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## Editor's Note/From Editorial Desk

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*Foundation University Islamabad's mission is to nurture creativity and promote research to develop personal and professional growth of its students. Issuance of the Foundation University Journal of Psychology (FUJP) is a step forward towards this direction. The journal accepts and publishes original articles, research papers and reviews of high quality.*

*Due to interdisciplinary nature of Psychology, it is related to various other fields of study including Sociology, Anthropology, Education, Gender Issues, Organizational Behaviour, Life Sciences and Psychiatry etc. Therefore, all contributions related to these fields of study are considered for publication. As an effective means of knowledge sharing, FUJP encourages articles on theoretical perspectives, grounded theories, innovative measurement tools and procedures.*

*We are looking forward to an enthusiastic response and active participation of not only students and teachers of Foundation University, but also of all the sister institutions to make this initiative a success.*

## Mediating Role of Identity Styles between Feeling Recognition and Sense of Belonging: Moderation by Family Support

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### Abstract

**Background.** Recognition of feelings of their offspring is an essential characteristic of parenting. Recognizing feeling of their children may help parents in understanding needs and preferences of their children. Feeling recognition is an essential component of autonomy support. It is hypothesized that feeling recognition by parents lead to an increase in sense of belonging of children to their parents. The study is aimed to investigate the relationship between feeling recognition by parents and sense of belonging in children. It was hypothesized that the relationship is mediated by identity styles and moderated by family support.

**Method.** The study sample includes 500 university students (Male=244, and Female=256), age ranging from 18 to 25 years (Mean=2.35, SD = 1.54). Data was collected from different universities of Islamabad, Rawalpindi, Lahore and Mandi Bahauddin. Along with a detailed demographic sheet, data was collected on Parental Autonomy Support, Identity Styles, Sense of Belonging, and Social Support.

**Results.** The results showed that the effect of feeling recognition on sense of belonging is mediated through informative, and normative identity ( $B = .24, p < .01$ ;  $B = -.13, p < .05$ ) respectively. Further, results showed that indirect effect through both mediators is moderated by family support.

**Conclusion.** It is concluded that with low level of family support, identity styles have no role between feeling recognition and sense of belongings but as family support increases, feeling recognition contribute toward both normative and informative identity styles resulting in an increase in sense of belonging. It is recommended that family support shall be focused on interventions tailored to increase family bonding of adolescents and young adults.

**Keywords.** *Feeling recognition, perceived autonomy support, identity styles, sense of belonging, family support.*



## Introduction

Belongingness is the intrinsic desire to develop and maintain a positive, durable, and noteworthy interpersonal relationship with another human being. In order to fulfill this intrinsic desire, a person may require periodic and constant pleasant interactions with a particular individual or groups of people. Overtime these interactions become frequent, stable, and promote continuously care for each other's welfare. Need of belongingness has been emphasized in the classical writings of Freud, Adler, Jung, Maslow, and Bowlby (Seligman & Csikszentmihalyi, 2000). Sense of belonging is an important element which plays significant role in managing and developing relations. Early systematic researches described sense of belonging as acceptance and recognition of member of one group by members of other group (Anant, 1969). Thoits (1982) described sense of belonging as a basic human need. Sense of belonging is experience of personal involvement in a system or environment to become an integral part of that system or environment (Hagerty, Williams, Coyne, & Early, 1996). It is a rational and unique phenomenon which includes attributes, precursors and consequences (Hagerty et al., 1996). The study is designed to understand sense of belonging as an outcome of parents' ability of feeling recognition of their children.

Adolescence and emerging adulthood are important periods of life. Different changes happen in different aspects of life including physical, mental, and emotional. The main characteristic of this phase of development is that it bridges the gap between childhood and adulthood (Macek, 2003). This period is hallmark for adolescents and young adults for mature functioning (Steinberg, Elmen, & Mounts, 1989). During this period, it is prime responsibility of parents to support and encourage independent functioning of their children. Presenting research require enhanced focus on late adolescence and emerging adulthood (aged 18 to 25 years) because children initiate independent functioning in adolescence and nurture and mature it during early adulthood. During this stage, there is transition from semi-autonomous life to fully independent living that involve behavioral changes and developing and recognizing a clear sense of self and identity. Process of exploring identity and individuation are salient during adolescence and emerging adulthood (Arnett, 2000).

Autonomy is defined as the sense of choices and willingness that an individual experience when one behaves in way which is congruent with self-endorsed values and interest (Deci, La Guardia, Moller, Scheiner, & Ryan, 2006). Acknowledging and inquisitive feeling of others' supporting self-initiation and choices made by self and making consequential rationale for request are part of autonomy (Moreau & Mageau, 2012). Several studies concluded that parental autonomy support plays significant role in developing adaptive and favorable outcomes in adolescents (Grolnick, Deci, & Ryan, 1997). Parents who give autonomy support to their children were high in self-determination, academic grades and achievements, relatedness and competence (Grolnick & Ryan, 1989). A study showed that students who perceive autonomy support from their parents were more motivated and have less behavioral problems (Chirkov & Ryan, 2001).

Parental autonomy support plays an important role in formation of identity styles during adolescence (Smits et al., 2008). Autonomy supportive parents accommodate the needs of their children and they try to empathize with the perspective of their children. These parents provide options and choices to their children while making decision to solve problems and encourage their children to behave and develop according to their personal interest and values. supportive parents tend to form informative identity style. While the parents who are controlling or do not provide options and choices to their children when they are making decisions about their lives, tend to form normative and diffusive identity styles (Matheis & Adams, 2004).

Eriksson (1968) described that individual do not develop identity through imitating others but they synthesize and modify prior identifications into new psychological structure. To develop identity, individuals must organize their needs, interest, desire, and abilities which they can use in a social context. In ideal situations, an individual develops ability to be responsible for his own decisions which he makes in different situations. The individuals with informative identity style are self-explanatory and while making decisions they evaluate all the information and then make decisions (Berzonsky, 1993).

The individual with normative identity style does not assess the information actively rather they follow norms. These people tend to intimate others and have low patience (Berzonsky, 2003). The individual with avoider or diffuse identity style procrastinate when making any life decision or while dealing with personal problems until situational demands dictate course of action (Berzonsky, 1993).

The identity development during adolescence may further shape individuals' sense of belonging. It is evidenced that normative and informational identity style have an incremental impact on development of sense of belonging and diffusive identity style is negatively correlated with development of sense of belonging (Karkani, 2016). It is also evidenced that autonomy supportive parents tend to increase contribution to the reinforcement of sense of relatedness or sense of belonging (Koepke & Denissen, 2012; Sheldon & Bettencourt, 2002; Soenens & Vansteenkiste, 2005). Moreover, different researches investigating parental autonomy support and relatedness, suggested that they are linked to each other in such way that one dimension could be considered as implicit in other and that they are complementary in their function. Parental autonomy support raises both children autonomy and relatedness (Sheldon & Bettencourt, 2002; Soenens & Vansteenkiste, 2005). This study aims to investigate the mediating role of identity styles on the relationship between feeling recognition and sense of belonging in late adolescent and early adulthood. In present study, it is hypothesized that the indirect relationship between feeling recognition and sense of belonging mediated by identity styles is further moderated by social support. We hypothesized that a supportive home environment i.e., family support will strengthen the mediating role of informative identity style and weaken the mediating role of normative and diffuse identify styles.

## Method

### Participants and Procedure

The proposed research plan was submitted to IRB-NIP and was approved for execution of the research. The sample of the present study included 500 adolescents and young adults, age ranging from 18 to 25 years. Mean age of participants was 20.35,

and SD = 1.54 years. Data was collected from both male ( $n = 244$ ) and females ( $n = 256$ ) university students of different cities of Pakistan (Islamabad, Rawalpindi, Lahore, and Mandi Bahauddin). A total of 183 (36.6%) of students were residing in hostel/dormitories whereas remaining 317 (63.4%) were living with families. Participants belonging to joint family system constituted 42.2% of the sample and remaining 57.4% were from nuclear family system. The mean for mother and father education is 10.55 and 12.95 years of formal schooling respectively. Further, average monthly family income of participant was 81.25 thousand.

### Measurements

**Identity Styles Inventory (ISI-V).** Revised version of identity style inventory was used (Berzonsky et al., 2013). Identity style inventory consist of four dimensions of identity styles including normative, informative, diffusive/avoidant identity style and commitment consisting of 9 items each. Four items of the scale are reversed coded. High score on each of the dimension suggest more endorsement of the particular identity style. Author of the scale recommend to relay on first three dimensions due to instability of commitment dimension. The instrument has good alpha reliability for informative, normative, and diffusive/avoidant identity style i.e.,  $\alpha = .74, .79, .83$  respectively (Berzonsky et al., 2013).

### Perceived Parental Autonomy Support Scale (P-PASS).

Perceived parental autonomy support scale is developed by Mageau et al. (2015). The scale has two dimensions: autonomy support and controlling behaviors. Autonomy support consists of three subscales that include offering choice, explaining reasons, and feeling recognition. The controlling behaviors dimension consists of three subscales including threat to push the child, inducing guilt, and encouraging performance goals. Responses are collected on a 7-point rating scale from do not agree at all (1) to very strongly agree (7) and measures both mother's and father's behaviors. Internal consistency for both mother and father is .89. In present study feeling recognition subscale of autonomy support was used as the sole predictor and the alpha reliability for feeling recognition was .90 (Mageau et al., 2015).



**Sense of Belonging (SOBI).** Sense of belonging was measured using the sense of belonging questionnaire (Hagerty & Patusky, 1995). There are two components of the instrument. First, sense of belonging-psychological which is used to measure perceived level of sense of belonging. Second, sense of belonging-antecedents which measures the precursor of sense of belonging. Both dimensions consist of 14 items each and responses are collected on a four-point Likert type scale ranging from strongly agree (1) to strongly disagree (4). Cronbach's alpha reliability of SOBI-P is  $\alpha = .93$  and SOBI-A is  $\alpha = .76$  (Hagerty et al., 1996). In the present study psychological component of sense of belonging is used as the study outcome.

**Multidimensional Scale of Perceived Social Support (MSPSS).** Perceived social support was measured using multidimensional scale of perceived social support (Hagerty et al., 1996). The scale consists of three subscales which includes significant others subscale, family subscale and friends subscale. Each subscale is measured with four items on a 7-point rating scale ranging from very strongly disagree (1) to very strongly agree (7). Reliability for all subscales i.e. family support, friends support and significant others support is  $\alpha = .86, .86$  and  $.88$  respectively (Bruwer, Emsley, Kidd, Lochner, & Seedat, 2008). In the present study, family support component of the scale was used.

## Results

Prior to testing of the proposed hypotheses, preliminary analyses were conducted to take an overview of the data in order to assess suitability of the data for parametric testing. Study variables were normally distributed with skewness and kurtosis ranging within recommendations i.e.,  $\pm 1$ . Bivariate correlations showed that age is significantly positively correlated with sense of belonging ( $r = .16, p < .01$ ). Gender is positively correlated with normative and diffuse identity style ( $r = .23, \text{ and } .16$  respectively;  $p < .01$ ) and negatively correlated with sense of belonging ( $r = -.10, p < .05$ ) suggesting that being female is associated with increased normative and diffuse identity and decreased sense of belonging. Family income was associated with decreased normative and diffused ( $r = -.16, \text{ and } -.12$  respectively;  $p < .01$ ) identity style and increased feeling recognition by both mother and father ( $r = .12, \text{ and } .11$  respectively;  $p < .05$ ) and sense of belonging ( $r = .09, p < .05$ ). Correlations with family system showed that belonging

to combine family system was associated with decreased informative identity ( $r = -.11, p < .05$ ) and increased normative and diffused identity ( $r = .16, \text{ and } .17$  respectively;  $p < .01$ ). Furthermore, being a participant from combine family system was also associated with decreased family support ( $r = -.10, p < .05$ ) and sense of belonging ( $r = -.12, p < .01$ ). Father education was not significantly related with study variables. Contrary to that increase in mothers' formal years of schooling was associated with decreased normative and diffused ( $r = -.11, \text{ and } -.12$  respectively;  $p < .05$ ) identity styles and increased feeling recognition by both mother and father ( $r = .12, p < .01$ ) as well as with an increased sense of belonging ( $r = .15, p < .01$ ).

Informative identity style was associated with increased feeling recognition by both mother and father ( $r = .25, \text{ and } .28$  respectively;  $p < .01$ ), increased family support ( $r = .28, p < .01$ ), and sense of belonging ( $r = .15, p < .01$ ). Normative identity style was associated with decreased feeling recognition by both mother and father ( $r = -.11, \text{ and } -.10$  respectively;  $p < .05$ ) as well with decreased sense of belonging ( $r = -.28, p < .01$ ). However, diffuse identity style was only associated with decreased family support ( $r = -.15, p < .01$ ) and decreased sense of belonging ( $r = -.39, p < .01$ ). Feeling recognition by mother was associated with increased family support and sense of belonging ( $r = .40, \text{ and } .20$  respectively;  $p < .01$ ). Feeling recognition by father was also associated with increased family support and sense of belonging ( $r = .41, \text{ and } .21$  respectively;  $p < .01$ ). Finally, family support was associated with a significant increase in sense of belonging ( $r = .38, p < .05$ ).

