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Impression Management and Psychological Well-being: Addressing Mediation by Moral Disengagement

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Abstract

Background. Impression management is a ubiquitous aspect of everyday life; however, its potential influence on individuals' psychological well-being remains under investigated. The present research examines the mediating role of moral disengagement between impression management and psychological well-being.

Method. A cross-sectional investigation was undertaken, involving 542 participants (mean age = 18.59 years, SD = 2.11; 54 % female). Following data collection, analyses were performed using SPSS version 21 and the PROCESS macro.

Results. The correlation analysis revealed that communal management associated positively with psychological well-being (r = .37) and negatively with Moral Disengagement (r = -.41). Agentic management associated negatively with psychological well-being (r = -.23) and positively with moral disengagement (r = .09). Moral disengagement associated negatively with psychological well-being (r = -.25). The mediation analysis presented that the direct effect of communal and agentic management on psychological well-being mediated by moral disengagement.

Conclusion. Results of the present study showed that a direct increase in psychological well-being due to impression management (communion and agentic) and moral disengagement is unstable. The relationship between impression management (communion and agentic) and psychological well-being decreases when impression management relied on moral disengagement.

Keywords. Impression Management, Agentic Management, Communion Management, Moral disengagement, Psychological well-being

Introduction

In today's era, people strive to create and fulfill a self-chosen identity (Leary, 2019; Schlenker, 1980), which reflects the human nature to serve their self (Dawkins, 1976; Jones & Pittman, 1982; Wright, 1994). The impression one makes on others plays an important role in determining how one is viewed and evaluated by others. (Leary & Kowalski, 1990; Zettler, Hilbig, Moshagen, & De-Vries, 2015). However, when an individual finds it difficult to present themselves in a positive way, the feelings of dissatisfaction occurred. In such cases, the motive of impression management boosts to override the problematic social impulses (Fenigstein, 1979; Morrison & Bies, 1991).

Impression management constitutes a deliberate effort to project a favorable self-image, and its execution is contingent upon situational characteristics. (Paulhus, 1984). A body of literature showed that people put strong effort to avoid negative evaluations against them in order to maintain their positive public image (Leary & Kowalski, 1990; Zettler et al., 2015) which shows important role of impression management in social life (Morrison & Bies, 1991; Wayne & Kacmar, 1991). To date, Paulhus (2002) proposed the most influential taxonomies of impression management are agentic and communal management which involves exaggeration of self at conscious level. These two cluster portrait different style of self-presentation(Bakan, 1996). According to Paulhus and John (1998) agentic management is related to ones' success and development. It gives self-importance to gain power which means "getting ahead". In contrast, a communal management is an excessive devotion to group norms and minimization of social deviance to gain approval from others. It focusing on establishment and maintaining social relationships which means "get along". There are situations in which individuals are motivated to present themselves in a positive manner; the content of such self-presentations may be either egoistic or moralistic, contingent upon the relative importance that individuals assign to the values of agency and communion. (Paulhus & John, 1998).

Recent researches found mixed evidences regarding positive and negative consequences of impression management (Bolino, Long, & Turnley, 2016; Turnley & Bolino, 2001). Impression management is regarded as beneficial when it furnishes a comprehensive overview and fosters positive interpersonal relations; conversely, it proves disadvantageous when it engenders negative relationships owing to others' distorted perceptions of the actor's authentic behavior. (Rosenfeld, Giacalone, & Riordan, 2001). Individuals who actively employ impression-management tactics tend to exhibit higher performance levels, which, in turn, is associated with greater life satisfaction. (Harris, Kacmar, Zivnuska, & Shaw, 2007; Uziel, 2010). Nagy and colleagues (2011) found that Individuals lacking proficiency in impression-management tactics are prone to depart the organization prematurely, largely because they do not receive managerial support. However, these studies did not look at the potential impact of impression management on psychological well-being. The apprehension of facing undesirable evaluations, which could blemish one's social image, may unfavorably affect psychological well-being. (Christopher, 2004) because the motivation behind an individual to describe themselves socially and intellectually competent is to maintain their happiness and mental health (Taylor & Brown, 1988).

In the literature it is uncertain that impression management influences psychological well-being. On one hand, one can get benefit from holding a positive social image by managing their impression (Ashworth, Darke, & Schaller, 2005; Chen, Shechter, & Chaiken, 1996; Jain, 2012). However, on the other hand, this process requires them to put in a lot of effort, which can be difficult and stressful. In some cases, impression management can be harmful or even fail, when one's positive image is viewed negatively through impression management. (Bolino et al., 2016; Jones & Pittman, 1982).

Further literature reveals that agentic management is independent of life satisfaction whereas communal management is positively associated with life satisfaction(Hofer, Chasiotis, & Campos, 2006). The well-being of communion manager enhanced as compared to agentic manager(Helgeson, 1994; Kong, Ding, & Zhao, 2015). However, Helgeson(1994) also found that agentic management negatively related to depression; whereas communion management has less association with well-being. Moreover, he literature further indicates that agentic impression

management is correlated with factors associated with life satisfaction (Çivitci & Çivitci, 2009; Kong et al., 2015). Regarding gender differences literature showed that agentic management seems to exhibit more in male, however; women are higher on communal management (Eagly & Karau, 2002; Moskowitz, 1994; Paulhus & Trapnell, 2008). In summary, extant research indicates that impression management influences an individual's well-being insofar as it precludes authentic self-expression. and showed different results regarding association of agentic and communal management with well-being.

At times when people want to see their actions in a positive way, they are motivated to search the information that is beyond the mere, in order to support their unrealistic beliefs and self-presentation. This need becomes so imperative that people keenly construct evidences to support their desired beliefs, which is morally unacceptable as they are not presenting their true self (Rosenfeld et al., 2001). As a consequence, cognitive dissonance is created between being right and wrong. Therefore, people want to convince themselves that in this particular context the ethical standards don't apply on them and justify their actions by cognitive reconstruction. This can be done by using moral disengagement to disable the feeling of self-condemnation (Bandura, 1999 2002).

Moral disengagement (MD) constitutes a cognitive mechanism through which individuals reinterpret unethical conduct as morally permissible, without concomitant changes to either the behavior itself or the prevailing moral criteria. (Bandura, 1999). An individual desires to act accordingly to social norms and standards that make their image positive in front of others and to develop their self-respect (Zerbe & Paulhus, 1987). But in some circumstances acts and beliefs within moral standards deteriorates which threaten to reveal their negative behaviors in front of others. Therefore, an individual activate their MD mechanism to avoid negative self-sanction when they act apart from moral standards in order to be socially acceptable (Çapan & Bakioglu, 2016).

Impression management may be facilitated by moral disengagement, as the latter enables individuals to present a deliberately false façade. (Zerbe & Paulhus, 1987). When an individual's moral self-sanctions against intentional misrepresentation are disengaged, it becomes easier to rationalize deception. Moral disengagement is possible explanation to reframe non ethical behavior as less reprehensible not just for themselves, but in the eyes of others (Iwai, Carvalho, & Lalli, 2018). As impression manager not only care about their self-image, but they are also concerned about how others perceive them, therefore, individuals could use moral disengagement to see themselves as morally right. Accordingly, the present study posited that moral disengagement functions as a mediator between impression management (both agentic and communal) and psychological well-being.

Given the premise that individuals are motivated to sustain a sense of well-being, it may be argued that the propensity for positive self-presentation influences their psychological well-being. Because this notion has received limited empirical attention, the current research aimed to clarify the mechanism underlying the relationship between impression management (both agentic and communal) and psychological well-being by proposing moral disengagement as a mediating variable.

Method

Participants and Procedure

The sample comprised 544 participants aged 17–25 years ($M = 18.59$, $SD = 2.11$; 46 % male) enrolled in various public and private institutions in Rawalpindi and Islamabad. Following informed consent, participants were briefed on the study's purpose and assured of data confidentiality. The instruments were administered in a group setting. After data collection, results were compiled and analyzed using SPSS version 21.

Instruments

Agentic management is measured by agentic management subscale of the adapted comprehensive inventory of desirable responding scale (Aftab & Malik, 2020). Adapted agentic management subscale consists of 10 items inventory with seven-point likert scale. High score indicates individual disavowing negative qualities more and appreciate autonomy

and well-being of the individual over everything else. Previous studies showed alpha coefficients ranging from 0.62 to 0.90 (Stöber, Dette, & Musch, 2002; Tonković, Galić, & Jerneić, 2011) suggesting substantial evidences of internal consistency.

Communion Management. Communal management is measured communal management subscale of the adapted comprehensive inventory of desirable responding scale with seven-point likert scale. High score indicates more need of approval and cherishes group and interpersonal relationships. Previous studies showed alpha coefficients ranging from 0.62 to 0.90 (Stöber et al., 2002; Tonković et al., 2011) suggesting substantial evidences of internal consistency.

Moral Disengagement. Moral Disengagement Questionnaire (MDS; Bandura et al., 1996) consists of 32 items with a 5-point Likert scale. The higher composite scores indicate higher levels of moral disengagement. Prior studies have shown that alpha reliability for a composite measure of moral disengagement was .86 (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Hyde, Shaw, & Moilanen, 2010; Pelton, Gound, Forehand, & Brody, 2004).

Psychological Well-being. Ryff's (1989) psychological well-being scale measure entails 42 items with a six-point likert scale. The higher composite scores indicate higher levels of psychological well-being. Prior studies showed alpha coefficients for the composite score between .81 and .88 (Fattahi, 2016; Shahidi, French, Shojaei, and Zanin, 2019; Sharma and Sharma, 2018).

Results

This research sought to explore how individuals use moral disengagement when attempting to control impression management in relation to their psychological well-being. For examining how different aspects in our research relate to each other, we performed separate bivariate correlations using Pearson's method on all variable pairs individually. Correlational analysis showed an inverse relationship between agentic managerial styles and both moral disengagement and psychological well-being. Furthermore, a communal managerial approach correlated inversely with moral disengagement and was associated with increased psychological well-being.

Table 1

Descriptive Statistics and Bivariate Correlation of Study Variables (N=544)

							Correlation			
S.no	Variables	α	*M*	*SD*	Skewness	Kurtosis	1	2	3	4
1	AM	0.61	37.49	9.33	-0.08	-0.04	-	-	-	-
2	CM	0.61	28.09	6.97	0.1	-0.39	-0.18**	-	-	-
3	MDS	0.81	81.4	15.1	-0.1	-0.25	0.09*	-0.41**	-	-
4	PWB	0.8	94.7	13.85	0.13	-0.42	-0.23**	0.37**	-0.25**	-

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Table 2

Gender Differences on Study Variables (N=544)

	Gender								
	Male (n = 242)		Female (n = 284)				95% CI		
Variables	M	SD	M	SD	t	p	LL	UL	Cohen's d
CM	25.51	5.65	30.21	7.13	8.28	.00	-5.82	-3.59	0.73
AM	38.07	8.57	36.05	9.84	372	.00	1.42	4.61	0.22
MD	84.15	14.08	79.34	15.63	3.68	.00	2.24	7.37	0.32
PWB	92.39	14.39	97.68	15.15	4.06	.00	-7.81	-2.72	0.35

In terms of gender, Table 2 shows that females tend to score lower on agentic management and moral disengagement, while they score higher on psychological well-being and communal management compared to males. The effect sizes, measured using Cohen's d, were notably high for communal management, with a value of 0.73. For AM, MD, and PWB, the effect sizes were small to medium, ranging from 0.22, 0.32, and 0.35 respectively.

Table 3

Mediation by Moral Disengagement between Communal Management and Psychological Well-being (N= 542)

			95% CL	
Conditions	B	*P*	LL	UL
CM------> MD	-.90	.00	-1.07	-0.73
CM------> PWB	.82	.00	0.64	0.99
MDS ------> PWB	-.11	.01	-0.20	-0.03
AM ----->MDS----->PWB	.72		0.53	0.90
R2	.39			
F	47.65	.00		

A mediation analysis was conducted to assess whether MD mediate between CM and PWB. The analysis was performed using the PROCESS macro (Hayes, 2013, Model 4). Results demonstrated a significant positive direct effect of CM on PWB (B = 0.47, *p* < .001). Additionally, CM was negatively associated with MD (B = –0.90, p < .001), and MD was, in turn, negatively associated with PWB (B = –0.72, p < .01). The indirect effect of CM on PWB through MD was significant, as indicated by a bootstrapped confidence interval that did not include zero (B = 0.10, 95% CI [0.41, 0.19]). These findings support the hypothesized mediating role of MD in the link between CM and PWB.

Table 4

Mediation by Moral Disengagement between Agentic Management and Psychological Well-being (N= 542)

			95% CL	
Conditions	B	*P*	LL	UL
AM------> MD	.14	.04	0.01	0.28
AM------> PWB	-.37	.00	-0.50	-0.24
MDS ------> PWB	-.23	.00	-0.31	-0.15
AM ----->MDS----->PWB	-.34	.00	-0.47	-0.21
R2	.33			
F	31.56	.00		

Further mediation analysis showed that the indirect effect of MD on the link between AM and PWB. The results in table 4, showed that the AM decreased PWB (B = -.37, $p > .00$), while also leading to an increase in moral disengagement (B = .14, $p > .00$) which in turn decreased psychological well-being (B = -.34, p < .00). However, the indirect effect of AM on PWB (B *Indirect* = -.03, CL: -.07 to .00) is not significant. Which means the direct effect of AM on PWB is not dependent on MD.

Discussion

The objective of this research was to conduct an empirical assessment linking impression control strategies to mental health outcomes through the lens of ethical detachment mechanisms. Though preliminary analysis showed communal management has positive and agentic management has negative relationship with psychological well-being. The findings align with previous research indicating that community-oriented approaches result in improved overall quality of life compared to individualistic strategies which foster more aggressive tendencies and heightened personal concerns impacting mental health negatively. (Abele, 2014; Aknin, Dunn, & Norton, 2012; Diener & Biswas-Diener, 2008; Hofer et al., 2006; Markus & Kitayama, 1991). As was expected, the results shown that the agentic manager is more egoistic in nature, competent, clever and is more concerned to personal development and establishment therefore they are more inclined towards moral disengagement in order to gain power. On the other hand, communion manager is moralistic in nature, more devoted to group norms and tried to show less deviance therefore communion manger might be unable to be convinced that the ethical standards do not apply on them for this particular situation therefore they are less inclined towards moral disengagement.

The mean differences across gender showed that females are high in communion management and boys are high in agentic management. Empirical literature has consistently reported that communion management is prototypically feminine (Eagly & Karau, 2002; Moskowitz, 1994; Paulhus, 2002). Further, the results regarding gender differences in psychological well-being are consistent with the studies that reported psychological functioning is high in females as compared to males (Nygaard & Heir, 2012; Ryff, Lee, Essex, & Schmutte, 1994).

Mediation analysis revealed that the effect of CM on PWB is mediating by Moral disengagement. The psychological well-being of communal managers ultimately increased when communal managers became less inclined toward moral disengagement behavior. Correlational analysis also confirms that communal management is negatively predicting moral disengagement and positively predicting psychological well-being.

Furthermore, mediation analysis revealed that moral disengagement did not significantly mediate the effect of agentic management on psychological well-being. The agent manager's psychological well-being does not require legitimizing and justifying his manipulative behavior without self-condemnation in order to enhance well-being. The present findings align with previous research indicating that individuals employing communal impression-management strategies exhibit higher levels of psychological well-being than those employing agentic strategies (Ebele, 2014; Aknin et al., 2012). Moreover, the research findings equip empirical evidence that the association between impression management (encompassing both Agentic Manager and Communal Manager orientations) and PWB, mediating by MD, thereby clarifying the mechanisms that account for the discrepancies observed in well-being outcomes linked to differing managerial orientations.

Future researches should attempt to clarify and extend these findings to determine whether the results suggested in the present study can be supported empirically. The future researches are suggested to explore the effect of impression management and moral disengagement on psychological well-being in both public vs. private context.

Declarations

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Conflict of interest: The author declares that there is no conflict of interest.

Ethical approval: Ethical Approval was gained from National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan

Data availability: the data that support the findings of this study are available on request from the corresponding author

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The Interplay of Obsessive Thoughts, Impaired Self-Control, and Regret in Compulsive Purchasing Among Adults

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Abstract

Objectives. Compulsive purchasing as a behavioural concern that is triggered by emotional distress leading to significant financial and psychological consequences. Individuals with poor self-control and obsessive tendencies are particularly vulnerable who often experience guilt and regret after buying sprees. This study investigates the relationship between obsession, compulsive shopping behavior, self-control, and anticipated regret among adults.

Method. A correlational research design was used. Data were collected from 200 adult participants by using the Snowball sampling technique. The study employed the Yale-Brown Obsessive-Compulsive Scale (Goodman et al., 1989), Compulsive Buying Scale (Nancy et al., 2008), Regret and Disappointment Scale (Marcatto et al., 2023), and Brief Self-Control Scale (Tangney et al., 2004).

Results. Findings revealed a significant negative correlation between compulsive buying and self-control (r = -.51, p < .01), and a positive relationship between obsession and compulsive buying (r = .56, p < .01). Self-control accounted for 26% of variance in compulsive buying. No significant gender differences were found in compulsive buying and self-control.

Conclusion & Implications. Lack of self-control and obsessive tendencies significantly contribute to compulsive buying behavior. This behavior, in turn, leads to increased feelings of regret. Understanding these relationships can help develop interventions to enhance self-regulation and mitigate compulsive buying tendencies.

Keywords. *Compulsive purchasing behaviour, self-control, obsession, regret*

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Introduction

In today's consumer societies, compulsive buying has emerged as a major behavioural issue. It is characterized by persistent, intrusive thoughts about buying, a diminished capacity to control impulses, and a recurrent cycle of regret following excessive spending. Adults' maladaptive buying patterns are the result of a complex interaction between cognitive preoccupations and impaired self-control mechanisms (APA, pg.154, 2013). Researchers have increasingly recognized that compulsive shopping is a psychological pattern fuelled by obsessive thoughts, loss of self-regulatory control, and subsequent emotional distress as well as a financial issue. Adults who engage in compulsive buying frequently experience a mental preoccupation with shopping that is repeated over and over again, resulting in rash decisions that are followed by a great deal of regret and self-blame (Müller et al., 2015). In western cultures, compulsive purchasing is well studied, but its cultural expressions in Pakistan are relatively unknown. As consumerism finds its ways in the wake of cyber shopping websites, availability of easy credit, and online targeting of advertisements, adult Pakistanis talk about their escalation in compulsive buying and consumption. Psychological mechanisms involved in impulsive purchases and buying frequently involve usage of obsessional thinking, lack of self-control, and regret of future. Knowledge of such psychological underpinnings is needed to bring about the formulation of interventions that could prevent negative consequences of compulsive buying.

Consumerism in Pakistan has been growing at a rapid rate with ever-growing development of m-commerce and commercial promotions in social media. Studies reveal, excessive use of online shopping has led to increase in compulsive purchasing, especially in youth and urban populations. A recent compulsive purchasing mapping research among Pakistani m-commerce consumers highlighted that impulse buying tendencies are on the rise, which is resulting in economic burden and psychological distress (Ali & Raza, 2021). This necessitates exploring psychological constructs such as obsession, self-regulation, and anticipated regret for compulsive purchasing. Obsessive thoughts, urges and behaviors play an important role in compulsive purchasing. Individuals with obsessional characteristics inculcate repetitive buying habits (coping behaviours) to reduce distressing thoughts. Research in Pakistan has found a high rate of subclinical obsessive-compulsive disorder (SOCD) symptoms, among people experiencing stress and financial vulnerabilities (Hussain & Fatima, 2020). This implies a possible connection between compulsive tendencies and compulsive buying, a short-term escape from psychological pain.

Self-control among other things is instrumental in controlling buying behaviours. Delaying gratification and resisting impulsive desires determine whether one gives in to compulsive buying tendencies. Studies have also indicated that those with low self-control are more likely to spend impulsively because they cannot manage their wants very well. Research carried out in Pakistan established that self-control acted as a mediator of the effect of online shopping addiction on compulsive buying in young adults (Ahmed et al., 2022). This is in accordance with global research points to self-control as one of the elements responsible for avoiding compulsive buying behaviours (Shabbir et al., 2024).

Anticipated regret, or the anticipated future regret over a decision, is a strong psychological influence on consumer behaviour. In Pakistan, the influence of anticipated regret was most obvious during the COVID-19 pandemic, when panic buying was widespread in response to fear of missing out and perceived product shortages (Khan & Javed, 2021). People who chronically experience anticipated regret tend to indulge in impulsive buying to preserve the possibility of missing out what seems affordable and then feel regret afterward. This cycle of emotions reinforces compulsive buying habits, generating a cycle of guilt and impulsive spending (Shabbir et al., 2024).

Self-Regulation Theory (Baumeister et al., 1994) predicts that individuals manage their actions using self-control. During the self-control depletion, individuals are inclined to engage in impulsive behaviours, for instance, compulsive spending. Self-Regulation Theory explains how individuals who have weak self-control cannot withstand the temptation of buying and suffering economically

and emotionally later. The Cognitive-Behavioural Model of Compulsive Shopping holds that cognitive distortion perpetuates compulsive spending in the forms of irrational purchasing cognitions (e.g., "This shopping will improve my mood") and behaviour reward (Faber & O'Guinn, 1992). Future-oriented obsession and guilt continue to perpetuate such distortion by regretting what happened next, with this regret triggering repeated use. Little empirical data is available on psychological causes of compulsive purchasing, particularly after an increasing concern about shopping habits in Pakistani nationals. By exploring the interaction between obsession, self-control, and expected regret, this research seeks to present a culturally appropriate explanation of CBB among Pakistani adults. This study is especially important considering the growing power of digital marketing and m-commerce, which have revolutionized consumer shopping habits in Pakistan. The study explores the relationship between obsession, compulsive purchasing, self-control, and anticipated regret. And investigates the predictive role of self-control in compulsive purchasing.

Hypotheses

1. Obsessive-compulsive symptoms are positively correlated with compulsive buying, and negatively correlated with self-control in adults.
2. Lower self-control significantly predicts higher compulsive buying behavior in adults.
3. Self-control partially mediates the relationship between obsessive-compulsive symptoms and compulsive buying, while anticipated regret mediates the relationship between self-control and compulsive buying.
4. Women report higher obsessive-compulsive symptoms, higher compulsive buying tendencies, and higher anticipated regret, whereas men report higher self-control.

Method

Sample

A snowball sample comprised of 85 adult (18 years and above) men (42.3%) and 116 women (N = 201) that shopped online. Several participants were approached and were asked if they knew others who shopped online, and if they did, we contacted them to participate in the study, which many of them did generating our snowball sample. Participants who didn't shop online were excluded. Demographic information such as gender, age, education, occupation, income, and online shopping frequency was collected. Table 1 shows majority of participants were between 18 and 23 years (43.3%), followed by 24 to 29 years (40.8%), and a smaller number between 30 to 35 years (15.9%). Most of the participants had an undergraduate degree (52.2%), followed by 36.8% having postgraduate qualifications, and 10.9% having an intermediate level of education. The larger group 57.7% of the respondents were females and 42.3% were males. About 43.4% of the respondents were students, 6.5% were bankers, 4.5% were lawyers, and 2.0% were housewives. Purchase-wise, 25.9% of the respondents reported buying gadgets, the highest bought category. This was followed by clothing (18.9%), foodstuffs (23.4%), books (15.9%), and cosmetics (7.5%). The findings reflect a heterogeneous sample by demographics with a strong propensity towards the purchase of technology-based products and apparel.

Table 1

Demographic Characteristics of the Participants

Variable	*n* (%)
Gender	
Male	85 (42.3)
Female	116 (57.7)
Age	
18-23	87 (43.3)
24-29	82 (40.8)
30-35	32 (15.9)
Education	
Intermediate	22 (10.9)
Undergraduate	105 (52.2)
Postgraduate	74 (36.8)
Occupation	
Student	87 (43.4)
Banking	13 (6.5)
Housewife	4 (2.0)
Law	9 (4.5)
Items purchased	
Food	47 (23.4)
Cosmetics	15 (7.5)
Clothes	52 (18.9)
Gadgets	32 (25.9)
Books	17 (15.9)

Note. $n = 201$

Assessment Measures

Yale Brown Obsessive Compulsive Scale (Y-BOCS). One of the most widely used questionnaires in assessing obsessive-compulsive symptom severity is the Y-BOCS (Goodman et al., 1989). The scale contains 10 items, categorized into two subscales that measure Buying Related Obsessive Thoughts (BROT, 5 items) and Compulsive Buying Actions (CBA, 5 items). All the items were rated on a 5-point Likert scale ranging from 0 (No symptoms) to 4 (Extreme symptoms). Composite scores range from 0 – 25 for the two subscales, with higher scores representing greater obsessive and compulsive behaviours. Example items include items: "How many hours a day do you think about buying things online?" and "How hard is it to stop thinking about buying things online?" The Cronbach alpha value of 0.76 indicated the scale items are measuring the construct accurately (Goodman et al**.**, 1989).

Compulsive Buying Scale (CBS). This scale (Need references here) was employed to measure compulsive buying in adults and consists of 25 items, each rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Composite scores range from 25 – 125, with higher scores representing greater compulsive buying behaviours. The scale CBS is also widely used to measure compulsive buying behaviour and its psychological and financial consequences. The CBS measures the severity of expenditures on compulsive consumption habits, such as impulsive buying, emotional regulation by spending, and over-spending financial consequences. Sample items are "I have an overpowering desire to purchase items," "I have a tendency to purchase unnecessary items," and "I feel a thrill when purchasing an item." The scale was extremely reliable (α = .92), reflecting

strong internal consistency (Nancy et al., 2008).

Brief Self-Control Scale (BSCS). It was employed to measure self-control of behaviours and temptations (Tangney et al., 2004). This is an 18-item instrument rated on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Composite scores range from 18 – 90, with higher scores representing greater self-control behaviours. It measures some aspects of self-control like impulse control, goal-directed action, and temptation resistance. For example, items are "I am good at resisting temptation" and "I have a hard time breaking bad habit" (reverse-coded), etc. The Cronbach alpha value of .77 showed the scale is moderately consistent to measure the construct (Tangney et al., 2004).

Regret and Disappointment Scale (RDS). Regret and Disappointment scale was used to assess the occurrence and intensity of feeling of doubts and despair that emerged from life events. It comprises of 12 items answered on a 5-point Likert type scale from 1 (Strongly Disagree) to 5 (Strongly Agree) where the subject could respond every item in response to the extent to which he or she agreed with the statement. Composite scores range from 12 – 60, with higher scores representing greater regret and disappointment. The scale measures both affective and cognitive elements of regret and disappointment, e.g., ruminating over past decisions, emotional response to negative consequences, and tendency to stay in past missed opportunities. Some examples of items are "I think about how things could have been done better quite often" and "I feel loss when I reflect on previous decisions." The scale is internally consistent ($\alpha > .80$), indicating moderately high reliability (Marcatto et al., 2023). RDS has been extensively used in consumer psychology and behaviour in researching decision-making behaviour and emotional responses to bad news

Procedure

The study employed a correlational research design to examine the relationship between compulsive buying behavior (CBB), self-control, and regret among adults. Data were collected at the Department of Clinical Psychology, Shifa Tameer-e-Millat University, Islamabad, Pakistan. Participants were recruited from the university student population using a combination of convenience and snowball sampling techniques to obtain a broader and more diverse sample. Initially, students were approached on campus and invited to participate, after which some participants referred their peers, contributing to recruitment through snowball sampling. All participants were informed about the purpose of the study and provided written informed consent prior to data collection. They were then asked to complete a structured questionnaire comprising demographic information (see Table 1) and validated measures related to the study variables. The questionnaire was available in both paper-based and online formats to maximize accessibility and participation. Confidentiality and anonymity of all responses were ensured, and participants were thanked for their voluntary contribution upon completion.

Results

Statistical Package for the Social Sciences version 25 was used for the analysis in the present study. Psychometric properties of scales were calculated, so Table 2 presents the means, standard deviations, internal consistencies, and inter-correlations among the study variables: Obsessive-Compulsive symptoms (Y-BOCS), Compulsive Buying (CBS), Self-Control (BSCS), and Regret and Disappointment (RDS). All scales demonstrated acceptable to excellent internal consistency reliability, with Cronbach's alpha values ranging from .78 to .91. The mean scores indicate moderate levels of obsessive-compulsive tendencies ($M = 15.80$, $SD = 5.96$), compulsive buying ($M = 42.10$, $SD = 9.97$), self-control ($M = 35.70$, $SD = 7.68$), and regret and disappointment ($M = 28.70$, $SD = 6.61$).

