Source of Variation	Sum of Squares	Df	Mean Square	F	P
Between Groups	22927.703	5	4585.541	11.394**	.000
Within Groups	78077.817	194	402.463		
Total	101005.520	199			

As mentioned earlier, the ages of the respondents were measured in 7 different groups. To test which groups significantly differed from each other, post hoc tests [Bonferroni] were conducted for multiple paired comparisons among groups. The results of the Post-hoc multiple comparisons are given in the table 4. It was revealed that the age groups of 18 to 24 (mean = 42.43) and the age group of 25 to 30 (mean = 49.39) had no significant differences. Moreover, the age group of 18 to 24 scored significantly lower in prosocial behavior as compared to all other groups [31 to 35 (mean = 57.58), 36 to 40 (mean = 73.50), 41 to 45 (mean = 68.96) and 46 to 50 (mean = 72.90)]. Similarly, the age group of 25 to 30 (mean = 49.39) also scored significantly lower on prosocial behavior as compared to the higher age groups [31 to 35 (mean = 57.58), 36 to 40 (mean = 73.50), 41 to 45 (mean = 68.96) and 46 to 50 (mean = 72.90)]. No significant differences were found among other groups on prosocial behavior.

**Table 4**  
**Post-Hoc Multiple Comparisons (Bonferroni)**

Comparison Group	Age	Mean	Mean Difference	Std. Error	Sig.
18 to 24 Mean (42.43)	25 to 30	49.3919	-6.96332	4.11554	1.000
	31 to 35	57.5833	-15.15476*	4.76219	.026
	36 to 40	73.5000	-31.07143*	5.62335	.000
	41 to 45	68.9600	-26.53143*	5.25333	.000
	46 to 50	72.9000	-30.47143*	7.19342	.001
25 to 30 Mean (49.39)	31 to 35	57.5833	-8.19144	4.07654	.688
	36 to 40	73.5000	-24.10811*	5.05587	.000
	41 to 45	68.9600	-19.56811*	4.64082	.001
	46 to 50	72.9000	-23.50811*	6.75907	.009
31 to 35 Mean (57.58)	36 to 40	73.5000	-15.91667	5.59488	.074
	41 to 45	68.9600	-11.37667	5.22284	.459
	46 to 50	72.9000	-15.31667	7.17118	.509
36 to 40 Mean (73.50)	41 to 45	68.9600	4.54000	6.01844	1.000
	46 to 50	72.9000	.60000	7.76978	1.000

41 to 45 Mean (68.96)	46 to 50	72.9000	-3.94000	7.50632	1.000
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One-way ANOVA was conducted to analyze the differences between different age groups for life satisfaction as well. However, no significant differences were found among different age groups on the variable of life satisfaction. Hence hypothesis 3 was not supported. The results for one-way ANOVA for age differences of life satisfaction are summarized in table 5.

**Table 5**  
**One-way ANOVA (Life Satisfaction)**

	Sum of Squares	Df	Mean Square	F	P
Between Groups	964.134	5	192.827	2.156**	.061
Within Groups	17351.366	194	89.440		
Total	18315.500	199			

Independent sample t-tests were conducted to analyze the gender differences within the sample for the variables of prosocial behavior and life satisfaction. The results from independent sample t-tests are summarized in table 6. The results showed that there were no significant differences between men and women on the variables of prosocial behavior and life satisfaction, thus hypothesis 4 and 5 were rejected.

**Table 6**  
**Gender Differences**

Variables	Men		Women		Mean Difference	t	Df
	Mean	SD	Mean	SD			
Pro Social Behavior	55.97	22.87	55.38	22.28	.586	.184	198
Life Satisfaction	21.31	9.89	20.37	9.30	.943	.695	198

This study also compared the correlations between prosocial behavior and life satisfaction for men and women to check whether there are any differences in correlation coefficients for men and women. The comparative correlation coefficients for both men and women are given in table 7. It was seen that though the correlation between prosocial behavior and life satisfaction for women ( $r = .570$ ,  $p < .01$ ) was slightly stronger than men ( $r = .540$ ,  $p < .01$ ), however the differences were not that large and the correlation coefficient for both men and women showed high effect size as per criteria prescribed by Lovakov, A., & Agadullina, E. R. (2021).

**Table 7**  
**Correlation comparisons for male and female**

	Life satisfaction		Life satisfaction			
	Overall Correlation		Men		Women	
	R	P	R	p	r	p
Prosocial Behavior	.555**	<.01	.540**	<.01	.570**	<.01

## Discussion

Our study aimed at evaluating relationship between prosocial behavior and life satisfaction. Further, it proposed prosocial behavior to be different among different ages and genders in the context of Balochistan. Results indicated that prosocial behavior is correlated to life satisfaction. Further it indicated that prosocial behavior increases with

age whereas life satisfaction didn't increase significantly. Moreover, study also showed that prosocial behavior isn't difference among different genders.

Current study supports many literatures conducted earlier. One of that study which was conducted in 2019 by Kai Dou and his colleagues suggested that prosocial behavior is correlated with better life satisfaction. Current study didn't only further this statement but also explored other factors influencing prosocial behavior among higher education students. Two of those factors are age and gender differences. One study conducted by Zakriski, Wright, and Underwood (2005), concluded that girls are expected to show more of prosocial behavior and withdrawn in context of clash resolution in peer pressure but another study done by Vaculik, Prochazka, and Kveton (2007) revealed that gender has no effect on tendency to prosocial behavior. So, the current study also rejected one of the hypotheses that proposed, prosocial behavior is different among different genders and rather concluded that prosocial behavior isn't different among different genders. Current study further included that life satisfaction isn't different among different genders as well.

A study conducted by Sze et al. 2012, concluded that emotional empathy and prosocial behavior progressed with age. In the context of Balochistan, among higher education students, current study also concluded that from age of 18 to 30, prosocial behavior was lower as comparison to the older age groups. From the age of 30 to 50, prosocial behavior is higher and remained the same. Thus, current study is significant to highlight importance of prosocial behavior and life satisfaction with in the context of Balochistan among higher education students. In the era where everywhere complain about life being fast and having less satisfaction, prosocial behavior is one of the acts, if practiced, one can have satisfaction internally. The importance of this phenomenon is not obsolete among higher education students. Current study indicated that students of higher education, prefer to practice prosocial behavior as they age and how having tendency of being prosocial contribute to have satisfaction in life. It further explored how different factors contribute in determining prosocial behavior as a construct. So, the current study could be generalized on class of people who are educated.

## **Conclusion**

The current study indicated that prosocial behavior is an important factor that contributes to the overall life satisfaction of individuals. Moreover, it revealed that age plays a vital contributing factor in enhancing tendencies of prosocial behavior. Considering the findings of the current study, it may be suggested that training and motivational programs towards encouraging prosocial behavior may play a vital role in enhancing the life satisfaction of students in particular and public in general.

## **Recommendations**

Different ages and genders are important factors to know that how differently prosocial behavior and life satisfaction varies among different factors. Further research could be carried out on other factors such as cultural factors, personality traits and how state of mind could affect to have tendency of prosocial behavior and life satisfaction on larger population since current study has limits of including children and aged people as well.



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