To test the moderated mediation of the conceptual model of the study, process macro 3.1 was used in SPSS (Hayes, 2017). Controlling for the effect of covariates including participant age, gender, education, number of siblings, family system, residence, mother, and father education, and social desirability, direct and indirect (though identity styles) effect of feeling recognition by mother was estimated on sense of belonging. Furthermore, interaction terms were incorporated to estimate moderation by family support for both direct and indirect effect. Result presented in Table 3 showed that feeling recognition by mother increased informative identity style ( $B = .22, p < .01$ ) yet informative identity style has a non-significant effect on sense of belonging.

**Table 1: Correlation of study variables (N = 500)**

S.N	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	Age	20.35	20.35	-															
2	Gender	-	-																
3	MFI (ln 10,000)	81.23	81.23																
4	NoS	4 $\ddagger$	4	$\phi$															
5	FS	-	-																
6	RP	-	-																
7	FFE (ln years)	12.95	12.95																
8	MFE (ln years)	10.55	10.55																
9	IIS	34.90	34.90																
10	NIS	28.34	28.34																
11	DIS	25.94	25.94																
12	FR-M	20.35	20.35																
13	FR-F	19.9	19.9																
14	SBP	50.43	50.43																
15	FaS	21.90	21.90																

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

Note:  $\ddagger$  = Median,  $\phi$  = Range, MFI = Monthly Family Income, NoS = Number of Siblings, FS = Family System, RP = Residential Place, FFE = Father Formal Education, MFE = Mother Formal Education, IIS = Informative Identity Style, NIS = Normative Identity Style, DIS = Diffusive Identity Style, FR-M = Feeling Recognition-Mother, FR-F = Feeling Recognition-Mother, SBP = Sense of Belonging-Psychological Measures, FaS = Family Support

**Table 2**

Conditional indirect effect of Feeling Recognition-Mother on Sense of Belonging-Psychological Measure through Informative Normative and Diffusive/Avoidant Identity Style moderated by Family Support (N = 500)

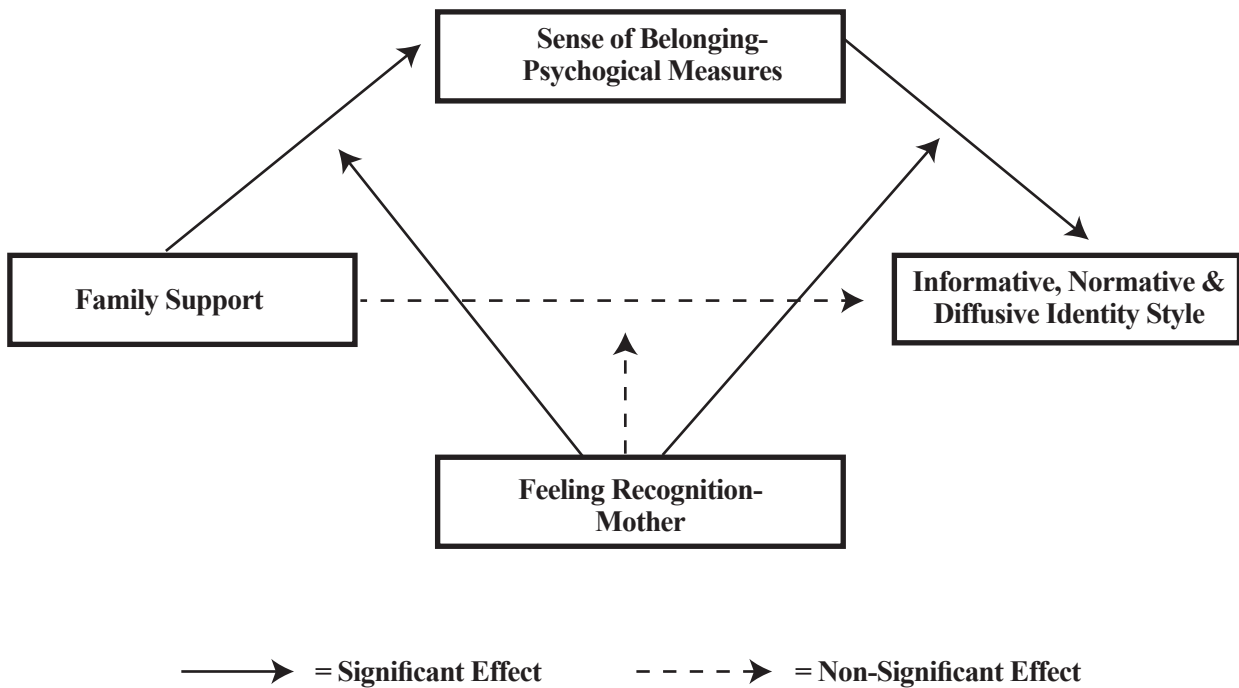
Predictor	Moderator FaS	Mediator			Mediator			Mediator			Dependent		
		IIS			NIS			DIS			SBA		
		B	95% CI LL	UL	B	95% CI LL	UL	B	95% CI LL	UL	B	95% CI LL	UL
Constant	-3.93	-12.34	4.47	-16.01**	-24.90	-7.12	-6.68	-16.73	3.36	31.65**	20.54	42.76	
Age	0.00	-0.47	0.47	0.40	-0.10	0.89*	0.53	-0.03	1.09	0.75*	0.13	1.36	
Gender	0.74	-0.39	1.87	3.24**	2.04	4.43	1.99**	0.64	3.34	0.56	-0.96	2.08	
Year of Education	0.32	-0.25	0.88	-1.16**	-1.76	-0.56	-1.25**	-1.93	-0.57	-0.02	-0.78	0.74	
Number of Siblings	-0.17	-0.45	0.11	-0.07	-0.37	0.22	0.03	-0.30	0.37	-0.07	-0.43	0.30	
Family System	-1.07	-2.21	0.07	0.49	-0.72	1.69	1.44*	0.07	2.80	-0.33	-1.83	1.17	
Residential Place	0.29	-0.43	1.01	0.18	-0.58	0.94	0.12	-0.74	0.98	-0.78	-1.77	0.22	
Mother Formal Education	0.02	-0.11	0.16	-0.12	-0.26	0.02	-0.09	-0.25	0.07	0.08	-0.10	0.25	
Father Formal Education	-0.11	-0.27	0.05	0.21**	0.04	0.37	0.04	-0.15	0.23	-0.02	-0.23	0.19	
Social Desirability	0.03	-0.04	0.09	0.36**	0.29	0.43	0.18**	0.09	0.26	0.08	-0.02	0.18	
FR	0.22**	0.11	0.34	-0.12*	-0.25	0.00	0.02	-0.12	0.15	0.01	-0.15	0.17	
FaS	0.24**	0.14	0.35	0.09	-0.02	0.20	-0.12	-0.25	0.00	0.57**	0.42	0.71	
Conditional Direct										0.01	-0.17	0.20	
	Low									0.01	-0.15	0.17	
	Medium									0.01	-0.22	0.23	
	High									-0.02	-0.14	0.10	
IIS										-0.10	-0.23	0.03	
NIS										-0.25	-0.37	-0.14	
DIS										-0.01	-0.02	0.02	
FR*FaS		0.02*	0.01	0.04	-0.05	-0.01	-0.02	-0.04	0.01				
IIS*FaS										0.02	0.00	0.04	
NIS*FaS										-0.04**	-0.06	-0.02	
DIS*FaS										-0.02**	-0.04	0.00	
Conditional Indirect													
	Low	-0.02	-0.07	0.01	-0.01	0.03	-0.02	-0.08	0.01				
	Medium	0.01	-0.03	0.03	0.01	0.07	-0.01	-0.04	0.04				
	High	0.05	0.01	0.14	0.06	0.27	0.02	-0.04	0.13				
R <sup>2</sup>		0.13		0.29			0.14			0.34			
F		5.97***		16.31***			6.41**			12.57**			
ΔR <sup>2</sup>													

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

Note: MFE = Mother Formal Education, FFE = Father Formal Education, SoD = Social Desirability FR = Feeling Recognition-Mother, FaS = Family Support, IIS = Informative Identity Style, NIS = Normative Identity Style, SBP = Sense of Belonging-Psychological Measure.

**Figure 1: Moderated Mediation Analysis**

Conceptual model for conditional direct and conditional indirect effect of Feeling Recognition-Mother on Sense of Belonging-Psychological Measure through Informative, Normative and Diffusive/Avoidant Identity Style moderated through Family Support.



Furthermore, family support positively moderated the indirect path between feeling recognition by mother and sense of belonging through informative identity style ( $B = .02, p < .05$ ). The results of the conditional indirect effect showed that the indirect path between feeling recognition by mother and sense of belonging through informative identity style was significant only in the sample with high level of family support.

Feeling recognition by mother also decreased normative identity style ( $B = .22, p < .01$ ) and normative identity style has a non-significant effect on sense of belonging but family support negatively moderated the indirect path between feeling recognition by mother and sense of belonging through normative identity style ( $B = -.03, p < .01$ ). The results of the conditional indirect effect showed that the indirect path between feeling recognition by mother and sense of belonging through normative identity style was non-significant for low level of family support but with increase in family support the indirect effect became positive and significant.

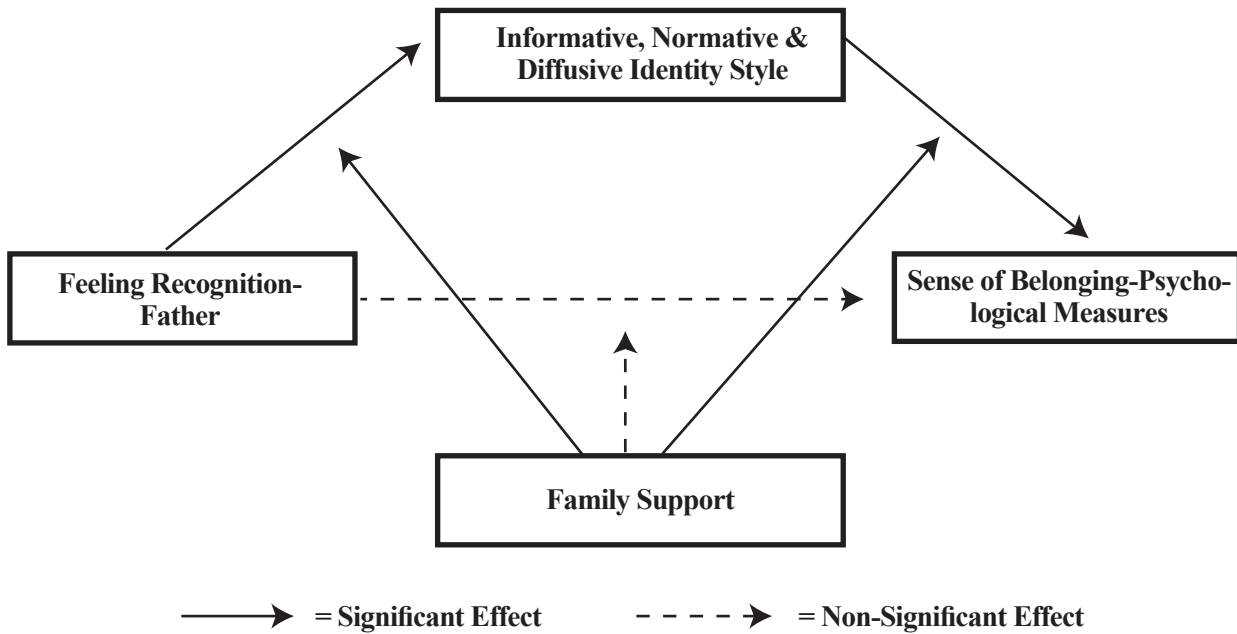
This suggested that feeling recognition by mother contributes to sense of belonging through informative and normative identity style particularly in supportive families. Furthermore, family support also negatively moderated effect of normative identity style ( $B = -.04, p < .01$ ), and diffuse identity style ( $B = -.02, p < .01$ ) on sense of belonging.

The second model was developed to estimate the direct and indirect (through identity styles) effect of feeling recognition by father on sense of belonging of children controlling for the effect of covariates (participants and family demographics), and social desirability. Similar to model one, interaction terms were incorporated to estimate moderation by family support for both direct and indirect effect. The results showed that feeling recognition has a positive significant effect on informative identity style ( $B = .24, p < .01$ ) and negative effect on normative identity style ( $B = -.13, p < .05$ ).