The correlation matrix shows that obsessive-compulsive symptoms were significantly and positively correlated with compulsive buying ($r = .55$, $p < .01$) and with regret and disappointment ($r = .52$, $p < .01$). Additionally, compulsive buying was positively correlated with regret and disappointment ($r = .52$, $p < .01$), suggesting that individuals higher in compulsive buying tendencies may also experience stronger feelings of regret and disappointment. In contrast, self-control was significantly and negatively correlated with obsessive-compulsive symptoms (r

= –.51, p < .01), compulsive buying (r = –.50, p < .01), and regret and disappointment (r = –.59, p < .01). This pattern indicates that lower self-control is associated with higher obsessive-compulsive tendencies, greater compulsive buying, and elevated experiences of regret and disappointment.

Table 2

Means, Standard Deviations, Internal Consistencies and Inter-correlations among Y-BOCS, CBS, BSCS and RDS

Scale	*k*	*M*	*SD*	*α*	Potential	Actual	Y-BOCS	CBS	BSCS	RDS
Y-BOCS	10	15.80	5.96	.87	0 - 50	4-28	-			
CBS	25	42.10	9.97	.91	25 - 125	3-70	.55**	-		
BSCS	12	35.70	7.68	.83	12 - 60	22-50	-.51**	-.50**	-	
RDS	18	28.70	6.61	.78	18 - 90	20-45	.52**	.52**	-.59**	-

Note. *k* = number of items in the scale, M = Mean, *SD* = Standard Deviation, *α* = internal consistency, Y-BOCS = Yale-Brown Obsessive Compulsive Scale, CBS = Compulsive Buying Scale, BSCS = Brief Self-Control Scale, RDS = Regret and Disappointment Scale

**$p < .01$

Table 3

Lack of Self-Control Predict Compulsive Buying Behavior in Adults

Variable	B	*β*	SE	*p*
BSCS Total	-.66	-.51	.08	.001
R^2	.26			

Note: B = Unstandardized Beta, *β* = Standardized beta, R^2 = Coefficient of determination, BSCS= Brief Self-Control Scale

Table 3 shows low self-control significantly predicted compulsive buying in adults. The standardized beta (*β*) indicated a very strong negative correlation (-.51, $p < 0.01$) between self-control and compulsive buying, unstandardized beta (B), shows each unit rise in self-control CBB drops by .66 units. The model explains 26% ($R^2 = .26$, $p < 0.01$) of the variation in CBB affirming the strength of these results.

Table 4

Mediation Analysis

Path	*β*	SE	*t*	**p**	95% CI
Obsession → CBB (Direct Effect)	.45	.08	5.63	<.001	[.30, .60]
Obsession → Self-Control	-.38	.07	-5.18	<.001	[-.52, -.24]
Self-Control → CBB	-.41	.06	-6.45	<.001	[-.53, -.28]
Obsession → Self-Control → CBB (Indirect Effect)	.16	.05	3.20	.001	[.06, .26]
Self-Control → Anticipated Regret	-.30	.08	-3.75	<.001	[-.45, -.15]
Anticipated Regret → CBB	.27	.07	3.86	<.001	[.13, .41]
Self-Control → Anticipated Regret → CBB (Indirect Effect)	.08	.03	2.67	.008	[.02, .14]

Note. CCB = Compulsive Buying Behaviour, CI = Confidence Interval

A mediation analysis revealed self-control mediated obsessions and CBB and regret mediated through self-control and CBB (Table 4). The results showed a direct effect of obsession on CBB ($\beta = .45$, $p < .001$). Furthermore, obsession negatively predicted self-control ($\beta = -.38$, $p < .001$), and self-control inversely predicted CBB ($\beta = -.41$, $p < .001$). Self-control mediated obsession and CBB partially, this indirect effect was significant ($\beta = .16$, $p < .001$). In addition, self-control inversely predicted regret ($\beta = -.30$, $p < .001$),

and regret positively related with CBB (β = .27, p < .001). The indirect effect was also significant (β = .08, p < .008), indicating that anticipated regret mediates the link between self-control and CBB partially. These results indicate that individuals with low self-control tend to have higher anticipated regret, which, in turn, is related to CBB.

Table 5 shows that women (M = 16.6, SD = 6.10) exhibited slightly higher obsession than men (M = 15.0, SD = 5.80). Women (M = 44.2, SD = 10.20) also demonstrated higher compulsive buying tendencies compared to men (M = 40.0, SD = 9.50). In contrast, men (M = 36.5, SD = 7.50) showed higher self-control than women (M = 34.9, SD = 7.60), indicating that males may be more capable of regulating their purchasing behaviors. Finally, women (M = 29.6, SD = 6.80) reported slightly higher anticipated regret than men (M = 27.8, SD = 6.40), suggesting that they may experience more post-purchase guilt and anxiety.

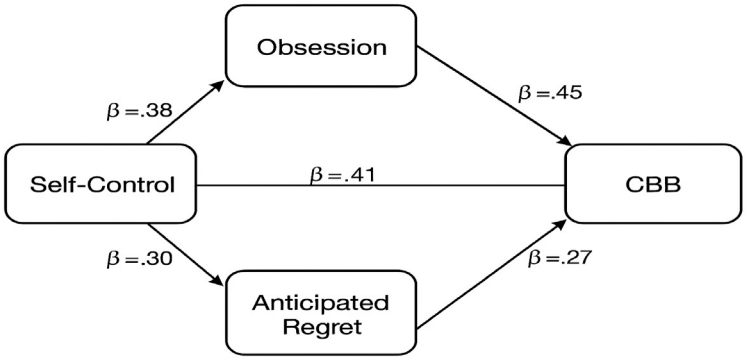

Table 5

Comparison between Men and Women based on Y-BOCS, CBS, BSCS and RDS

	M(SD)				
Scale	Men	Women	*t*	*p*	*d*
Y-BOCS	15.0 (5.80)	16.6 (6.10)	-1.98	.049	.28
CBS	40.0 (9.50)	44.2 (10.20)	-3.21	.002	.58
BSCS	36.5 (7.50)	34.9 (7.60)	2.15	.03	.28
RDS	27.8 (6.40)	29.6 (6.80)	-2.48	.01	.34

Note. M = Mean, SD = Standard Deviation, Y-BOCS = Yale-Brown Obsessive Compulsive Scale, CBS = Compulsive Buying Scale, BSCS = Brief Self-Control Scale, RDS = Regret and Disappointment Scale

Discussion

This study looked at compulsive buying behaviors in relation to adult self-control, obsessive thought patterns, and feelings of regret following purchases. These findings give insight to understand the psychological dynamics like experiencing obsessive impulses, behind the problematic buying behaviour along with emphasize the significance of self-regulation in preventing impulsive and unnecessary spending. The results of this study showed that individuals with stronger intrusive thought experience the psychological discomfort that result in impulsive consumption as a means of coping with distress. Similar to this, previous research has suggested that shopping can be used as a escape strategy by people who struggle with emotional dysregulation and obsessive thoughts. According to Escape theory intrusive thoughts are distressing for people so they use impulsive consumption used as cognitive escape from aversive self-awareness or negative affect. Additionally, the study found a positive correlation between compulsive buying and feelings of regret over excessive purchasing. These results have nuance with self-regulatory theory that explains compulsive buying act as short term reinforcement because it reduces the psychological distress but this buying behaviour in a long term consequences cause feelings of regret that exacerbate the initial distress that motivated the buying behaviour. Other theory explains that when people buy too much without thinking then they often experience feelings of regret. According to the cognitive dissonance theory, this reaction may be caused by people being aware of a mismatch between their purchasing habits and their financial goals. Studies done in the past also show that compulsive buyers may regret their purchases when they realize they didn't meet a real need or are under financial pressure. Therefore, compulsive buying not only maladaptive coping behaviour but also create a vicious cycle that fuels further shopping in an attempt to manage negative feelings.

A negative correlation was also found between self-control and anticipating regret, according to the study. This suggests that exercising self-control is more effective at avoiding the negative emotional effects of buying things on impulse. The findings indicate that compulsive shopping behaviors were significantly predicted by obsessive tendencies. This suggests that it may be difficult to resist the urge to spend if a person becomes mentally preoccupied with specific thoughts related to shopping. Self-control also acted as a mediator in this relationship, indicating that obsessive thoughts may make it harder to control one's impulses, ultimately leading to spending more than one can afford. In addition, it's possible that people who lack self-control are more prone to being persuaded by advertising and other external stimuli. Due to the paradox that people who anticipate feeling regret about unplanned purchases may paradoxically continue to shop to cope with negative emotions, expected regret appears to be another psychological mechanism that influences spending behaviors. Gender differences also existed. When it came to anticipating regret, shopping-related obsessive tendencies, and compulsive shopping, women performed better than men. This confirms previous findings that women are more likely to be influenced by consumer pressures from social media and advertising and shop more frequently as an emotional outlet. On the other hand, men showed more self-control, which is in line with the idea that men are more likely to approach financial decisions in a rational and emotion-free manner. Women have a higher rate of regret, which suggests a possible cycle in which regret increases emotional distress and prompts the use of shopping as a coping mechanism. Limitations and suggestions The findings of this study have significant theoretical and practical implications. To begin, they add to the body of knowledge on the subject by demonstrating the significant roles that regret and obsessive thoughts play in compulsive buying. Second, treatments that target impulse regulation, such as cognitive-behavioral therapy (CBT) and mindfulness-based therapies, may be effective in reducing compulsive buying behavior due to the strong predictive value of self-control. Future research suggests that financial literacy and stress may moderate compulsive buying behavior. Longitudinal research would also be required to ascertain whether interventions to improve self-control might lead to a long-term decrease in compulsive buying behavior.

Conclusion

Overall, the results show that self-control is a significant buffer and that compulsive buying is closely linked to obsessive tendencies and regret. According to the study, interventions are needed to develop self-regulation in people who are prone to impulsive consumption patterns. Follow-up research and treatment can help people better control their spending by focusing on the mental and emotional processes that are the root of compulsive buying.

Declaration

Conflict of Interest Statement. Authors of this study have no conflict of interest.

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Predicting the Addiction to Social Media in Adolescents: Examining the Role Fear of Missing Out (FoMO), Phubbing Behavior, and Attachment with Parents

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Abstract

Background. In this digital age, the eye-catching features of social media have taken control of the lives of the young population to such an extent that teens are getting prone to getting addicted to their virtual worlds. In order to study the impact of social media and smartphones on adolescents and their relationship with parents, the current study examined the association between fear of missing out (FoMO), phubbing, social media addiction, and parental attachment.

Method. The study followed a correlational research design and enrolled 200 adolescents (100 males and 100 females) through purposive sampling strategy. The age of the participants ranged between 14-19 years. The study sample was recruited from both public and private schools and colleges in the Lahore city.

Results. The findings of the study showed that FoMO (both trait & state), phubbing behavior, and angry-distress subscale of parental attachment were positively associated with social media addiction. Additionally, social media addiction found to be predicted by FoMO (state), phubbing behavior, and angry distress. Further, on the relationship between FoMO and social media addiction as well as between phubbing behavior and social media addiction, attachment with parental figures (angry distress, goal-corrected partnership, & availability) showed no moderating impact.

Conclusion. The study concluded that adolescents with angry distress (with parents) are more likely to develop FoMO, phubbing behavior, and social media addiction.

Implications. The study findings help understanding the issues experienced by adolescents following the use of social media, FoMO, and phubbing behavior. This research would be fruitful in counselling settings as it focuses on parental attachment that is an important aspect in adolescents' life.

Keywords. Trait-FoMO, State-FoMO, Adolescence, Attachment, Parents, Social Media Addiction

Introduction

The virtual world of social media where everything seems perfect and attractive; from entertainment to latest gossip, from trends to online shopping stores, and from social media influencers' reviews of products bought online to ongoing trolling/viral memes, the young population has been observed to keep track of everything going online. The multiple sources of information available on social media platforms have given rise to the Fear of Missing Out (FoMO) in the young generation. Przybylski et al. (2013) referred to FoMO as the "pervasive apprehension that others might be having rewarding experiences from which one is absent". The phenomenon can be best understood in reference to using social media as they serve the best platforms to make connections and FoMO is referred to the need to stay connected to others. Fear of being missed out develops when people's needs of "competence" and "relatedness" are not fulfilled (Deci & Ryan, 2010). Trait-FoMO refers to as a predisposition trait while state-FoMO refers to a state particular to usage of communication platforms of internet (Elhai et al., 2020).

The eye-popping features of smartphones have developed this tendency in the young population to repeatedly check their phones instead of communicating with the other person that leads to phubbing behavior. The term phubbing has been defined as a new mode of communication when an individual snubs other by using his phone instead of talking to that person (Chotpitayasunondh & Douglas, 2016). The word "phubbing'' was invented by Macquarie Dictionary in 2012 for behavior of snubbing a communication partner with one's phone. Consequently, phubbing is a blend of terms, "phone" and "snubbing" that refers to the behavior when in social settings, someone keeps using the phone instead of talking to others.

Franchina et al. (2018) investigated the relationship between FoMO, social media use, and problematic social media use (PSMU), and phubbing behavior in 2663 adolescents. They found that FoMO predicted phubbing among adolescents through PSMU. In addition, the former predicted the frequency of using social media platforms and the number of platforms actively used by adolescents. In particular, fear of being left out strongly predicted the use of media forums that offered privacy, for instance, Snapchat and Facebook as compared to more searchable and open networking platforms such as YouTube and Twitter.

More than three decades ago, Bowlby (2008) described attachment as a fundamental bond between parents and infants that is considered vital for the survival and development of infant. The phenomenon of attachment is presented on the basis of objective study of animal behavior and certain biological behaviors (e.g., infant's crying, smiling, clinging and proximity seeking etc.) make up the concept of attachment.

The way children experience their attachment in relationships becomes stronger in to "internal working model" through the nature of care they receive from each parent (Bowlby, 1973).

Availability

In addition to being available, attachment figure has to efficiently deal with attachment related distress and anxiety by acting responsively (Bowlby, 1973)

Angry-Distress

Anger directed towards parental/attachment figures emerges from the frustration as a result of unmet needs and desires. Children become hostile when they see their attachment figure as unresponsive or unavailable in time of need (Bowlby, 1973).

Goal-Corrected Partnership

The relationship between parent and child progresses to "goal-corrected partnership" when a child begins to perceive and attends parents as separate individuals with their own needs and goals. The child becomes empathetic to parental figures when he/she shows responsiveness to their feelings (Bowlby, 1969; Marvin, 1977).

Alt and Boniel-Nissim (2018) analyzed how parent-child communication that is an integral part in the framework of parental support/control is directly linked with problematic internet use and indirectly through FoMO as a mediator between this relationship. The sample consisted of middle

school students (13 to 15 years old) and high school students (15.5 to 18 years old). The findings showed that children were likely to experience less FoMO and less problematic internet use when parents tried to understand their feelings and listened to them. Similarly, Santana-Vega et al. (2019) examined the problematic use of mobile phones, FoMO, and the communication between parents and children in adolescents. Results showed that increased problematic use of mobile phone had positive correlation with fear of missing out, the participants had high scores averagely on mobile phones related experiences questionnaire and questionnaire of fear of missing out as they used the mobile phone frequently and communicated more with their friends. It was also revealed that those participants who used mobile phones for less time communicated better with their both parents.

Social media addiction is one of the types of internet addiction in which individuals are compelled to use social media to an excessive degree (Starcevic, 2013). People who have an addiction to social media are excessively involved in using it; thus possess an uncontrollable desire to open social media and use it (Andreassen & Pallesen, 2014). Research has differentiated between social media and messaging only applications such as WhatsApp because of its sole function as a text messaging tool that makes it a separate domain from social media (Kapoor et al., 2018).

Young et al. (2020) explained the relationship between social media use and mental health outcomes with two moderators; effect of having anxious and avoidant attachment style on adults. They highlighted that problematic use of social media resulted in adverse outcomes for the psychological well-being and life satisfaction of young adults. In addition, it was reported that psychological wellbeing was poorer among the individuals who scored higher on anxious style of attachment and lower on avoidant style of attachment.

Facebook has taken the credit of most used social media application (Alexa, 2017). One of the reasons for its massive use is its attractive features among all age groups. Twitter allows its users the facility of reading and posting tweets with a maximum limit of 280 characters. Liu et al. (2010) has reported the use of twitter for sharing information, engaging in interaction with others, seeking information, following trends and gratifying use of technology. Snap chat, an application used for instant messaging, has the provision of sharing pictures and short videos (also called snaps). With its tremendous use reaching more than 0.1 billion users, it is the most famous social media application following Facebook and Instagram (Utz et al., 2015). Instagram has become popular rapidly among youth i.e. adolescents and young adults (Alhabash & Ma, 2017). YouTube is the second most visited site on the internet with the ranking of first in video sites (Xu et al., 2016). It offers its users with the options of liking/disliking, uploading, commenting and sharing videos. Users can actively and passively participate and interact with others on many levels (Khan, 2017). One of the most famous social media applications, TikTok offers a marked platform in many parts of the world to create short videos. TikTok is best known to set a trend of creating and sharing a short video of 15 to 60 seconds among adolescents along with selection of songs or effects after its emergence from the app Musical.ly. Another top noted feature of the application is that it allows users to create video in response to another video, thus forming a chain of responses without any limit (Jaffar et al., 2019).

Theoretical Framework

The theory of parental attachment is referred to as being emotionally attached to another person for a long period of time. Most children may differ in forming attachment with each parent but evidence says that children possess the same possibility of forming attachment with both parents. It is very important to see how family members respond as it would determine the quality of emotions especially in case of adolescents. Families that can help adolescents having stable emotions are those who support, foster personal development and set rules to control behavior. As it has been seen, children are at risk of developing internet addiction if they are poorly attached with their parents. Research has shown that the risk of internet abuse can be reduced by determining the quality of father's trust in his child and adolescents' problematic internet use can be increased if parents follow the same pattern of

ignoring their child (Cacioppo et al., 2019).

Self-determination theory emphasizes that instead of extrinsic motivation, intrinsic motivation for obtaining reward is more important to promote mental health and for that case, feeling socially connected to others plays a key role. Therefore, intrinsic motivation can be driven by social relatedness in self-determination theory that promotes positive mental health. Przybylski et al. (2013) applied self-determination theory to FoMO stating it as a negative emotional state that results from social relatedness needs that are unmet. The theory conceptualizes that the individuals who experience negative affect from fear of missing out as a result of unfulfilled social needs is congruent to the theories that emphasize social ostracism's negative emotional effects.

Katz et al. (1973) proposed uses and gratification theory to study about the individuals' motives to engage with media to satisfy their needs. This theory, in spite of its conceptualization before the modern-day advances in technology and presence of social media, can efficiently deal with motives behind using social media and explain addiction that is likely a threat of using social media. As this theory incorporates social media, individuals can access a number of social media platforms that suit their needs. Phubbing behavior can also be explained using uses and gratification theory as this theory has attempted previously to explain the reasons of smartphone use and social media (Ifinedo, 2016).

The current research is aimed to examine the role of FoMO and phubbing behavior on social media addiction in adolescents with the moderating role of parental attachment. According to above mentioned theories, adolescence might be a critical age for developing issues like addiction to social media. Fear of missing out arises out of unmet psychological needs leading towards social media addiction, therefore highlighting the important role of parental attachment. On the other hand, Shams et al. (2019) conceptualized that the individuals who are securely attached engage in less phubbing behavior because of their contentment with their surroundings and they remain satisfied in their relationships so there might be lower chances of developing social media addiction; there is a need to see what role parental attachment plays especially in adolescence as the individuals of age 13 to 17 years have been reported to use social media heavily (Lenhart et al., 2015).

Hypotheses

- There would be a negative association between FoMO, phubbing behavior, parental attachment (angry distress dimension), and addiction to social media in adolescents.
- There would be a positive association between parental attachment (goal-corrected partnership & availability dimensions), FoMO, phubbing behavior, and addiction to social media.
- Social media addition among adolescents would be predicted by FoMO, phubbing behavior, and parental attachment.
- The pattern of parental attachment in adolescents would moderate the relationship between FoMO and social media addiction, as well as between phubbing behavior, and social media addiction.

Method

This section highlights the research design and research sample.

Research Design

Correlation research design was used to assess the association between FoMO, phubbing, and addiction to social media in relation to parental attachment among adolescents. The sampling strategy used for collecting data from adolescents was a purposive sampling strategy. Adolescents living with both parents were included. Adolescents having their own smartphone were included. Adolescents having any physical disability were excluded. Sample (N=200) consisted of both males and females.

Table 1

Personal Characteristics of the Sample (N=200)

Variables	*M*	*SD*	*f*	*%*
Age	17.35	1.14		
Gender				
Male			100	50
Female			100	50
Education				
Matric			9	4.5
Inter			145	72.5
Undergraduate			46	23.0
Number of Social Media Platforms used	4.13	1.29		
Intensity of Social Media Use				
Facebook use	2.80	1.99		
Instagram use	3.34	1.82		
Twitter use	0.87	1.59		
Snap chat use	2.73	1.96		
Tiktok use	2.10	2.09		
YouTube use	3.74	1.36		

Note, M=Mean; SD= Standard Deviation; f= Frequency; %= Percentage

Personal Information Sheet. The personal information sheet collected information of participants including age, gender, number of social media platforms used (Facebook, Instagram, Twitter, Snapchat, TikTok, Youtube), and intensity of each social media platform used rated on a 1 = *Less than once per week* to 5 = *Multiple times a day* scale . To assess the frequency and intensity of social media platforms used, questions were implemented from the variables "breadth of social media platforms used," and "depth of social media platforms used," respectively from the research work of Franchina, et al. (2018). However, only five social media platforms (Facebook, Instagram, Twitter, Snap Chat, YouTube) were selected for current study from a list of 25 social media platforms (TikTok was added by the researcher) as they are mostly used in Pakistani society.

Fear of Missing Out Questionnaire. This questionnaire is used to determine the two factors of the construct "FoMO" based on the original questionnaire by Przybylski et al. (2013). In this version, Wegmann et al. (2017) added the two factors (subscales) to assess state- (7 items) and trait- FoMO (5 items) that measures items having a five point Likert scale (1 = *Strongly disagree* to 5 = *Strongly agree*). The calculation for the dimension, "trait-FoMO" is based on the mean score of the following items: 1, 2, 3, 4, 6. The calculation for the dimension, "state-FoMO" is based on the mean score of the following items: 5, 7, 8, 9,10, 11, 12. For both subscales, score is obtained by summing all items. The Cronbach's alpha for trait-FoMO was .61, and .66 for state-FoMO in the present study.

Generic Scale of Phubbing (GSP). Chotpitayasunondh and Douglas (2016) developed this scale to assess phubbing behavior. This scale comprising 15 items and has four factors. Factor one is nomophobia (reliability .84), consisting of 4 items such as; "I cannot stand leaving my phone alone." The second factor is termed as interpersonal conflict (reliability .87) and also consists of 4 items such as; "I have conflicts with others because I am using my phone." The third factor is termed social isolation (reliability .83) comprising 4 items such as; "I feel content when I am paying attention to my phone instead of others." The fourth factor is named as problem acknowledgment (reliability .82) which consists of 3 items such as "I pay attention to my phone for longer than I intend to do so.". The scale

items are measured on a seven-point Likert scale (1 = *Never* to 7 = *Always*). The scale score is calculated by summing all individual items' score. In present study, GSP scored the reliability of .83.

Adolescent Attachment Questionnaire (AAQ). The AAQ is a short scale to measure characteristics of attachment in adolescents developed by West et al. (1998). It consists of three subscales with three statements each (total 9 items), with five-point Likert-type responses from 0 = *strongly disagree* to 4 = *strongly agree*. The availability scale (reliability of .80) examines the confidence of adolescents for attachment figure's availability and responsiveness such as "I talk things over with my parent". The goal-corrected partnership scale (reliability of .74) measures the degree to which the adolescents show consideration and empathy for attachment figure's feelings and needs such as "I feel for my parent when he/she is upset". The angry distress scale (reliability of .62) assesses how much the adolescent feels anger towards the parental figure such as "My parent only seems to notice me when I am angry". In the present study, researchers have used term "parents'' instead of parent in items as current study focuses on adolescents living with both parents. For all three scales, higher scores indicate more problems with respect to the dimension measured. Reverse coding was done for availability and goal-corrected partnership. The Cronbach alpha for angry distress, availability, and goal-corrected partnership scored .66, .75 and, .77 respectively.

The Bergen Social Media Addiction Scale* (BSMAS*) . It is adapted from Bergen Facebook Addiction Scale (BFAS; Andreassen et al., 2012), comprising six items with each item reflecting the core elements of addiction (Griffiths, 2005). The scale items are rated on a five-point Likert scale that ranged from 1 = *very rarely* to 5 = *very often*; making a total summative score from 6 to 30. The items tap on concerned experiences of addiction during the past year (e.g., "How often during the last year have you tried to cut down on the use of social media without success?"). The adapted version of this scale mentions social media in terms of multiple forums like Facebook, Twitter, Instagram, and the like" as compared to previous version, which only referred to Facebook usage. The BSMAS showed a reliability of .67 in the current study.

Procedure

The first step to conduct this research was to seek the approval of the Institute of Applied Psychology. The authors of scales were contacted through email to obtain permission to use their scales. They were briefed about the researcher's introduction, purpose of the study and significance of their scale in current study. A permission letter consisting of title and purpose of the research was obtained from the department. It was presented to authorities of educational institutes to obtain their permission to conduct research. The researcher briefly described the nature and significance of the research.

Ethical Considerations

The participants were then provided with informed consent, demographic information sheet, and other four questionnaires. They were ensured about their rights of participation and withdrawal from the research at any time. Their rights to confidentiality and privacy were also explained to them. It took 20 -25 minutes to complete questionnaires. It was also ascertained that the information obtained will only be used for academic purposes.

Results

Relationship Between Study Variables and Demographics

Pearson product moment correlation was carried out to study the association between study variables and demographic variables.

Table 1

Pearson Product Moment Correlation between Fear of Missing Out (Trait & State), Phubbing Behavior, Parental Attachment (Angry Distress, Availability, & Goal-corrected Partnership), Social Media Addiction, and Demographic Variables (N=200)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.Trait-FoMO	-	.29**	.32**	.28**	.03	-.09	.27**	-.05	-.01	.20**	.07	.14**	.07	.19**	.20**	.07
2.State-FoMO	-	-	.49**	.45**	.04	.22**	.48**	.15**	-.04	.17*	.13	.13	.09	.23**	.21**	.00
3.Phubbing Behavior	-	-	-	.39**	.07	.12	.51**	.00	.05	.19**	.10	.13	.11	.28**	.22**	.00
4.Angry Distress	-	-	-	-	.06	.15	.44*	.20*	.03	.08	.06	.00	.10	.07	.11	-.04
5.Availability	-	-	-	-	-	.56	.09	-.06	-.08	.05	.13	.01	.08	.08	.05	-.10
6.Goal-corrected partnership	-	-	-	-	-	-	.14*	.04	-.19**	.08	.15*	.03	.08	.12	.22**	-.07
7. Social Media Addiction	-	-	-	-	-	-	-	.21	-.02	.16*	.17*	.12	.23**	.20**	.10	-.03
8.Age	-	-	-	-	-	-	-	-	-.10	.06	.20	.04	.14	-.00	.03	-.06
9.Gender	-	-	-	-	-	-	-	-	-	-.15*	-.43**	.00	-.04	.12	-.17*	-.10
10. Number of social media platforms used	-	-	-	-	-	-	-	-	-	-	.40**	.44**	.49**	.57**	.60**	.22**
11.Facebook use	-	-	-	-	-	-	-	-	-	-	-	.03	.18**	.12	.22**	.06
12.Instagram use	-	-	-	-	-	-	-	-	-	-	-	-	.21**	.36**	.19**	.23**
13.Twitter use	-	-	-	-	-	-	-	-	-	-	-	-	-	.34**	.17*	.22**
14.Snapchat use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.33*	.08
15.Tiktok use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.09
16 Youtube use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note.. p< .05; **. p< .01; Coding of variables: Gender (male=1, female=2); FoMO=Fear of Missing Out*

The findings from the correlation analysis showed that both trait and state components of FoMO had a positive relationship with each other, as well as with phubbing behavior and social media addiction. Where state-FoMO showed a significant positive association with angry distress and goal corrected partnership components of parental attachment, while trait-FoMO only showed a positive association with angry distress. Phubbing behavior also had a significant positive correlation with angry distress and social media addiction. Angry distress was positively correlated with social media addiction. Gender was negatively associated with goal-corrected partnership that meant males share more goal-corrected partnership with their parents. Number of social media platforms used had positive correlation with trait FoMO, state FoMO, phubbing behavior, and addiction to social media. Facebook use was observed to have a positive link to social media addiction and goal-corrected partnership. Instagram use was positively correlated with Trait FoMO, while Twitter use had a positive correlation with social media addiction and number of media platforms. TikTok use had a positive association with trait FoMO, state FoMO and phubbing behavior, whereas Snapchat use showed a positive correlation with trait FoMO, state FoMO, phubbing behavior, and social media addiction.

