

## Impact of Gratitude on Mental Health of Adults: Mediating Role of Prosocial Behavior

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### Abstract

The present study aimed to examine the mediating influence of prosocial behavior between gratitude and mental health among adults. Sample size was justified from A-priori sample size calculator for structural equation modeling (Soper, 2021). The sample comprised of 420 adults who were purposefully selected with an age range of 18-26 years. Data were collected from major cities of Punjab (Lahore, Multan and Faisalabad) through online google form survey. Three questionnaires were employed; The Gratitude Questionnaire-GQ-6 (McCullough, 2013), depression and anxiety subscales from Mental Health Inventory-MHI-18 (Veit & Ware, 1983) and Prosocial Tendencies Measures-PTM (Carlo & Randal, 2002). After collecting the data for desired sample size, results were analyzed through SPSS (24.0), which revealed that there was a significant correlation between gratitude, prosocial behavior, and mental health among adults. Moreover, the results also found that there is a significant impact of gratitude on mental health through mediation of prosocial behavior among adults. This study will be helpful for adults, students, and consultants to recognize the precipitating and perpetuating factors to improve their mental health.

**Keywords:** *Gratitude, Mental Health, Prosocial Behavior, Adults and Punjab.*

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**Received:**  
02-02-2022

**Revision Received:**  
07-02-2022

**Accepted:**  
07-07-2022

### Introduction and Literature Review

Gratitude is a positive psychological approach and a positive emotional reaction to receive a benefit that is perceived to have resulted from the good intentions of another (McCullough et al., 2001). Based on the current hypothetical model and previous researches, gratitude is considered to have an operative role in mental health and other psychological functions. Robert (2004) focus attention on the psychological functions of gratitude derived from reciprocal altruism, which states that gratitude comprised of evolutionary adaptation qualities required to maintain continuous reciprocal relationships between benefactor and beneficiaries. By keeping the point in mind, in several social situations, there is direct reciprocity promoted by gratitude in the people after receiving benefits (Valikhani, 2019; Watkins et al., 2003). Gratitude is viewed as a trait as well as a state. When an undue act of generosity is freely given by another person. It is considered as positive and social emotion of state gratitude (Emmons, 2004).

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Gratitude can cause direct reciprocity and upstream reciprocity separately. Former leads to respond the generously to the benefactor. Later will lead them to add generously towards others. (Tsang, 2006; Bartlett & DeSteno, 2006). Over the time these actions can build up social relationship; thankful people may act prosaically as a way of manifesting gratitude (Bartlett & DeSteno, 2006). It is suggested by broaden and built theory of positive emotion that gratitude aids to maintain and build other durable resources for mental well-being. It promotes creativity, intrinsic movement purposefulness and spark on upward spiral of positive emotion and outcomes (Emmons & Shelton, 2002; Harpham, 2004). Broaden and built theory explains, why hope and forgiveness are linked to grateful people. When we become dependent on others for our well-being, our mindset broadens, bringing hope and optimism for a more benevolent world in which others assist rather than hinder personal achievement (McCullough & Witvliet, 2002; Fredrickson, 2004).

According to McCullough et al. (2002), trait of gratitude is associated with happiness, hope, satisfactory positivity and optimism. Watkins et al., (2003) found that dispositional gratitude was positively correlated with life satisfaction, positive affect, and happiness, and negatively correlated with depression, negative affect, and physical aggression. Alongside, mental health is highly associated with gratitude. Gratitude represents positive attitude that appreciate the positivity of life (McCullough et al., 2002; McCullough et al., 2004). Grateful people have grateful affect, have positive mental approach towards society and more positive strategies, better sleep and crave for positivity in their environment and have appreciation for life and their possessions (Wood et al., 2008).

Bartlett and DeSteno (2006) observed from the study on students which revealed prosocial behavior to the benefactor from the individuals who received help from others experienced gratitude. It was found that loving rather than being loved contributed more to human happiness (Dolan et al., 2008). Prosocial behavior is linked to a variety of benefits for those who assist others, including improved well-being (Ryan & Weinstein, 2010). Conceptualization from previous researches stated that gratitude is considered to be strongly related to mental health outcomes. Gratitude represents the quintessential positive personality trait, being an indicator of a worldview orientated towards noticing and appreciating the positive in life and reducing negative mental experiences (Watkins et al., 2003; Wood et al., 2008). It was extracted from a previous study by Hill and Allemand (2011) that gratitude is linked to mental well-being of individuals.

On contrary, as a positive emotion, gratitude could buffer the effects of negative experiences on individuals, reducing the probability of developing a mental illness. Thus, it appears that gratitude also plays an important role in decreasing the symptoms of anxiety and depression (Petrocchi & Couyoumdjian, 2016). This view has been supported by a number of empirical studies. Prosocial behavior is related significantly to a number of benefits for helpers, including greater well-being (Weinstein & Ryan 2010), personal happiness and life satisfaction and less frequent reports of depression (Sun et al., 2020). Previous studies also stated that gratitude may influence people to repay a favor by engaging in prosocial behavior. Studies have determined that prosocial behavior can also improve the mental health problems (Grant & Gino, 2010; Meng & Meng, 2020).