**Figure 2: Moderated Mediation Analysis**

Conditional Direct and Indirect Effect of Feeling Recognition-Father on Sense of Belonging-Psychological Measures through Informative, Normative and Diffusive/Avoidant Identity Style and moderated by Family Support.



Family support increased informative identity style ( $B = .21, p < .01$ ) and sense of belonging ( $B = .56, p < .01$ ) whereas diffuse identity style decreased sense of belonging ( $B = -.25, p < .01$ ). A review of interaction effects presented in Table 3 showed that family support negatively moderated effect of feeling recognitions by father on normative identity style ( $B = -.03, p < .05$ ). Furthermore, family support also negatively moderated effect of normative identity style on sense of belonging ( $B = -.04, p < .01$ ).

### Discussion

Monthly family income is negatively correlated with normative identity style but positively correlated with feeling recognition (autonomy support) by mother and psychological component of sense of belonging. The families with high economic background support their children to explore the new things and encourage them to take initiative. Hence, children of these families have more autonomy, and may they perceive themselves as an integral part of society as compared to children of families belonging to lower income group. Informative identity style appeared to be associated with an increase in feeling recognition by mother. The parental autonomy support facilitates in development of informative identity style in children.

Supportive parents give freedom to their children and provide them opportunities to make choices and to take initiatives. When children perceive support from both parents (mother and father), they explore choices even more actively. Previous researches also suggested that informative identity style is positively correlated with perceived parental autonomy support.

For instance, a research suggested that students who have support from their parents have information identity style and through this they increase their adaptive skills in any new situation and reach at the level of wellbeing (Smits, Soenens, Vansteenkiste, Luyckx, & Goossens, 2010).

Feeling recognition by mother also increased psychological component of sense of belonging. When children perceive autonomy support from parents, they may experience personal involvement in environment or system as their parents explain reasons behind their parental demands, encourage performance, and recognize child's feelings. Therefore, children feel themselves as an integral part of that environment or system (Hagerty et al., 1996).

Previous researches also suggested that there is a positive relationship between parental autonomy support and sense of belonging. A research showed that autonomy support of parents can take into many forms which may include children freedom and responsibility (Zimmer-Gembeck, Collins, & Adams, 2003). Another research showed that autonomy supportive parents tend to increase contribution to the reinforcement of sense of relatedness or sense of belonging (Koepke & Denissen, 2012; Sheldon & Bettencourt, 2002; Soenens & Vansteenkiste, 2005).

Normative identity style is associated with a decrease in feeling recognition by mother, as well as psychological component of sense of belonging. When children perceive pressure or control from parents to obey norms and values of culture, they develop normative identity style. These children do not make independent decisions as their parents do not provide them opportunities to make choices. This may marginalize children perception of self as an important part of society. Recent researches also suggested that normative identity style is negatively correlated with autonomy support (Berzonsky, 2004; Berzonsky, Branje, & Meeus, 2007). Matheis and Adams (2004) also suggested that there is negative relationship between parental support and normative identity style. The conditional indirect effect of feeling recognition by mother showed that feeling recognition increases informative identity style which in turn increased psychological component of sense of belonging particularly in supportive families (i.e., with medium and high level of social support).

Similarly, conditional indirect effect through normative identity style also increased sense of belonging in children of families having high level of social support. Feeling recognition by father appeared increased likeliness for development of informative identity and decreased likeliness of development of normative identity style in children. The conditional direct effect of feeling recognition by father on the informative identity style further increased whereas on the normative identity style further decreased for adolescents with high family support. Supportive parents provide autonomy to their children and support them to explore new things, give them freedom of choice rather than making parental demand.

Literature also suggested that parental support is positively associated with informative identity style and negatively associated with normative identity style (Matheis & Adams, 2004). Family support also increased informative identity style and sense of belonging. Children who receive support and autonomy from their family they tend to develop high sense of belonging as they perceive themselves as an integral part of society. Literature also suggested that through emerging adulthood, autonomy supportive parents along with higher degree of freedom tend to increase contribution to the reinforcement of sense of relatedness or sense of belonging (Koepke, & Denissen, 2012). Furthermore, diffusive avoidant identity style negatively predicting sense of belonging is in line with earlier research (Karkani, 2016).

The indirect path showed that the relationship between feeling recognition by father and normative identity style is moderated negatively by family support. If an individual receive family support and feeling recognition by father, the individual less likely tend to develop normative identity style. Furthermore, family support also negatively moderated the effect of normative identity style on sense of belonging. A family who support children with normative identity style do not feel themselves as an integral part of the society as they obey society norms and values due to conformity or because of their parental demand.

The conditional indirect effect of parental support on psychological component was positive via informative and normative identity style and this positive effect increases as individual perceive support from family. If parents are supportive and individual has informative and normative identity style, then he perceives himself as an integral part of society and his feeling of belonging increases if he perceives social support.

### **Limitations and Suggestions**

The present study has some limitations in methodology which could affect the results. At first, all the scales were self-report measures. When we collect subjective information from participants it may cause problem of self-presentational bias. Therefore, it is suggested to future researchers that for measuring perceived parental autonomy support they should use multi-informant format to collect data.

Secondly, sample is selected from four cities of Pakistan so data is not representative of all Pakistani adolescents therefore we cannot generalize our findings. Thirdly, it was a correlational research that restricts causal inferences which can be drawn from result with regard to developmental trends of relatedness and autonomy. Therefore, it is suggested to future researches to conduct longitudinal studies on participants from early adolescents to emerging adulthood.

Lastly, findings of present study are also limited because they concern only Pakistani adolescents. Research in different cultures is very important because there are many factors in culture which can affect parental support and development of identity. Therefore, more cross-cultural researches are needed in order to investigate deeply the impact of culture.

### Implications

The present study has some important implications. Investigated links adds to literature of parental autonomy support and development of sense of belonging. With the help of present research findings, different intervention programs can be designed to help adolescents during this transition. Findings will also be helpful for family therapist. Interventions can be designed for parents to give different techniques and awareness to deal with adolescents. Various instructional and educational program related to parenting of adolescents and young adults should be conducted to give guidance.

### Ethics and consent to participate

Inform consent was taken at the time of data collection. Confidentiality of data was ensured, and participant had the right to withdraw.

### Authors Contribution

Malik, J. A., conceptualize the idea of the study, contributed to study design, contribute in the analysis, contribute in result section, review the manuscript before submission and made required modifications. Malik, S. F., contributed in the study design, completed the manuscript including introduction, literature and conclusion. Edited the manuscript before submission. Riaz, I., contributed in literature review, and contributed in data collection procedures.

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## Development and Validation of the Boarding School Climate Scale (BSCS)

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### Abstract

**Background.** Boarding schools not only provide boarders with education but also focussed to groom the students intellectually, socially, and emotionally. The term boarding school climate is considered to have unique features that appear to significantly differ from the climate of day school. As compared to the day schools, boarding institutes provide residential settings, having a highly structured and organized daily routine, and ample opportunities for learning and engaging in co-curricular activities. Numerous scales were developed to evaluate the day school climate; however, studies aiming to explore and assess the boarding school climate are sparse.

**Method.** The Boarding School Climate Scale (BSCS), comprises of 68 items, it was developed using the triangulation technique; we employed an open-ended questionnaire, followed by focus group discussions with current boarding students, and literature review. The scale was administered on a sample of participants drawn from 7 public and private-sector boarding schools and colleges of Pakistan. We used the purposive sampling technique ( $N=738$ , amongst these, there were 635 males, 103 female students). Only those included in the study, who gave written informed consent to participate in the study. The mean age of students was 15.4 years with the age range of 12 years to 19 years old ( $SD$  1.46); the participants were students of grade 6 to grade 12.

**Results.** The findings of Exploratory Factor Analysis showed a total of eight factors, these named as; Pastoral Care, Behavioral Problems, Academic & Civic Learning, Discipline Safety & Rules, Resource Support, Physical Environment, Leadership, and Relationships. The Convergent Validity of the Boarding School Climate Scale (BSCS) showed a significant correlation with the 9-Item Georgia Brief School Climate Inventory (La Salle, McIntosh, & Eliason, 2016) (GaBSCI) ( $r=.73, p <.01$ ) and its factors highlighting significant indices of convergent validity with an existing school climate measure.

**Conclusion.** The development of indigenous BSCS is a significant contribution to measuring the boarding school climate in Pakistan. The instrument can assist the boarding school administration to gain an insight into students' perception of the boarding school climate and its various dimensions.

**Keywords.** *Boarding school climate scale, school climate, exploratory factor analysis (efa), students' perception of school climate.*



## Introduction

School climate is a heterogeneous and multicultural construct (Chang & Le, 2010) defined throughout the literature with numerous contextual features. It is a blend of the learning climate for students and the working climate for teachers (Meristo & Eisenschmidt, 2014). There is no universally established definition, dimensions, or source for measurement of school climate e.g., teacher, student, parents, or administrators (Gage, Larson, & Chafouleas, 2016; Rudasill, Snyder, Levinson, & Adelson, 2018; Zullig, Koopman, Patton, & Ubbes, 2010), however, various definitions and contextual features have been described in school climate research. For instance, Hoy and Miskel (2013) proposed "School climate is relatively enduring quality of the school environment that is experienced by participants, affects their behavior and is based on their collective perception of behavior in schools" (p. 210) whereas Mitchell, Bradshaw, and Leaf (2010) conceptualized it as "shared beliefs, values, and attitudes that shape interactions among the students, teachers, and administrators" (p. 272). According to Cohen, McCabe, Michelli, and Pickeral (2009), school climate is "the quality and character of school life. It is based on patterns of people's experiences of school life which reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures"(p. 182).

School climate has been recognized as the most important factor contributing to overall school's success (Schoen & Teddlie, 2008). Several benefits are associated with a positive school climate, such as academic achievement (Allensworth et al., 2018; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Shindler, Jones, Williams, Taylor, & Cardenas, 2016), reduced level of absenteeism, a high percentage of graduated students and a low percentage of suspension (Christle, Jolivet, & Nelson, 2007). Moreover, a positive school climate is also related to several intangible gains like connectedness, motivation, self-efficacy (Fast et al., 2010), social-emotional development, and reduction in risk taking behaviors (Espelage, Low, & Jimerson, 2014; Steffgen, Recchia, & Viechtbauer, 2013). Educators recognize the value of maintaining a positive, secure, and encompassing school climate, and policymakers are focusing on strategies to improve school climate (Hamilton, Doss, & Steiner, 2019).

Although there is no globally acknowledged description of school climate, there is a general agreement that the school climate is a multidimensional concept (Wang & Degol, 2016). Loukas (2007), for instance, proposed a 3-dimensional structure of a school climate based on physical, social, and academic aspects. Zullig et al. (2010) identified eight factors of school climate namely; "positive student-teacher relationships, school connectedness, academic support, order and discipline, school physical environment, school social environment, perceived exclusion/privilege, and academic satisfaction" (p. 146). Thap et al. (2013) in their study noted five spheres of school climate: "safety, relationships, teaching and learning, institutional environment and the school improvement process" (p. 358). Based on 327 relevant studies Wang and Degol (2016), identified 4 broader 'domains' and 13 'dimensions' of school climate. Domain authors identified in their study were the "academic climate, community, safety, and institutional environment". In all school climate assessments, the American National School Climate Centre NSCC (2014) recommends addressing the four key areas: "physical and social-emotional safety, teaching and learning, relationships and environmental structural aspects".

School climate research has mostly focused on day schools where students spend a major part of their life outside school, thus confining school climate effects. Boarders, on the contrary, spend a significant part of their lives in boarding schools under an exceptional set of circumstances. The environment of boarding schools is envisioned as a 'home away from home' (Hodges, Sheffield, & Ralph, 2016) and boarding staff is required to act "in loco parentis" role (Latin for "in the place of a parent") for the boarders (Hodges, Sheffield, & Ralph, 2013). Interpersonal relationship is the hallmark of a boarding environment that differs from that of a day school (Martin, Papworth, Ginns, & Liem, 2014). Structured daily routine and the organized and elaborate system makes this group relatively more homogenous than their counterparts in day school. Martin, Papworth, Ginns, and Malmberg (2016) observe four aspects of boarding life that give rise to a distinct climate; (a) unique aspect of social interaction which encourages boarders to participate in a range of activities with other boarders and personnel, thus creating additional chances for better grooming (b) presence of regulatory

mechanisms and traditions, (c) more stable climate than home or familial setup (d) additional prospects to build mentorship or personal relationships with faculty and house masters as compared to students of the day schools. As boarding schools are different from day schools, absence of any boarding school climate scale (Hodges et al., 2016) necessitates the development of a new scale that exclusively measures the boarding school climate.

## **Method**

The Boarding School Climate Scale (BSCS) was developed in two phases.