Hierarchical Multiple Regression

In addition, hierarchical multiple regression was employed to assess social media addiction as an outcome of FoMO (state & trait), phubbing behavior, and parental attachment. Furthermore, the moderating impact of dimensions of parental attachment on social media addiction was also explored.

Table 3. *Predictive Relationship and Moderation*
Hierarchical Multiple Regression Examining the Factors Contributing to Social Media Addiction (N=200)

	Social Media Addiction	
Step 1		
Variables	Δ*R2*	B
Number of Social Media Platforms used		-.28
Facebook use		.28
Twitter use		.49*
Snapchat use		.43*
Step 2	.29***	
Trait FoMO		.42
State FoMO		1.42**
Phubbing Behavior		.09***
Angry Distress		.27**
Availability		.07
Goal-Corrected Partnership		-.01
Step 3	.02	
Trait FoMO × Angry Distress		.17
State FoMO × Angry Distress		-.07
Phubbing Behavior × Angry Distress		-.00
Trait FoMO × Availability		-.05
State FoMO × Availability		-.24
Phubbing Behavior ×Availability		.00
Trait FoMO × Goal-corrected partnership		-.03
State FoMO ×Goal-corrected partnership		.09
Phubbing Behavior× Goal-corrected partnership		.02
Total R^2		.42

*Note.*p< .05; **p< .01; ***p< .001;*

The model 1 of hierarchical multiple regression showed that demographic factors contributed to almost 11% variance in contribution to social media addiction among adolescents with F (5,194) = 5.15, p=.000. Among the factors entered in the model at this step 1, use of Twitter and Snapchat emerged as positive predictors of addiction to social media. In the later step, state-FoMO, trait FoMO, and phubbing behavior, and dimensions of parental attachment were entered as independent predictors. It was observed that the angry distress component of parental attachment, state-FoMO, and phubbing positively predicted social media addiction. These factors described approximately 29% variance in the outcome, with F (11,188) = 12.17, p=.000. Lastly, in the third model, addition of interaction terms accounted for about 2% variance of social media addiction with F (20, 179) =7.00, p=.000. It was observed that none of these dimensions predicted addiction to social media, suggesting no moderating impacts of parental attachment.

Discussion

The present study examined the association between FoMO, phubbing, and social media addiction in relation to the pattern of parental attachment among adolescents. The study hypothesized a relationship among FoMO (trait & state), phubbing, parental attachment (angry distress, goal-corrected partnership, & availability), and addiction to social media. It was found that trait FoMO and state-FoMO are significantly correlated with each other. The FoMO represents a fear generally experienced by an individual for missing out on anything that is rewarding. The definition encapsulates trait-FoMO because of it being an individual trait/characteristic that remains stable. On the other hand, State-FoMO is specifically crucial to social media usage where communication takes place and it can lead to increase in trait FoMO (Wegmann et al., 2017). Both trait and state components were found to have positive correlation with phubbing behavior. Balta et al. (2020) investigated the mediating role of state-FoMO and problematic Instagram use in relationship between neuroticism, trait-FoMO and phubbing. They found trait and state-FOMO to be highly correlating with phubbing behavior. Both these dimensions of FoMO also showed a positive association with angry distress component of adolescent attachment. Alt and Boniel-Nissam (2018) found out that parents' ways of communication that are positive such as attempting to listen to their children and understanding their feelings were related to lesser FoMO. Angry distress measures the degree of anger that an adolescent perceives to be present in relationship with his/her parents that depicts lack of communication. For example, one of the items of sub-scale is, "I get annoyed at my parents because it seems I have to demand his/her caring and support." That could mean the communication problems that adolescents experience in their relationship with their parents.

Trait- FoMO and state-FoMO were found to be positively correlated to social media addiction that is in line with previous literature. Yin et al. (2021) examined addiction to social networking sites and FoMO with envy and need to belong as mediator and moderator respectively in Chinese adolescents. They reported that addiction to social networking sites was positively correlated to FoMO. Phubbing behavior was found to be positively correlated to angry distress sub-scale.

Phubbing behavior was found to be in high correlation with social media addiction. In research on emotional support from social media and phubbing behavior in college students with FoMO and problematic social media use acting as mediators, Fang et al. (2020) found that participants who obtained emotional support from social media were more prone to experience increased fear to be left out, indulging in higher problematic use of social media and engaging in more phubbing behavior; phubbing behavior was likely to be higher as the problematic use of social media increased.

Angry distress subscale was revealed to have positive association with social media addiction. Asyriati (2020) did a literature review, summarizing 25 articles on the relationship between parental attachment and problematic internet use of adolescents from various countries. It reflected that nevertheless technology has helped parents to form attachment with their children yet lack of parental attachment was still a major factor in problematic internet use.

Goal corrected partnership was positively related to state FoMO and social media addiction. The finding might be contradictory to previous literature as goal corrected partnership emphasize on adolescents' ability to understand parents' needs and desires whereas social media addiction is an urge to use social media excessively and state FOMO is developed while using internet applications. Putri and Khairunnisa (2019) found that higher family function was associated with less addiction to social media in teenagers. However, there is no doubt that social media offers a variety of platforms to engage in addictive behaviors because of their attractive features and a captivating environment where adolescents can communicate with their peers through behaviors such as tagging, sharing and liking etc. Moreover, the handy nature and unrestricted use of smartphones have made it far easier to use social media uncontrollably just as Facebook use and TikTok use have positive correlations with social media addiction.

Gender was negatively correlated to goal corrected partnership subscale. That implies males scored higher in goal-corrected partnership than females. This finding is contrary to previous literature. West et al. (1998) found that females reported to experience more angery towards their attachment figure, yet having greater goal corrected partnership too, particularly with their mothers.

Number of social media platforms used was positively correlated with trait and state -FoMO. Anwar et al. (2020) reported a significant association between FoMO and usage intensity of social media; more FoMO a person experiences, higher would be his social media usage. A person who experiences more trait-FoMO who consistently worries about missing out something that is rewarding for others, might feel connected to their lives, as FoMO results from unmet social relatedness through using social media platforms. Similarly, state-FoMO that is positively associated with number of social media platforms used can be explained through the phenomenon that a person who feels connected with others through social media might use more social media platforms to meet psychological needs.

The number of social media platforms had positive relationship with phubbing behavior, meaning that an individual who uses more social media platforms is likely to engage in phubbing behavior. The social media applications offer individuals a virtual world to live and keep a track of their virtual world by showing them their activity in that virtual world. Thus, people forget their surroundings and continue to phub others in social setting (Nazir & Bulut, 2019). Similarly, the number of social media platforms used had positive correlation with social media addiction. Though, there is not any study that measures the relationship between the number of social media platforms used and social media addiction. Aydin et al. (2021) reported that participants who spend more time on daily social media scored higher on depression and social media addiction. This finding too is in line with current research's result.

Facebook use, Twitter use and Snapchat use had positive link with social media addiction. The theoretical background of this study includes uses and gratification theory for social media addiction. The findings about frequency of social media use will be discussed in light of uses and gratification theory.

In past studies, from the perspective of uses and gratification theory, individuals who use Facebook reported motivations behind it that are entertainment, socialization, a platform to express themselves, share information, and document themselves and a medium that appeals to them (Alhabash et al., 2014). Twitter, a platform that offers its users with attractive features of liking, replying and retweeting etc., has been found by past research that its use was linked to the gratification received by connecting to others, according to uses and gratification theory (Chen, 2011). Using Snapchat from the perspective of uses and gratification theory has found in past studies the motives behind it such as users get entertained, become convenient, attracted to the application, express themselves, interact and navigate others, have account's privacy, and appealed towards application's modality (Alhabash & Ma, 2017). Instagram use was positively associated with trait-FoMO, Salim et al. (2017) analyzed how self-presentation of Instagram users would be influenced by friendship-contingent self-esteem and fear of missing out. The results indicated that Instagram users who experienced FoMO were inclined to have their self-presentation influenced. The other variable friendship-contingent self-esteem had its effect on fear of missing out. TikTok use was also positively correlated to trait-FoMO, state-FoMO, and phubbing behavior. There are no studies available on TikTok use related to FoMO or phubbing behavior. Individuals join TikTok as it offers them a platform to engage, share, and socialize with others in addition to providing information. Considering the virtual world of TikTok, individuals are bound to conform to norms, possess a desire for self-expression, get recognized and supported from their interaction, just like in the real world (Yang & Zilberg, 2020).

The second hypothesis proposed that FoMO (trait & state), phubbing behavior, and parental attachment (angry distress, goal-corrected partnership, & availability) would predict social media addiction. In the first step, demographics (age, number of social media platforms used, Facebook use, Twitter use, & Snapchat use) significantly

correlated with social media addiction were added. In the second step, independent variables/predictors were added. It was revealed that age, twitter use and snap chat use predicted social media addiction.

The finding that age positively predicts social media addiction in adolescents is supported by the evidence that the middle adolescents (15 to 16 years old) were found to be highly addicted to internet as compared to early adolescents (11 to 12 years old) who were least addicted (Karacic & Oreskovic, 2017). It can be related to in Pakistani society, adolescents as they age or head towards late adolescents, they achieve more independence from parental control and engage more in communication with peers through online networks.

In current study, only Snapchat use and Twitter use predicted social media addiction. This finding stands partially in line with existing literature as one of the most widely used social media platforms is Facebook. Dailey et al. (2020) showed that intense use of Facebook, Snapchat, and Twitter is predictor of addiction to social media. It can be assumed that twitter is the most accessible platform when it comes to share information and making funny content. According to the perspective of uses and gratification theory, past literature has shown the use of Snapchat for the purpose of entertaining, expressing, interacting and privacy etc. (Alhabash & Ma, 2017).

The second step of hierarchical regression revealed that state-FoMO, Phubbing behavior and angry distress (subscale) positively predicted social media addiction. Tunc-Aksan & Akbay (2019) in their study on the smartphone addiction, FoMO, and perceived social and academic competence that predict social media addiction on sample of high school students found that FoMO predicted social media addiction along with smartphone addiction and perceived academic competence. However, here FoMO directs only on its trait dimension. Thus, state-FoMO that is developed using online applications is found to predict social media addiction; that is significant because there is scarcity of literature on this relationship.

Phubbing behavior predicted social media addiction. Examining the relationship between phubbing, social media addiction, and structures of narcissism of bodybuilders, Argan et al. (2019) found that there existed a positive relationship between phubbing, social media addiction and levels of narcissism of body builders. No research that supported the finding of phubbing behavior being the predictor of social media addiction was found. It can be said that this research is the first to study this relationship in a sample of adolescents. Phubbing behavior is about constantly using smartphones in presence of conversation partners who are ignored by phubber, and this behavior can lead to addiction to social media.

Angry distress predicted social media addiction; adolescents who feel anger towards parents because of their unavailability are more likely to have addiction to social media. This finding is supported by previous literature as Ballarotto et al. (2018) found that among adolescents, parental attachment significantly resulted in using internet.

Thirdly, it was hypothesized that parental attachment (angry distress, goal-corrected partnership, & availability) would moderate the relationship between FoMO (trait & state) and social media addiction. The present research did not find a moderating effect of parental attachment (angry distress, goal-corrected partnership, & availability) between the relationship of FoMO (trait & state) and social media addiction. Bloemen and De Coninck (2020) examined FoMO among 831 adolescents in the context of family characteristics. They reported a significant association between FoMO and use of social media. Beside this, they found parenting style and structure of family are primary contributors towards developing FoMO. For example, perceiving a positive relationship with parents, father's style of parenting, and belonging from non-intact family acted as protective factors for FoMO. Contrary to this, , perception of a good relationship between parents was found to be a risk factor for developing FoMO.

Furthermore, it was hypothesized that parental attachment (angry distress, availability, & goal-corrected partnership) would moderate the relationship between phubbing behavior and social media addiction. In current research, parental attachment was not found to moderate the relationship between phubbing behavior and

social media addiction. Bai et al. (2020) revealed that parental phubbing had positive association with adolescent phubbing. Parental phubbing and adolescent phubbing had a positive relationship with depressive symptoms of adolescents. Attachment avoidance acted as a moderator between the relationship of congruent and incongruent phubbing of parents and adolescents and depressive symptoms of adolescents. It can be said that relationship phubbing behavior and social media addiction is not affected by attachment to parents. The reason could be that smartphones allow users to access social media to such an extent that they can fulfill their immediate gratification, independent of their attachment to parents.

Conclusions

The study concluded that adolescents with trait-FoMO can also experience state-FoMO, along with phubbing behavior and social media addiction and angry distress. Having state-FoMO can lead to phubbing behavior, angry distress, and social media addiction. Similarly, engaging in phubbing behavior can lead to angry distress and addiction to social media in adolescents. In addition, angry distress in adolescents may result in social media addiction. Furthermore, adolescents using multiple social media platforms may experience trait-FoMO, state-FoMO, phubbing behavior, and social media addiction. addiction. State-FoMO, phubbing behavior, and angry distress positively predicted social media addiction. Finally, in the context of gender, males shared more goal-corrected partnership with their parents.

Limitations and Suggestions

The sample was not large enough because of the ongoing situation of COVID-19. The research was conducted during COVID-19 so researcher faced some restrictions. For parental attachment, the scale used did not analyze attachment for father and mother separately. Further work can be done with parental attachment measuring for father and mother separately. Peer attachment can be assessed too as it is vital in adolescence. Parental control can be analyzed too as it is significant during adolescence.

Implications

The research might add in indigenous literature. The research might be helpful in understanding adolescents' issues of social media use, FoMO and phubbing behavior. This research may be proved fruitful in counselling settings as it focuses on parental attachment that is considered important aspect in adolescents' life.

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Examining the Predictors of Prosocial Behavior among University Students: The role of Empathy and Social Values

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Abstract

Method. This cross-sectional research examined the predictors of prosocial behavior among university students such as empathy and social values. This study employed a cross-sectional quantitative design. The sample comprised N=400, equally distributed male and female university students. The age range of the participants ranged from 18 to 45 years. Non-probability, convenience sampling was used to draw this sample. The data were collected through both an online survey and an in-person questionnaire. The 16-item Toronto Empathy Questionnaire (Spreng, 2009) , the 25-item Asian Values Scale- Revised (AVS-R), and the 16-item Prosocial Behavior Scale (PBS) were administered. Data was analyzed using SPSS (version 27).

Results. The quantitative analysis found that female university students showed higher levels in the context of empathy, social values, and prosocial behavior, additionally, there is also found that urban university students exhibited higher levels of empathy, social values, and prosocial behavior. It was also revealed that prosocial behavior is positively correlated with empathy and social values in university students.

Conclusion. Furthermore, it was also evidenced based on of findings, that prosocial behavior significantly impacts empathy. Study provided important and practical implications for both academic institutions and as a whole society. Highlighting the connection between empathy, social values, and prosocial behavior, study supports the development of educational programs, community initiative services and interventions aimed at enhancing empathy and promoting social values among university students.

Keywords: Examining, predictors, empathy, social values, prosocial behavior, university students

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Introduction

The experienced behind social acts is often not clear and may or may not be prioritised for the helping of othersOn the contrary, compassion is an act that is initiated by empathy and a sincere and heartfelt interest of the well-being of people. It goes further than the feeling of someone and a wish to assist and alleviate his or her suffering. Prosocial behavior refers to the altruistic acts to serve for society, playing an significant role in the educational experience among university students. Prosocial behavior is characterized by the intentional actions aimed at helping other people (Eisenberg et al., 2016). Prosocial behavior is influenced by several personal and social traits such as prosocial norms, emotional expressivity, social cognition, social adjustment, and social support among university students (Chandradasa & Galhena, 2022).

Empathy serves as an significant element of social acts that enhances one's ability to understand and respond appropriately to other people's cares, achieve emotional communication, and promote prosocial behavior. It is defined as the ability to recognize and share the emotional experiences of other people, maintaining a significant role in human relationships. In the university context, empathy is considered a source that enhances student's adaptability particularly through their voluntary actions It enables people to engage in emotional moments, which brings about compassion and collaboration (Griffiths et al., 2023). Moreover, empathy is important in multiple domains, such as education, technology, and healthcare area etc. (Hojat, 2016). Empathy plays an important role in the university context, particularly in enhancing student's adaptability and overall other people's psychological well-being (Vinayak & Judge, 2018).

Social values such as altruism, social norms, and an experience, play a significant role in influencing the prosocial behavior among university students. These values including an ethical and moral principles interconnect with the thoughts and behaviors of individuals, providing a framework for considering what is right and just within the society. Social values can be a good motivator to make students actively participate in their academic communities and society in general when they relate with prosocial behaviors (Chowdhury, 2018). Moreover, these values impact prosocial behavior among university students not only informs educational activities and also holds the whole society (Eisenberg et al., 2016).

In the today's era of hustle and selfishness, empathy and social values play a significant role in influencing student's connection with prosocial acts (Quain et al., 2016). Different factors that impact prosocial behavior, that is particularly significant: empathy and social values. these values can be brought into practice and reinforced in the universities. Prosocial behavior, empathy, and social values are strongly linked to each other, influencing individual's interactions and also their well-being (Sharma & Tomer, 2018). Studies have indicated that prosocial values such as empathy, moral reasoning and social interaction are critical determinants that increase and impact on the well-being of others in the society's (Ibanez et al., 2023). Therefore, educating university students on social values and fostering prosocial behaviors from an earlier age is more important, as it can shape their empathy levels and social interactions positively (Villardón-Gallego et al., 2018). Ultimately, it is essential for building a compassionate and supportive society between empathy, social values, and prosocial behavior.

The past studies conducted on the relationship between prosocial behavior and empathy have pointed out the role of empathy as a potent motivating power and also showed the main determinants that contribute to the occurrence of prosocial behavior's (Gordon, 2014). Interestingly, the current research suggests that distinctive types of prosocial actions, such as minor acts of assistance (e.g., reaching for an item that someone cannot reach), participating in fundraising, and providing reassurance to others, are mostly not related to each other, suggesting that they may have unique underlying motivations (Malti & Dys, 2018).

Empathy predicts the prosocial behavior highly (Yin & Wang, 2023). Empathy and sympathy are allowed to inspire experienced social behavior, and paintings with kids show that sympathy (and once in a while empathy) is associated with supporting others certainly at a younger age (Malti & Dys,

2018). On the opposite hand, the concept of empathy by Decety et al. (2016) believes that prosocial behavior necessitates empathy. A comprehensive understanding and formation of relationships with empathy can greatly facilitate the facilitation of prosocial behaviors as theorized by Lockwood and others (Lockwood et al., 2014).

Social values for example empathy are also play an important role in predicting prosocial behavior. Researchers suggests that society requires its young people to embrace values that encourage socially responsible behavior and active participation in community and social responsibilities (Malin & Pos, 2015). Previous scholars such as Inglehart and Schwartz have utilized advanced statistical methods to point out the constructs that can capture various tendencies and dimensions of these values. These boundaries are internally consistent which implies the relationship between positive values among themselves. This kind of analysis has been helpful in sorting out those individuals who are inclined to either extreme of the scale in the same dimensions. Studies further show that individuals who hold strong social values tend to participate in different activities that contribute to the well-being of other people and contribute positively to societal development (Fischer et al., 2019).

Empathy, prosocial behavior, and social values among university students are closely linked, and influence to each other. Research indicates that empathy has a positive association with prosocial behavior in university students (Jiang et al., 2021). Factors for example quality of life and pleasure in helping other people predict higher level of empathy, specially among female students in university (Duarte et al., 2016). In addition, perceived social and personal values has a positive effect pro-environmental behavioral intentions among university students, emphasizing the importance of incorporate prosocial values in educational practices (Hamrouni, 2024). Besides, social support is important in times of crisis like the COVID-19 where it mediates the relationship between prosocial behavior and resilience among the university students, and the importance of support as a protective factor in fostering prosocial behavior is considerable (Sun et al., 2021).

Conceptual Framework

Conceptual framework describes the predictors of prosocial behavior among university students, especially focusing on empathy and social values, and their framework as follows:

Independent Variables/Predictors:

- Empathy: The ability to understanding and sharing the feelings/emotions of other people.
- Social Values: Beliefs and principles that what is socially important and acceptable for other people.

Dependent Variable/Outcome:

- Prosocial Behavior: Those voluntary actions such as supporting, sharing, and comforting etc. that help others.

Research Gap and Rationale of the Study

Previous research has laid the foundation for understanding the interrelationship and as a separate construct of empathy, social values, and prosocial behavior. However, although studies have explored individual traits for example empathy, there is a lack of comprehensive studies in both empathy and social values as a key predictors of prosocial behavior. Such a gap will not only result in a greater theoretical knowledge of prosociality but also a guide on how a more caring, socially responsible community of the university can be achieved in practice. This study is motivated to understand and nurture of prosocial behavior among university students. It reacts to the changing demands of our global society, to the necessity of the educational institution in forming the future leaders, and to the necessity of instilling empathy and social principles in the young adults. This research is likely to have a positive impact on the society at large as well as on the students, hence the applicability and significance of the field of study.

Objectives

1. To examine the association among prosocial behavior, empathy, and social values among university students.

2. Check the impact of empathy and social values on prosocial behavior amongst university students.

Hypotheses

1. Empathy, social values, and prosocial behavior will have a significant and positive strong correlation in university students.
2. There will be a positive and moderate impact of empathy and social values on prosocial behavior in university students.
3. Female university students will show higher levels of empathy, social values, and prosocial behavior as compared to male university students.
4. University students from rural areas will show higher levels of empathy, social values, and prosocial behavior as compared to urban area students in university.

Method

Sample

The sample of university students ($N = 400$) was recruited for this study through a non-probability convenient sampling strategy. Participants were chosen from various academic disciplines and educational programs like undergraduates and postgraduates, and the age range of the participants was 18-45 years.

Study design and Procedure

The research design of the study is quantitative and cross-sectional research design. For this study convenient sampling method was used, and the criterion for the chosen data collection method was to ensure inclusivity and accessibility; therefore, data were collected both online and in person to reach a diverse range of participants. The sample used was chosen so that it has enough statistical power and representativeness to distinguish meaningful relations between variables.

Instruments

Three instruments were used for the collection of data. The self-structured demographic sheet along with the consent informed also be used. 1. Toronto Empathy Questionnaire (TEQ) (Spreng et al., 2009), the Toronto empathy questionnaire was applied to mark university students' empathy. The Cronbach's α of the empathy questionnaire is (.85) which shows an excessive reliability. 2. Asian Values Scale -Revised (AVS-R) (Kim & Hong, 2004,) this scale measures the cultural values and beliefs that are commonly associated with Asian societies and cultures. The reliability of the Asian values scale is (.80) which suggests an excessive reliability. 3. Prosocial Behavior Scale (PBS), (Caprara et al., 2005), the prosocial behavior scale is organized with the encouragement of using to mark the prosocialness of individuals. The alpha-Cronbach coefficients of the prosocial behavior scale are (.91).

Results

Table 1

Independent t-test for Comparing Empathy, Social Values, and Prosocial Behavior among Female and Male Students in University

	Females *(n=200)*		Males *(n=200)*		*t*(390. ,398)	*p*	Cohen's *d*
Variable	*M*	*SD*	*M*	*SD*			
Empathy	55.0	7.5	52.4	7.9	3.49	<.001	0.35
Social values	66.7	5.9	63.0	5.1	4.97	<.001	0.40
Prosocial behavior	60.7	11.5	55.6	11.4	4.42	<.001	0.44

Note. ***p<.001.

Table one showed that females (M = 55.0) exhibited higher scores on empathy compared to male university students (M = 52.4). An independent samples t-test showed that the difference in empathy is significant (p = .000***), and the impact size is medium (d = 0.35). Findings showed that females (M = 66.7) exhibited higher scores on social values in comparison to male university students (M = 63.0). An independent samples t-test showed that the difference in social values is significant (p = .000***), and the impact size is medium (d = 0.40). Findings confirmed that females (M = 60.7) exhibited higher scores on prosocial behavior compared to male university students (M = 55.6). An independent samples t-test showed that the difference in prosocial behavior is (p = .000***), and the impact size is medium (d = 0.44).

Table 2

Independent t-test for Comparing Empathy, Social Values and Prosocial Behavior among Rural Area and Urban Area Students in University

	Rural Area *(n=168)*		Urban Area *(n=232)*		*t*(392. ,398)	*p*	Cohen's *d*
Variable	*M*	*SD*	*M*	*SD*			
Empathy	52.4	6.8	54.6	8.3	-2.91	.004	-0.29
Social Values	64.5	5.9	65.9	5.4	-2.40	.017	-0.24
Prosocial behavior	57.1	11.1	58.9	12.1	-1.55	.121	-0.16

Note. *p<.05.

Table two showed that the urban area (M = 54.6) exhibited higher scores on empathy compared to the rural area university students (M = 52.4). An independent samples t-test showed that the difference in empathy is significantly positive (p = .004*), and the impact size is less than small (d = -0.29). Findings showed that urban areas (M = 65.9) exhibited higher scores on social values compared to rural area university students (M = 64.5). An independent samples t-test showed that the difference in social values is significantly positive (p = .017*), and the impact is less than small (d = -0.24). Findings showed that there is no significant difference in prosocial behavior (p = .121), and the impact size is less than small (d = -0.16).

Table 3

Correlation between the Empathy, Social Values, and Prosocial Behavior among University Students

Variable	1	2	3
1. Empathy	--		
2. Social values	.323***	--	
3. Prosocial behavior	.463***	.214***	--

Note. ***p<.001.

Table three revealed that empathy are significantly positively correlated with social values (r = .323***) and prosocial behavior (r = .463***), also, the social values is significantly positively correlated with prosocial behavior (r = .214***).

Table 4

Multiple Regression Analysis of Empathy and Social Values on Prosocial Behavior

Variable	*B*	*SE*	*t*	*p*	95% CI
Constant	12.91	6.26	2.06	.040	[25.2, .61]
Empathy	.66	.07	9.39	.000	[.80, .52]
Social values	.15	.00	1.53	.126	[.34, -.04

Note. CI = confidence interval. ***p <.001.

Table ten confirmed that the R^2 value of .22 showed that the predictors defined 22% variance in the final results variable F (2, 397) = 55.67, (p = .040***), and the results showed that empathy positively predicted prosocial behavior (β = .44, p = .000***) while social values have a non-significant impact on prosocial behavior (β = .07, p = .126).

Discussion

Firstly, in Table 1, the outcomes of the independent samples t-test examining empathy, social values, and prosocial behavior levels among females and males revealed a statistically significant difference. These findings are consistent with previous literature suggesting a gender difference in the prosocial motivation of females being stronger than that of males. For example, a study conducted by Eisenberg and Lennon found that females were more likely to interact in prosocial behavior together with assisting others and expressing situations for his or her well-being. Overall, those effects offer similar proof for the assumption that females are extra prosocially influenced than males. These findings assist the assumption that women have a better stage of empathy, social values, and prosocial behavior than male university students. However, it's far crucial to be aware that there is different research that found differences in empathy, social values, and prosocial behavior levels between females and males e.g., (Baron & Wheelwright, 2004).

Secondly, the findings of the analysis, as shown in Table 2, indicate that there's a significant difference in empathy and social values between urban area and rural area university students. There is no significant difference in prosocial behavior between urban area and rural area university students. Hence, it is inconclusive to suggest that individuals residing in rural regions exhibit high levels of empathy, social values, and prosocial behavior compared to their urban counterparts as per the results of this study. Numerous variables may have contributed to the absence of a significant distinction in prosocial behavior levels between urban and rural students. For example, urbanization has some changes in social structure, which may enhances empathy, social values, and prosocial behavior specially in urban areas (Liu et al., 2017). Additionally, the findings of this study fail to support the idea that individuals living in rural areas exhibit higher levels of empathy, social values, or prosocial behavior, indicating a need for further research in this area/setting. Though the results might appear to make the hypothesis appear contradictory, however,

it should be mentioned that other researches have also provided evidence to show that even rural populations can display the high level of empathy, social values, and prosocial behavior. One such investigation conducted by Saroglou et al. (2008) revealed that individuals residing in rural areas manifested heightened degrees of empathy, social values, and prosocial behavior in comparison to their urban university students.