Subsequently, in light of the above literature, it can be assumed that gratitude with mediatory role of prosocial behavior can help in reducing the negative mental health problems of individuals. But, little is known about the psychological mechanisms that mediate this effect (Grant & Gino, 2010). According to the author's best knowledge, there are very few studies conducted in Pakistan, so this study is carried out to gauge the effect of gratitude on negative mental health consequences through prosocial behavior in adults.

### Objectives of the study

- To explore the relationship between gratitude, mental health and prosocial behavior among adults.
- To measure the effect of gratitude on mental health among adults.
- To investigate the mediating role of prosocial behavior in the relationship between gratitude and mental health among adults.

### Hypotheses of the study

- There would be a significant relationship between gratitude, mental health and prosocial behavior among adults.
- Mental health would be significantly predicted by gratitude and prosocial behavior among adults.
- Prosocial behavior would be served as mediator in the relationship between gratitude and mental health among adults.

### Conceptual Framework of study

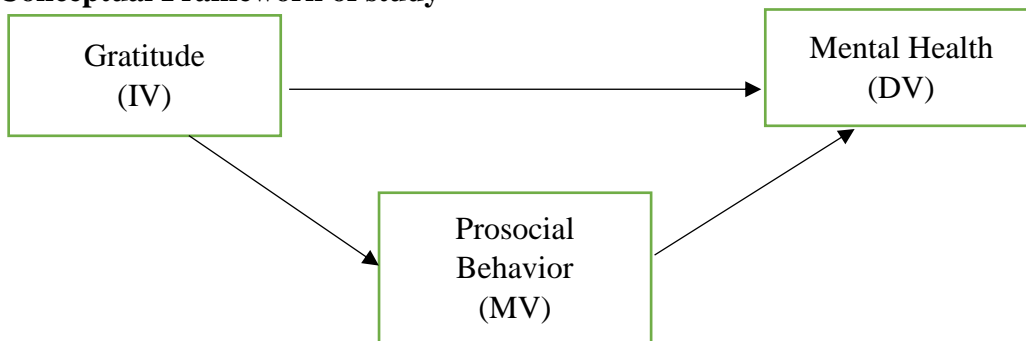


Fig 1: Self constructed

### Method

#### Research design and sampling strategy

The correlational research design was used in the current study. The non-probability convenient sampling technique was used to select the sample of adults.

#### Participants

In total, sample size of this study was comprised of 420 Adults (N=420). Data were collected through online google forms survey. Both male and female participants were recruited in this research with an age range of 18-26. Data were collected from major cities of Punjab (Lahore, Multan, Faisalabad).

#### Instruments

**The Gratitude Questionnaire (GQ-6):** McCullough (2013) presented the Gratitude Questionnaire (GQ-6). The GQ-6 is a brief self-report questionnaire that assesses one's willingness to be grateful. All the scale statements were rated on 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Internal reliability of the GQ-6 was adequate with  $\alpha=.74$ .

**Mental Health Inventory (MHI-18):** The MHI developed by Veit and Ware, (1983) was used to assess general psychological distress and well-being. The scale consists of 18 items and two global scales (well being and distress). In study the global scale concerning distress with subscales depression and anxiety were used in this study. The global distress scale consisted of 10 items. The scale use 6-point Likert scale ranging from 1 (all of the time) to 6 (none of the time). The internal consistency of the scale was  $\alpha=.77$ .

**Prosocial Tendencies Measure (PTM):** The prosocial tendency measure was developed by Carlo and Randal (2002). The scale consists of 23 items used to assess prosocial tendencies having six types which share some common basis but oppose to other. Each

statement was valued on a 5-point likert scales ranges from 1 (not describe me at all) to 5 (describe me very well). The internal consistency reported was  $\alpha=.75$ .

### Ethical Consideration

The participants were provided with the formal consent form. They were informed about the nature and purpose of the study. The ethical standard of research was also maintained through keeping confidentiality of participant's data and anonymity of their identity.

### Statistical Analysis

The data were analyzed through SPSS (24.0). The statistical analysis of this study includes the reliability analysis Cronbach Alpha and bivariate correlation. The mediation analysis was performed through process by Hayes (2013).

## Results

**Table 1**

*Psychometric properties of all study variables (N=420)*

Variables	$\alpha$	Range		Skew
		Potential	Actual	
Gratitude	.74	6-42	8-36	1.63
Mental Health	.77	0-60	13-48	-.11
Prosocial Behavior	.75	23-115	28-92	1.41

The above table shows the reliability analysis of all measurement instruments used in this study. The Cronbach alpha for all scales (.74-.77) confirms the acceptable ranges.