### **Phase 1: The Exploratory Phase**

This phase was exploratory in nature in which the triangulation technique was used to evaluate the construct of the boarding school climate. Triangulation is a qualitative data collection technique in which numerous sources are employed to grasp a concept (Patton, 1999). Method Triangulation is one of four types of triangulation explained by (Patton, 1999) to get a broader picture of the similar phenomenon by employing multi-sources (Polit & Beck, 2008) and may include interviews, observations and field notes (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). This phase comprises two steps:

**Step I: Development of an open-ended BSCS questionnaire.** To identify the dynamics of the boarding school climate, an open-ended BSCS questionnaire was developed; the items were drawn from the literature review, recommendations of the American National School Climate Centre NSCC (2014) and the review of existing scales (Ding, Liu, & Berkowitz, 2011; Gage et al., 2016; New Jersey School Climate Survey, 2014; Zullig et al., 2010). The BSCS open-ended questionnaire was administered on 20 ex-boarders who were graduated from various public and private sector boarding institutes. The inclusion criteria include (a) ex-boarders having 4 to 6 years of boarding experience and (b) they were between the age range from 32 to 47 years ( $M=40.60$ ,  $SD=3.97$ ). Data collected through open-ended BSCS questionnaire was analyzed to identify the underlying themes related to boarding school climate; this was performed through thematic analysis (Braun & Clarke, 2006). For this purpose, two judges were requested to analyze the data and to explore fundamental emerging themes.

The main themes that were identified through this process were; interpersonal relationships, teaching and learning, sports and co-curricular activities, facilities/resources, schedule, pastoral care, behavioral problems, civic learning, physical surroundings, discipline, and safety.

**Step II: Focus group discussions with boarding students.** Keeping in view the literature review and themes generated through the open-ended BSCS questionnaire with ex-boarders, researchers planned focus group discussions with current boarding students. The purpose of convening these focus group discussion sessions was to gain an insight into respondents' indigenous boarding experiences of a sample of boarders. Three focus group discussion sessions were convened with boarding students at PAF College Lower Topa, Murree, Pakistan. An average of 15 students participated in each session. The Focus Group discussion sessions were conducted and facilitated by the researcher on key themes, with the students of grade 10 to 12; with 2 to 5 years of experience as boarders, and their age range was 15 to 18 years ( $M=16.20$ ,  $SD=1.26$ ). These sessions helped researchers in understanding student boarders' views about various aspects of school climate. Data obtained from group discussions were analyzed in terms of comprehensiveness, intensity, specification, and boarders' perception of significance (Krueger, 2014).

### **Phase II of study: The Scale Development**

During this phase, the following steps were undertaken:

**Development of items.** Themes explored during Phase-I were applied to develop 168 statements and a 5-point Likert-type rating scale ranging from strongly agree to strongly disagree was appended with each statement. The pool of 168 items was then categorized into 12 dimensions namely: (1) Pastoral care (2) Safety and security (3) Behavioral problems (4) Discipline (5) Connectedness to school (6) Role of principal/commandant (7) Extracurricular activities (8) Teaching and Learning (9) Schedule of activities (10) Resources and facilities (11) Civic education (12) Infrastructure and building.

**Committee approach for assortment and categorization of items.** To determine the content validity and selecting the appropriate items for the scale, a committee of judges was formed. The committee comprised two Ph.D. teachers and a Ph.D. scholar, all were bilinguals having a good command of the source and target languages (both English and Urdu) and had a background in psychology. The committee was tasked to judge each statement in terms of its relevance to the construct of the boarding school climate. Each member of the committee was given an overview of school climate research and the list of generated statements. The aims of this consultation phase were (a) domain specification (b) deletion of redundant items and (c) fusion of sub dimensions into broader dimensions. A total of 58 items were deleted or merged in this phase resultantly 110 items left in the pool and six broader domains emerged namely (1) Physical Climate (2) Academic Climate (3) Social Climate (4) Discipline and Security (5) Leadership and (6) Pastoral Care.

**Translation and back translation of items.** Since the items pool was generated in the English language, the 110-item scale was translated into the Urdu language to make the statements of the questionnaire coherent and easier to understand by diverse populations.

**Pilot study.** During the pilot study, the scale comprising 110 items was administered to 25 boarding students of two boarding schools. In this study, 7 items were deleted as they were adjudged difficult or incomprehensible by students resultantly, 103 items were left on the scale.

#### **Validation Studies**

Participants of study. Data were collected from 7 boarding schools situated in Islamabad, Jand, Murree, Sargodha, Swabi and Warsak. The participants comprised 738 public and private sector boarding students (635 male & 103 female students). The ratio of male to female students was however low, as there was a limited number of female boarding schools in Pakistan. The mean age of students was 15.4 years with a minimum of 12 to a maximum of 19 years (SD= 1.46) from grade 6 to grade 12. The mean time spent by students in boarding institutes was 3.65 years (SD= 1.77) with a minimum of 1 to a maximum of 11 years.

**Procedure.** The principal of each boarding school was approached and authorization for collection of data was requested and on his / her permission, scale was administered upon boarders. Instructions were elaborated on each questionnaire and students were assured about the secrecy of the results. The willingness of each participant was taken through a consent form attached to the scale. An EFA was performed to determine the factor structure and dimensionality of the Boarding School Climate Scale (BSCS). Before conducting EFA, Pre-analysis checks were convened to ensure (a) Emergence of a stable factor structure (b) Items were properly scaled and free from biases, and (c) Appropriateness of data for EFA. An item with a kurtotic value between -2 and + 2 was considered appropriate for proving normal univariate distribution (Muthén & Kaplan, 1985), and deviant items beyond this range were removed (Gorsuch, 1983). A total of 21 items were deleted in the process and resultantly 82 items were left in the scale. Bartlett's test of Sphericity and Kaiser-Meyer-Olkin (KMO) measures were calculated to determine the appropriateness of data for factor analysis. The value of KMO was .93 which indicated a high probability that correlations matrices included factors. Tabachnick and Fidell (2001) had recommended a KMO value of .60 and above for good factor analysis. Bartlett's test of Sphericity for BSCS had a significant value ( $\chi^2(3321) = 24264.01, p < 0.00$ ), so data was deemed suitable for factor analysis, and PCA was carried out with 82 items of BSCS.

**Principal Component Analysis.** Principal Component Analysis (PCA) with oblique rotation was performed to evaluate the factor structure of the scale. Items having absolute value  $\geq .32$  (Field, 2013) were included in each factor. Preliminary factor analysis produced excessive factors, i.e. besides main factors, additional inadequately defined factors were also obtained. Factor analysis was carried out with 8,9,10 variables. A practical solution to the factor appeared when the number of factors was reduced to 8. Table 1 shows the factor structure of the Boarding School Climate Scale (BSCS). Theoretically, the 8-factor solution generated the best interpretation of the factor structure comprising 68 items. Kaiser rule, eigenvalues greater than one, was applied for the extraction of factors in the study (Nunnally, 1978). Factor analytic literature suggests that this is the most frequently used measure for determining the factor structure (Costello & Osborne, 2005).

Two rules were applied for the final structure of scale i.e., (a) items having factor loading  $\geq .32$  on one factor and its (b) theoretical significance. The first factor consisted of 14 items and accounted for 23.46 % of the variance in the model. This factor was named "Pastoral Care." The second factor consisted of 8 items and accounted for 5.75 % of the variance in the model and was labeled "Behavioral Problems". The third factor consisted of 9 items and accounted for 3.87% of the variance in the model and was named "Academic and Civic Learning".The fourth factor consisted of 11 items and accounted for 3.41% of the variance in the model. This factor was named "Discipline, Safety, and Rules". The fifth factor consisted of 6 items and accounted for 2.99% of the variance in the model. This factor was labeled "Resource Support".

The sixth factor consisted of 6 items and accounted for 2.45% of the variance in the model. This factor was labeled "Physical Environment". The seventh factor consisted of 6 items and accounted for 2.23% of the variance in the model . This factor was labeled "Leadership". The eighth and final factor consisted of 8 items and accounted for 2.15% of the variance in the model. This factor was labeled "Relationships". The total variance explained by BSCS was 46.31%. Cronbach's alpha was calculated to determine the internal consistency of the scale (Cronbach, 1951). The alpha coefficients for the 8 factors were as follows: Pastoral Care = .91, Behavioral Problems; =.84, Academic & Civic Learning; =.82, Discipline Safety & Rules=.78; Resource Support=.72, Physical Environment=.73, Leadership=.83, and Relationships=.79. The Cronbach's alpha for the overall BSCS was 0.95.

**Table 1**

*Instrument Items of Boarding School Climate Scale (BSCS) its Alpha Coefficients and Factor Loadings. (N=738)*

Items (% Variance Explained)	Exploratory Principal Component Analysis
<b>Factor 1: Pastoral Care (23.46 %)</b>	<b>.91</b>
House master House mother shows compassion and a caring attitude towards students.	.74
House master/House mother listens to the complaints and problems of students.	.74
House master/House mother regularly visits your house and interacts with students.	.66
House master/House mother understands the developmental needs of students.	.66
House master/House mother takes a personal interest in the activities of your house.	.61
House master/House mother acts as a role model to groom the students.	.61
House master/House mother is capable of looking after the house affairs.	.61
House master/House mother takes real interest in your future.	.61
House master/House mother remains available to handle any emergency.	.61
House master/House mother monitors and guides students to improve their academic performance.	.60
Teachers deal with students based on equality.	.52
Teachers help you solve your problems.	.50
Teachers act as role models for the development and grooming of students' personality.	.49
Teachers monitor all the activities of students.	.35
<b>Factor 2: Behavioral Problems (5.75%)</b>	<b>.84</b>
Some students often tease their fellow students.	.77
Some students spread rumors about fellow students.	.75
Some students make remarks about other students due to their low socioeconomic status and ethnic background.	.71
Bullying is fun for some students.	.68
Some students pretend illness to avoid classes and sports.	.65
Some students behave aggressively with fellow students.	.61
Despite strict measures, some students use unfair means during exams.	.57
Some senior students forcibly make juniors to do their tasks.	.49
<b>Factor 3: Academic and Civic Learning (3.87%)</b>	<b>.82</b>
Teachers educate students about health and wellbeing.	.64
Life skills are inculcated through curricular and co-curricular activities.	.59
Subject teachers give extra coaching to weak students.	.58
Civic education is provided to students.	.54

Items (% Variance Explained)	Exploratory Principal Component Analysis
Teachers and house masters guide students to develop their moral character.	.48
Teachers guide students in resolving interpersonal conflicts and managing anger.	.46
The schedule of activities (For example, academics, sports and co-curricular activities) is meticulously planned and organized.	.45
Guidance and counseling services are provided to students.	.40
Movies, dramatics, and musical shows are arranged for students.	.35
<b>Factor 4: Discipline, Safety, and Rules (3.41%)</b>	<b>.78</b>
A sufficient number of security persons is deployed to handle any emergency.	.55
Clear rules and consequences for indiscipline exist.	.53
Certain unsupervised areas in your school are safety hazards.	.53
There are certain unsupervised places/points through which students can go out of the premises without permission.	.51
Incidents of aggression and violence against fellow students are dealt with strictly.	.50
School / College administration takes strict action against bullying incidents for example hitting, name-calling, etc.	.48
Students feel safe in changing rooms/washrooms and hallways in your house.	.46
If students report unsafe or dangerous behavior, they are sure that the problem will be taken care of.	.43
The administration takes effective measures to put a check on the unhealthy activities of students such as smoking, cheating, stealing, lying, etc.	.42
Students are taught and trained as to how to deal with emergency.	.41
There are rules against physical abuse, teasing, name-calling, or saying bad things about fellow students.	.34
<b>Factor 5: Resource Support (2.99%)</b>	<b>.72</b>
There is a suitable auditorium/hall for different ceremonies.	.86
Meals are nutritious and hygienic.	.61
Sufficient facilities such as heaters, fans, etc. have been provided for a comfortable environment.	.55
Teachers use audio-visual aids during teaching.	.43
Appropriate medical facilities are available and accessible to students.	.41
Guest lectures are arranged to enhance the knowledge and understanding of students on religious, social, and motivational aspects.	.38
<b>Factor 6: Physical Environment (2.45%)</b>	<b>.73</b>
Classrooms are spacious and the furniture is comfortable.	.75
Buildings are neat and clean.	.66
Residential houses have appropriate furniture and bedding.	.64
Washrooms are neat, clean, and well maintained.	.61
The dining hall is spacious, neat, and clean.	.36
Buildings have an attractive appearance.	.35
<b>Factor 7: Leadership (2.23%)</b>	<b>.83</b>
Principal regularly interacts with students and enquires about their problems.	.72
Principal is a role model for students.	.71
Principal is completely aware of what is going on in the school/college.	.68
Principal keeps close contact with housemasters, house mother /warden, and monitors the house affairs.	.66
Students can approach the principal to address their problems/issues.	.65
Principal empowers the house masters to make appropriate decisions as deems necessary.	.62
<b>Factor 8: Relationships (2.15%)</b>	<b>.79</b>
Students treat each other with respect.	.76
Students resolve conflicts with fellow students in a cordial manner.	.64
Students give due respect to teachers.	.60
Students feel that this institute is their second home.	.52
Most of the students feel happy to get back to school /college after vacations.	.50
Students feel pride in wearing school/college uniform.	.44
Students like the time that they spend at school.	.42
Students are involved in the decision-making process in this institute.	.40

Note: Cronbach's alpha values are reported in bold.