Thirdly, the study suggests there's a positive correlation between empathy, social values, and prosocial behavior among university students. This finding is consistent with preceding studies that have proven that societies that own excessive ranges of empathy and social values are much more likely to interact in prosocial behaviors, consisting of assisting others and volunteering. It is vital to be aware that whilst the correlation among empathy, social values, and prosocial behavior is statistically significant, the power of the relationship is mild and comparatively weak. The results, which were made after this research show that there are various issues that cause people to act pro social and it is not just empathy and social values. Overall, this research provides our knowledge of the connection between empathy, social values, and prosocial behavior, and highlights the need for similar studies in this area. These findings are steady with preceding studies that have proven a positive relation among empathy and prosocial behavior (Davis, 1983). However, there also is research which that observed a negative relation among those constructs (Eisenberg & Miller, 1987). Our study objectives are to contribute to the present literature through by exploring the interaction among those elements and shedding light on their predictive roles in prosocial movements inside the university context.

Lastly, using a multiple regression analysis, the effects of the analysis as shown in Table 4, indicate that the findings show that empathy is significantly impacted through one's very own prosocial behavior. The β value in the prosocial behavior and empathy regression information display that there is a positive relation among them however, we can see that the p-value suggests that the difference is statistically significant. The findings show that those social values are not significantly impacted through own's very own prosocial behavior. The β value within the prosocial behavior and social values regression information shows that there is a positive relation among them however, we can see that the p-value suggests that the difference is not statistically significant. This result is constant within advanced research that confirms empathy should expect changes in prosocial behavior over time (Marshall et al., 2014). Empathy is a well-related component inside in the prediction of prosocial behavior (Luengo Kanacri et al., 2021). The findings additionally reveal how social values affect prosocial behavior to some extent. Therefore, the students in this study may have had more opportunities to engage in empathetic behaviors, leading to their slightly higher scores on the measure compared to social values. However, further studies are wanted to confirm those findings and to better understand them.

Conclusion

Conclusively, the study highlighted the significance of empathy, social values, and prosocial behavior in university students. The effects of this research assist in further studies through the mixed relation and impact of social values and empathy to enhance prosocial behavior. These findings indicate that females are extra prosocially influenced than males. Results of this study also suggest that university students from urban areas exhibits higher levels of empathy, social values, and prosocial behavior compared to their rural counterparts. The results have practical implications to universities and higher education institutions who would want to enforce a culture of empathy and social responsibility in students. The roles of empathy and social values in the prediction of prosocial behavior can be applied to inform the formulation of interventions, educational programs, and campus initiatives to facilitate prosociality. Students need to be aware of their own values and emotional states, and academic programs and universities should guide them in a positive direction to help enhance their prosocial behavior. In addition to that, this study lays the groundwork to future longitudinal studies and interventions in order to increase empathy and prosocial values among university students.

Recommendations

1. The outcomes of the research have large ramifications for counseling psychology.
2. University students ought to be recommended to illustrate and beautify social values via diverse techniques, such as education and awareness, role models and leaders, volunteerism and community service, dialogue and discussion, celebrating diversity, media and entertainment, policy and legislation, community engagement, strengthening social support systems, partnerships and collaboration.
3. This will inspire the rise of strong social ties, volunteerism, and assisting a stranger in need.
4. This discovery may also make it less complicated to set up and keep robust relationships with friends and own circle of relatives with the aid of giving humans a risk to empathize with one another.

Implications of the Study

1. The purpose of this research is to fill a gap in the literature by examining the predictive role of empathy in the relationship between social values and prosocial behavior among university students.
2. It additionally attempted to observe the outcomes of social values on students' prosocial behavior, empathy, and social values on empathy, in addition to the outcomes of empathy on students' prosocial behavior.
3. This research correctly demonstrates statistical proof that empathy, social values, and students' prosocial behavior are correlated, and predicts this relation to a few extents.
4. Future studies have to be achieved to observe those connections in extra elements and exactly are expecting different elements that affect those connections.

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Conflict of interest

The authors do not have any competing interests.

Availability of data

S.F, S.M, and S.S.F, all the authors participated in contributing to text and the content of the manuscript, including collecting data revisions and edits.

Ethical Approval

All authors approve of the content of the manuscript and agree to be held accountable for the work.

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Personality Religiosity and Gender Influence Attitudes and Beliefs toward Transgenders

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Abstract

Background. This study assesses the relationship among personality traits, religious orientations and gender in attitudes and beliefs toward transgenders in Pakistan. We expected personality traits like emotional stability and open to experience, intrinsic religious orientation and women would express greater inclusive attitudes and beliefs toward transgenders.

Method. A convenient sample of 75 male and 75 female (N = 150) young (18 to 25 years) students from different universities of Lahore were asked to complete Ten-Item Personality Inventory (TIPI, Gosling et al., 2003), Revised Intrinsic/Extrinsic Religious Orientation Scale (I/E-R, Gorsuch & MacPherson, 1989) and Transgender Attitudes and Beliefs Scale (TABS, Kanamori et al., 2017).

Results. The findings suggested, openness to experience and emotional stability positively associated with positive attitudes and beliefs towards transgenders. Intrinsic religiosity positively and extrinsic personal religious orientation negatively associated with accepting transgenders. No gender differences were observed in attitudes and beliefs toward transgenders.

Conclusion. Openness to experience and emotional stability and intrinsic and extrinsic personal religious orientation can account for positive attitudes and beliefs toward transgenders. More data is needed to tease these factors to provide a basis for social change that would include transgenders in mainstream culture.

Keywords. Personality traits, religious orientations, gender, transgenders, attitudes, beliefs

Foundation University Islamabad

Introduction

Transgenders or *khawaja siras or hijras*, have a long-held history of a marginalized group in Pakistan, where many live in hijra communities forced to live in isolated groups with close-knit bonds that reinforces marginalization (Kalhoro & Ali, 2021). Transgender Persons (Protection of Rights) Act of 2018 legally recognizes right to self-identify and access public services, societal acceptance remains limited (ICJ, 2020). Cultural conservatism, religious beliefs, and traditional social norms continue to shape how people perceive transgenders, often resulting in stigma, social exclusion, and discrimination (Akram et al., 2023). Many transgenders hide their gender identity to avoid rejection and internalize negative attitudes, which can lead to feelings of shame, guilt, and emotional distress (Azhar, 2024). The marginalization of transgenders indicates that it is important to comprehend those aspects that influence societal attitudes. Personality traits can influence perceptions and interactions with transgenders; because personality traits shape thoughts, behaviors, and social interactions, suggesting that certain traits may hinder and other may foster tolerance and empathy, reducing discriminatory attitudes towards transgenders (Joe-Akunne et al., 2020). These authors believe traits such as openness to experience are associated with more accepting attitudes toward sexual minorities including transgenders. Religious orientation, defined as the personal commitment and approach to religious beliefs and practices, also plays a central role in accepting transgenders. In Pakistan, stronger religiosity is linked with negative attitudes toward sexual and gender minorities suggesting religious beliefs strongly influence social behavior and perceptions about transgenders (Nasarullah & Rafique, 2025). In addition, other studies suggest, men tend to hold stronger biases towards transgenders than women (but see, Arshad et al., 2023), this in Western cultures is believed to be based on right-wing authoritarianism and social dominance that shapes discrimination against sexual minorities (Rawatlal & Moloto, 2019).

Research on marginalized communities, including transgenders, consistently shows that personality traits influence prejudicial attitudes (Carlson et al., 2019; Jonás et al., 2023). In a study conducted by ShafieeKandjani et al. (2025), roughly 20% of the variance in transphobia and genderism was explained by the Big Five personality traits. Openness significantly predicted lower transphobia, while agreeableness and neuroticism predicted higher transphobia. Conscientiousness and extraversion did not significantly contribute to transphobia scores, although all traits except extraversion explained variance in gender-bashing behaviors.

Research also suggests, people who adhere to more conservative Christian or Muslim religiosities hold stronger prejudices and exclusionary attitudes towards transgenders (Campbell et al., 2019). Furthermore, personality and religiosity have been the subject of extensive research, with the results demonstrating that such characteristics as agreeableness and conscientiousness are correlated with intrinsic and extrinsic religious beliefs, whereas openness to new experiences is linked to social religiosity (Binti et al., 2022). Intrinsically religious individuals who follow faith as a highly personal commitment are also likely to score higher on agreeableness and conscientiousness, and score low on neuroticism (emotional instability), which is quite typical of women (Abdel-Khalek et al., 2023).

Transgenders in Pakistan are discriminated in various aspects of life and more so on the side of education. Empathy, self-esteem and family upbringing are responsible in affecting attitudes toward transgender inclusion in university students (Martín-Castillo et al., 2023). The attitudes to transgender inclusion are similar between male and female students, yet transgenders are more accepted by urban students as compared to those with a rural background (Ali & Bala, 2021). Transgenders are also faced with huge employment, healthcare, and legal recognition obstacles. Some of them find it difficult to access government documents (ID cards etc.), safe and stable residential areas, and other financial services etc., which makes it more difficult to fit in mainstream society (Surekha et al., 2022).

Discriminatory attitudes are additionally promoted by deeply rooted cultural discourses and myths. The stereotypes about hijras are still misguided, and the common thinking can still be strengthened with negative biases. Transphobia

is still widespread, particularly in conservative societies, yet education, socioeconomic level, and personal connections have the potential to contribute to the gradual enhancement of relations with transgenders (Talaei et al., 2023). The transgenders are still stigmatized and socially marginalized, as highlighted by legislation, and there is a need to rationalize the psychosocial processes behind the formation of a social perspective.

The present study aims to examine personality traits, religious orientations and gender as predictors affecting attitudes and beliefs toward transgenders in Pakistan. Understanding these factors is the first step that sets the way to promote transgender inclusivity reducing prejudice against them, which should contribute towards equitable society where transgenders and other genders could live in harmony. The study fills a critical gap in the literature by providing evidence about these factors that could modulate attitudes and beliefs in young Pakistani people, about transgenders.

Objectives and Hypotheses

Based of the above literature three main objectives of this study included identifying personality traits (extraversion, agreeableness, conscientiousness, emotional stability, and openness to experiences) that would facilitate or impede attitudes and beliefs about transgenders; intrinsic and extrinsic (social and personal) religious orientations that would influence these attitudes and beliefs, and how gender would influence attitudes and beliefs towards transgenders. Based on these objectives, we expected openness to experience, and emotional stability would heighten positive attitudes and beliefs toward transgenders, and agreeableness, extraversion and conscientiousness would generate negative attitudes and beliefs towards transgenders. We also expected participants with stronger intrinsic religious orientation would have positive attitudes and beliefs towards transgenders and participants with higher extrinsic religious orientation would have negative attitudes and beliefs whether religiosity was social or personal. Finally, we expected women would express greater positive attitudes and beliefs toward transgenders compared to men, which partly could be explained by their personality traits (openness to experience, and emotional stability) and intrinsic religious orientation.

Method

Sample

Based on G-Power 3 (Faul et al., 2007) analysis a convenient sample that would ensure adequate statistical power, resulted in 75 young (WHO, 2017) men and 75 women ($N = 150$) aged 18 to 25 ($M = 21.37$, SD = 1.54) years. Participants were included from various colleges and universities to ensure educational and cultural diversity. The sample excluded older adults, and those that had physical or mental illnesses. Men and women were equally represented and consisted of first- (28%), middle- (45.3%), last-born (24.7%), and only children (2%). Majority (94%) of the participants were in bachelor programs fewer were in master's (4.6%) and even fewer in PhD (.7%) programs. Fewer participants were fully employed (10.7%), slightly more partly employed (12%), and a majority (77.3%) that were not employed. Most of the students belonged to nuclear families (63.3%), approximately a third to joint families (34.7%) and a small minority to extended families (1.3%). About a quarter (25.3%) of the students came from rural areas and the rest (74.7%) from urban areas. Majority (87.3%) of the students were single, a small minority married (3.3%), engaged (3.3%), committed (5.3%) and divorced (.7%).

Assessment Measures

Ten Item Personality Inventory (TIPI). Developed by Gosling et al. (2003) TIPI is a brief self-report measure of the Big Five personality traits, viz., Extraversion (E), Agreeableness (A), Conscientiousness (C), Emotional Stability (ES) and Openness to Experience (OE). It consists of 10 items where each item is rated on a 7-point scale ranging from 1 (Disagree strongly) to 7 (Agree strongly). Items 2, 4, 6, 8, and 10 are reverse-scored. Reversed score items are scored as, 8 - original score, for example, if a participant rated "Reserved, quiet" as 2, the reversed value would be 6. Each trait composite score was calculated by adding two items for that subscale that ranged from 2 – 14. Since two

items represent each trait the internal consistencies (Cronbach's alpha range = .40 to .73) of subscales were low (Gosling et al., 2003).

Revised Intrinsic/Extrinsic Religious Orientation Scale (I/E-R). Originally developed by Allport and Ross (1967) the revised (Gorsuch & MacPherson, 1989) scale I/E-R measures religious orientation across three subscales: intrinsic (I), extrinsic social (Es), and extrinsic personal (Ep). It consists of 14 items where each item is rated on a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). There are 8 items (composite score range: 8-40) in I subscale, and 3 items (composite score ranges: 3-15) each in Ep and Es subscales; and items 3, 10 and 14 are reversed scored in I subscale, where reversed scored items are scored as, 6 - original score. Higher scores indicate a stronger orientation for that religious orientation. Internal consistency (α = .83) of the I scale was higher than the E subscales (ranging from α = .57 to .65) reported in the original study (Gorsuch & MacPherson, 1989).

Transgender Attitudes and Beliefs Scale (TABS). Developed by Kanamori et al. (2017), TABS evaluates attitudes and beliefs toward transgenders using 29 items where each item is rated on a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Higher composite scores reflect greater positive attitudes and beliefs towards transgenders. There are three subscales in TABS, Interpersonal Comfort (IC, 14 items, composite score range: 14-98) for example a sample item would ask: "I would feel comfortable having a transgender person into my home for a meal.", Sex/ Gender Beliefs (SGB, 10 items, composite score range: 10-70) for example a sample would ask: "If you are born male, nothing you do will change that."), and Human Value (HV, 5 items, composite score range: 5-35) for example a sample item would ask: "Transgender individuals should be treated with the same respect and dignity as any other person."). Items 3, 4, 8-11, 13 and 14 are reversed scored in IC subscale and items 15, 17-19, 22 and 23 are reversed scored in SGB subscale. Internal consistency of IC (α = .97), SGB (α = .95), HV (α = .93) and overall scale (α = .98) were high with good test-retest stability (r) that ranged from .62 to .77 (Kanamori et al., 2017).

Research Design

A cross-sectional design explored predictors of personality traits, religious orientations, and gender and their influence on attitudes and beliefs toward transgenders. Approval to carry out the study was permitted by the Department of Applied Psychology at the University of the Punjab. After a brief introduction of the study, we asked participants for a voluntary informed consent and told them that their data and personal information would be kept confidential and anonymous and they had to right to withdraw at any stage of the study. Statistical analyses were carried out with SPSS version 23 that included descriptive statistics, Cronbach's alphas, Pearson Product-Moment correlations, and independent t-tests.

Results

Table 1

Descriptive Statistics and Internal Consistencies of Subscales

Subscale	*k*	*α*	*M*	*SD*	Range Potential	Range Actual
TIPI						
E	2	.40	7.95	3.21	2-14	2-11
A	2	.43	9.66	2.65	2-14	2-11
C	2	.40	9.76	2.94	2-14	2-11
ES	2	.41	8.95	2.98	2-14	2-11
OE	2	.43	10.37	2.70	2-14	2-11
I/E-R						
I	8	.51	27.45	4.79	8-40	10-40
Es	3	.78	7.14	2.91	3-15	3-15
Ep	3	.81	11.04	3.65	3-15	3-15
TABS						
IC	14	.79	58.20	13.51	14-98	20-92
SGB	10	.55	36.70	8.53	10-70	10-56
HV	5	.85	28.35	6.71	5-35	5-35

Note. TIPI = Ten-item Personality Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, ES = Emotional Stability, OE = Openness to Experience, I/E-R = Revised Intrinsic/Extrinsic Religious Orientation scale, I = Intrinsic, Es = extrinsic social, Ep = extrinsic personal, TABS = Transgenders Attitudes and Beliefs Scale, IC = Interpersonal Comfort, SGB = Sex/Gender Beliefs, HV = Human Value

$N = 150$

Table 1 shows internal consistencies, means, standard deviations (SDs) and of subscales. internal consistencies of subscales E (α = .40), A (α = .43), C (α = .40), ES (α = .41) and OS (α = .43) were low, largely because of fewer items (two per trait) in each subscale; literature also reports similar low internal consistencies (Gosling et al., 2003). We report low mean for E (M = 7.95, SD = 3.21) followed by higher means for ES (M = 8.95, SD = 2.98), A (M = 9.66, SD = 2.65), and OE (M = 10.37, SD = 2.70). Internal consistencies of subscales I (α = .51), Es (α = .78) and Ep (α = .81) were low to adequate much like previously reported (Gorsuch & MacPherson, 1989). The mean for I (M = 27.45, SD = 4.79) was higher than the midpoint (25) of the composite score range and so was the mean for Ep (M = 11.04, SD = 3.65), where the midpoint was nine; however, the mean for Es (M = 7.14, SD = 2.91) was lower than the midpoint. Internal consistency of subscale SGB (α = .55) was lower than IC (α = .79), and HV (α = .85). These consistencies were lower than reported (Kanamori et al., 2017), and we suspect the reasons include smaller sample size and greater variability usually observed in self-report measures.

Table 2 shows correlations among personality traits, religious orientations, and attitudes and beliefs toward transgender individuals. Based on ordinal scales, and meeting assumptions of normality, **Spearman-rank correlation analysis** revealed gender was negatively associated ($\rho = -.18$, $p < .05$) with extraversion, ($\rho = -.26$, $p < .01$) with emotional stability, and ($\rho = -.24$, $p < .01$) with intrinsic orientation, suggesting individuals of one gender group tended to report lower sociability, emotional balance, and internal religious motivation. In the same way, gender was positively related ($\rho = .30$, $p < .001$) to agreeableness, indicating a greater tendency toward cooperation and kindness. No significant associations emerged between gender and interpersonal comfort, sex beliefs, or human value, suggesting gender was not directly linked with attitudes or beliefs toward transgender individuals.

Table 2

Correlations among Personality Traits, Religious Orientations, Attitudes and Beliefs toward Transgenders

Ss	G	E	A	C	ES	OE	I	Es	Ep	IC	SGB	HV
G	_	-.18*	.30**	-.06*	-.26**	-.002	.24**	-.10	-.15**	.007	.06	.08
E		_	-.11	.17*	.18*	.26**	-.002	.09	.03	.02	-.08	-.02
A			_	.11	-.009	.09	-.13	-.005	-.12	-.01	-.04	-.03
C				_	.15	.30**	.08	.04	-.05	.11	.11	.04
ES					_	.16	.02	-.06	-.02	.23**	-.06	.13
OE						_	.11	.11	.01	.02	-.01	.18*
I							_	.12*	.52**	-.08	-.03	.02
Es								_	.15	-.08	-.11	-.13
Ep									_	-.13	-.06	.12
IC										_	.21*	.22**
SGB											_	.20*
HV												_

Note. Ss = Subscale, E = Extraversion, A = Agreeableness, C = Conscientiousness, ES = Emotional Stability, OE = Openness to Experience, I = Intrinsic, Es = extrinsic social, Ep = extrinsic personal, IC = Interpersonal Comfort, SGB = Sex/Gender Beliefs, HV = Human Value

$N = 150$

$*p < .05$, $**p < .01$

Table 3 shows, multiple regression for predictive roles of personality traits and religious orientation on interpersonal comfort, sex/gender beliefs, and human value. For interpersonal comfort, the overall model was marginally significant $F(5, 144) = 2.21$, $p = .05$, $R^2 = .07$), with Emotional Stability emerging as a significant positive predictor ($\beta = .19$, $p < .05$), while Extraversion, Agreeableness, Conscientiousness and Openness to Experience were not significant. Regarding sex/gender beliefs, the model was not significant $F(5, 144) = 0.85$, $p = .51$, $R^2 = .02$), and none of the personality traits significantly predicted outcomes. For human value, the overall model was non-significant, $F(5, 144) = 1.24$, $p = .29$, $R^2 = .04$), with Openness to Experience being the only significant positive predictor ($\beta = .19$, $p = .04$). The remaining traits showed no significant relationships. Religious orientation did not significantly predict interpersonal comfort, sex/gender beliefs, or human value.

Table 3

Regression Analyses between Personality Traits, Religious Orientations, Attitudes and Beliefs toward Transgenders

Scale/Subscale	*B*	*SE*	*t*	*p*	CI (95%)
			IC		
E	-.03	.73	-.04	.97	[-1.47, 1.41]
A	.82	.88	.93	.35	[-.92, 2.57]
C	1.33	.79	1.67	.10	[-.24, 2.90]
ES	1.77	.81	2.18	**.03**	[.17, 3.37]
OE	-.38	.90	-.42	.68	[-2.16, 1.41]
I	-.07	.27	-.27	.80	[-.61, .47]
Es	-.05	.39	-.13	.90	[-.81, .71]
Ep	-.52	.36	-1.44	.15	[-1.23, .19]
			SGB		
E	-.78	.47	-1.64	.10	[-1.71, .16]
A	-.43	.57	-.74	.50	[-1.56, .71]
C	.68	.52	1.31	.19	[-.34, 1.70]
ES	-.17	.52	-.32	.75	[-1.21, .87]
OE	.03	.59	.05	.96	[-1.13, 1.19]
I	-.22	.18	-1.24	.23	[-.57, .13]
Es	-.18	.25	-.72	.47	[-.67, .31]
Ep	.16	.23	.67	.50	[-.30, .62]
			HV		
E	-.24	.37	-.66	.51	[-.98, .49]
A	-.45	.45	-1.00	.32	[-.1.34, .44]
C	-.25	.40	-.61	.54	[-1.05, .55]
ES	-.25	.41	.60	.55	[-.57, .1.06]
OE	.99	.46	2.12	**.04**	[.08, 1.90]
I	-.00	.14	-.03	.98	[-.28, .27]
Es	-.18	.20	-.91	.36	[-.57, .21]
Ep	.06	.18	.31	.76	[-.30, .42]

Note. TIPI = Ten-item Personality Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, ES = Emotional Stability, OE = Openness to Experience, I = Intrinsic, Es = extrinsic social, Ep = extrinsic personal, TABS = Transgenders Attitudes and Beliefs Scale, IC = Interpersonal Comfort, SGB = Sex/Gender Beliefs, HV = Human Value
$N = 150$

Table 4 shows significant gender differences (*t*-test analysis) in certain personality traits. On average young men ($M = 8.55$, $SD = 3.21$) scored significantly ($p < .05$) higher than women ($M = 7.36$, $SD = 3.14$) on E; and men ($M = 9.72$, $SD = 2.86$) scored significantly ($p < .001$) higher than women ($M = 8.17$, $SD = 2.91$) on ES, indicating men in this sample tended to be more outgoing and emotionally balanced. On the other hand, women ($M = 10.34$, $SD = 2.28$) scored significantly ($p < .001$) higher on A than men ($M = 8.93$, $SD = 2.81$), suggesting women were more cooperative and empathetic than men. No significant gender differences were observed for C and OE in men and women, highlighting similarities across genders for these traits. Average I religious orientation in men ($M = 28.53$, $SD = 4.85$) was significantly ($p < .01$) higher than women ($M = 26.37$, $SD = 4.50$) than suggesting stronger internal religious beliefs and practices in young men than women. Similarly, mean Ep religious orientation in men ($M = 11.69$, $SD = 3.11$) was significantly ($p < .05$) higher than

women (M = 10.39, SD = 4.03) suggesting a greater inclination in men to engage in religion for personal or utilitarian reasons than women. No significant gender differences emerged for Es religious orientation. No significant ($p > .05$) gender differences in attitudes toward transgenders were found in men and women for IC, SGB, and HV.

Table 4

A Comparison of Men and Women on Personality Traits, Religious Orientation, Attitudes and Beliefs toward Transgenders

Subscale	Men		Women		*t*	*CI (95%)*		*d*
	M	*SD*	*M*	*SD*		*LL*	*UL*	
TIPI								
E	8.55	3.21	7.36	3.14	2.23*	.16	2.21	.37
A	8.93	2.81	10.34	2.28	-3.45***	-2.28	-.62	.45
C	9.85	3.21	9.67	2.66	.39	-.76	1.14	-
ES	9.72	2.86	8.17	2.91	3.23***	.61	2.48	.54
OE	10.32	2.93	10.43	2.47	-.24	-.98	.76	-
I/E-R								
I	28.53	4.85	26.37	4.50	2.82**	.65	3.67	.46
Es	7.53	3.35	6.75	2.34	1.67	-.15	1.72	-
Ep	11.69	3.11	10.39	4.03	2.22*	.14	2.47	.36
TABS								
IC	57.64	14.29	58.76	12.75	-.51	-5.49	3.25	-
SGB	36.36	8.21	37.04	8.87	-.49	-3.44	2.08	-
HV	27.96	6.81	28.75	6.63	.72	-2.95	1.38	-

Note. TIPI = Ten-item Personality Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, ES = Emotional Stability, OE = Openness to Experience, I/E-R = Revised Intrinsic/Extrinsic Religious Orientation scale, I = Intrinsic, Es = extrinsic social, Ep = extrinsic personal, TABS = Transgenders Attitudes and Beliefs Scale, IC = Interpersonal Comfort, SGB = Sex/Gender Beliefs, HV = Human Value

n_{Men} = 75, n_{Women} = 75

*$p < .05$, **$p < .01$, ***$p < .001$

Discussion

The present study was designed to explore the relationship of personality traits and religious orientation toward transgenders in young male and female people of Pakistan. Findings showed openness to experience was positively associated with transgenders much like Shafiee-Kandjani et al. (2025), who reported that openness helps reduce transphobia and rigid gender stereotypes. In the Pakistani context, where social norms are conservative and gender diversity is often resisted, openness allows youth to question these rigid views and adopt more inclusive approaches. The other personality trait emotional stability was also positively related with transgenders, whereas those high in neuroticism experienced more discomfort and avoidance. Shafiee-Kandjani et al. (2025) report, emotional instability was associated with prejudice and negative stereotypes. The dealings with transgenders in Pakistan are viewed with hesitation and embarrassment but emotional stability on the contrary makes it easier to interact with transgenders and reduce social distance between them. In this way, the findings of the current research indicate that openness leads to acceptance whereas emotional stability causes a decrease in avoidance as well as an increase in comfort.

In terms of religious orientation, there were no significant predictive results in general. Nevertheless, extrinsic personal religious orientation was also negatively correlated with the interpersonal comfort implying that, as religion is being practiced in a more self-centered or instrumental manner, people might experience greater difficulty in relating to transgender individuals. This trend has been commensurate with Irfan (2017), who discovered that some extremes of religiosity among Pakistani youth were associated with rigidity and dominance, not compassion. In Pakistan, where religion plays a determining role in the determination of social values, this finding suggests that one form of religiosity, but not religiosity as such, can have an effect on the degree of acceptance. Whereas intrinsic faith can foster empathy as well as equality, extrinsic religiosity can support distance and isolation.

Regarding gender differences, extraversion and emotional stability were scored higher by men whereas agreeableness was scored higher by women. Openness and conscientiousness had no significant differences. These results partly coincide with the former research. Butt and Suneel (2019) also reported more agreeableness in women, and Shah (2018) reported more extraversion in men. The religiosity of women was also higher, which is consistent with Arshad and Uzair (2017) and Alvi et al. (2021), who also emphasized that religiosity in Pakistan is commonly connected to anticipated social role among women. Nevertheless, Ali and Bala (2021) did not detect gender differences in the attitude towards transgender individuals, and it may indicate that personality and value systems determine whether transgenders are accepted or rejected rather than gender.

Various studies conducted in the past on the attitude of the indigenous people towards the hijras' community can also be compared with the findings of this study. According to Batool et al. (2019), women were more accepting of hijras rights and status although both men and women were not eager to establish intimate social relationships with them, indicating strong social distance. Likewise, Jami (2012) noted that hijras are still linked with the stereotyped sexual deviance and are stereotyped. Nazir and Yasir (2016) also pointed to such discrimination against transgenders in the family or school and workplace environment. The present results add to the existing body of research by demonstrating that cultural stereotypes are not the only factors that influence attitudes, as psychological disposition, including openness, emotional stability, and displays of religiosity, also contribute to attitude formation.

Conclusion

Based on the current research, it would be inferred that psychological and value-oriented factors influence the attitudes that young people have towards transgenders in Pakistan more than demographic factors. The results showed that openness and emotional stability facilitated positive engagement and extrinsic personal religiosity posed a hindrance to social comfort among transgender in

social. The personality factors turned out to be the best predictors of acceptance, as their significance in decreasing prejudice should be highlighted. Though there was also a difference in the traits and the degree of religiosity between men and women, the way they approached transgenders was mostly alike. These findings lead to the necessity to promote open-mindedness, emotional control, and adaptive religious perceptions in young people, because these strengths can promote inclusion and reduce bias in the society.