**Table 2**

*Correlation among Gratitude, Mental Health and Prosocial Behavior (N=420)*

Variables	Gratitude	Mental Health	Prosocial Behavior
Gratitude	-	-.34**	.58**
Mental Health		-	-.37**
Prosocial Behavior			-

\*\* $p < .01$ ; \* $p < .05$

This table shows that gratitude was significantly negatively ( $p < .01$ ) correlated ( $r = -.34$ ) with mental health. While, gratitude was significantly positively ( $p < .01$ ) associated ( $r = .58$ ) with prosocial behaviour. Furthermore, mental health was significantly ( $p < .01$ ) negatively associated ( $r = -.37$ ) with prosocial behaviour.

**Table 3**

*For the Direct and Indirect Impact of gratitude (through prosocial behavior) on Mental Health (N=420)*

Predictors	Mental Health		
	Model 1 B	B	Model 2 95% CI
Constant	78.73**	56.19**	[41.46, 70.93]
Gratitude	-.44**	-.35**	[-.51, -.18]
Prosocial Behavior		.09**	[.04, .15]
R <sup>2</sup>	.09	.12	
F	31.10**	20.91**	
$\Delta R^2$		.13	
$\Delta F$		48.18**	

\*\* $p < .01$ ; B for Unstandardized regression coefficient; CI for Confidence interval.

The results of this table shows that prosocial behavior partially mediated the relationship between gratitude and mental health. While, gratitude was also found to be a significant direct and indirect predictor of mental health.

### Discussion

The purpose of this study was to analyze the impact of gratitude on mental health through mediation of prosocial behavior. Prosocial behavior mediates the relationship between gratitude and mental health among adults. Overall, there was partial support for the main hypotheses. According to the results of this study there is a significant negative correlation between gratitude and negative mental health. Whereas, gratitude was positively correlated with the prosocial behavior. Unanue et al. (2019) confirmed the hypotheses that the reciprocal relationship between gratitude and mental health suggests the existence of virtuous cycle of human wellbeing; higher levels of gratitude increase positive aspect of mental health while lower level of gratitude increases the negative aspects of mental health. This research was consistent with the study hypotheses and results.

According to the findings of this study, gratitude has a significant adverse impact on negative mental health through prosocial behavior. According to Bono and Froh (2009), gratitude is one of the most important factors that influences people's positive aspects of mental health and thus serves as a foundation for experiencing happiness while lower prosocial behavior increases the negative aspects of mental health. Another study confirmed the hypotheses conducted by Raposa, Laws and Ansell (2015) identified that prosocial behavior mediated the effects of negative mental health and positive and negative affect. The study also stated that low levels of prosocial behavior may serve as important components of stress.

The study results indicated that gratitude has a significant positive relationship with prosocial behavior. The results were consistent with the previous researches which stated that gratitude may influence people to repay a favor by engaging in prosocial behavior (Tsang, 2006). According to Bartlett and DeSteno (2006), people who received help from others felt grateful and were more likely to show prosocial behavior toward the benefactor or others.

Results from the mediation analysis confirmed that prosocial behavior negatively mediated the relationship between gratitude and negative aspects of mental health. These results were consistent with a recent literature given by Meng and Meng (2020) stated that improving gratitude is an effective way to help people cope with the negative aspects of mental health. Individuals who had lower prosocial behavior reported high level of depression and anxiety. Meanwhile, the study confirmed that prosocial behavior had significant mediating effect between gratitude and negative mental health problems such as depression and anxiety. Tian, Chu and Huebner (2015), postulate the crux of the findings that gratitude is one of the factors that have inverse effect on people's negative mental health and thus serves as a counter foundation for experiencing prosocial behavior.

### Conclusion

This study concluded that gratitude is a protective factor and can be very helpful in reducing the mental health problems of the individuals. Whereas, it was also found that prosocial behavior is a positive aspect, which along with gratitude is considered to play a significant role in dealing with mental health advertises.

### Limitations and Suggestions

The sample of the present study was only limited to the major cities of Punjab. Generalizability of results on whole province cannot be claimed. Moreover, there is need to explore other factors as well that lead towards the gratitude and mental health.

### Implications

The practical implications of this study included that this study will be helpful for the counselors to understand the importance gratitude and make strategies to improve mental

health among adults. This study will also be helpful for adults to understand and adopt gratitude and prosocial behavior to enhance positive aspects of mental health.

**Conflict of interest:** There was no significant conflict of interest in the research.

**Funding disclosure:** The research was not funded by any organization.

**Author's Contribution:** Zain ul Islam (write up), Maria Anwar Khan (Conceptualization), Aiman Farooq (proof reading) and Saira Aslam (data entry and analysis).

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