**Domain intercorrelations.** Table 2 shows the intercorrelations among the eight boarding school climate factors. All the factors were significantly correlated with one other. The factor assessing behavioral problems was negatively correlated with all the factors. Correlations ranged from  $r=-0.17, p<.01$  for Resource Support and Behavioral Problems to  $r=0.66, p<.01$  for Pastoral Care and Academic and Civic Learning. Factor measuring Pastoral Care reflected the strongest positive correlation with the overall school climate ( $r=.83, p<.01$ ) followed by Academic and Civic Learning ( $r=.80, p<.01$ ), Relationships ( $r=.77, p<.01$ ), Discipline Safety and Rules ( $r=.75, p<.01$ ), Leadership ( $r=.71, p<.01$ ), Physical Environment ( $r=.67, p<.01$ ) and Resource Support ( $r=.65, p<.01$ ). Whereas the factor measuring Behavioral problems showed the significant negative correlation with the overall boarding school climate ( $r=-.51, p<.01$ ).

**Table 2**  
*Bivariate Correlation Coefficients of BSCS Items in the EFA Sample (N = 738).*

Factors	Factors							
	1	2	3	4	5	6	7	8
Factor 1: PC	-							
Factor 2: BP	-.25**	-						
Factor 3: ACL	.66**	-.27**	-					
Factor 4: DSR	.56**	-.23**	.51**	-				
Factor 5: RS	.44**	-.17**	.55**	.43**	-			
Factor 6: PE	.41**	-.35**	.53**	.42**	.45**	-		
Factor 7: L	.57**	-.18**	.53**	.56**	.46**	.38**	-	
Factor 8: R	.58**	-.36**	.57**	.47**	.41**	.52**	.47**	-
Total BSCS	.83**	-.51**	.80**	.75**	.65**	.67**	.71**	.77**

Note: \*\*  $p < .01$  PC=Pastoral Care; BP= Behavioral Problems; ACL=Academic & Civic Learning; DSR=Discipline Safety & Rules; RS=Resource Support; PE=Physical Environment; L=Leadership; R=Relationships, BSCS = Boarding School Climate Scale.

**Convergent validity index for Boarding School Climate Scale (BSCS).** To determine the convergent validity of the Boarding School Climate Scale, a correlation was calculated between the newly developed Boarding School Climate Scale and the 9-item Georgia Brief School Climate Inventory (GaBSCI) (La Salle et al., 2016). Table 3 indicates that Boarding School Climate Scale (BSCS) is significantly correlated with Georgia Brief School Climate Inventory (GaBSCI) ( $r=.73, p <.01$ ) highlighting its convergent validity with an existing school climate measure. GaBSCI also reflects significant correlations with sub-factors of BSCS ranging from  $r = -.27, p <.01$ ) with Behavioral Problems and  $r = .68, p <.01$ ) with Pastoral Care. The results provide support for the BSCS as a comprehensive assessment of students' perception of the boarding school climate.

**Table 3**  
*Correlation analysis showing the relationship of Georgia Brief School Climate Inventory (GaBSCI) and Boarding School Climate Scale (BSCS) (N =738).*

Scale	PC	BP	ACL	DSR	RS	PE	L	R	GaBSCI	BSCS
GaBSCI	.68**	-.27**	.58**	.55**	.43**	.46**	.54**	.60**	-	.73**

\*\*  $p < .01$  Note: PC=Pastoral Care; BP=Behavioral Problems; ACR= Academic & Civic Learning; DSR=Discipline, Safety & Rules; RS=Resource Support; PE=Physical Environment; L=Leadership; R=Relationships, GaBSCI= Georgia Brief School Climate Inventory, BSCS=Boarding School Climate Scale



## Discussion

The findings of this study indicate that the BSCS has the potential to be a beneficial self-report measure of the perception of boarding school climate by boarders. The non-availability of scale to measure the boarding school climate has been cited as a limitation in school climate research (Hodges et al., 2016). The BSCS has the potential to be used either as a screening tool (to identify schools in need of interventions to improve the school climate) or as an evaluation tool (to measure the impact of interventions in the development of a positive school climate). The BSCS factor structure is consistent with decades of school climate research that has identified the different dimensions of the school climate (Loukas & Robinson, 2004; Modin & Östberg, 2009; Thapa et al., 2013; Zullig et al., 2010). The internal consistency estimates of all the factors of the newly developed boarding school climate scale range from .72 to .91, implying that these factors are most suitable for the assessment of boarding school climate. The study further reveals that the factor measuring pastoral care explains 23.46 % of the total 46.31% variance in the model signifying pastoral care as the most important factor in determining the overall boarding school climate. Moreover, pastoral care is also significantly correlated with overall boarding school climate ( $r = .83, p < .01$ ). However, the factor measuring behavioral problems is negatively related to overall BSCS ( $r = -.51, p < .01$ ). All the stakeholders of boarding schools know that boarding institutes are required to provide a “home away from home” (Anderson, 2005; Hawkes, 2001; Holgate, 2007). The essential responsibility for the growth and wellbeing of the boarders must be acknowledged by boarding staff acting in loco parentis role (Hodges et al., 2013).

The purpose of the development of BSCS is to address the requirement of scholars in pursuit of a psychometrically sound and comprehensive school climate scale designed to assess the boarding school climate. BSCS can be used to promote factual decisions that can be integrated into an evidence-based approach intended to enhance school climate, student performance, and learning.

## Limitations and Suggestions

Quite apart from the potential significance, this study holds numerous limitations that should be acknowledged for future studies.

One of the major limitations of this study was the use of cross-sectional research design therefore, longitudinal studies may be envisaged in the boarding school context. The sample was limited to boarding students of two provinces. Although students from diverse cultural and geographical backgrounds attend boarding schools, future studies may be conducted by collecting data from elite public and private-sector boarding schools of other provinces to study whether the findings of our study are replicated among other samples. Moreover, limited girl's data was included in the study due to the shortage of girls' boarding schools, however, more and balanced data may be collected from girl's boarding schools and colleges to study the gender effects. Furthermore, the self-report measure was used in this study that may entail faking good or bad responses.

## Implications of Research and Future Directions

This study holds practical implications on theoretical as well as practical level. On a theoretical level, this study contributed to the development of the first-ever Boarding School Climate Scale (BSCS) to measure the perception of boarding school students about school climate. Although several scales are available to measure day school climate, however, no scale was available to measure the boarding school climate. The development of BSCS for Pakistani boarding schools is a significant contribution to the psychometric literature. BSCS proved to be a valid and reliable test for the assessment of boarding school climate based on various dimensions of BSCS. It may assist in boarding school administration and scholars to assess the boarding school climate and accordingly organization may devise an intervention plan based on the assessment. Boarding School Climate Scale (BSCS) is a scale in the evolutionary process, future studies are required to further validate BSCS with diverse samples. Moreover, the factor structure of the boarding school climate scale should also be validated through confirmatory factor analysis. The present study was based on self-report measures having a single informant approach, however, the multi-informant strategy based on a perception of boarding staff would give an impetus to future research.

The adaptability of students in boarding schools is an important factor; future studies may be planned to study the personality factors that help in the successful adaptation of boarding students. Findings of previous studies suggest that strong students make very substantial academic progress once they manage to adapt to their boarding environment whereas, the weak students who failed to acclimate well, boarding schools were not suitable for them.

### **Conclusion**

The current study is a pioneer in understanding the construct of boarding school climate. It provides a framework for analyzing the boarding school climate in civil and military boarding institutes. This study delineated the various dimensions of the boarding schools as perceived by the boarding students. It can help in better understanding the various components that give rise to a positive boarding school climate.

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### **Competing Interests**

The authors are well informed and declared no competing interests.

### **Ethical approval**

The study was approved by the Department of Psychology IIUI Ethics Committee (DPEC).

### **Consent for publication**

Consent approved by the authors.

### **Availability of data and materials**

Data not available due to the sanctity of boarding institutes from where the data was collected.

### **Acknowledgement**

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### **Authors' contribution**

S.M. Contributed to the conceptualization of research design, literature review, items development, data collection, data analysis. N.I. Contributed to research designing, item development, statistical analysis, drafting of the article. M.T.K.

Contributed to questionnaire designing, translation of the final scale in terms of semantic analysis, reviewed and edited the final draft of the manuscript before submission.

### **Abbreviations**

B.S.C.S.: Boarding School Climate Scale  
Ga.B.S.C.I. Georgia Brief School Climate Inventory  
E.F.A.: Exploratory Factor Analysis  
P.C.A.: Principal Component Analysis  
K.M.O.: Kaiser-Meyer-Olkin  
P.C.: Pastoral Care  
B.P.: Behavioral Problems  
A.C.L.: Academics & Civic Learning  
D.S.R.: Discipline, Safety & Rules  
R.S.: Resource Support  
P.E.: Physical Environment  
L.: Leadership  
R.: Relationships

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## Religious Identity Formation and Development in Adolescents of Pakistan

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### Abstract

**Objective and Method.** To explore the formation and development of religious identity in Pakistani adolescents, a qualitative approach was used to analyze the data, collected from nine adolescent boys and nine adolescent girls of age ranged between 15-17 years ( $M = 15.8$ ,  $SD = .81$ ). These adolescents were students of grade 9-10, and were sampled from different cities of Pakistan. Data were collected via a semi-structured interview schedule, adapted from the ego identity interview guideline by Marcia (1966).

**Analyses.** Thematic analysis was applied to generate and cluster themes appeared in the transcribed interviews of 18 participants.

**Results.** The results revealed that religious identity was formed on three rudiments: belief, behavior, and belongingness. All the participants appeared to be at the foreclosure state of religious identity, and the religious identity appeared to be developed through seven channels: parental influence, the role of grandparents, peer influence, religious preachers, media, teachers' power, and personal preferences.

**Conclusion.** This paper provides theoretical and practical implications for the religious identity development of adolescents in Pakistan.

**Keywords.** *Adolescents, religious identity, identity formation, thematic analysis, semi-structured interview*



## Introduction

Identity development is one of the main issues in adolescence. Erikson (1958, 1963) explains that human identity is socially founded during a period between 12-18 years. During this period, identity development is a core task where adolescents are in the phase of transition to adulthood by exploration and commitments; and if the transition leads to success, identity integrates however if the transition is riddled with confusion, identity crisis ensues (Erickson, 1963; Marcia, 1993). Exploration involves searching for sensible social options and alternatives before making commitments which Marcia (1966) operationalized as four identity statuses; diffusion (no commitments, no explorations) moratorium (no commitments, but exploration) foreclosure (commitment without exploration), and identity achievement (after exploration, commitments are made). To explore these statuses, Marcia (1993) developed Ego Identity Interview to study these statuses in different domains including, occupation, politics, religion, sexual values, etc. Adams and colleagues extended this work by developing and refining a test called Extended Objective Measure of Ego Identity Status (EOM-EIS II) to study identity status in four ideological (occupation, religion, politics, philosophy of life) and four interpersonal (friendships, dating, gender roles, recreation/leisure) domains and global rating (Adams, Bennion, & Huh, 1989; Adams & Ethier, 1999). To study identity status in different domains, interviews and tests as above have been used in a variety of qualitative and quantitative studies (Copen & Silverstein, 2008; Dinter, 2006; Fisherman, 2011; Hawkins, 2005; Nelson, 2010; Wang, 2012).

Identity is a term that entails multiple meanings regarding the context — gender identity, religious identity, national identity, professional identity, etc.). Researchers have already explored different contexts of identity development among adolescents (Batool & Ghayas, 2020; Jugert et al., 2020; Sugimura, 2020). It is said that religion plays a significant role in the identity development of adolescents. Keeping in view the importance of religion, researchers explored particularly the development of religious identity (Arweck & Nesbitt, 2010; Giuliani & Tagliabue, 2015; King & Boyatzis, 2004).