Recommendations

The outcomes of the current study showed that emotionally stable young adults that exhibit a reflective nature on their beliefs are more likely to have more positive attitudes toward transgender people. Based on this, it is possible within the educational and social context to reflect on the creation of the setting that implies respectful dialogues, awareness of diversity, and non judgmental interactions in everyday life, instead of seeking to modify the natural attributes of personalities. The ability to reflect critically on morally and humanly desirable values personally and religiously can be an additional encouragement of gender diversity cognition and acceptance. As the current study was in a single geographical area, future studies need to include participants that have varied geographical and cultural situations in order to fully analyze the contextual characteristics that play a supportive role of the marginalized populations in Pakistan.

Declaration

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Conflict of Interest: The authors have no competing interests to disclose.

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Ethical Approval: The study received ethical clearance from the appropriate institutional review board and informed consent was obtained from the participant before data collection.

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Body Self-Image and Psychological Wellbeing among University Students: Self Compassion as a Moderator

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Abstract

Background. Negative body image can lead to psychological issues in university students however, self-compassion can help them to improve their body-image and enhance psychological wellbeing.

Objectives. The study explored influence of body image on wellbeing in university moderated by self-compassion in university students.

Method. In a cross-sectional research design 150 man and 150 women (N = 300) were conveniently sampled from public and private universities in Rawalpindi and Islamabad and ranged in age from 18-25 years. To assess body image perception, Body image Questionnaire-Short Form was used, while, the Self-Compassion Scale-Short Form was used to determine the participant's capacity for self-compassion and Psychological Wellbeing Scale was used to assess psychological functioning.

Results. Results of the current research showed that body image subscales were significantly and positively associated with self-compassion and psychological wellbeing. Furthermore, female participants exhibited positive body image than male counterparts. Self-compassion significantly moderated the relationship between subscales of body image and psychological wellbeing.

Conclusion & Implications. The results of the current study will help the university students to raise their awareness about positive body image, which can lead to immediate improvements in self-compassion and psychological wellbeing.

Keywords. Body image, self-compassion, psychological wellbeing, university students

Foundation University Islamabad

Introduction

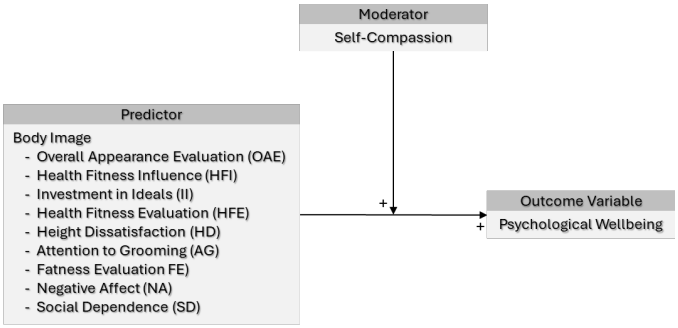
Body image is a personal assessment of how body appears, irrespective of the fact how it truly appears (Sharoka et al., 2019). This assessment includes positive and negative aspects of bodyperceptions, thoughts, beliefs, feelings and behaviors (Tiggemann, 2011). People, especially young adults seek ideal body image that is appreciated by others, which increases their attention on physical appearance (Damiano et al., 2015). Grogan (2021) suggests, attitudes about body image can be divided into four key factors: *affect*, emotions that result from a particular physique,*global subjective satisfaction*, how body is evaluated, *behaviors*, avoidingharmful circumstances where body could be harmed, and *cognition*, thoughts of investing in physical appearance and body.When assessment of body image is positive self-compassion (SC) and its attributessuch as self-kindness, common-humanity and mindfulness (see below) grow. Psychological wellbeing (PWB) increases and overall health can manage daily stress, improve work productively, and individuals can contribute to communities(Gautam et al., 2024).

Ryff (1989) credited for developing the paradigm of psychological wellbeing, suggests the concept comprises of self-acceptance, ability to view oneself in a positive and compassionate light, recognizing and embracing strengths and weaknesses with kindness and understanding, and fostering a sense of self-worth and self-approval. Later Ryff& Keyes (1995) added mastery of the environment (ability to efficiently handle the surroundings) autonomy (feeling of independence) and personal growth (awareness of personal development). Psychological wellbeing fosters informed decisions, meaningful relationships, and positively impacting the world around (Gautam et al., 2024).Psychological wellbeing includes happiness, self-esteem, resilience, and coping abilities, enabling people to thrive and navigate life challenges with emotional stability (Seligman, 2002); and satisfaction in personal and professional domains with physiological underpinnings that explains relaxation and enjoyable states (Deci & Ryan, 2008).

Self-compassion is made up of three differential elements that are adaptive in nature, such as self-kindness versus self-judgment, commonhumanity versus isolation, and mindfulness versus over-identification (Neff, 2003). Self-kindness refers to treating YOURSELF with kindness instead of being harsh especially when they receive criticism or facing difficulties in life. Self-compassionate individuals treat themself with kindness because they know that criticism, failure, and difficulties are part of life, andknowone does not get everything one wants. In self-judgement, people blame themselvesfor their difficulties and experience stress, frustration, and self-criticism e.g., judging oneself as fat or overweightoften results in stress and frustration that retards the will to reduce weight. When things go wrong or mistakes are made people believe they suffer from them alone, but they do not realize others make similar mistakes and suffer alike. When people develop forbearing attitudes because others have difficulties too, reflects a common humanity. Mindfulness,a cognitive reflection, uses a balanced approach that effectively regulates negative emotionswith an understanding that others too have such negative emotions, this prevents over identification with difficult thoughts and negative emotions (Neff, 2003). Self-compassion can be exercised by treating oneself with kindness, understanding, and forgiveness (Gilbert et al., 2004; Neff, 2003); and to practice self-compassion, people need to work with their negative thoughts, feelings, and experiences they need to investtheir lives with love and understanding, and realize negativity is a normal part of being human. By doing so, they understand that others experience similar problems and imperfections, which strengthens their sense of community and connection with them (Neff &Pommier, 2012). No wonder, self-compassion adds a favorable impact on the mental health and resilience in people (Huu&Quang, 2022).Studies show SC moderates body image and self-esteem, self-compassionate individuals were not disturbed by negative body perceptions and upheld their self-esteem (Pisitsungkagarn et al., 2014). Otherstudies show self-compassion moderatedsymptoms of depression and psychological wellbeing. Self-compassionate depressedpatients expressed

better wellbeing than those that were less self-compassionate (Zarei, 2021). Based on the studies above we believe self-compassion should moderate body self-image and psychological wellbeing; individuals with high self-compassion should maintain higher psychological wellbeing with minor body concerns, moreover, such individuals would appreciate their bodies more than those that have lower self-compassion. Based on such ideas we established the following model (Figure 1). Prior studies suggest, relationship between body image and psychological wellbeing in young adult males was positive(Karthikeyan&Bhaumik, 2021). However, other studies suggest women exhibit greater positive body image to their male counterpartsand express greater satisfaction with their physical appearance than men (Abbasi&Zubair, 2015). To address these issues, we tested the following hypotheses (see below).

Figure 1
Proposed Model of the Study. Body Image and its Facets Positively affect Psychological Wellbeing Moderated by Self-Compassion



Hypotheses

Based on a general understanding of the model and the body image instrument (see below) with nine different facets of body image we formed nine hypotheses about these facets, and a singular hypothesis assessing differences in men and womenabout body image, psychological wellbeing and self-compassion so that gender bias could be aligned with the model.Here are the hypotheses: Overall appearance evaluation would positively associate with psychological wellbeing moderated by self-compassion (H1); and we expected, health fitness influence (H2), investment in ideals (H3), health fitness evaluation (H4), and attention to grooming (H5) would positively associate with psychological wellbeing moderated by self-compassion. However, height dissatisfaction would negatively associate with psychological wellbeing moderated by self-compassion (H6) and so would, fatness evaluation (H7), negative affect (H8), and social dependence (H9) would negatively correlate with psychological wellbeing moderated by self-compassion. Finally, we expected female students would express higher levels of all facets of body self-image, psychological wellbeing and self-compassion than malestudents.

Method

Sample

A sample of 150 female and 150 male students (N = 300) were conveniently sampled from private and public universities of Pakistan. Their ages ranged from 18-25 years(M = 21.7, SD = 1.99).

Assessment Measures

Body Self-Image Questionnaire-Short Form (BSIQ-SF).Developed by Rowe (2005). BSIQ-SF consists of 27-items with each item measured on 5-point response scale that ranges from Not at all True of Myself (1) to Completely True of Myself (5). Item 1 is reversed scored. The BSIQ-SF cannot be summed for "total body image" score, however the BSIQ-SF is divided into nine subscales are Overall Appearance Evaluation (OAE, items 1, 10 and 19), Health Fitness Influence (HFI, items 2, 11, and 20), Investment in Ideals (II, items 2, 12 and 21), Health-Fitness Evaluation (HFE, items 4, 13 and 22), Attention to Grooming (AG, items 5, 14 and 23), Height Dissatisfaction (HD, items 6, 15 and 24) Fatness Evaluation (FE, items 7, 16 and 25), Negative Affect (NA, items 8, 17 and 26), and Social Dependence (SD, items 9, 18 and 27). Each subscale consists of three items and composite scores for each subscale ranges from 3 to 15. Higher scores represent good perception of body image. The internal consistency reliabilities for the subscales of BSIQ-SF ranged from α = .68 to .92(Rowe, 2005).

Self-Compassion Scale-Short Form (SCS-SF).Developed by Raes et al. (2011) SCS-SF contains 12-items where each item is measured on a 5-point response scale ranging from Almost Never (1) to Almost Always (5). The total sore can range

from 12 to 60, with a high score implying a high level of self-compassion. The scale is divided into six subscales Self-Kindness (SK, items 2 and 6), Self-Judgement (SJ, items 11 and 12), Common Humanity (CH, items 5 and 10); Isolation (I, items 4 and 8), Mindfulness (M, items 3 and 7), Over-Identification (OI, items 1 and 9), SCS. All items for the SJ, I and OI subscales were reverse-coded. The reliability of self-compassion scale is (r =.86) adequate to good (Raes et al., 2011).

Psychological Wellbeing Scale (PWBS). Is a shortened 18-item version (Ryff& Keyes, 1995) scale of the long version of PWBS (42-items) that measures psychological wellbeing on six aspects of wellbeing and happiness: *Autonomy* (A, e.g., "I have confidence in my opinions, even if they are contrary to the general consensus" items); *Environmental Mastery* (EM, e.g., "In general, I feel I am in charge of the situation in which I live"); *Personal Growth* (PG, e.g., "I think it is important to have new experiences that challenge how you think about yourself and the world"); *Positive Relations With Others* (PRO, e.g., "People would describe me as a giving person, willing to share my time with others"); *Purpose in Life* (PL, e.g., "Some people wander aimlessly through life, but I am not one of them"); and *Self-acceptance* (SA, e.g., "When I look at the story of my life, I am pleased with how things have turned out") see Ryff et al. (2007). Each item is measured on a 7-point scale from 1 (strongly agree) to 7 (strongly disagree). The possible composite score for total psychological well-being ranges from 18 to 126. Items 1, 2, 3, 8, 9, 11, 12, 13, 17 and 18 are reverse scored. The test-retest reliability of psychological wellbeing scale was i.e. α = .88 (Ryff& Keyes, 1995).

Research Design

A cross-sectional design was carried out on data collected on body image, compassion and psychological wellbeing and their subscale scores after receiving approval from the university administration, researcher collected data from participants belonged from public and private universities of Rawalpindi and Islamabad. Researchers ensured confidentiality and anonymity about participant information and told them that this information would be solely used for research purposes. After signing the informed consent forms researcher provide questionnaires to all participants and ask them to complete them. Data analysis was conducted by using Statistical Package for Social Sciences (SPSS- IBM 26v). Correlation analysis was applied to examine the relationship between scales and subscales. To investigate mean differences in men and women over these scales *t*-tests were carried out. Furthermore, moderation analysis was applied by using Process Macro by Hayes (Hayes,2022).

Results

Table 1 shows positive correlations between SCS-SF and PWBS data and other correlations with subscales of BSIQ-SF. All scales and subscale showed adequate to strong internal consistencies that ranged from alphas = .65 to .91.

Table 1

Correlations and Descriptive Statistics among SCS-SF and PWBS and Nine Subscales of BSIQ-SF (N = 300)

S &Ss	OAE	HFI	II	HFE	AG	HD	FE	NA	SD	SCS-SF	PWBS
OAE	-										
HFI	.59**	-									
II	.53**	.75**	-								
HFE	.64**	.70**	.70**	-							
AG	.55**	.73**	.76**	.65**	-						
HD	.26**	.50**	.51**	.47**	.54**	-					
FE	.29**	.60**	.58**	.57**	.65**	.65**	-				
NA	.15**	.52**	.51**	.46**	.61**	.74**	.84**	-			
SD	.34**	.65**	.65**	.62**	.69**	.70**	.75**	.79**	-		
SCS-SF	.43**	.54**	.40**	.52**	.51**	.49**	.54**	.53**	.54**	-	
PWBS	.43**	.50**	.51**	.44**	.49**	.40**	.50**	.47**	.48**	.33**	-
Mean	12.46	11.04	10.85	11.07	10.83	9.06	8.18	8.02	9.43	45.82	74.18
StD	2.50	2.93	3.32	2.97	3.21	4.18	4.47	4.52	3.58	9.54	14.42
K	3	3	3	3	3	3	3	3	3	12	18
A	.71	.69	.74	.65	.72	.85	.92	.91	.75	.85	.87

Note. S &Ss = Scales and Subscales, BSIQ-SF = Body Self-Image Questionnaire-Short Form,OAE = Overall Appearance Evaluation, HFI = Health Fitness Influence, II = Investment in Ideals, HFE=Health Fitness Evaluation, AG = Attention to Grooming, HD = Height Dissatisfaction, FE = Fatness Evaluation, NA = Negative Affect, SD = Social Dependence,SCS-SF = Self-Compassion Scale-Short Form, PWBS = Psychological Wellbeing Scale, StD = Standard deviation, *k* = number of items in a scale or subscale
**$p < 0.01$

Table 2 shows mean differencesin men and women on SCS-SF and PWBS and subscales of BSIQ-SF, women significantly scored higher on all scales and subscales than men.

Table 2

Comparison of Men (n = 150) and Women (n = 150) on BSIQ-SF and its Nine Subscales SCS-SF and PWBS

S &Ss	Man	Woman	*t*	*p*	95% *CI*		*d*
	M(SD)	*M(SD)*			*LL*	*UL*	
OAE	11.83(2.50)	13.10(2.33)	-4.54	.00	-1.82	-.72	.52
HFI	10.25(2.52)	11.83(3.11)	-4.84	.00	-2.23	-.94	.55
II	9.65(2.87)	12.05(3.31)	-6.69	.00	-3.10	-1.69	.77
HFE	10.42(2.48)	11.72(3.27)	-3.87	.00	-1.96	-.64	.44
AG	9.73(2.83)	11.93(3.20)	-6.27	.00	-2.88	-1.50	.72
HD	8.12(3.34)	9.99(4.71)	-3.97	.00	-2.80	-.94	.45
FE	6.94(3.37)	9.43(5.06)	-5.00	.00	-3.46	-1.50	.57
NA	6.69(3.77)	9.35(4.82)	-5.33	.00	-3.65	-1.68	.61
SD	8.31(2.86)	10.55(3.88)	-5.68	.00	-3.01	-1.46	.65
SCS-SF	44.35(7.90)	47.29(10.77)	-2.68	.00	-5.08	-.78	.31
PWBS	67.55(12.51)	80.81(13.12)	-8.95	.00	-16.17	-10.34	.51

Table 3 shows conditional effects of body image on psychological wellbeing moderated by self-compassion. Findings revealed that self-compassion has significant moderating effect on psychological wellbeing interacting with body image see Figure 2 for conditional effects.

Table 3

Conditional Effects of Body Image on Psychological Wellbeing at Different Levels of Self-Compassion

		Outcome Variable: Psychological Wellbeing				*CI 95%*	
Predictor	Moderator	*β*	*SE*	R^2	ΔR^2	*LL*	*UL*
OAE	SC	.12***	.03	.24	.03	.05	.19
HFI	SC	.14***	.02	.32	.05	.08	.20
III	SC	.05*	.02	.29	.01	.00	.10
HFE	SC	.11***	.02	.25	.04	.06	.16
ATG	SC	.10***	.02	.29	.03	.05	.15
HD	SC	.14***	.01	.32	.13	.11	.18
FE	SC	.09***	.01	.31	.05	.05	.12
NA	SC	.13***	.01	.33	.10	.09	.16
SD	SC	.10***	.02	.28	.04	.05	.15

To study how self-compassion effects the link between body self-image and PWB, a moderation analysis was performed. The link between the OAE and PWB is dependent on the moderator level, as seen by the statistically significant interaction term between OAE and PWB (b =.12, SE =.03, t = 3.44, p =.000). We studied the conditional effects (simple slopes) of OAE on PWB at three degrees of self-compassion: low (-1 SD), moderate (mean), and high (+1 SD). When the level of SC is low (b = 1.01, p = .03), data show that there was a positive correlation between the OAE and wellbeing. The association was stronger and significant at a moderate level of SC (b = 2.17, p =.00). At an enhanced level of SC (b = 3.34, p = .000), suggests that there was a significant and stronger beneficial connection between OAE and PWB. These data show that the effect of OAE on PWB become stronger as levels of self-compassion increase. In particular, only when SC is high, OAE strongly predict PWB. Figure 2a indicates the slope of the connection between OAE and PWB is substantially steeper for persons with high levels of SC compared to those with low levels of SC, graphically demonstrating the moderating influence.In addition, the results further demonstrate that the interaction term between HFI and PWB as statistically significant (b =.14, SE =.02, t = 4.97, p =.000), showing that the degree of the moderator effects the relationship between the HFI and PWB. The HFI and PWB demonstrated lower and non-significant association between HFI and PWB at low levels of SC (b =.50, p =.25). The association significant at moderate levels of SC (b = 1.92, p =.000). There was a considerable positive connection between HFI and PWB at high levels of SC (b = 3.33, p =.000). These results suggest that the influence of HFI on PWB rises with SC. These findings imply that when level of SC increases, the impact of HFI on PWB intensifies. Figure 2b illustrates the moderating effect by showing that the slope of the connection between HFI and PWB is significantly steeper for people with high levels of SC than for those with low levels of SC.

The findings showed that the interaction between II and PWB was significant (b = .05, SE = .02, t = 2.16, p = .03), indicating that the moderator influences the relationship between II and PWB. When SC is low, II had a significant positive effect on PWB (b = 1.34, p = .000). At a moderate level of SC, this effect became stronger (b = 1.87, p = .000). At high SC, the association was strongest (b = 2.40, p = .000). Figure 2c shows that the slope for II–PWB is much steeper at high SC than at low SC, clearly demonstrating the moderating role.

The results showed that the interaction between HFE and PWB was significant (b = .11, SE = .02,

t = 4.29, p = .000). When SC was low, the relationship between HFE and PWB was weak and non-significant (b = .51, p = .21). At a moderate level of SC, the link became stronger and significant (b = 1.63, p = .000). At high SC, the association was even stronger and significant (b = 2.74, p = .000). These findings indicate that the positive effect of HFE on PWB increases as SC rises. Figure 2d further shows that the slope for HFE predicting PWB is much steeper among individuals with high SC, visually demonstrating the moderating effect.

Findings further exhibited the interaction term between AG and PWB was statistically significant (b = .10, SE = .02, t = 4.00, p = .000). At low levels of SC (b = .83, p = .02), suggests that there was a significant positive relationship between the AG and PWB. At moderate levels of SC (b = 1.82, p = .000), reflects that the relationship was stronger and significant. At high levels of SC (b = 2.81, p = .000), indicates that there was a significant positive relationship between AG and PWB. Figure 2e demonstrates the slope of the relationship between AG and PWB is notably steeper for individuals with high levels of SC as compared to those with low levels of SC, visually representing the moderating effect.

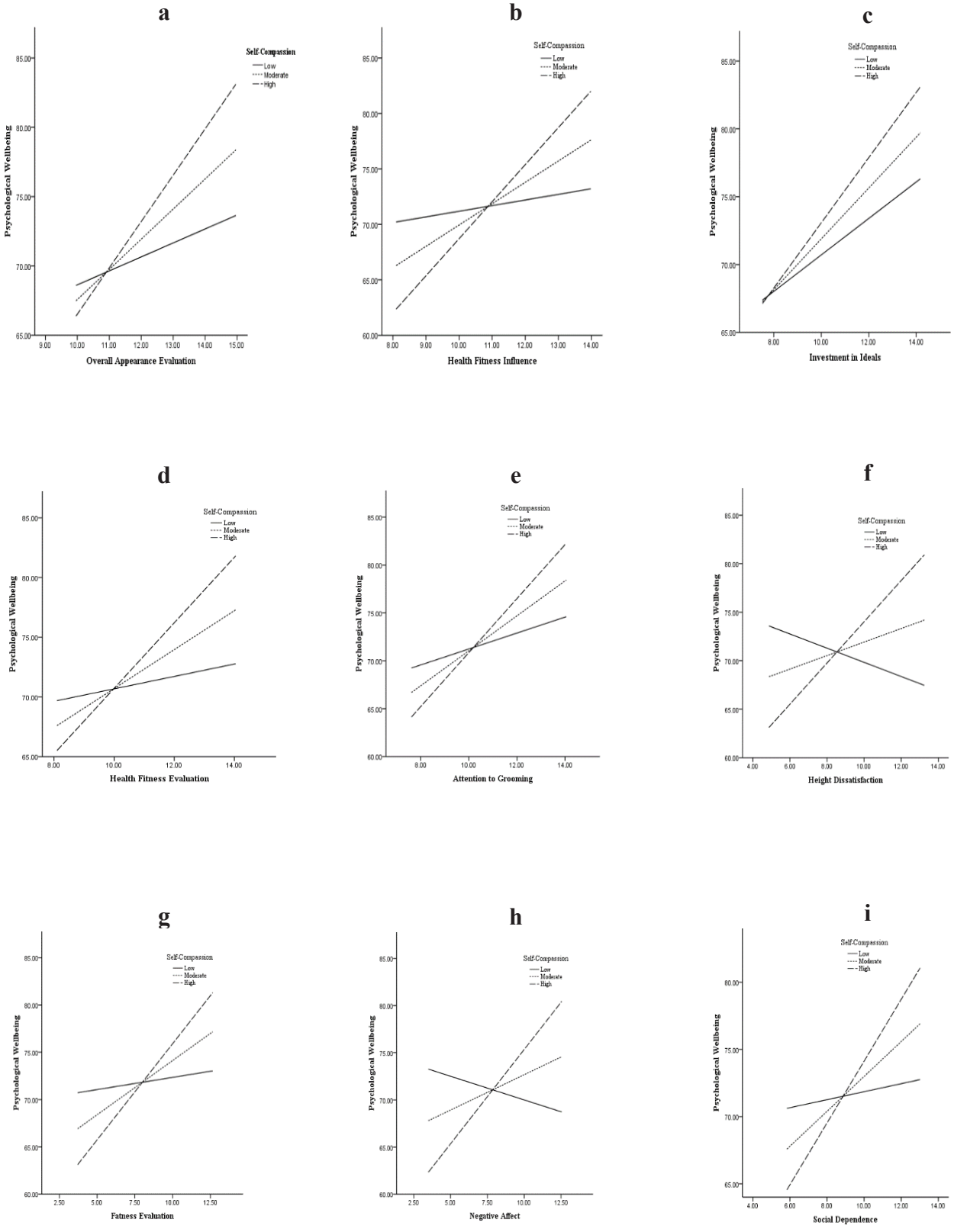
Moreover, findings revealed the interaction term between HD and PWB was statistically significant (b = .14, SE = .01, t = 7.65, p = .000). At low levels of SC (b = -.73, p = .01), suggests that there was a significantnegative relationship between the HD and PWB. At moderate levels of SC (b = .69, p = .000), reflects that the relationship was stronger and significant. At high levels of SC (b = 2.12, p = .000), indicates that there was a significant positive relationship between HD and PWB. These results suggest that the effect of HD on PWB becomes stronger as levels of SC increase. Figure 2f depicts the slope of the relationship between HD and PWB is notably steeper for individuals with high levels of SC as compared to those with low levels of SC visually representing the moderating effect.

Additionally, findings revealed the interaction term between FE and PWB was statistically significant (b = .09, SE = .01, t = 5.01, p = .000), indicating that the relationship between the independent variable and dependent variable is conditional upon the level of the moderator. At low levels of SC (b = .25, p = .39), suggests that there was a weaker and non-significant positive relationship between the FE and PWB. At moderate levels of SC (b = 1.14, p = .000), reflects that the relationship was stronger and significant. At high levels of SC(b = 2.03, p = .000), indicates that there was a significant positive relationship between FE and PWB. Figure 2g reflects the slope of the relationship between AG and PWB is notably steeper for individuals with high levels of SC as compared to those with low levels of SC, visually representing the moderating effect.

Findings further demonstrated the interaction term between NA and PWB was statistically significant, (b = .13, SE = .01, t = 6.92, p = .000), indicating that the relationship between the NA and PWB, is conditional upon the level of the moderator. At low levels of SC (b = -.50, p = .11), suggests that there was a non-significant negative relationship between the NAand PWB. At moderate levels of SC (b = .74, p = .000), reflects that the relationship was stronger and significant. At high levels of SC (b = 2.01, p = .000), indicates that there was a significant positive relationship between NA and PWB. Figure 2h demonstrates the slope of the relationship between NA and PWB is notably steeper for individuals with high levels of SC as compared to those with low levels of SC, visually representing the moderating effect.

Furthermore, data indicated the interaction term betweenSD and PWB was statistically significant, (b = .10, SE = .02, t = 4.27, p = .000), demonstrating that the link between the SD and PWB is conditional upon the degree of the moderator. At low levels of SC (b = .29, p = .46), shows that there was a reduced and non-significant positive connection between the SD and PWB. At moderate levels of SC (b = 1.29, p = .000), indicating that the link was stronger and significant. At high levels of SC (b = 2.30, p = .000), suggests that there was a substantial positive connection between SD and PWB. These results suggest that the effect of SD on PWB becomes stronger as levels of SC increase. Figure 2i highlightsthe slope of the relationship between SD and PWB is notably steeper for individuals with high levels of self-compassion as compared to those with low levels of SC, visually representing the moderating effect.

Figure 2


a
Self-Compassion
Low
Moderate
High
Psychological Wellbeing
Overall Appearance Evaluation
b
Health Fitness Influence
c
Investment in Ideals
d
Health Fitness Evaluation
e
Attention to Grooming
f
Height Dissatisfaction
g
Fatness Evaluation
h
Negative Affect
i
Social Dependence

Discussion

The current study aimed to examine the association between the body image subscales and PWB in university students, exploring how the SC influences this relationship, and also comparing gender differences in these variables. In the present study, correlation analyses were used to find out the relationship between study variables. The findings indicated that subscales of body image were positively correlated with SC, which are in lined with the findings of prior research that also indicated positive relationship between study variables (Wasylkiw et al., 2012).

According to previous research there was positive relationship between body image subscales and PWB, indicating that those with more body satisfaction are inclined to have better mental health. The current study results align with existing research, revealing a significant positive correlation between body image subscales and PWB, particularly in individuals with morbid obesity(Yazdani et al., 2018).A previous study among Malaysian counselors found a positive link among SC and PWB, consistent with the current study's findings, which also shows that self-compassion is positively correlated with psychological wellbeing (Voon et al., 2022).

The findings of the current study supported the first hypothesis, that overall appearance evaluation is significantly positively correlated with SC and PWB.Findings of the study aligned with the findings of the prior study that also showed positive association between variables (Baiju et al., 2025). The second hypothesis, which proposed a positive relationship between health fitness influence and both SC and PWB, was confirmed by the study's results. The findings revealed a positive association between health fitness influence and SC, as well as health fitness influence and psychological wellbeing, aligning with the hypothesis. This indicates that individuals who are influenced by health fitness tend to exhibit more level of SC and PWB and current study findings aligned with the findings of the prior research that also showed strongest positive correlation between health fitness and wellbeing (Jiang & Zhang, 2025).

Third hypothesis was accepted as investment in ideals is positively correlated with self-compassion and psychological wellbeing. Present study results indicated that II has strong correlation with self-compassion and psychological wellbeing which was in-lined with previous study (Baiju et al., 2025). The fourth hypothesis, which posited a positive correlation between health fitness evaluation and both SC and PWB, was supported by the study's findings. The findings revealed a strong positive relationship between health fitness and self-compassion, as well as health fitness and psychological wellbeing, thereby confirming the fourth hypothesis and current study findings are in-lined with prior study that shows positive association between health fitness and wellbeing (Hamdani et al., 2023). This suggests that individuals who prioritize health fitness tend to exhibit higher levels of SC and psychological wellbeing.

Fifth hypothesis was rejected as height dissatisfaction negatively correlated with SC and PWB. Findings of the prior study reflect that height dissatisfaction is negatively related with quality of life (Perkins et al., 2021; Baiju et al., 2025). Current study result was not consistent with this hypothesis as height dissatisfaction had positive correlation with self-compassion and psychological wellbeing. It is justifying that participants may focus on inner qualities, talents and accomplishments also may have supportive social circle who help individuals to navigate their height dissatisfaction that's why individuals positively perceive self-compassion and psychological wellbeing.Moreover, it also indicated that some aspects of body image were not influential for self compassion and psychological wellbeing so the future researchers should focus on other aspects such as OAE and HFE which shows greater influence on SC and PWB.

The sixth hypothesis, which was positive correlation between attention to grooming and both SC and PWB, was partially supported by the study's findings. A significant relationship was found between attention to grooming and both SC and PWB which was consistent with the result of the previous study (Baiju et al., 2025). Moreover, the previous study found positive relationship between fatness evaluation and wellbeing (Baiju et al., 2025) contradicting the hypothesis that fatness evaluation would negatively impact self-compassion and

wellbeing, so hypothesis was rejected it is justifying that participants showed positive body image and SA regardless of their body size or shape. They may prioritize other aspects of themselves, such as their personality, skills, and accomplishments over their physical appearance. Having social circle who value them for their personality and character rather than appearance can be crucial that's why positive correlation was found between SC and PWB.

The eight hypothesis of the main study was developed to determine the relationship. It was hypothesized that negative affect subscale of bodyself-image is negatively correlated with SC and PWB. Findings of the previous study indicated that negative affect is linkedto poorer psychological health (Luong et al., 2023; Baiju et al., 2025).The result of the present study did not partially support this hypothesis because negative affect was positively correlate with self-compassion and psychological wellbeing it was justifying that participants are emotionally healthy, and they accept their emotions including negative ones without judgment. Accepting and processing negative emotions can lead to personal growth and improved self-compassion as well as psychological wellbeing that's why positive correlation was found between negative affect, self-compassion and psychological wellbeing.

Moreover, social dependence was found to have a positive correlation with self-compassion and psychological wellbeing. This suggests that individuals with high social dependence may have a strong and supportive network of friends, family, and community, providing emotional validation, understanding, and a sense of belonging, which are essential for self-compassion and positive psychological wellbeing. Therefore, the original hypothesis is rejected.Prior study findings revealed that social dependence has significant negative relationship with self-esteem which leads to poorer psychological health (Bahri, 2024).

The next hypothesis of the study was to determine the mean difference across gender among study variables. The reported result illustrated that significant mean differences were found in the subscales of body image and other study variables. Previous research has consistently shown that there are non-significant differences between men and women in terms of self-compassion and psychological wellbeing, suggesting that these traits are equally distributed across genders, which was not in-lined with the result of current study and significant gender differences, was found on body image which was in-line with the result of current study. Female participants reflected better body image, as compared to male participants. Previous studies also revealed that male and female are different in their perception of body image (Abbasi&Zubair, 2015).

The study's results show that SC plays a significant moderating role in the relationship between body image and psychological wellbeing, confirming previous research findings that suggest SC has a significant moderating effect on this relationship(Pisitsungkagarn, 2012; Zarie, 2021).

Limitations and Suggestions

The current study has a few limitations. For instance, only students from the universities in Rawalpindi and Islamabad were chosen as participants, which would have limited the generalizability of the study. Only quantitative methods were employed in the current study to evaluate the variables that can restrict participant's responses. Therefore, one essential aspect is raising awareness about these aspects through lectures, presentations, workshops, group meetings, and pamphlets and establish secure environment for open talk about challenges related to body image, where students may share their experiences and receive assistance from others. However, using qualitative techniques like focus groups and interviews would provide respondents more freedom to express their opinions on body image, self-compassion, and psychological wellbeing.

Implications and Conclusion

The study found that a positive body image, SC, and wellbeing are key factors that promote happiness, life satisfaction, and effective coping in tough times. The results of the present study will help the university students to raise awareness among people about positive body image, which can lead to immediate improvements in self-compassion and psychological wellbeing.

Declaration

Conflict of Interest. The authors have no conflicts of interest to declare that are relevant to the content of this article.

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Informed Consent. Informed consent was obtained from all Participants prior to their inclusion in the study. All the participants were informed about purpose of the study.

Ethics and permission. Ethical approval and permission has been granted by the Ethical Board Committee, Rawalpindi Woman University, Rawalpindi.

Author's Contributions. Laraib Tahir was responsible for the complete research work, including writing from the introduction to the conclusion. Neelam Bibi provided overall supervision and guidance throughout the research process. Ume Eman Syed and Anam Khan contributed significantly during the data analysis phase. All contributors have reviewed the final version and approved its submission for publication.

Data Availability Statement. Data will be available upon request from the corresponding.

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Prevalence of Parent-Sibling Rivalries and Narcissism in Young Adults of Pakistan

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Abstract

Background. The present study explored the relationships between parental rivalry, siblings conflict and narcissism among young Pakistani adults.

Method. In a correlational research design 147 young men and 154 young women ($N = 301$) ranging in age from 19 to 40 years ($M = 24.50$, $SD = 4.23$) from different cities of Punjab completed a demographic sheet, Adult Sibling Relationship Questionnaire-Short (Lanthier et al., 2001a; 2001b) and Narcissistic Personality Inventory (Raskin & Terry, 1988).

Results. The results indicated sibling conflict was influenced by parental rivalry and narcissism. We believe a positive association between sibling conflict and parental rivalry (maternal and paternal) and narcissism suggested this influence. Results revealed parental rivalry and narcissism were stronger in joint than in nuclear families and in families where parents were separated or divorced. Sibling conflict was greater in nuclear than joint families because of parental favoritism. Parental rivalry was higher in females than males.

Conclusion. The result provides insight into the dynamics within the context of Pakistani families shedding light on the importance of how parental different treatment affects siblings relationships. Further research and interventions in this area can potentially enhance the family relationship and explore additional variables to deepen the understanding of complex dynamics within the families.

Keywords. Parental rivalry, paternal rivalry, maternal rivalry, sibling conflict, narcissism, family dynamics, gender, marital status, young adults, quantitative.

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Introduction

The family is a social unit made up of a man and a woman who pledge to raise their children for the rest of their life. Families as a unit not only increase and promote survival, but they also carry out a number of other tasks like reproduction, economic services provision, socialization, and emotional support (Aghi et al., 2014). A family phenomenon known as favoritism occurs when parents treat one or more of their children better than they are thought to treat the other children. As an alternative, they could target out one or more of their kids and treat them differently or negatively by 'disfavoritism' (Hale, 2012). Either narcissistic grandiosity or narcissistic injury and emotions of inferiority might be linked to perceptions of unequal parental treatment. Being the family's outcast results in sentiments of unworthiness, unlove, and jealousy, which in turn strain sibling relationships and lead to narcissistic susceptibility (Angel, 2006).

Parental favoritism is defined by the Family Resource Group (2018). They define parental favoritism as when one or both parents consistently show preference for one child over another. This can take the form of increased privileges, less discipline, and more time spent together. It was revealed that most fathers and mothers like to be close to, confide in, and support some of their children more than others (Suitor et al., 2006 & 2008). A pilot study stated that the problematic nature of sibling relationships, which can lead to prejudice and jealousy if parents take sides (Hashim & Ahmad, 2016). Maladjustment may result from parents' alleged unfair treatment (Kramer et al., 2002). A study carried out at the Nueva Eciji University of Science and Technology suggest that a child's bond with their sibling is impacted by parental favoritism. Favoritism from parents has a negative impact on a person's mental, social, and emotional well-being (Santos, 2021). Fathers are supposed to behave differently toward their kids than mothers. Prior studies indicate biases in the investments made by mothers in their boys and fathers in their daughters (Salmon at el., 2012).

Quarrelling is the term used to describe the arguments and disagreements that occur between siblings, frequently because of rivalry for the love and attention of their parents. However, *Antagonism* which can take the form of aggressive, irrational, or jealous actions, is the antagonism and opposition siblings show one another (Yuditia et al., 2019). Feeling of resentment, rivalry and animosity which develops among two or more siblings that arise as soon as a new sibling is born is known as sibling rivalry (Shafer & Kipp, 2010). According to Howe and Recchia (2008), children's ambivalence can also lead to beneficial behaviors like attachment and closeness to babies as well as negative behaviors like stress, aggression, and attachments (Gass et al., 2007). The youngster can gain from sibling disagreements by learning how to compromise, negotiate, and resolve conflicts. A vast array of factors has been examined by scholars and theorists in their investigation of sibling rivalry. These include how to resolve conflicts, issues with sibling differentials, the sibling gap, birth order, size of the family, and gender differences (Shafer & Kipp, 2010).

According to Baek et al. (2023), there was a strong correlation between the number of siblings and the degree of conflict between men and women. Conflict for men was favorably connected with maternal affection, while conflict for women was strongly correlated with paternal conflict (Iftikhar & Sajjad, 2023). According to social comparison theories, it is predicted that teenagers who believe they are favored will report having better sibling relationships than those who believe they are unfavored (Mcswiggan, 2015).

According to research conducted in Pakistan, 89% of the changes in sibling rivalry and 73% of the changes in sibling conflict were caused by parental differential treatment (Iftikhar & Sajjad, 2023). According to a study by Donrovich et al. (2014), Sibling rivalry does occur in large families, but it is not as strong as it is in smaller. According to a poll on family conflict, over 40% of children reported being kicked, bitten, or punched by their siblings each year, and 70% reported physical violence between siblings (Feinberg et al., 2013).

According to Miller et al. (2021), narcissism is a pattern of behavior in relationships that is typified by an excessive desire for admiration, a sense of entitlement, and an overall deficiency in empathy. A pattern of privilege, an intense need

for acceptance from others and a lack of kindness are typically used to characterize narcissism. These traits combine to create an interpersonal pattern that is usually dysfunctional (Cain et al., 2008; American Psychiatric Association, 2013). The findings from a correlational study shows a strong correlation between the emergence of teenage narcissism and parental favoritism. In contrast to the child who seldom received more attention than the others, the family's favorite child is more likely to exhibit narcissistic traits (Huang et al., 2017).

Presently, the disorder is defined as a grandiose, adoration-seeking, and empathetic pattern with a popularity rate in nonclinical populations estimated to range from 0% to 6.2% (American Psychiatric Association, 2013). But considering that all people have narcissistic tendencies to some extent (Cain et al., 2008). According to research currently available, narcissistic people react very negatively to failure in achievement competitions; high NPI (Narcissistic Personality Inventory) scorers had severe negative affect when faced with upward comparisons with superior people (Bogart et al., 2004). Parental disfavoring of the responder has a negative impact on sibling friendliness and is a predictor of conflict for both parents (Dottan & Finzi, 2010).

This research can help to clarify the significance of dealing with parental favoritism and the possible effects it may have on sibling relationships. It emphasizes how important it is for parents to take responsibility for their actions and work toward achieving equality and fairness for their kids. It highlights how narcissism exacerbates these impacts and stresses the significance of creating constructive coping mechanisms.

Objective

1. To examine the relationship between parental favoritism, siblings rivalry, and narcissism among young adults.
2. To examine the effect of socio-demographic variables on parental favoritism, siblings rivalry, and narcissism among young adults.

Hypotheses

1. Parental favoritism is positively correlated with siblings rivalry among young adults.
2. Parental favoritism is positively correlated with narcissism among young adults.
3. Siblings rivalry is positively correlated with narcissism among young adults.
4. Sibling rivalry is higher in females as compared to males young adults.
5. Parental favoritism is higher in nuclear family system as compared to joint family system among young adults.
6. Sibling rivalry is higher in joint family system as compared to nuclear family system among young adults.
7. Narcissism is higher in joint family system as compared to nuclear family system among young adults.
8. Sibling rivalry is higher in those adults whose parents are separated and divorce as compared to married.
9. Narcissism is higher in those adults whose parents are separated and divorce as compared to married.
10. Sibling rivalry is higher in those adults who experience extreme problem of favoritism in family.
11. Narcissism is higher in those adults who experience extreme problem of favoritism in family.

Method

Sample

A convenient sample of 147 men (48.8%) and 154 (51.2%) women (N = 301) ranging in age from 19 to 40 years (M = 24.50, SD = 4.23) were asked to complete two psychometric instruments (see below). To be included in the study each participants had to have one sibling, one living parent and could understand English. The sample revealed 62.1% belonged to joint families and 37.9% to nuclear families. Majority (86.7%) of participants had married parents, few had divorced (8%) and separated (5.3%) parents.

Assessment Measures

Adult Sibling Relationship Questionnaire-Short (ASRQ-S). Originally developed by Stocker et al. (1997) with 81 items, ASRQ-S was later

modified by Lanthier et al. (2001a; 2001b) with 47 items consisting of three factors (and eight subscales): rivalry factor included Maternal Rivalry (MR, 6 items) and Paternal Rivalry (PR, 6 items), conflict factors that include Quarreling (Q, 5 items), Dominance (D, 6 items), Competition (C, 6 items), and Antagonism (A, 6 items). The third factor warmth included Intimacy (I, 6 items), Emotional Support (ES, 6 items), and Knowledge (K, 6 items). We used four subscales, that are Maternal Rivalry (MR), Paternal Rivalry (PR), Quarreling (Q) and Antagonism (A) subscales from rivalry and conflict factors for this study, subscales for warmth factor were not used. Each item on MR and PR subscales is rated on 5-point Likert scales (1 = I am usually favored, 2 = I am sometimes favored, 3 = neither I nor sibling is favored, 4 = sibling is sometimes favored, 5 = sibling is usually favored). These items were recoded as absolute discrepancy scores (0 = neither child is favored, 1 = parents sometimes favor one child over the other, 2 = parents usually favor one child over the other. These two subscales were used to measure Parental Favoritism. To calculate Sibling Rivalry two sub-scales of quarreling and antagonism were used. Each item on Q and A subscales was also measured on 5-point scale ranging from not at all (1) to Extremely much (5). Higher scores indicated higher parental rivalry and conflict. Internal consistency (α = .91) of rivalry is high (Lanthier et al., 1997) in our sample similar consistency was (α = .86) revealed; our data also showed high internal consistencies (α = .92) for MR and (α = .96) for PR. Internal consistency (α = .95) for conflict was also high (Lanthier et al., 1997), and our data revealed similar consistencies for Q (α = .80) and A (α = .92) see Table 1.

Narcissistic Personality Inventory-16 (NPI-16). The NPI-16 is a short form self-report inventory trimmed from NPI and is used to measure narcissism (Raskin & Terry, 1988) traits and levels based on group cooperation, leadership, and arrogance. There are 16 items in this scale where each item is measured on dichotomous scale yes (1) no (0) scale. The overall scores can range from 0 to 16, where higher scores represent greater narcissistic traits. Internal consistency (α = .86 - .87) is moderately high and test-retest reliability (r = .90) in excellent (Rhodewalt & Morf, 1995; Emmons, 1984, 1987).

Demographic Sheet. General information regarding age, marital status, qualification, occupation and socioeconomic status collected from the participants on the demographic sheet.

Research Design

We used a correlational design to find simple relationships between parental rivalry, narcissism and sibling conflict in young Pakistani adults. The survey packet included the above scales and participants were sought in different cities of Punjab, Pakistan. After briefly telling the participants about the nature of the study they were asked to complete the afore mentioned instruments after getting their consent. After data collection statistical analyses were performed using SPSS v. 26.

Results

Table 1 illustrates psychometric properties of scales and subscales. Internal consistencies of MR (α = .92), PR (α = .96), Q (α = .80), A (α = .92) and NPI (α = .79) were adequate to high. Skewness and kurtosis were less than 2 which suggested data was normally distributed and could be used for parametric testing. Table 1 also showed positive correlations among four subscales of ASRQ-S for example MR positively and significantly associated with PR (r = .71, p < .01) Q (r = .24, p < .01), A (r = .26, p < .01) and the NPI-16 scale. Other correlations among the ASRQ-S were sporadic, Q correlated positively and significantly with A (r = .89, p < .01) but not with PR or that PR was not related to A. This suggests not all subscales of ASQR-S were related to one another. But NPI-16 was positively and significantly correlated with all subscales of ASQR-S (see Table 1).

Table 1

Psychometric Properties of ASRQ-S Subscales and NPI-16 Scale Established in Young Adults of Pakistan

Scale & Subscale	*k*	α	*M*(*SD*)	Score Range		*S*	*K*	MR	PR	PTR	SR	Q	A	NPI-16
				Pot	Act									
MR	6	.92	17.84 (7.90)	6-30	6-30	.18	-1.14	-	.71**	.07	.26**	.24**	.26**	.21**
PR	6	.96	15.24 (8.28)	6-30	6-30	.47	-.95		-	.73**	-.09	-.08	-.09	.15**
PTF	12	.86	33.08(11.69)	12-60	8-30	.29	.09			-	.11*	.11*	.11*	.04*
SR	11	.95	37.61(12.60)	11-55	11-55	-.13	-1.39				-	.89**	.61**	.62**
Q	5	.80	17.25 (5.81)	5-25	5-25	-.16	-1.42					-	.89**	.61**
A	6	.92	20.36 (7.15)	6-30	6-30	-.27	-1.23						-	.59**
NPI-16	16	.79	9.77 (3.80)	0-16	1-16	.09	-.87							-

Note. k = number of items, α = Cronbach alpha, *M* = mean, *SD* = standard deviation, Pot = potential, Act = actual, *S* = skewness, *K* = kurtosis, MR = maternal rivalry, PR = paternal rivalry, PTF = Parental favoritism, SR = Sibling rivalry, Q = quarreling, A = antagonism, NPI-16 = Narcissistic Personality Inventory-16

N = 301

** p < .005, **p* < .01

Table 2 illustrates women (*M* = 19.78, *SD* = 8.02) had significantly (*p* < .001, *d* = .51) higher MR than men (*M* = 15.82, *SD* = 7.48), but women (*M* = 14.24, *SD* = 8.15) significantly (*p* < .03, *d* = .24) scored lower than men (*M* = 16.28, *SD* = 8.32) for PR. And as data would have it no significant (*p* >.05) differences were found in women (*M* = 34.01, *SD* = 11.59) and men (*M* = 32.09, *SD* = 11.74) for PTF. Women (*M* = 39.28, *SD* = 11.99) did score significantly (*p* < .02, *d* = .27) higher than men (*M* = 34.01, *SD* = 11.59) for SR. Women also (*M* = 18.03, *SD* = 5.49) scored significantly (*p* < .02, *d* = .16) higher than men (*M* = 16.42, *SD* = 6.02) for Q; and women (*M* = 21.25, *SD* = 6.81) scored significantly (*p* < .03, *d* = .25) higher than men (*M* = 19.44, *SD* = 7.41) for A. No significant (*p* > .05) differences were found between women (*M* = 21.25, *SD* = 6.81) and men (*M* = 19.44, *SD* = 7.41) for NPI-16.

Table 2

Gender Differences across ASRQ-S Subscales and NPI-16 Scale

	Gender M(*SD*)				95% CI		
Scale & Subscale	Men	Women	*t*	*p*	*LL*	*UL*	*d*
MR	15.82 (7.48)	19.78 (8.02)	4.43	.00	-5.72	-2.20	.51
PR	16.28 (8.32)	14.24 (8.15)	2.15	.03	.17	3.91	.24
PTF	32.09 (11.74)	34.01 (11.59)	1.43	.15	-4.57	.72	-
SR	35.86 (13.02)	39.28 (11.99)	2.37	.02	-6.26	-.58	.27
Q	16.42 (6.02)	18.03 (5.49)	2.43	.02	-.29	-.30	.16
A	19.44 (7.41)	21.25 (6.81)	2.21	.03	-3.42	-.19	.25
NPI-16	9.63 (3.69)	9.91 (3.92)	.65	.52	-1.15	.58	-

Note. MR = maternal rivalry, PR = paternal rivalry, PTF = Parental favoritism,, SR = Sibling rivalry, Q = quarreling, A = antagonism, NPI-16 = narcissistic personality inventory-16

n_{Men} = 147, n_{Women} = 154

Table 3 Furthermore, the findings of family system indicates that Maternal favoritism was higher in nuclear family system than joint (*M* = 18.29, *SD* = 7.26). Nuclear showed higher paternal rivalry than joint family system (*M* = 16.09, *SD* = 8.06). Nuclear showed higher parental favoritism (PTF) than joint (*M* = 34.39, *SD* = 11.32). Joint showed higher quarreling than nuclear family system (*M* = 17.82, *SD* = 5.74).

There was found a difference between antagonism among family system. Joint family system showed higher than nuclear (M = 21.05, SD = 7.04). Joint showed higher on siblings rivalry than nuclear (M = 38.87, SD = 12.40). Joint families showed higher on narcissism than nuclear (M =10.45, SD = 3.61) families. To see the effect size among mean differences of males and females, Cohen's d was also computed. Cohen's d of all the variables shows the small to moderate effect size.

Table 3

Differences in Family Structure across ASRQ-S Subscales and NPI-16 Scale

Scale & Subscale	Family Structure *M(SD)*		*t*	*p*	95% CI		*d*
	Joint	Nuclear			*LL*	*UL*	
MR	17.57 (8.42)	18.29 (7.26)	-.77	.44	-2.60	1.14	0.09
PR	14.72 (8.39)	16.09 (8.06)	-1.39	.16	-3.30	.56	0.16
PTF	32.28 (11.86)	34.39 (11.32)	-1.52	.13	-4.83	.62	0.18
SR	38.87 (12.40)	35.54 (12.71)	2.24	.03	.41	6.26	0.26
Q	17.82 (5.74)	16.30 (5.80)	2.21	.02	.16	2.86	0.26
A	21.05 (7.04)	19.23 (7.22)	2.16	.03	.16	3.49	0.25
NPI-16	10.45 (3.61)	8.66 (3.87)	4.06	.00	.92	2.66	0.47

Note. MR = maternal rivalry, PR = paternal rivalry, PTF = Parental favoritism,, Q = quarreling, A = antagonism, SR = Sibling rivalry, NPI-16 = Narcissistic Personality Inventory-16

n_{Joint} = 187, $n_{Nuclear}$ = 114

Table 4 shows mean, standard deviation, F and eta square values on study variables among three groups of marital status of parents (married, divorced and separated). Significant mean difference were seen in quarreling. It was revealed that quarreling, antagonism and siblings rivalry was higher in adults whose parents were divorced and separated then married (MD = 6.29, p < .05 and 5.49, p < .05) (MD = -7.33, p < .05 and 5.91, p < .05) (MD = 13.63, p < .05 and 11.39, p < .05). Narcissism were also higher in adults whose parents were divorced and separated then married (MD = -3.33, p < .05 and 3.23, p < .05). Eta square was also calculated. Eta square of all the variables showed small to medium effect size.

Table 4

Differences in Marital Status across ASRQ-S Subscales and NPI-16 Scale

Scale & Subscale	Marital Status *M(SD)*			*F*	*p*	Post-hoc	95% CI		η^2
	Married	Divorced	Separated				*LL*	*UL*	
MR	17.58 (7.58)	19.71 (10.36)	19.31 (10.52)	1.06	.35				
PR	15.45 (7.86)	14.75 (10.83)	12.44 (10.61)	1.04	.35				
PTF	33.03 (11.12)	34.46 (16.67)	31.75 (12.55)	.27	.76				
SR	35.92 (12.36)	49.54 (5.45)	47.31 (10.24)	20.13	.001	D>M*; S>M*	-9.09; 2.10	-3.49; 8.87	.12
Q	16.45 (5.71)	22.75 (2.75)	21.94 (3.75)	20.90	.001	D>M*; S>M*	-10.81; 1.70	-3.84; 10.82	.12
A	19.46 (7.05)	26.79 (2.81)	25.38 (6.57)	17.40	.001	D>M*; S>M*	-19.72; 4.04	-7.53; 18.76	.10
NPI-16	9.33 (3.69)	12.67 (3.42)	12.56 (3.27)	14.13	.001	D>M*; S>M*	-5.21; .97	-1.46; 5.49	.09

Note. MR = maternal rivalry, PR = paternal rivalry, PTF = Parental favoritism,, Q = quarreling, A = antagonism, SR = Sibling rivalry, NPI-16 = Narcissistic Personality Inventory-16, M = Married, D = Divorced, S = Separated

$n_{Married}$ = 261, $n_{Divorced}$ = 24, $n_{Separated}$ = 16

*p < .05

Table 5 shows severity of favoritism were divided into four categories i.e., Extreme (Ex), Sometime (So), Slight (Sl) and None (No) see Table 5. It was revealed that problem of favoritism was extreme in adults

whose experienced maternal favoritism than not a problem (MD = 5.09, p < .05). Quarreling, antagonism and siblings rivalry were higher in adults whose experienced extreme problem of favoritism in their families than slight, sometime and not a problem (MD = 6.42, p < .05, 9.16, p < .05 and 8.72, p < .05) (MD = 7.73, p < .05, 11.21, p < .05 and 10.47, p < .05) (MD =14.15, p < .05, 20.36, p < .05 and 19.18, p < .05). Narcissism was also higher in adults whose experienced extreme problem of favoritism in their families than slight, sometime and not a problem (MD = -3.47, p < .05, 4.53, p < .05 and 4.58, p < .05). Eta square was also calculated. Eta square of all the variables showed small to large effect size.

Table 5

Differences in Favoritism Severity across ASRQ-S Subscales and NPI-16 Scale

Scale & Subscale	Favoritism Severity *M(SD)*				*F*	*p*	Post-hoc	95% CI		η^2
	Extreme	Sometime	Slight	None				*LL*	*UL*	
MR	19.66 (9.95)	16.70 (6.82)	17.88 (4.48)	15.59 (4.59)	5.09	.001	Ex > No*	1.15	6.97	.05
PR	14.58 (10.28)	15.84 (6.79)	15.72 (5.98)	15.77 (5.72)	.53	.66				
PTF	34.23 (14.01)	32.54 (10.48)	33.60 (8.15)	31.36 (8.64)	1.09	.35				
SR	47.20 (8.81)	33.05 (10.78)	26.84 (8.51)	28.02 (7.56)	102.36	.001	Ex > So*	10.43	17.87	
							Ex > Sl*	15.23	25.49	.51
							Ex > No*	15.89	22.47	
Q	21.59 (4.06)	15.18 (5.17)	12.44 (4.18)	12.87 (3.46)	96.17	.001	Ex > So*	4.68	8.16	
							Ex > Sl*	6.76	11.56	.06
							Ex > No*	7.17	10.26	
A	25.61 (4.98)	17.88 (6.18)	14.40 (5.20)	15.15 (4.90)	88.39	.001	Ex > So*	5.54	9.92	
							Ex > Sl*	8.19	14.22	.47
							Ex > No*	8.52	12.39	
NPI-16	12.05 (3.46)	8.58 (3.21)	7.52 (3.12)	7.48 (2.61)	44.78	.001	Ex > So*	2.14	4.80	
							Ex > Sl*	2.69	6.36	.02
							Ex > No*	3.39	5.75	

Note. MR = maternal rivalry, PR = paternal rivalry, PTF = Parental favoritism, Q = quarreling, A = antagonism, SR = Sibling rivalry, NPI-16 = Narcissistic Personality Inventory-16, Ex = Extreme, So = Sometime, Sl = Slight, No = None

$n_{Extreme}$ = 137, $n_{Sometime}$ = 57, n_{Slight} = 25, n_{None} = 82

*p < .05

Table 6 shows mean, standard deviation, F and eta square values on study variables among four groups of favor by i.e Father, mother, disfavor and equal. Significant mean difference were seen in maternal favoritism. It was revealed that maternal favoritism is greater than father in paternal rivalry (MD = 5.26, p < .05). Parental rivalry is greater than father (MD = 3.58, p < .05). It was revealed that Quarreling is higher when mother is favoring me than equal treatment to all (MD = 5.72, p < .05). Quarreling is higher when father is favoring me than disfavor and equal (MD = 4.06, p < .05) MD = 4.06, p < .05). Furthermore, it was revealed that Antagonism is higher when father favoritism is greater than mother, disfavor and equal (MD = 2.83, p < .05) (MD = 4.41, p < .05 & MD = 8.78, p < .05). Antagonism is also higher when mother is favoring me then giving equal treatment to all siblings (MD = 6.39, p < .05). Significant mean difference were seen in narcissism. It was revealed that narcissism is higher when mother and father is favoring me then giving equal treatment to all siblings (MD = 2.72, p < .05 & MD = 3.51, p < .05).