Religious identity means how a person assigns meaning to his religious group membership and the significance assigned to the particular religion that consequently influences the self-concept of individuals (Arweck & Nesbitt, 2010). Religious identity is shaped by the psychological, social, political, and devotional facets of religious belonging (Deaux, 2001), which is influenced by factors like gender, ethnicity, and generational status (King & Boyatzis, 2004; Lee, 2002), and when adolescents are surrounded by peers, religious identity formation is fostered however, when adolescents are without this support, religious identity formation is hindered or weakened (Wang, 2012). Chaudhury and Miller (2008) reported that Bangladeshi-American adolescent Muslims felt it crucial for them to develop their religious identity with peers who made them comfortable in expressing and developing their faith. School and social relationships (which includes parents) in which adolescents can question religion and cast their doubts are important for religious identity (Exline, 2004). Many studies have been carried out to study the religious identity of adolescents coming from various religious beliefs (Bertram-Troost et al., 2009; Gibbs, & Goldbach, 2020; Giuliani & Tagliabue, 2015; Malayev et al., 2014; Rich & Iluz, 2003; Spiegler et al., 2019) and some researchers have also explored the religious identity of Pakistani adolescents living in Norway (Osterberg, 2003) and Italy (Giuliani & Tagliabue, 2015). However, there is a dearth of studies on the religious identity of adolescents, living in Pakistan. To fill this gap, we carried out a qualitative study to investigate the religious identity of adolescents in Pakistan. The underlying logic was to ascertain the nature of religious identity through an in-depth analysis. Two particular research questions were addressed:

1. What are the components of religious identity formation?
2. Which factors influence the development of religious identity in adolescents of Pakistan?

## Method

### Sample

A purposive sample from Lahore, Peshawar, Gilgit Baltistan, Quetta, Karachi, and Islamabad was taken, and we made sure that participants came both from cities and rural areas to represent Pakistan at the provincial level. The sample comprised of nine adolescent boys and nine adolescent girls, and their age ranged between 15 and 17 years ( $M = 15.8$ ,  $SD = .81$ ) and belonged to 9-10<sup>th</sup> grades. The participants that came from intact families were included and possible participants living with single parents (divorced, separated, and widowed) and parents away for jobs were excluded to ensure the homogeneity of the sample. Muslim students were included and students of other religions and faiths were not, and the reason for doing so was to keep the theme of religion consistent in all participants, as the addition of other religions in a small sample of 18 would have diluted the effects of Islam on religious identity. No participant had any history of psychiatric disorder, in addition, participants with disabilities were not included in the sample.

**Table 1**

*Demographic Characteristics of Sample*

<b>Sr. No</b>	<b>Pseudonyms</b>	<b>Gender</b>	<b>Class/Grade</b>	<b>Age</b>
1.	Hashir	Boy	9 <sup>th</sup>	15
2.	Sara	Girl	10 <sup>th</sup>	16
3.	Salaar	Boy	9 <sup>th</sup>	15
4.	Zain	Boy	10 <sup>th</sup>	17
5.	Sana	Girl	10 <sup>th</sup>	16
6.	Iqra	Girl	9 <sup>th</sup>	15
7.	Nimra	Girl	10 <sup>th</sup>	17
8.	Ahad	Boy	10 <sup>th</sup>	16
9.	Amna	Girl	9 <sup>th</sup>	15
10.	Waqar	Girl	10 <sup>th</sup>	16
11.	Mavra	Girl	9 <sup>th</sup>	15
12.	Sahil	Boy	10 <sup>th</sup>	17
13.	Zartasha	Girl	10 <sup>th</sup>	17
14.	Ali	Boy	9 <sup>th</sup>	15
15.	Adila	Girl	10 <sup>th</sup>	15
16.	Kamal	Boy	9 <sup>th</sup>	15
17.	Haya	Girl	9 <sup>th</sup>	15
18.	Ahmad	Boy	10 <sup>th</sup>	15

## Instrument

A semi-structured interview adapted from Ego Identity Interview (Marcia, 1966) after the author's permission was prepared for the study and was revised based on existing literature, general observations, theories of identity formation, and expert opinions of professionals in the field. The interview questions were based on the process and factors associated with the religious identity of participants. Twenty open-ended questions were prepared and were finalized after the prompts, probes, and opinions of the experts.

## Procedure

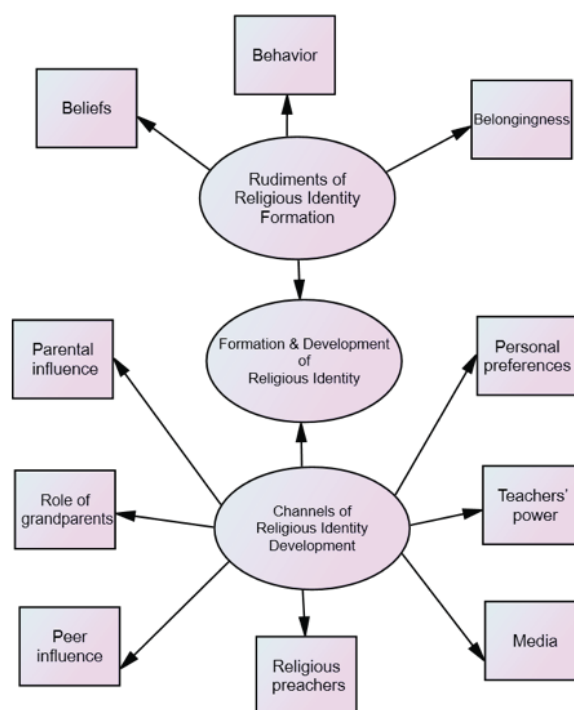
The study was approved by the Punjab Higher Education Commission of Pakistan. Parental and institutional permission was sought before the commencement of the study and copies of the interview protocol were provided to the parents for review. The participants were approached at schools or places that suited them for the interview. They were briefed about the purpose of the study and were ensured that their personal information would remain anonymous and confidential. Any information that would be published would use aliases only. The interviews were recorded (and later transcribed) in a congenial atmosphere with probing queries to gain in-depth information when required. No participant expressed hesitation and properly answered interview questions in an elaborative and to the investigator's satisfaction. The average time for each interview was 30 minutes long on average. Participants were asked to share their experience at the end of the interview and were thanked for their participation in the study.

## Analysis

In order to analyze the data obtained through semi structured interviews, thematic analysis was applied. It helped in a flexible manner of identifying, analyzing, and reporting the pattern within the obtained data. Guidelines provided by Braun and Clarke (2006) were used to manually analyze the data. Use of software provides somewhat narrower perspective therefore manual analysis was carried out as it is considered relatively more accurate (Medelyan, 2020). Initially familiarizing with the data was the main focus of analysis. Data were reduced and initial codes were generated. After the development of themes, they were refined and their boundaries were clearly defined.

## Results and Interpretation

**Figure 1.** Formation and Development of Religious Identity in Adolescents



Analysis of data revealed that the religious identity of adolescents is basically comprised of belief, behavior, and belongingness. Adolescents have opportunities to explore religious traditions and beliefs. However, the freedom and flexibility of their exploration are typically determined by multiple factors. Narrations of participants reflect that various factors influence all the components of religious identity. Researchers have reasoned that due to adolescents' relatively stable social environment, there is not a strong need to further explore and renegotiate their religious identity. Moreover, religious identity is mainly driven by parents during adolescence (Lopez et al., 2011). Given that adolescents tend to live with their parents during high school, they may not feel engaged in a deeper exploration of their religion, which helps to explain the observed stable religious identity. At the same time adolescents may exercise their increased autonomy and show up their interest to different religious modes of teaching.



## Rudiments of Religious Identity Formation Belief

Narrations of participants reflect that participants have developed religious beliefs. None of the participants reflected any doubts about the basic religious belief of Muslims. The belief system is inherited and after birth, children start internalizing the belief system of their parents. It is reflected by the interviews of almost all participants.

*I am Muslim because my parents are Muslim. Religion is destined (Hashir).*

The most important reason for commitment to religious identity among participants is the belief that it is the religion of their parents. The transmission of religious beliefs and values across generations is one of the primary sources by which continuity of religion is maintained in the generations. The narration of participants reflects that religion is not questionable rather it is destined and it is not up to the choice of individuals as it is pre decided:

*A lot of questions regarding religion arise in my mind but I satisfy myself and make me understand that if it is written in Quran and Ahadis then it means it is correct and I should not be doubtful about it... Maybe I will understand logics once I will grow up (Hashir).*

*It's difficult to understand the concept of life after death but as it the basic part of our belief system, so I think life after death cannot be questioned (Iqra).*

As the participants believed that it was not allowed to raise a question against the religious ideology so there is the lowest level of exploration in religious identity and all children are at the status of the foreclosure because they seem to identify themselves with the religion not because of their exploration rather because of the fact that their parents have inculcated in them the religion they are practicing. Participants talked about belief in the Afterlife, belief in the oneness of God, belief in Prophets, and angels and they also talked about belief in the Holy Quran.

As the attitude of majority of participant towards different sects concern, they believe:

*I can't pass any comment about the sect system as I do not have sufficient information about similarities and differences among sects (Amna).*

*I am against this sect system. I feel that all sects are basically trying to prove themselves better than others and all other motives are unreal (Ahsan).*

*I am against this sect system. We Muslims should remain only Muslim. (Ali)*

*I am against sectarianism. We are all Muslims and we should not fight on trivial matters (Adila).*

Narrations of participants reflect that they are very well aware of the fact that their knowledge is not sufficient, therefore they cannot say anything about sectarianism. It can be said that the reason behind this negative attitude towards sectarianism is either acceptance for others' beliefs or their cognizance that they do not have sufficient knowledge regarding different sects. It shows their lack exploration of religious knowledge at this stage of life.

Furthermore, narration of the participants reflects that beliefs are operational, therefore these beliefs influence their other identities and influence their decision making about career, marriage, social identity, etc.

*In case I am asking Allah Tala for something but I am not getting for which I am praying, I understand that it is surely for my betterment as He is the best planner (Sara).*

*In eighth class, I put my efforts to get good grades but my result was not up to the mark. I was very sad but mama made me understand that it was Allah's will and everything happens for the good reason, so we should not be sad about it (Hashir).*

*Allah Tala listens to our prayers and surely answers to our prayers. If the response is delayed then it means it is certainly for our betterment (Sana).*

The narration of the participants reflects that Tawakul (perfect trust and reliance in Allah) is an important component of adolescents' belief systems. It is interesting that the element of Tawakul is marked with maturity and firm belief and it is expected to be practiced by mature people. But in the current study, most of the participants reported Tawakul as a healthy coping mechanism.

The element of Tawakul is basically inculcated by their parents because it is the healthiest way to console the individual for any loss or for unfulfillment of any desire. In the case of the current sample, participants experienced low grades despite their hard work and it increased their religiosity and intensity of prayers. In this scenario, parents console their children on the basis of the will of Allah and Tawakul. It appeared to be a coping mechanism that can relieve the pain of individuals. As the sample of current study comprised of only Muslim participants, so the element of Tawakul is conceived as a part of Islamic belief system: the peak of belief in Allah. In case adolescents are not able to completely internalize the concept of Tawakul, they do understand this concept.

Belief is an integral part of any religion and it is further connected with religious behavior or religious practice.

### **Behavior**

Behavior appeared as an important component of religious identity. It is revealed that behavior can be the result of belief, training given by parents and it might be the result of observational learning. Narrations of participants reflect that the behavior of participants is dependent upon the reason behind the belief system. Strong belief makes participants to fulfill their religious obligations and to avoid the things which are even appealing for them but are prohibited in Islam, for instance:

*Religious practice is very important because if religious practice is appropriate then there will be relief in the afterlife (Ahad).*

*I try my level best to pass my life according to the teachings of Islam and I think every Muslim should do this (Ahsan).*

*I regularly offer prayers but sometimes it is three times and sometimes it is four times (Hashir).*

*I never skip fasting in Ramazan, and offer three to four prayers in the whole day (Sara).*

*I use to attend the religious gatherings, for instance, Milad (Iqra).*

*I recite Holy Quran daily. We should recite Quran daily as it is sent for our guidance and for our welfare (Ali).*

The narrations of participants reflect that though their religious beliefs were not the result of their own personal exploration, nevertheless adolescents have substantial understanding of their religious beliefs and were aware of the significance of religious practices. The firmness of belief system seems to lead adolescents towards religious practice. Almost all participants reported their understanding of the importance of Prayer, fasting, and recitation of the Quran. Most of the participants admit that they are not completely regular in religious practice but none of the participants denied the importance of religion-oriented behaviors.

*I try to avoid all those things which are prohibited in Islam (Ahad).*

*I feel attracted to the food and drinks of non-Muslims but can't go for it as it is prohibited in Islam... I like the western style dresses and dresses of Indian actresses but can't wear that type of dress due to my religious teachings (Amna).*

*I really wish to answer the stupidity of other girls in the same coin but then I ignore them just because of religious teachings. Even sometimes I feel like using abusive languages but I do not verbalize such words as it is prohibited in Islam (Ahsan).*

*I like short hairs of models and their styles but I do control myself as I know that Islam does not like it so I should not do the things which are not permitted in Islam (Adila).*

Accounts of participants reflect that the belief system of the participants not only helps them in adopting religion-oriented behavior but it also leads them towards avoidance of religiously prohibited acts. Narrations of participants reflect that they feel attraction towards western life style- foods, music, dresses, etc. It is natural for adolescents as their age is marked with sensation seeking, glamour and risk-taking behavior. Despite these natural attractions, they consider religion as the “parameter” of life, therefore, they control their desires, wishes, and their aspirations.