Mean Differences Across Favor by (You are Favored by) Between Study Variables Among Young Adults (N = 301)

Table 6

Differences in Respondent Favored by Others across ASRQ-S Subscales and NPI-16 Scale

Scale & Subscale	*M(SD)*				*F*	*p*	Post-hoc	95% *CI*		η^2
	Mother	Father	Disfavor	Equal				*LL*	*UL*	
MF	16.24 (8.55)	21.50 (8.80)	16.89 (6.62)	15.71 (4.19)	11.31	.00	F > M*	-8.13	-2.40	.10
							F > E*	2.77	8.81	
PF	16.66 (9.33)	13.08 (9.17)	17.11 (7.49)	15.63 (4.88)	3.68	.01	M > F*	.504	6.65	.04
PTR	32.98 (12.89)	34.58 (12.73)	34.00 (13.11)	31.34 (7.83)	1.20	.30				
SR	39.98 (13.19)	43.81 (10.46)	35.33 (12.03)	27.86 (7.57)	34.46	.00	M > E*	7.82	16.39	
							F > D*	1.04	15.90	.26
							F > E*	11.62	20.26	
Q	18.55 (5.84)	19.95 (4.97)	15.89 (5.99)	12.79 (3.66)	33.50	.00	M > E*	3.73	7.69	
							F > D*	6.30	7.49	.25
							F > E*	5.12	9.15	
A	21.47 (7.71)	23.85 (5.68)	19.44 (6.39)	15.07 (4.76)	31.01	.00	E >D*	.14	8.69	
							F > E*	6.29	11.27	.24
							M > E*	3.94	8.86	
NPI-16	10.43 (4.02)	11.21 (3.48)	9.00 (3.31)	7.63 (2.53)	16.11	.00	M > E*	1.32	4.12	.14
							F > E*	2.10	4.19	

Note. MF = maternal favoritism, PF = paternal favoritism, PTR = Parental rivalry, Q = quarreling, A = antagonism, SR = Sibling rivalry, NPI-16 = Narcissistic Personality Inventory-16, Ex = Extreme, So = Sometime, Sl = Slight, No = None

$n_{Mother} = 102$, $n_{Father} = 98$, $n_{Disfavor} = 18$, $n_{Equal} = 83$

*$p < .05$

Discussion

The present study aimed to explore the relationship between parental favoritism, siblings' rivalry and narcissism among young adults. The study examined the relationship between parental favoritism and siblings' rivalry. The result of the study supported previous research that highlighted the crucial role of parental favoritism in siblings rivalry. Alpha coefficient of all the scales and their sub-scales were satisfactory (Stocker et al., 1997). Finding revealed that the value of skewness and kurtosis indicates that scores are regularly distributed, and found to be within acceptable ranges -2 to +2 (Table 2).

Correlation analysis (Table 3) revealed that there is positive relationship between parental favoritism and siblings rivalry as hypothesized (H1), that Sibling rivalry and parental favoritism are positively correlated (Finzi-Dottan, 2010). As it is also shown by the correlation analysis that there is positive correlation between parental favoritism and narcissism among young adults, hence hypotheses 2 is accepted, that there is strong correlation between the emergence of teenage narcissism and parental favoritism. In contrast to the child who seldom received more attention than the others, the family's favorite child is more likely to exhibit narcissistic traits (Huang & colleagues, 2017). Hypotheses 3 is also accepted that there is positive relationship between siblings rivalry and narcissism. Ferencz (2022) also discovered a favorable correlation between narcissism and disputes with siblings.

Significant mean difference were seen in Sibling rivalry and its sub-scales; Quarreling and Antagonism, where females shows more Quarreling and Antagonism than males. Siblings rivalry is higher in females than males. As hypothesized (hypotheses 4) siblings rivalry is higher in females than males. Finding are consistent with Finzi-Dottan and Cohen (2011) which indicated a high level of conflict among sisters.

Significant mean difference was found with family system on parental favoritism which is high in nuclear family system then joint. Maternal and paternal favoritism is also higher in nuclear family system then joint. As hypothesized (hypotheses 5) parental favoritism is higher in nuclear family system then joint. Parents in nuclear families are more concerned with their children's academic performance and plan for their education and career after speaking with professionals (Khusboo et al., 2017).

Significant mean difference was also found in siblings rivalry which is high in joint family system then nuclear family system. Quarreling and antagonism is also high in joint family system. As hypothesized (hypotheses 6) sibling rivalry is higher in joint family system as compared to nuclear. Due to shared resources and space restrictions, sibling rivalry may be more likely to occur in joint family systems, where several generations coexist (Alexandre et al., 2012). Narcissism is also higher in joint family system than nuclear (hypotheses 7). Although the joint family system may not directly lead to increased narcissism, its interactions and dynamics can influence people's development of narcissistic tendencies (Ruqia et al., 2016).

Siblings rivalry is higher in adults whose parents were divorced and separated than married (hypotheses 8). Studies repeatedly demonstrate the negative effects of parental divorce and separation on sibling relationships, which frequently result in increased conflict (Poortman, 2009; Noller, 2008). As hypothesized (hypotheses 9) Narcissism were also higher in adults whose parents were divorced and separated then married. According to Lan (2020), teenagers from divorced homes were more prone to have narcissistic tendencies, especially if their parents were extremely strict.

Siblings rivalry were higher in adults whose experienced extreme problem of favoritism in their families (hypotheses 10). According to research, extreme parental favoritism has been repeatedly linked to increased levels of sibling rivalry in adulthood (Finzi-Dottan, 2010; Boll, 2003; Gilligan, 2013).

Narcissism were also higher in adults whose experienced extreme problem of favoritism in their families (hypotheses 11). High degrees of parental favoritism were linked to higher levels of narcissism (Finzi-Dottan's, 2010).

Conclusion

Present study is a set to explore narcissism in relationship between parental favoritism and siblings rivalry among young adults (*N*=301). The findings are related to previous literature to some extent. For this purpose , self report measure was used correlation analysis, T test, ANOVA, regression and moderation run through SPSS 26 and Hayes process macro. Results revealed that parental favoritism was positively related to sibling rivalry. The results clearly indicated that parental favoritism positively related with narcissism. It was also revealed that sibling rivalry positively associated with narcissism. It was found that Sibling Rivalry and narcissism seems more in joint family systems than in nuclear families. Parental favoritism was higher in nuclear family system as compared to joint family system. Sibling rivalry was higher in females than males. Furthermore the results indicate that Sibling rivalry and narcissism was higher in those adults whose parents are separated and divorce as compared to married. Sibling rivalry and narcissism were also higher in those adults who experience extreme problem of favoritism in family. The result provides insight into the dynamics within the context of Pakistani families shedding light on the importance of how parental different treatment affects siblings relationships.

Implications of the Study

Teaching parents about the negative effects of favoritism and how narcissistic qualities in kids can intensify sibling rivalry can assist parents in becoming more balanced parents. Healthy family dynamics may result from this insight. Research on how kids watch and pick up on parental behaviors like favoritism can help us better understand how family dynamics affect relationships and social conduct beyond the home. Partnerships between sociologists, educators, psychologists, and legislators can support all-encompassing strategies for resolving family issues and fostering healthy sibling relationships.

Limitations and Suggestions

The small sample size may make it impossible to extrapolate the results to bigger populations. The scale used in this study was only available in English. It is not a longitudinal study; rather, it provides a snapshot of sibling interactions at one particular period in young adulthood. To obtain a deeper knowledge of family dynamics, including subjective feelings of favoritism and its effects on sibling relationships, combine quantitative surveys with qualitative interviews.

Declaration

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Conflict of Interest: The authors have no competing interests to disclose.

Availability of Data: The datasets remain confidential and are not publicly accessible due to privacy agreements.

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Relationship between Mother-Child Emotion talk, and Emotional Competence among Pakistani Preschoolers

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Abstract

Background. The present study investigated the link between mother-child emotion talk, and emotional competence (i.e., emotion understanding and emotion regulation) among preschool children. The role of demographic variables including age and number of siblings were also investigated for emotion talk and emotional competence.

Method. The sample comprised of 30 preschoolers aged (48 to 71 months; M = 60.13, SD = 7.56) and their mothers. Children completed emotion understanding; affective knowledge test (AKT) (Denham, 1986), and emotion regulation tasks; locked box task (Goldsmith et al., 1999). Mother-child dyads also engaged in an autobiographical recall task (Cervantes & Callanan, 1998; Neal 2014) discussing two past events which was recorded and coded for emotion labels and explanations using Mind-Mindedness Coding Manual (Meins and Fernyhough, 2015).

Results. Regression analyses indicated that mother emotion talk was significantly associated children emotion talk (β = .38) and use of explanations by children was associated with emotion understanding (β = .43). Number of siblings was significantly positively linked with emotion understanding (β = .47), mother emotion talk (β = .46) and dyadic emotion talk (β = .46) and negatively associated with venting coping strategies (β = -.41) of emotion regulation. Independent samples t-tests showed that older preschoolers have significant higher emotion understanding and used more emotion labels, whereas younger preschoolers used more negative emotion regulation strategies (avoidance and venting).

Discussion & Conclusion. These preliminary findings highlight the associations between maternal use of emotion language, sibling context and children's emotional competence among Pakistani preschoolers. However, the findings should be interpreted with caution due to the small sample size. Future research with larger samples is needed to build on these preliminary findings and inform research on emotion socialization and emotional competence in a non-Western context.

Keywords. Emotion understanding, emotion regulation, mother child emotion talk, preschoolers, emotional competence.

Introduction

Emotions are considered powerful regulators of human experience and are central to the way humans perceive, interpret, and respond to their environment. From early childhood, emotions guide attentions, motivate behaviors, and shape social interactions (Denham, 1998; (Thompson, 2015; Denham & Liverette, 2019). Emotions constitute a systematized response system of biological, experiential, and behavioral components that activates when an event is deemed personally relevant (Ali, 2023). Given their close link to action tendencies, children's ability to understand and regulate emotions becomes essential for adaptive functioning across social and developmental contexts (Herndon et al., 2013).

The ability to understand, express and regulate emotions that aligns with parental and societal expectation is referred to as emotional competence (Saarni et al., 2008). Emotional competence is typically conceptualized as comprising two interrelated components; emotion understanding and emotion regulation (Çoban et al., 2022). Emotion understanding refers to expertise in the meaning of emotion, encompassing two key abilities; emotion recognition and emotion knowledge (Castro et al., 2016). Emotion recognition refers to the ability to identify emotions in oneself and others, whereas emotion knowledge involves understanding emotion labels, causes and contextual appropriateness that helps children to verbalize and discuss emotions (Castro et al., 2016; Denham, 1998; Izard, 2001). Emotion regulation refers to processes involving efforts to modify the internal state and/or the outward expression of sensed emotion (Restoy et al., 2024). The need for regulation becomes salient when the emotional responses are either too intense or insufficient to meet the personal goals or social expectations from the child. In childhood, effective regulation reflects the children's ability to respond to emotional experiences and stressors in ways that promote adaptive functioning in the developmental context (Su & Chen, 2025). Emotion understanding and regulation are closely linked, as understanding emotional meaning and contexts provides an important basis for managing emotional expression, while regulatory experiences further shape children's emotional knowledge.

Emotional competence in early childhood is associated with children's social and academic adjustment in later life. Preschoolers with higher emotional competence tend to have better peer relationships, school readiness and early academic adjustment as well as stronger social adjustment (Denham et al., 2003, 2012; Nakamichi et al., 2019) and better social cooperation and self-control (Izard 2001). In contrast, low emotional competence among preschoolers is linked to aggression, peer rejection, difficulty engaging in school and later internalizing and externalizing problems (Denham, 2006; Ozerova et al., 2023). This highlights that adaptive emotional competence serves as protective factor whereas its deficits represent a risk for later academic life and mental wellbeing.

Emotional competence unfolds within biologically prepared systems, but it is also deeply influenced by socialization and the cultural context. One key mechanism of emotion socialization is mother-child emotion discourse (Eisenberg, 2020). As primary caregivers, mothers often provide the earliest and most frequent context of emotional interactions in early years. Research suggests that mothers' use of emotion labels and explanations during the conversation is positively associated with child emotion talk, as well their emotion understanding (Cervantes & Callanan, 1998) and emotion regulation (Reschke et al., 2023). Preschoolers discuss and explore their emotions through verbal language and it also helps them in emotion regulation (Beck et al., 2012; Thümmler et al., 2022). When mothers elaborate emotions, it fosters child engagement as it allows children to makeup a cohesive story using questions which adds to the event and the meaning and associated with emotion understanding and regulation (Ambrose, 2013).

Emotion talk promotes emotional competence by enhancing children's emotion knowledge through labeling, explanation, and connections to prior experiences, enabling greater awareness of one's own and others' emotions and their consequences (Bassett et al., 2012; Peet et al., 2025). In turn, higher emotion knowledge is associated with more positive socioemotional behaviors and stronger peer relationships (Izard et al., 2011), as it allows

children to interpret emotional cues more accurately and respond in socially appropriate and relationship-enhancing ways (Ferrier et al., 2020). In the long term, supportive mother-child emotion socialization plays a protective role in children's emotional and behavioral development by strengthening their ability to cope with anxiety and other internalizing and externalizing difficulties (Robson et al., 2020; Johnson et al., 2017). In contrast, non-supportive or emotionally dismissive responses are associated with poorer emotion knowledge, weaker social skills, and increased behavioral problems, as shown in meta-analytic evidence (Johnson et al., 2017).

Social constructivist theory developed by Vygotsky suggests that human interaction allows the creation of a model of social world in which language plays a pivotal role in construction of reality which explains the link between mother child emotion talk and emotional competence (Hurwitz, 2009). In addition to maternal influence, another vital influence on child's environment is siblings, who are often neglected in family research but may act as core relational subsystem that shape child's emotional competence (McHale et al., 2012). Through interaction and relationships, emotions are socially constructed and get into the at present shape and meaning in larger socio-cultural context (Hoemann et al., 2019). Preschoolers having siblings provide them an opportunity to experience a diverse range of emotions that helps them to have better emotion language which is socially appropriate (Denham, 1998), and helps better emotion understanding (Aslanova et al., 2024). Hence, we aimed to understand the association of siblings with emotional competence and socialization among preschoolers.

Culture also influences emotion socialization through culturally defined "should rules" which prescribe how a person should feel or express given a certain situation (Eisenberg, 2020 ;Raval & Walker, 2019). Even labeling of emotions is done using the given cultural lexicons, affect valuation also differs based on culture (Chan et al., 2022). Research indicates that maternal use of emotion language in mother-child interaction varies across the cultural contexts (Doan & Wang, 2010). However, most of the empirical work on emotion socialization and development has been conducted in Western countries (Denham, 2007). The present study addressed this gap by examining emotional competence and emotion socialization in a non-Western context, Pakistan.

Preschool age presents a critical period for examining emotional competence due to the influence of age on child's development progress (Denham, 1986). During the preschool years children start identifying basic emotion and improve significantly in language, effortful control and motor skills that enhances their ability to regulate emotions in frustration evoking situations (Cole, Martin & Denis, 2004). Preschool age is characterized by rapid emotional and personal development (Fomina et al., 2023; Joukova et al., 2023). Around 3 years of age, children are expected to develop noticeable gains in autobiographical memory although the development even begins earlier (Fivush, 2020; Nelson & Fivush, 2019; Ross et al., 2019) that helps children to engage in emotion laden conversations. By the age of 4 years, children begin to understand personal and other emotions, and this emotional experience is reflected in the process of verbal communication. We aimed to examine the link between early socialization and emotional competence among preschoolers, as the developmental progress makes the preschool period suitable (Bukhalenkova, 2024).

Longitudinal research shows that adequate emotion development in childhood predict a wide range of outcomes in later life, including interpersonal behaviors, achievement, healthy lifestyle, and mental health (Robson et al., 2020), particularly including effective emotion regulation as well as secure, trusting and supportive interpersonal relationships while negatively related with unemployment, depression, anxiety, criminal behaviour, obesity, symptoms of physical illness and substance abuse in adulthood (Fraley, 2002; Raby et al., 2014; Robson et al., 2020). In contrast, early difficulties in emotional competence are associated with heightened emotional reactivity, increased risk of internalizing and externalizing problems, alongside interpersonal difficulties such as poor relationship quality and challenges in social adjustment in later life (Groh et al., 2017). Despite the significance of emotional competence in early childhood, research on young children's emotional competence has been somewhat

sparse in Pakistan. Though recently developed programs have highlighted the need to study effect of interventions aimed at parental socialization of emotion and its effect on self-regulation of emotions (England-Mason & Gonzalez, 2020). A multi-informant prevalence study (Syed & Haidry, 2009) reported that approximately one third (34.4% rated by parents and 35.8% rated by teachers) of Pakistani children fell within the abnormal range on measure of emotional and behavioral difficulties; strength and difficulties questionnaire (SDQ). Additionally, series of studies by Nawaz and Lewis (2014 & 2017) identified delays in social understanding among Pakistani children and less frequent use of mental state language by both mothers and children that there is a lag when it comes to Pakistani children's social understanding skills. These existing evidence from Pakistan highlight the presence of social and emotional problems, but it does not talk about the early socialization processes associated with adaptive emotional competence in Pakistani context.

Hence, the present study aimed to investigate the association between mother-child emotion talk, emotional competence among Pakistani preschoolers (aged 4 to 6 years), while also considering the context of siblings and age. Mother-child dyads are used because the development of emotional competence in children occurs in a socio-cultural context and knowledge is developed through close interaction with experienced adults and much of early socialization is carried out through interaction with mothers (Boiger & Mesquita, 2012). Preschool years represent an important developmental period, as children begin to identify their own and others' emotions and possess sufficient language skills to discuss emotion laden and neutral topics (Neal, 2014), yet there is not substantial empirical work that has examined the link of child's emotion talk with emotional competence. Thus, we also aimed to explore the association of child's emotion talk on emotion understanding and emotion regulation among preschoolers.

Method

Hypothesis

1. Emotion talk is positively related with emotion understanding and constructive coping strategies but negatively related with avoidance and venting coping strategies.
2. Mother emotion is positively associated with child emotion talk.
3. Child emotion talk is positively associated with emotion understanding and constructive coping strategies but negatively related with avoidance and venting coping strategies.
4. There will be a difference between children of 4 years to 4 years 11 months and 5 years to 5 years 11 months on emotion talk, emotion understanding and emotion regulation.
5. Number of siblings of the child is positively related with emotion talk, emotion understanding, and constructive coping strategy but negatively related with venting and avoidance coping strategies.

Participants

Around 63 dyads were approached from Islamabad and Rawalpindi, 50 mothers gave their consent for participation. Twenty dyads could not be assessed due to availability issues and/or withdrawal from the study. Therefore, a **s**ample of 30 Pakistani preschoolers (17 boys, 13 girls; mean age = 60.13 months, *SD* = 7.56) along with their mothers (mother's mean age = 32.7 years, SD = 4.30) were assessed. Dyads were recruited from Islamabad and Rawalpindi through convenient sampling. Children were categorized into younger (4 years-4 years 11 months) and older preschoolers (5 years-5 years 11 months), the number of siblings of the children ranged from 0 to 5 ($M = 3$, $SD = 1.08$) (see appendices for detailed sample characteristics). All participating families spoke Urdu as primary language and children were enrolled in the nurseries to ensure similar learning exposure.

Measures

The Denham's Affective Knowledge Test and instructions for Emotion Talk Task and Locked Box Task were translated and adapted into Urdu using the WHO guidelines of translation and adaptation of instruments (2000) and the Brislin Model (1980) (see Table 2 for descriptive statistics).

Emotion Understanding: Affect Knowledge Test (AKT; Denham 1986)

Children's emotion understanding was measured with the AKT that has two subscales: affective labelling (recognition of basic emotions) and perspective taking (inference of emotions from social context). The materials needed for administration included four-line drawing felt faces, three hand puppets (a mother, a male child, and a female child; see Fig 1) and 3-4 small blocks. First affective labelling task was administered for receptive knowledge (pointing to a face after hearing the verbal label) and expressive knowledge (providing a label themselves for each face). Children received 2 points for correct identification of emotion, 1 for identifying only the valence and 0 for incorrect response. Scores could range from 0 to 8 for both expressive and receptive knowledge (Denham, 1986). Second, perspective taking ability was assessed using 20 puppet vignettes accompanied by vocal and visual emotion cues. Eight vignettes showed stereotypical situations, and twelve depicted non- stereotypical situations based on parent questionnaires about child's likely emotions in a social situation. Scoring followed the same 0-2 system as for affective labelling; scores ranged 0-16 for stereotypical knowledge and 0-24 for non-stereotypical knowledge. The overall score of AKT labelled as affective aggregate was also measured to be used for further analysis along with the subscales.

Emotion discourse: Past Event Conversations/ Autobiographical Recall

Mother-child emotion talk was assessed using autobiographical recall in which dyad discussed two past events; one when the child was upset and one when the child felt happy. Mothers were instructed to discuss sad event first; avoid routine (e.g. birthday) or scripted events such as movies (Bird and Reese, 2006), events that child also remembered and might elicit children's emotional experience such as a picnic were included (Haden, Haine and Fivush, 1997). The dyad was left alone to talk naturally for 2.5 minutes per event, with a prompt to switch topics and the conversations were audio-taped for coding.

Observational Coding. First step was to transcribe the conversations and then coded for both mother and child emotion talk using Mind-mindedness coding manual (Meins and Fernyhough, 2015). The verbatim was divided into conversational turns and identified as one speaker's utterance followed by the other (Ensor and Hughes, 2008). Emotion labels were coded when the speaker referred to an affective state (happy, sad, afraid, angry, worried, like, interest, fun, surprised, enjoy, excited, upset and feeling better or worse), excluding the repetitions and imitative use of labels. Explanations were coded when a reason for the emotion label was provided, including causes, behavioral results, elicitation to give more information regarding the emotion and interventions to deal with the emotion. For each dyad, the overall mother emotion talk, child emotion talk, and mother-child emotion talk were computed by dividing number of labels and/ explanations by number of conversational turns.

Emotion Regulation: Locked Box Task

The locked box task (PS Lab-TAB; Goldsmith et al., 1999) was utilized to elicit frustration in children and assess emotion regulation (Cole and Deckard, 2009). The materials needed for the task included a transparent plastic box, toys, a padlock with key and a set of keys that does not open the padlock (Fig. 2).

The child was seated on table and chair suiting his size requirements facing the camera to make sure a clear view of the child (Goldsmith et al., 1999). Children were asked to select a toy of which was then placed inside transparent box. The experimenter made sure that the child can open the lock with key, then the child was given an incorrect set of keys. The child was asked to try to open the box for four minutes, while mothers were instructed not to help. After four minutes the right key was provided by researcher saying that she must have given the wrong set of keys, and child was allowed to open the box and play with the toy. Sessions were videotaped and coded for emotion regulation strategies in four one-minute intervals that each consists of six 10-second epochs. Thirteen emotion regulatory behaviors (Jahromi et al., 2008; Jahromi et al., 2012) were observed and grouped into three coping strategies *constructive strategies*

('goal-directed behaviors, social support-orienting to experimenter or parent, social support with and without verbal assistance seeking, self-soothing and other-directed comfort seeking'), *venting strategies* ('vocal venting, physical venting, self-speech and disruptive behavior'), and *avoidance strategies* ('avoidance, distraction, and alternative strategies') (Jahromi et al., 2012).

Fig. 1. Puppets for perspective taking.

Fig. 2. Locked Box Task

Procedure

All assessments were carried out during a home visit by the researcher. Mothers received verbal study information by phone and provided written consent upon the researcher's arrival, verbal assent was taken from children. The session lasted approximately 90 minutes. First, mothers completed the parent questionnaire from Denham Affective Knowledge Test (AKT; Denham 1986), while the child completed the *AKT* with the researcher. Afterwards, the dyad completed the autobiographical recall task which was audiotaped. The session concluded with locked box task (PS Lab-TAB; Goldsmith et al., 1999) which was video-recorded to measure emotion regulation behaviors (see Table 1 for descriptive statistics).

Results

Table 1: *Descriptive Statistics*

Variable	M	SD	α	Range		Skewness
				Min	Max	
Emotion Understanding (AKT)						
Affective Aggregate	42.40	8.52	.88	24	55	–.90
Affective Labeling	12.30	2.59	.68	6	16	–.93
Expressive Knowledge	5.53	1.72	.60	2	8	–.83
Receptive Knowledge	6.77	1.38	.60	3	8	–.89
Affective Perspective Taking	30.10	6.94	.87	14	40	–.64
Stereotypical Knowledge	12.43	2.78	.70	6	16	–.63
Non-stereotypical Knowledge	17.67	4.36	.79	7	24	–.69
Emotion talk task			1.00*			
Mother talk						
Frequency of labels (M)	12.30	6.90		3	33	1.10
Mother emotion talk (labels)	.27	.17		.04	.67	.98
Frequency of explanations (M)	9.83	4.49		2	19	–.12
Mother emotion talk (labels and explanations)	.49	.31		.07	1.39	1.17

Child talk					
Frequency of labels (C)	1.67	2.32	0	10	2.36
Child emotion talk (labels)	.03	.04	.00	.15	1.20
Frequency of explanations (C)	0.70	0.91	.00	3.00	.94
Child emotion talk (labels and explanations)	.05	.05	.00	.17	.88
Mother-child talk					
Frequency of labels (MC)	13.90	8.50	4	41	1.64
Mother-child emotion talk (labels)	.15	.10	.04	.45	1.20
Frequency of explanations (MC)	10.50	4.50	3	21	.04
Mother-child emotion talk (labels and explanations)	.29	.18	.07	.90	1.50
Positive valence labels (mother-child)	8.40	5.60	1	25	1.50
Negative valence labels (mother-child)	5.20	3.70	0	13	.48
Emotion regulation		.87*			
Constructive coping	31.13	8.00	14	47	–.25
Avoidance coping	8.10	5.90	0	19	.25
Venting coping	6.50	5.79	0	22	.90

M = mother, C = child. Two coders transcribed 10% of transcripts, * is kappa statistics.

Table 1 presents descriptive statistics indicating substantial variability in mother and child emotion talk variables. Emotion talk was higher in mother than children, whose labels use showed a positively skewed distributions, however, values did not indicate severe deviation from normality. Internal consistency of the emotion understanding subscales (AKT) ranged from acceptable to strong (α = .60 to .88). For AKT, affective labelling showed comparable receptive and expressive scores, whereas affective perspective scores were higher for non-stereotypical knowledge compared to stereotypical knowledge. For emotion regulation, the constructive coping was used most frequently followed by avoidance and venting strategies.

Correlation analysis (Table 2) showed that mothers and children who used higher emotional labels also tended to provide more explanations. Mother-child emotion talk using labels and explanations was also linked positively with more use of positive and negative valence of emotion labels. Mother emotion talk for both labels and explanations were positively associated to child emotion talk. The frequency of explanation provided by the child were positively associated with all subscales of emotion understanding, while affective perspective taking was negatively associated with avoidance coping. Mother and child emotion talk (all subcomponents), frequency of labels by child and use of positive valence emotion labels were positively associated with constructive coping strategy. In contrast, total emotion utterances by mother, and frequency of explanations provided by the dyad were negatively associated with venting coping.

Table 2: *Correlation matrix for Affective Knowledge Test, Mother-Child Emotion Talk and Emotion Regulation (N = 30)*

No.	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Affective labelling	—																			
2	Affective perspective taking	.49**	—																		
3	Affective aggregate	.71**	.97**	—																	
4	Frequency of labels (M)	-.19	-.01	-.06	—																
5	Mother emotion talk (labels)	-.18	-.12	-.15	.72	—															

6	Frequency of explanations (M)	-.01	.04	.02	**.76****	.72	—													
7	Mother emotion talk (labels and explanations)	-.13	-.14	-.15	.60**	.98	.74**	—												
8	Frequency of labels (C)	-.03	.09	.06	**.56****	.27	.17	.152	—											
9	Child emotion talk (labels)	-.003	.04	.03	.50**	**.52****	.27	**.48****	.87	—										
10	Frequency of explanations (C)	**.42****	**.37****	**.43****	-.14	-.13	-.08	-.11	.32	.37	—									
11	Child emotion talk (labels and explanations)	.14	.20	.21	.35	**.40****	.21	**.38****	.79**	.95**	.62**	—								
12	Frequency of labels (MC)	-.16	.02	-.03	.98**	**.66****	.67**	.53**	.75**	.65**	-.03	.50**	—							
13	Mother-child emotion talk (labels)	-.17	-.15	-.17	.69**	.98**	.66**	.96**	.38*	.65**	-.05	.53**	.67**	—						
14	Frequency of explanations (MC)	.07	.11	.11	.73**	.69**	.98**	.71**	.23	.34	.12	.33	.66**	.64**	—					
15	Mother-child emotion talk (labels and explanations)	-.11	-.15	-.16	.56**	.96**	.68**	.99**	.23	.57**	-.03	.48**	.52**	.97**	.67**	—				
16	Positive valence labels (MC)	-.13	-.04	-.07	**.87****	**.56****	**.56****	**.43****	**.73****	**.61****	-.04	.46**	**.91****	**.57****	**.55****	**.43****	—			
17	Negative valence labels (MC)	.11	.13	.07	.75	**.57****	**.58****	**.48****	**.49****	**.46****	.03	**.34***	**.75****	**.57****	**.59****	**.47****	**.42***	—		
18	Constructive coping	-.04	.03	.01	**.46***	**.47****	**.38***	**.43***	**.40***	**.45***	.04	.36	**.49****	**.49****	**.39***	**.43***	.53**	.22	—	
19	Avoidance coping	-.19	**-.37***	-.36	-.09	-.22	-.20	-.22	.03	-.11	-.18	-.19	-.06	-.19	-.08	-.01	-.18	-.35	.062	—
20	Venting coping	.01	-.18	-.15	-.33	-.33	**-.40****	-.31	-.07	-.14	-.06	-.12	-.29	-.31	**-.41***	-.28	-.20	-.37	.07	.06	—

*p < .05; ** p < .01; *** p ≤ .001

Table 3: *Regression analysis; mother emotion talk predicting child emotion talk (labels and explanations)*

Variable	B	β	SE	*t*	95% CI	
					LL	*UL*
Constant	.02		.02	1.11	-.02	.06
Mother Emotion talk (labels and explanations)	.07	.38	.03	2.16	.003	.13

A regression analysis (table 3) showed that mother emotional talk significantly positively predicted child emotional talk. The model was significant, F (1, 28) = 4.67, p < .05, and accounted for 14.3% of variance (R^2 = .143) in child emotion talk.

Table 4: *Regression analysis; frequency of explanations by child predicting emotion understanding (affective aggregate from AKT)*

Variable	B	β	SE	*t*	95% CI	
					LL	*UL*
Constant	39.59		1.81	21.88	35.88	43.30
Frequency of explanations by child	4.02	.43	1.59	2.53	.77	7.27

The regression analysis (table 4) showed that the frequency of explanations provided by children in emotion talk task, significantly positively predicted overall emotion understanding. The model was significant, F (1,28) = 6.41, p < .05, and accounted for 18.6% of variance (R^2 = .186) in emotion understanding.

Table 5: *Independent samples t-test for Affective Knowledge Test, Mother-Child Emotion Talk and Emotion Regulation by Age*

Variables	Younger Preschoolers (n = 14)		Older Preschoolers (n = 16)				95% CI		
	M	*SD*	*M*	*SD*	*T* (30)	*df*	*LL*	*UL*	Cohen's *d*
Affective aggregate	38.07	9.80	46.18	4.92	**-2.80***	18.60	-14.1	-2.0	1.04
Mother-child emotion talk (labels)	.10	.06	.18	.12	**-2.29***	22.40	-.15	.00	.84
Mother emotion talk (labels)	.19	.11	.30	.18	**-2.18***	25.3	-.23	-.00	.73
Child emotion talk (labels)	.02	.02	.04	.05	**-2.0***	18.3	-.05	.00	.52
Constructive coping	31	6.71	31.25	9.28	-.08	28	-6.3	5.8	.03
Avoidance coping	10.36	4.30	6.13	6.52	**2.0***	28	.03	8.4	.76
Venting coping	8.64	6.54	4.63	4.44	**2.0***	28	-.12	8.1	.71

*p < .05; ** p < .01; *** p ≤ .001

The differences between younger (4 years-4 years 11 months) and older preschoolers (5 years-5 years 11 months) (see Table 5) were examined using independent sample t-test. Older preschoolers scored significantly higher on emotion understanding (affective aggregate), with a large effect size and greater use of emotion labels than younger preschoolers, whereas younger preschoolers used more avoidance and venting coping strategies.

The association between number of siblings, AKT, and emotion regulation was assessed through bivariate correlation analysis. Higher number of siblings was significantly associated with greater use of labels (r = .47, p < .05) and explanations (r = .38, p < .05) by mothers, and increased use of labels (r = .45, p < .05) and explanations (r = .38, p < .05) in dyadic emotion talk. Similar positive associations were observed for emotion understanding with affective aggregate (r = .47, p < .05) and affective perspective (r = .44, p < .05). Having older siblings was related to higher affective labelling scores (r = .39, p < .05) and more explanations by mothers (r = .41, p < .05), and greater mother-child emotion explanations (r = .44, p < .05). In contrast, venting coping was negatively associated with the number of siblings (r = –.41, p < .05).

Table 6: *Regression Analysis; Child's Number of Siblings Predicting Mother-Child Emotion Talk, Affective Knowledge Test and Emotion Regulation*

Outcome Variable	B	β	SE	*t*	*p*	95% CI	
						LL	*UL*
Affective Aggregate	3.68	.47	1.32	2.796	.009	0.98	6.37
Affective Perspective Taking	2.82	.44	1.09	2.597	.015	0.60	5.05
Venting Coping strategy	-2.18	-.41	0.92	-2.356	.026	-4.07	-0.28
Frequency of labels (M)	3.00	.47	1.08	2.788	.009	0.80	5.20
Frequency of explanations (M)	1.59	.38	0.73	2.191	.037	0.10	3.07
Frequency of labels (MC)	3.53	.45	1.33	2.648	.013	0.80	6.26
Frequency of explanations (MC)	1.59	.38	0.73	2.179	.038	0.10	3.08
Negative valence labels (MC)	1.77	.51	0.57	3.115	.004	0.60	2.93

A series of regression analyses (Table 6) examined whether having siblings predicted emotion talk, understanding and regulation. Having more siblings significantly predicted emotion understanding with affective aggregate and affective perspective taking. Number of siblings also predicted greater mother and dyadic emotion talk, including frequency of labels, and explanations at both mother and dyadic levels and use of negative valence labels during mother-child emotion talk. Finally, number of siblings negatively predicted venting strategy showing that children with more siblings tend to use less negative emotion regulation strategies.

Discussion

The present study examined the relationship between mother-child emotion talk, and emotional competence (emotion understanding and emotion regulation) of Pakistani preschool children and the way these processes vary by age and number of siblings. Consistent with social constructivist theory, the current findings support a socially constructed pathway of emotional competence in which maternal emotion talk was associated with child emotion talk, and use of emotion by children's explanations is associated with better emotion understanding. In the current study, age and number of siblings were also associated with emotional competence; showing that the development also occurs within a broader family ecology rather than only within mother-child dyadic interaction.

As hypothesized, the findings showed that mothers who used more emotion language using labels and their explanations during autobiographical task was significantly positively associated with greater use of labels and explanations by children. This finding can be supported by theories of language-based emotional learning, which suggest that repeated exposure to emotion labels within emotionally rich and consistently valanced caregiver speech helps children form semantic and emotional associations. Over time, as children repeatedly hear specific emotion words embedded in positive or negative contexts, they are more likely to link those labels with other words and experiences that share similar emotional valence. This process strengthens children's understanding of emotional meaning by allowing them to infer similarities between emotion labels and related affective states, thereby supporting the development of emotion knowledge and more nuanced emotional categorization (Nencheva et al., 2023).

Mother-child dyadic interaction serves as early emotion socialization context through which children learn the vocabulary and scripts about emotions (Ogren & Johnson, 2020; Denham et al., 2012; Farrant et al., 2013). Mothers' use of explanations during interactions tends to increase children's engagement, as these prompts guide the child in building a clearer and more meaningful narrative by encouraging them to add details about what happened and why it mattered (Fivush, 2007; Adler & Oppenheim, 2022). Emotion-focused conversations encourage children to explore, attempt tasks, and persist despite challenges, children who receive frequent emotional validation from their mothers show greater accuracy in recognizing their own emotions than children who receive less validation (Lambie and Lindberg, 2016) and research identifies that preschoolers are highly sensitive to adults' emotional validation (Jeon & Park, 2024). These evidence from previous research helps to explain the association between mother and child emotion talk found in our study, as emotion conversations not only act as vocabulary exposure but provides an opportunity for shared meaning making process in which children learn to label emotions, explain, and discuss about emotions. Importantly, the use of emotion labels reflect recognition that emotion exists whereas explanation require reasoning about causes and consequences of emotional states displaying a deeper emotion knowledge (Nencheva et al., 2023;Price et al., 2022).

Next, it was hypothesized that child emotion talk associate positively with emotional competence which was partially supported only for emotion understanding. Our findings showed that preschoolers who used more frequency of explanations demonstrated higher level of emotion understanding. This suggest that when children engage actively with emotional content in the conversation involving explanations about the emotion labels, rather than simply reproducing the labels learned, their emotion understanding is facilitated (Nencheva et al., 2023; Farrant et al., 2013). Moreover, it can also be understood within a sociocultural framework that emphasizes the role of everyday conversations in development. Children's emotion understanding improves when they engage in explanatory dialogues, either by listening to adults' explanations or by generating explanations themselves, with gains extending beyond the specific emotions discussed. Such conversations expose children to meaningful ways of interpreting emotions and support active meaning making. By explaining emotions, children practice organizing emotional information, linking causes and consequences, and

using shared emotion language, which helps them internalize adults' testimony and construct broader, transferable theories of emotions. Thus, frequent explanatory use of emotion language appears to be associated with better emotion understanding in children (Tenenbaum, 2008).

We also found significant correlation in our study between mother-child emotion talk (using both labels and explanations) and the use of positive emotion regulatory strategies such as constructive coping strategy. Conversely, a higher frequency of explanations provided by mothers and dyad was also associated with lesser use of venting coping strategy to regulate emotions in our sample. Parental use of emotion language plays a key role in helping children acquire adaptive strategies for managing their emotions. (Zimmer-Gembeck et al., 2021). When mothers have emotion focused discussion with children, they express and encourage emotional expression in children that helps in the development of emotional regulation skills and facilitates effective coping with emotions (Rolo et al., 2024). Notably, our study also showed that the use of positive and negative valence emotion labels was positively associated with constructive coping strategy, indicating that exposure to a range of emotion vocabulary help children develop adaptive regulatory skills. In frustration evoking tasks, maternal attempts at discussing the situation, providing reframing are associated with less expressed anger and sadness which shows the influential effects of mother child emotion talk on discussion of situations. This means that using emotion labels and explanations in mother-child interaction both by mother (Peet et al., 2023) and child enhance children's ability to behave in constructive ways when faced with a frustration evoking situation. Parents often intentionally talk about emotions with their children, as they view this as an important way to strengthen their children's ability to regulate emotions (Kulkofsky & Koh, 2009), though the cultural beliefs about emotions are not explored in the current study, it can be explored in future research to examine the way culture shapes emotion talk of the dyad in Pakistani context.

Age-related differences were also evident in our study supporting the hypothesis of difference between younger and older preschooler; older preschoolers used more emotion labels and had better emotion understanding than younger preschoolers, which is consistent with developmental research showing that emotion language and ability to recognize and label emotions in various situations is more advanced with increase in age (Shablack et al., 2020; Denham et al., 2012; Rivera, 2008; Neil, 2014). In case of emotion regulation, our findings support previous results that older preschoolers tend to use fewer avoidance and venting strategies than younger preschoolers (Sanchis-Sanchis et al., 2020). The emotion regulation and ability to behave in socially appropriate ways increases with age (Neil, 2014), children start relying on their personal capacity to make efforts to resolve the task like effortful planning to open the lock.

The hypothesis regarding number of siblings was also supported in the current study showing that children with more siblings tend to have better emotion understanding, use lesser venting coping strategies and mother-child dyad used more emotion labels. These findings can be understood from a social constructivist perspective; as siblings provide a vital relational context through which children encounter diverse emotional experiences and learn to construct scripts about emotion (Kramer, 2014) and enhance their emotion understanding and regulation through siblings' interaction (Aslanova et al., 2024). It is essential for children's emotional competence that they are allowed to experience a range of emotions that is provided with presence of siblings, while being encouraged to express positive feelings and guided in managing negative emotions in socially appropriate ways (Denham, 1998). Better emotional competence of the children with more siblings in the current study also aligns with horizontal socialization theories as children learn not only from adults but also through reciprocal interactions with siblings who occupy similar hierarchical positions (Corsaro & Everitt, 2023 ; Sawyer et al., 2002). Mothers may also engage in more elaborative emotional conversation with older siblings, indirectly increasing emotional exposure for preschoolers in household (Howe et al., 2005; Mitchell & Reese, 2022) that explains the positive association between number of siblings and increased use of mother-child emotion labels. Hence, siblings function as a natural socialization system that

supports both the development of emotion language and emotional competence among preschoolers.

The current study offers meaningful insights into emotion socialization among Pakistani preschoolers; however, the very small sample size (N = 30) substantially limits the generalizability of the findings. As such, the results should be interpreted with caution and viewed as an exploratory study that provides preliminary directions for future research. Additionally, variations in children's language abilities, maternal education or socioeconomic status, important factors in emotion talk and emotional competence were not accounted for and may have influenced the findings, further underscoring the need for larger, more robust studies in this area. Future research should also focus on father-child dyadic interaction and sibling influence beyond only looking at number of siblings by accounting for factors like birth order, and/or age spacing. We attempted to address the problem of most studies coming from Western countries, however, the current study did not explore cultural beliefs about use of emotional language with the child, that can provide useful insight about early socialization in a particular cultural context. Despite these limitations, the current study highlighted the role of children's emotional language as an active influence on their socialization. Our findings extend predominantly western research by showing that conversational processes support emotional competence in Pakistani context using standardized measures and naturalistic mother-child emotion talk.

Conclusion

The process of socialization plays a vital role in emotion development of preschoolers. In early socialization of emotions, the interaction of preschoolers with the environmental factors is associated with the emotional competence. Among them, the use of emotion talk in mother-child interaction has been found positively with constructive ways of emotion regulation. Further, diverse exposure to emotional experience gives children a chance to socialize in diverse situations, associated with more frequency of emotion talk of the dyad, and emotion understanding of child. Children use this diverse experience in regulating the emotions, linked with lesser use of venting strategy when face frustrating situation.

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Conflict of Interest

The authors declare that there is no conflict of interest.

Availability of data

The data supporting the findings of current study are available upon request to corresponding author.

Ethical Approval

The study was conducted as partial fulfillment of degree and approved at National University of Science and Technology, Islamabad, Pakistan

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Appendices

Instructions for Mother-child Language interaction

(ماں اور بچے کی بات چیت کے لیے ہدایات)

آپ کو ماضی کے دو ایسے واقعات کے بارے میں بات کرنی ہے جو آپ کے بچے کے ساتھ پیش آئے
ایک واقعہ ایسے وقت کا ہونا چاہئے جب آپ کا بچہ خوش تھا۔ اور دوسرا واقعہ اس وقت کا جب بچہ اداس تھا۔
پہلے آپ وہ واقعہ بیان کریں گے جو کہ پریشان کن تھا اور اس کے بعد خوشگوار واقعہ بیان کریں۔
آپ کے پاس ہر واقعہ بیان کرنے کے لئے دو منٹ تیس سیکنڈ ہوں گے۔
اور کسی ایسے واقعہ کا انتخاب کریں جو آپ کے بچے کو بھی یاد ہو۔
اس بات کو یقینی بنائیں کہ ایسے واقعات کے بارے میں بات نہ کریں جو روٹین کا حصہ ہوں (جیسے سالگرہ) یا ایسے واقعات جن کی اپنی کوئی کہانی ہو جیسے کہ فلم وغیرہ۔
اور ایسے واقعات کا انتخاب بھی نہ کریں جو آج ہوئے ہوں۔
اور وقت مکمل ہونے پر ریسرچر آپ کو آگاہ کرے گا کہ اب آپ دوسرے واقعہ سے متعلق بات شروع کر دیں۔
بچے سے اسی انداز میں بات کریں جیسے کہ آپ گھر میں کرتی ہیں۔

Affective Knowledge Test

How My Child Feels

میرا بچہ کیسا محسوس کرتا ہے))

(Affective Knowledge Test-Parent Questionnaire)

(سوالنامہ برائے والدین)

آپ کا بچہ مندرجہ ذیل صورتحال میں کیسا محسوس کرے گا۔ درست جواب کے گرد دائرہ لگائیے۔ (اگر آپ نے ایسی صورتحال نہیں دیکھی تو اندازہ لگائیے کہ آپ کا بچہ کیسا محسوس کرے گا۔)

1. سکول جانا۔ (اداس/خوش)
2. ائیرپورٹ جانا، جہاز وغیرہ کو دیکھنا۔ مگر والدین میں سے کسی ایک کو سفر پر جاتے ہوئے دیکھنا۔ (اداس/خوش)
3. آپ کے بچے کا پسندیدہ کھانا کونسا ہے جو اسے بہت خوش کر دیتا ہے۔_____
   آپ کے بچے کو کونسا کھانا سب سے کم پسند ہے۔_____
4. اپنے بچے کو کھانے کے لیے اندر بلانا جبکہ وہ باہر کھیل رہا ہو۔ (خوش/غصہ)
5. ایک بڑے مگر نقصان نہ پہنچانے والے کتے کو دیکھنا۔ (خوش/ڈرا ہوا)
6. پانی میں تیرنے کے لیے جانا۔ (خوش/ڈرا ہوا)
7. جب دوسرے بچے آپ کے بچے کو کھیلنے نہ دیں۔ (غصہ/اداس)
8. جب بچے کو بتایا جائے کہ اسے گھر رہنا ہے جبکہ گھر کے باقی سب لوگ آئس کریم کھانے جا رہے ہیں۔ (غصہ/اداس)
9. بہن/بھائی مارے اور کہے کہ اگر امی یا ابو کو بتایا تو دوبارہ مارے گا/گی۔ (غصہ/ڈرا ہوا)
10. مار کھانا۔ (غصہ/ڈرا ہوا)
11. شرارت کرنے پر والدین کہیں کہ اگر دوبارہ ایسا کیا تو وہ اسے (بچے/بچی کو) سزا دیں گے۔ (اداس/ڈرا ہوا)
12. کسی قریبی دوست یا رشتہ دار کی موت دیکھی ہو۔ (اداس/ڈرا ہوا)

Puppet Measure

Teaching Phase (تربیتی مرحلہ)	Receptive (جذبات کو سمجھنا) _____ شکل کی طرف اشارہ کریں۔				Expressive (جذبات کا اظہار کرنا) اس کو کیسا لگ رہا ہے۔			
	اداس	خوش	غصہ	ڈراہوا	اداس	خوش	غصہ	ڈراہوا

Score 2 = correct emotion, 1 = wrong emotion, correct valence, 0 = wrong emotion, check box ( ) when teaching phase is complete

Puppet Situations Part 1 Script: (stereotypical)

(بہن / بھائی) **خوش**	**عائشہ / عمر:** اسلام و علیکم میں عائشہ / عمر ہوں۔ یہ میری / میرا بہن / بھائی ہے۔ ارے واہ! اس نے مجھے آئس کریم دی۔ یم (yum) مزیدار	
(بہن / بھائی) **اداس**	**عائشہ / عمر:** ہم گھر جا رہے ہیں۔ **بہن / بھائی:** میں تمہیں دھکا دے کر نیچے گرا دوں گا۔ **عائشہ: / عمر** آئی درد ہو رہا ہے آئی	
(بہن / بھائی) **شدید غصہ**	**:** میں نے ابھی ابھی ایک ٹاور بنایا ہے۔ مجھے یہ بنا کر بہت خوشی ہو رہی ہے۔ یہ اچھا لگ رہا ہے نا؟ **عائشہ / عمر** **بہن:** نہیں، مجھے لگتا ہے یہ بہت گندا لگ رہا ہے۔ میں ابھی اسے توڑتا ہوں۔ دھڑام **/ بھائی**	
(بچہ / بچی) **ڈراہوا**	شش عائشہ / عمر سو رہا / رہی ہے۔ **عائشہ / عمر:** اوہ میں خواب دیکھ رہا / رہی ہوں کہ ایک شیر میرا پیچھا کر رہا ہے۔ اوہ نہیں!!!	
(بہن / بھائی) **خوش**	**عائشہ / عمر:** امی آ گئی۔ امی مجھے چڑیا گھر لے کر جا رہی ہیں۔ چلو عائشہ / عمر۔ چلو جانور دیکھنے چلیں۔ اوہ مجھے ہاتھی کتنے پسند ہیں۔ ہم جا رہے ہیں۔ بائے بائے	
(بچہ / بچی) **اداس**	**عمر / عائشہ:** میں اپنی سائیکل چلانے جا رہا / رہی ہوں۔ ارے میری سائیکل کہاں ہے؟ کوئی اسے لے گیا۔ وہ یہاں نہیں ہے۔ کسی نے چوری کر لی۔	
(بچہ / بچی) **ڈراہوا**	عائشہ / عمر بالکل اکیلا / اکیلی ہے۔ **عائشہ / عمر:** یہاں بہت اندھیرا ہے۔ یہاں میرے ساتھ کوئی بھی نہیں ہے۔ اووو۔	
(ماں / بچہ) **شدید غصہ**	**عائشہ / عمر:** مجھے گوبھی کھانا پسند نہیں۔ **امی:** تمہیں یہی کھانا پڑے گا۔ بس **عائشہ / عمر:** اخ! (Ugh) نہیں نہیں	

Puppet Situations Part 2 Script: (Non-stereotypical)

	یہ ہیں عائشہ / عمر اور انکی امی۔		
	خوش: عائشہ / عمر: ہم سکول جا رہے ہیں۔ مجھے یہاں اچھا لگتا ہے۔ ہمیں یہاں بہت مزہ آتا ہے۔	**اداس: عائشہ / عمر:** ہم سکول جا رہے ہیں۔ مجھے یہ جگہ بالکل نہیں پسند۔ مجھے امی یاد آتی ہیں۔ آپ نہ جائیں، امی۔	
	(ماں / بچہ)		
	خوش: عائشہ / عمر: ہم ائیر پورٹ جا رہے ہیں۔ امی سفر پر جا رہی ہیں۔ کتنا مزہ آئے گا جہازوں کو دیکھ کر۔ واہ! زبردست	**اداس: عائشہ / عمر:** ہم ائیر پورٹ جا رہے ہیں۔ امی سفر پر جا رہی ہیں۔ میں نہیں چاہتا / چاہتی کہ امی جائیں۔ امی نہ جائیں!!	
	(ماں / بچہ) **: عائشہ / عمر:** اسلام وعلیکم امی: آپ کیا پکا رہی ہیں۔		
	شدید غصہ: امی): پسندیدہ کھانے کا نام) **عائشہ / عمر:** اخ (Ugh! Yuck) میں نہیں کھاؤں گا / گی۔	**خوش: امی)** سب سے کم پسندیدہ کھانے کا نام) **عائشہ / عمر:** یم (yum) یہ تو بہت مزے کا ہے۔	
	(ماں / بچہ) **: امی: عائشہ / عمر** اندر آجاؤ کھانا کھالو۔		
	خوش: عائشہ / عمر: میں جھولا جھول رہا / رہی ہوں لیکن مجھے بھوک بھی لگی ہے۔ اور امی کھانا بھی مزے کا بناتی ہیں۔ میں اندر جاتا / جاتی ہوں۔ اچھا، امی۔	**شدید غصہ: عائشہ / عمر:** میں جھولا جھول رہا / رہی ہوں۔ مجھے ابھی اور جھولا لینا ہے۔ میں باہر رہنا چاہتا / چاہتی ہوں۔ نہیں نہیں میں اندر نہیں آؤں گا / گی۔	
	(بچہ / بچی)		
	ڈرا ہوا: عائشہ / عمر: دیکھو اتنا بڑا کتا آ رہا ہے۔ وہ ڈراؤنا لگ رہا ہے۔ اس کے دانت کتنے بڑے ہیں۔	**خوش: عائشہ / عمر:** دیکھو اتنا بڑا کتا آ رہا ہے۔ وہ کتنا پیارا لگ رہا ہے۔ مجھے دیکھ کر مسکرا رہا ہے۔	
	(بہن / بھائی)		
	خوش: عائشہ / عمر: آج بہت گرمی ہے۔ اور ہم تیرنے جا رہے ہیں۔ تیرنے میں بہت مزہ آتا ہے۔ مجھے پانی میں رہنا اچھا لگتا ہے۔	**ڈرا ہوا: عائشہ / عمر:** آج بہت گرمی ہے۔ اور ہم تیرنے جا رہے ہیں۔ مجھے یہ پانی نہیں پسند! یہ بہت گہرا ہے۔ اوہ پانی میرے منہ پر پڑ رہا ہے۔ مجھے یہاں سے باہر نکالو۔	
	(بہن / بھائی) **عائشہ / عمر:** ہم بلاکس سے کھیل رہے ہیں۔ ہم اس سے ایک گھر بنا رہے ہیں۔ **بہن / بھائی:** میں علی کے ساتھ کھیلنے جا رہا / رہی ہوں اور تم نہیں آسکتی / سکتے۔ بچارے / بچاری تم۔		
	شدید غصہ: (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	**اداس:** (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	
	(ماں / بچہ (**امی:** ہم آئس کریم لینے جا رہے ہیں۔ مگر تم گھر پہ ہی رہو گے / گی۔ بائے بائے		
	شدید غصہ: (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	**اداس:** (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	

	(بہن / بھائی (**بہن / بھائی:** تم برے بہن / بھائی ہو۔ اگر تم نے امی ابو کو بتایا کہ میں نے تمہیں مارا ہے تو میں تمہیں پھر ماروں گا۔ اور زور سے۔		
	شدید غصہ: (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	**ڈرا ہوا:** (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	
	(ماں / بچہ (**امی:** تم نے برا کام کیا، (امی نے بچے کو ہلکا سا تھپڑ لگایا۔)		
	شدید غصہ: (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	**ڈرا ہوا:** (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	
	(ماں / بچہ) عائشہ / عمر نے امی کا جوتا اٹھایا اور پہن لیا۔ **امی:** میں نے تم سے کہا تھا کہ میرا جوتا نہ اٹھانا، اس کے بعد اگر تم نے ایسا کیا تو میں سزا دوں گی۔		
	اداس: (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	**ڈرا ہوا:** (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	
	(ماں / بچہ (**امی:** آپ کے دادا ابو فوت ہو گئے ہیں اور اب آپ کبھی ان سے نہیں مل سکو گے۔		
	اداس: (عائشہ / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	**ڈرا ہوا:** (عائش / عمر اپنے جذبات کا عملی طور پر اظہار کرتا / کرتی ہے)	

Attractive Toy in a Transparent Box

(شفاف ڈبے میں دلکش کھلونا)

(تین سے پانچ سال کے بچوں کے لیے ہدایات) **(Instructions for children age 3 to 5)**

ان میں سے کونسا کھلونا آپ کو زیادہ پسند ہے۔ گڑیا، گیند یا گاڑی۔

ٹھیک ہے، اب ہم ایک کھیل کھیلتے ہیں۔ میں گیند (پسندیدہ کھلونا) کو اس ڈبے میں رکھوں گا / گی۔ اور پھر ڈبے کو لاک (Lock) کر دوں گا / گی۔

آپ اس ڈبے کو ان چابیوں سے کھول سکتے / سکتی ہیں۔ اور جب آپ ڈبہ کھول لیں تو آپ ان کھلونوں سے کھیل سکتے / سکتی ہیں۔ ٹھیک ہے؟

شاید میں نے آپ کو غلط چابیاں دے دی تھیں۔ آئیں ان چابیوں سے کھولنے کی کوشش کرتے ہیں۔

(چھ سے آٹھ سال کے بچوں کے لیے ہدایات) **(Instructions for children age 6 to 8)**

مجھے یہ یاد نہیں آ رہا کہ یہ تالا کس چابی سے کھلتا ہے۔

آپ ان چابیوں سے کھولنے کی کوشش کر سکتے / سکتی ہیں۔

اور جب آپ ڈبہ کھول لیں، تو جس کھلونے سے چاہیں کھیل سکتے / سکتی ہیں۔

کیا تالا نہیں کھل رہا؟