Narrations of participants reflect that at this stage of life, their religious behavior is based more upon the extrinsic type of religious orientation.

*My prayers increase in exam days (Ahad).  
Whenever I need something, I start praying  
(Amna).*

*I offer prayer regularly and keep fasting in  
Ramzan. These religious practices are beneficial  
to me...I achieve good scores in exams. (Mavra).*

*I use to offer prayers more regularly before the  
commencement of results of exams and this  
regularity gradually declines after results (Iqra).*

*Religious practice is very important because if  
religious practice is appropriate, there will be  
relief in the afterlife (Ahad).*

Narrations of participants portray that they practice religious ritual to gain material gains. As participants are not mature enough, therefore, religion does not seem to be completely internalized. They are generally following religious practices to achieve targets and material gains. The most important likely benefit which triggers participants for regularity in prayer and other religion-oriented activities is good scores in the exam. The most important concern of this age group is their performance in exams and good grades, therefore they reported having a significant change in their religious behavior during exams and before the commencements of results. Participants also reported that they performed religious duties for reward in the afterlife. The accounts of participants portray that at this age, individuals keep in view particular benefits, rewards, or outcomes of religious behaviors.

### **Belongingness**

Thematic analysis revealed that some of the participants developed belongingness with religion. Belongingness did not appear in all the participants, it was seen only in the participants who appeared to have stronger religious beliefs and practices. Belongingness reflects the level of bonding with one's religion which results in emotional attachment.

*The most important thing is my religion. I think,  
nothing is more important than my religion  
(Ahsan).*

*I feel emotionally aroused when anyone talks  
about the khatam e nabuwat (Muhammad the last  
prophet) (Ali).*

*I like to participate in religion-related  
discussions. I become emotional when someone  
says negative about our religious beliefs and  
practices. Last week one of the class fellow was  
showing sympathy for outcast people and it made  
me emotional and I argued with her (Nimra).*

*I have a warm and deep attachment with Allah  
and I can feel his presence all the time (Ahsan).*

*I believe that Allah Tala listens to me especially,  
when I pray from the core of my heart (Mavra).*

*I feel a very strong relationship with Allah (Ali).*

Belongingness is a deep subjective experience of participants. Religious identity is unique in the sense that it is developed as a result of foreclosure without proper self-exploration- but still it is marked with deep roots and acceptance in individuals. Without complete acceptance, belongingness cannot be developed. The account of participants and body language shows that they have internalized religious belief, therefore, they are able to subjectively experience the presence of Allah and they are having a sense of being listened to and answered by God. It is interesting that adolescents experience such beautiful emotions and they are too attached with religious identity that they cannot bear anything against their religious belief system.

*I feel blessed to be Muslim. I sometimes  
think that it is Allah's blessing on me that I am  
born in a Muslim family. I love my religion as it is  
the most beautiful religion in the world... I feel  
pity for the Muslims of Syria. They are our  
brothers and they are bearing cruelties because of  
being Muslims... I feel sympathy for Non-Muslims  
as they are unfortunate people and they will be  
punished in the life hereafter (Ahad).*

The narration of the participant reflects that his level of belongingness with religious identity is so strong that he is expressing his sense of gratitude for being Muslim. He believes his faith is genuine, and others are mistaken or even unfortunate. His ideas are marked with particularism. Religious Particularism makes an individual proud of his own religion and s/he feels an association with the people of his own religion while all other religions are considered illegitimate.

## Channels of Religious Identity Development

Narrations of participants depict that the religious identity of adolescents is determined by various factors. Furthermore, thematic analysis reflects that these factors influence all the components of religious identity at a certain level. The nature of identity is determined by these factors.

### Parental Influence

Parents appear to play the most significant role in the religious development of children and adolescents. Individuals tend to adopt the religion that is taught and practiced during their upbringing. Parents manifest their religious beliefs and values through daily interactions with others and with their children.

*My parents taught me that religion is the basic code of life (Ahad).*

*Mama is very strict about the regularity of namaz and she herself is regular in religious practices (Amna).*

*My parents offer namaz very regularly and they themselves follow religious teachings very regularly... Therefore I am also trying to be like them (Ahad).*

*My parents are religiously very strong. They regularly offer prayers and their life is based upon religious teachings. They advise us to follow religion (Adila).*

*A few years back I use to idealize models and their western dresses. Then my father made me understand that though it attracts us, our religion does not allow us to wear such type of dresses...now I don't aspire to wear such dresses as I do understand that it is prohibited in Islam (Sara).*

The narrations of participants reflect that the religiosity of parents directly influences the development of religious identity of their children. Adolescents reported that from childhood, parents start inculcating their religious ideology in the mind of their children through informal education and through their own religious practices. The account of participants reflects that the religious practice of parents influences more on their children as compared to any other mode of education.

The narration of participants reflects that adolescents attribute their religious practice to the practice of their parents. They are providing logics that they are regular in prayers, recitation of the Quran, and Fasting because of their parents' regularity. Narrations of participants support the social learning theory which states that human beings learn religious behavior primarily through modeling: children observe and imitate the behavior of others for instance parents (Bandura & Walters, 1977). Therefore, parents who practice religion more often or who emphasize religion in the home promote the religious identity of adolescents.

*My father sometimes offers prayer in Mosque otherwise he usually offers prayers at home. But when he thinks that he should go to the mosque then he compels me to accompany him (Salaar).*

In adolescents, parents in Pakistan usually have control over the life of their children. The narration of participant given above reflects that his father tries include his son in religious practices by taking him to mosque. The narration of the participant further reflects that the religious practice of adolescents is dependent upon the consistency of parents in their religious practice. If parents are not consistent and regular in their religious practices, their intermittent religious practice cannot strongly inculcate significance of religious practice in adolescents.

*Sometimes mama asks me to do something as it is approved in Islam and papa opposes mama. For example, mama says wear Doppata and papa says don't wear Doppata as it is spoiling your modish look. We mostly listen to what papa says as we want to be looked stylish (Amna).*

*I use to skip fast in Ramazan because I cannot control my hunger. Papa does not like it but my mother says that if you cannot control your hunger then it is ok. Don't keep fast..My father says that I should offer prayers regularly and sometimes I get irritated and say to him that why he is saying this to me if my mother is not offering prayers. Firstly he should ask mama to offer the prayer then guide me (Salaar).*

The account of participants reflects that difference in the approach of parents towards practicing religious teachings, interrupts the religious identity of adolescents. Adolescents are not mature enough, therefore, they opt those things which are attractive and which demands lesser efforts. Fasting demands a high level of control and when the mother takes the side of the participant then it becomes easier for him to skip it and he ignores the instructions of his father. Similarly, the account of female above reflects that her mother tries to inculcate her own religious values but father appeared to have a different point of view. As a result of conflict in parents, the participant tends to listen to her own voice. Previously it was reported that having religiously heterogamous parents or parents with dissimilar patterns or levels of religious behavior is associated with lower overall religiosity in respondents (Mcphail, 2019).

### **Grandparents' influence**

Analysis of data revealed that other than parents, grandparents also play a very important role in the religious identity development of adolescents. Old age is mainly marked with a high level of religiosity and in the context of Pakistani culture, grandparents usually have very strong bonding with their grandchildren. They use to teach them what they have learnt in their whole lives.

*In the absence of Mama, when I stay with my grandparents, I offer prayers regularly and recite the Quran as well... I use to ask a lot of questions from my grandpa and he wholeheartedly answers me... but my parents do not answer my questions appropriately... and they ask me to keep my mouth shut (Salaar).*

*I like to spend time with my grandfather. He used to tell a lot of stories about historical events. I usually ask a lot of questions related to religion from grandfather (Hashir).*

*My grandfather uses to resolve my confusions related to religion (Sahil).*

*My grandmother made me learn the proper way of offering prayer (Zartasha).*

The narration of the participant reflects that participants are having a strong bonding with their grandparents. Participants perceive them as an authentic source of information, therefore, they use to ask their questions from them. Secondly, due to busy life routine, parents cannot provide sufficient time and attention to their children. Grandparents because of being retired or free from domestic and job-related responsibilities have plenty of time to spend with their grandchildren.

### **Peer Influence**

Peer group influence the life of adolescents. During adolescence, individuals make the transition from spending time with their family to spending more time with their friends or peers. It seems that peer influence on the religious ideas of individuals is more complex than the influence of parents.

*In case of any question related to religion, I ask questions from my friends (Amna).*

*My friends are religious and they help me in understanding various concepts that are difficult for me to understand (Adila).*

*My friends are like me and they use to share different religion grounded stories with me (Mavra).*

*I was worried about my 8th class result and my friends told me different types of WAZAIF (religious orations), for good results (Sana).*

The narration of participants reflects that participants consider their friends as authentic sources of information. Interestingly they ask questions and rely upon the given information of their peers.

*My friends and I, mostly go to the mosque together and if I don't offer Namaz in mosque any day then my friends come to my home and take me to the mosque. (Ali)*

The narration reflects that peer groups or friends are so much influential at this stage that they can steer the behavior of their friends in different directions. In the case of Ali, his friends were playing a significant possible role in religious identity development. At this stage of life, adolescents use to pass plenty of time with their peers and if they are having similar interests and behaviors grounded in religion then it automatically reinforces the religious identity of adolescents.

## Religious Preachers

Religious preachers play an important role in the religious identity development of adolescents

*Religious preachers also helped me in my concept clarity about religious matters (Ahsan).*

*I use to sit in the company of religious preachers and I like their company and their discussions... I have been taking interest in religious matters since my childhood and it was strange for people that a kid sits in the company of religious preachers (Ali).*

*I use to sit in the company of religious preachers and I like their company and their discussions. It increases my belongingness with the religion (Ali).*

*I daily go to Madrisa and sit in the company of my madrasa teachers and they preach us about our religious obligations and their company keeps me on the right track (Adila).*

Thematic analysis revealed that adolescents perceive religious preacher as an authentic source of information. The narration of participants reflects that the company of religious preachers influences the belief, behavior, and belongingness of participants. The influence of religious preachers indicates the level of trust adolescents have on them. They rely upon their given information, therefore, they spend their time in their company.

## Teachers' Power

Teachers appeared as another significant factor influencing the religious identity of adolescents. Characteristics of teachers are of primary importance in shaping the religious identity of their students.

*From the very start, teachers taught us about importance of religion and religious obligations and a lot of religious concepts are deep-rooted in me because of teachers (Iqra).*

*My teacher is very competent and she relates different concepts with religion and it help us understanding concepts in light of Islamic perspective (Sana).*

Teachers appear to be role models for their students therefore sometimes teachers even play a more influential role as compared to any other source. The narration of the participants reflects that they give credit to her teacher for the conceptual clarity of their religion.

Account of Sana reflects that her teacher is competent enough that she is able to relate religious concepts with her lectures. It reflects that when a teacher relates social issues and concept with religious teachings, it not only makes their teaching effective but give understanding of religion to the young minds.

## Media

Narrations of participants reflect that the media helped them in the development of their religious identity. Exposure of media for the adolescent population has been remarkably increased in the previous few years. Media plays an important role in the development of the religious identity of individuals (Hoover, 2006).

*Whenever I watch any video with religious content, it increases my knowledge and refreshes my level of Eman (Mavra).*

*I was worried about my 8th class result ... then I searched some wazaif from YouTube and these Wazaif really worked (Sana).*

The narration above reflects that media is an important source of information for the participant and she experiences nourishment of her belief system. Visual media represents things in a much better manner and visual content leaves long-lasting impact as compared to any other source. Narration of Sana reflects that she considers YouTube as an authentic source of information, therefore, she searches Wazaif for success in exams and her trust in the source is validated because she thinks that good scores in the exam are because of these Wazaif. It reflects that media is so powerful that it can lead towards shaping the religious identity of individuals. It also reflects that adolescents show their association with religion because it helps them to solve their daily problems.

## Personal Preference

Personal preferences appeared as a unique factor influencing the religious identity of adolescents. It is basically marked with an internal inclination towards religion and religious commitments.

*I like to read religious literature... book reading is my hobby (Adila).*

*There was a time when I was having a lot of confusions about religious matters, but Alhamdulillah all confusions are almost finished...I search for literature and ask questions from religious scholars (Ali).*

*I love to ask questions about religion and listen to stories about the lives of various Prophets (Ahmad).*

Individual differences are found in choices, interests, and hobbies and in the same line, the current study reveals that some participants are having a strong tendency to gain religion-related knowledge and to perform religious practices. The account of participants reflects that personal tendency towards exploration matters a lot and it shapes the religious identity of adolescents.

## **Discussion**

Religious identity appeared as an amalgamation of beliefs, practices, and belongingness, which is determined by various factors (viz., parental influence, the influence of grandparents, peer influence, media, teachers' power, the influence of religious preachers, and personal preferences).

Thematic analysis revealed that the most important part and root of religious identity is belief system. Belief is the essence of religious identity, once it is well internalized, it leads towards appropriate religious behavior and strong belongingness with religion is developed. In line with previous research, the current study demonstrated that religious belief moves from one generation to another generation and is accepted by adolescents as it is, without exploration (Copen & Silverstein, 2008; Goodman & Dyer, 2020). Therefore, all the participants are found to be on the foreclosure status as they have committed to their religious identity without any proper exploration. According to Brown (2013), it is the strength of every religion that it travels between generations and it remains similar without any change, especially among the young generation. Tawakul is marked with sole reliance on Allah Tala, appeared as the unique ingredient of the religious belief of adolescents in the current study. Tawakul is considered as the peak of belief system and usually it is experienced by the adults. Interestingly, most of the participants reported having Tawakul on Allah Tala. It appeared that adolescents are mature enough to use Tawakul as a healthy coping mechanisms to deal with the negative life events.

The second component of religious identity appeared in the current study was behavior. Behavior is the outcome of belief. The depth of belief is directly linked with the regularity and consistency in religious behavior. The results also showed that the participants had strong emotional attachment and association with the religion and they showed belongingness with religion because they conceived their religion superior and a kind of relationship with God that contributed to their religious identity. Results are in line with McPhail (2019) that elonging to religion can have many aspects, including a sense of identity, confidence that one knows the truth about the supernatural, hostility toward people who do not belong, emotional attachment to the group, and fellowship with other members.

As the channels to the development of religious identity concern, parents appeared as a significant determinant of religious identity of our sample. Results are consistent with previous literature that parents influence the religious ideology of individuals. Literature also suggests that parents transmit their values and beliefs to their children via direct training and instruction to children, and social learning or role modeling that demonstrates desired outcomes for children (Yi et al., 2004). Any or all of these mechanisms may be operating in the transmission process to maintain continuity across generations. Studies have shown that parents exert a lasting imprint on the religious ideologies and commitments of their children (Bengtson, 2013; Myers, 2004). Previous studies have reported that the impact of parents on the religious identity of adolescents is greater than teachers and friends (Fisherman, 2011). Parents have a significant part to play in shaping the faith identity of children and engaging them in religious activities. Most parents see religion as a way of life that is transmitted between generations. Parents consider it a part of their parenting responsibility to pass on their faith (Howarth et al., 2008). The sample of the current study reported that mothers were more religious and mothers played a more important role in the development of religious belief and behavior. Results are in accordance with Brown (2013) that mothers are typically the keepers of family faith and known to steer the life of children with the parameter of religion. Interestingly, the analysis revealed that consistency of parental religious behavior

played a positive role in identity development and where inconsistency appeared in the religious behavior and training of parents, their role becomes controversial and inconsistent.

Thematic analysis has shown the significant influence of grandparents on the religious identity development of adolescents. In the same line, previous research indicates that grandparents play an increasingly important role in the lives of their grandchildren (Bengtson, 2001). Owing to increases in life expectancy over the 20th century, grandchildren spend more time with grandparents in their lives than ever before, increasing opportunities for shared activities and mutual benefit (Uhlenberg, 2005). Grandparents commonly share stories and experiences with their grandchildren, providing a "cultural window" into family history and traditions (Pratt & Fiese, 2004).

Peer influence in the development of religious identity of adolescents in our study is in line with the literature ( e.g., Gunnoe & Moore, 2002; Regnerus et al., 2004). Adolescents spend a significant amount of time in learning at school (Huang, 2020). The relationship of adolescents with peers and teachers play important role in the lives of adolescents (Wang & Holcombe, 2010). Peers significantly contribute in the socialization of religious commitments. Since much of adolescents' time is spent in educational or extracurricular activities, they internalize what they perceive desirable in their peers. Having highly religious peers significantly contributes in the religiosity of adolescents (Desmond et al., 2010; Gunnoe & Moore, 2002; Regnerus et al., 2004). Conversely, Pearce and Denton (2011) found that influence of peer was not absolutely direct on the adolescents' religiosity because adolescents do not discuss religious content frequently. It indicates that the influence of peer is spurious explained by other characteristics that peers tend to have in common. According to Verhoeven et al. (2019) proclaim that peers are so important in the life of adolescents as in school setting norms of peers influence the identity development of individuals.

Teachers, religious leaders and media also appeared to have strong impact on the development of religious identity of our study sample. The results of the current study are in line with the previous study which revealed that religious beliefs and values of teachers were so important that it determined the religious identity of individuals (Nelson, 2010).

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School teachers possess an incredible opportunity to shape a student's life in an incredible way (Wang, 2012). Religious instructors carry a special responsibility to deliver meaningful and effective teaching. Bertram-Troost et al. (2009) reported similar findings regarding the influence of religious preachers or instructors on the religious identity development of individuals. Parents and young people alike recognized pressures from peers, the media and mainstream adolescent culture for young people to make choices that did not necessarily fit with their family's religious beliefs and practices. Dinter (2006) reported that computer usage (social media) contributes to adolescents' religious identity formation.

Most of the factors are similar to the previous studies but personal preference is the unique factor that influences the religious identity of adolescents. It is interesting that participants are having an internal inclination for religion-related knowledge. Findings of current research do not indicate any particular form of gender differences in the components or factors of religious identity.

### **Practical Implications**

Findings of current study can be used in clinical, counseling and educational settings. Teachers should be trained and the role of media can be shaped to develop successful religious identity among adolescents. Current study highlights that religious training by parents is considerably effective but consistency in religious practice of parents is also a significant influential factor in the development of un baffled religious identity. Therefore parents can be guided to bring consistency in their religious practice, if they want their children to develop a non-conflicting religious identity. Study has provided theoretical model of religious identity development and invites other researchers to quantitatively test this model and validate this process of religious identity. On the basis of empirical findings, it would ultimately help counselors to devise strategies for the development of healthy religious identity



## Limitations and Suggestions

Only Muslim sample was drawn to ensure the homogeneity of the sample and also due to time constraint to complete the research project, so in future sample from other major religions should be included in a research projects. The study was purely qualitative and we cannot generalize the results of study. It is suggested that on the basis of the theoretical framework provided by the current study, further quantitative researches can be conducted to validate the findings of current study. Furthermore, quantitative study will help in ensuring the external validity of current findings.

## Conclusion

Religious identity appeared to play very important role in the life of adolescents. All the participants appeared to be identified with their religion, so it can be concluded that adolescents perceive that religion is something that integral part of their life and is not questionable. Differences in the individuals are found on the basis of differences in belief, behavior and belongingness. Differences in these components may be because of difference in factors that influence religious identity.

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### **Ethics approval and consent to participate**

The study was approved by The Punjab Higher Education Commission, Pakistan. Permission to collect data was taken from the parents and the participants, and informed consent was taken from the parents of the participants of the study.

### **Consent for publication**

Consent approved by the authors

### **Availability of data and materials**

Not Applicable

### **Competing Interests**

The authors are well informed and declared no competing interests

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### **Authors' contribution**

S.S.B. conceived the idea, designed the study, supervised the research project from data collection to data analysis, reporting and preparing this particular manuscript. S.G. prepared interview schedule, collected the data, analyzed the data, prepared a report and contributed in the preparation of this manuscript under the supervision of S.S.B. Both authors contributed equally in this manuscript and are responsible for the content. Both authors have read and approved the manuscript, and ensure that this is the case.

## Perceived Father Attachment and Externalizing-Internalizing Behavioral Problems among Left-behind Adolescents: A Moderated Mediation Model of Family Functioning and Mother Nurturance

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### Abstract

**Introduction.** A father and adolescent relationship is one of the most significant and influential relationships in an adolescent's life. Father's absence due to migration and its resulting consequences have been little addressed In the academic arena of south Asian context specially in Pakistan . This study was designed to examine whether the adolescent's perception of migrant father attachment is associated with externalizing-internalizing problems and further investigated mediating and moderating process underlying this effect.

**Method.** A cross sectional study was conducted in which 400 left-behind adolescents, aged 13 to 18, girls (n= 174) boys, (n= 226) were recruited from different schools and colleges of two districts, Rawalpindi and Poonch Azad Kashmir. Data was completed through self-report measures.

**Result.** Results of the study revealed that migrant-father attachment, family functioning and mother nurturance are negatively linked to externalizing-internalizing problems. Moreover, family functioning significantly mediated the relationship between migrant-father attachment and externalizing-internalizing problems. In addition, the results revealed that mother nurturance significantly moderated the conditional indirect effects of father attachment on externalizing-internalizing problem through family functioning among left-behind adolescents. Moreover, significant mean differences were found between age and family system on externalizing-internalizing problems.

**Conclusion.** The study findings highlight the importance of attachment between migrant fathers and adolescents to enhance their family functioning and consequently to decrease their externalizing-internalizing problems in the absence of their father.

**Keywords.** *Migrant father attachment, family functioning, mother nurturance, externalizing-internalizing problems, left-behind adolescent.*



## Introduction

Migration internationally for the purpose of job may be a significant way of generating earnings and offers prospects for individuals to earn considerably higher incomes, but it is also accompanied by long-term family separation (Park, & Wang, 2010). In Pakistani society, males are considered the main figure for generating income and provide every facility of life to their children. Patriarchal culture prevails in Pakistan, where males are responsible for earning, while the role of female is of nurturing and caregiver (Qadir, Khan, Medhin, & Prince, 2011), and most females are jobless, responsible for domestic tasks and in this regard are usually obedient to their husbands (Ali et al., 2011). Paternal migration is a common phenomenon in Pakistan, many adolescents live with their mothers and other extended family members in the absence of their father due to migration. Prior studies indicated that parental absence had harmful effects on the emotional and behavioral functioning of adolescents (Bryant et al., 2017). Past studies revealed that left-behind adolescents were more expected to experience mental and emotional stress (Coe, 2008). Left-behind adolescents are those who are below the age of 18 and whose parents' one or both have migrated for employment abroad (Duan & Zhou, 2005). In Pakistan, left-behind adolescents grow up in the supervision of their mothers, so the lack of paternal care may be a reason for high socio-emotional cost. Paternal migration can have both positive and negative consequences for left-behind adolescents, but the negative consequences outweigh the positive outcomes. Long-term absence of father from home may mark the challenging difficulties in the relationship with father which may result in insecure attachment organization.

Several factors have been linked with the development of mental health problems of adolescents, but the factors connected with parent-child relationship have been given the most importance in the field of Psychopathology (Masten, 2005). Left-behind adolescents' psychopathology has been mainly studied in the realm of attachment theory in prior research of family and child psychology. Due to migration, separation from parents negatively affects the parent-adolescent attachment, and may therefore result in high emotional costs for adolescents (Graham & Jordan, 2011).

Lack of communication leads to disturbing family environment which may have many detrimental emotional effects on the left-behind adolescents (Zhao et al., 2017). Insecure attachment has adverse effects on psychological health of adolescents at residence which make them vulnerable to have many behavioral problems like internalizing problems anxiety, depression, somatic problems, irritation, emotional anguish, feeling alone, anxious, and, externalizing problems like anger, and conduct problems (Gibson, McKenzie, & Stillman, 2011; Dreby, 2007).

Externalizing problems mainly comprise of aggression and conduct problems while internalizing problems consist of depression and anxiety. Fathers' relationship with their adolescents is significantly related to their externalizing and internalizing problems (Carlson, 2006). Adolescents' insecurity in attachment may lead to externalizing behavior by resentment and hostility toward fathers that reduce their influence in exercising behavioral controls over their adolescents (Patterson, Debar she, & Ramsey, 2017). Due to migration, father quality of parenting and secure attachment may be badly affected by not exercising all factors of positive parenting which is control, monitoring, and discipline, as a result, adolescents are more likely to develop externalizing problems. Heymann et al., (2009) reported that adolescents of migrant fathers are more expected to display externalizing behaviors. Findings of the previous research indicated that adolescents were better at controlling their emotions when they had well concerned parenting from fathers (Carlson, 2006). Internalizing outcomes are also assumed to stem from the negative evaluations of parents availability and accessibility that are linked with an insecure attachment (Bowlby, 1977). Research findings of Wang et al. (2011) and He et al. (2012), reported that separation from parents increases left-behind adolescents' susceptibility to mental health problems, i.e. they experience more prevalence of depression and anxiety than that of other adolescents. Ren and Treiman (2016) also suggested that left-behind adolescents' are less happy and more depressed. Therefore, it is important to examine whether externalizing internalizing problems are related to migrant father-adolescent attachment. Thus, attachment theory seems to be the relevant theoretical frame to examine the issues of left-behind adolescents in this study.

The father leaving country for a better employment is a process that affects not only attachment bond with person alone but also the entire family functioning. Left-behind adolescents consider the absence of migrant father, a sign of abandonment which leads to insufficient emotional attachment with parents that may result in decline in family functioning (Jia, 2018). Family function is referred to as family unity and constructive interaction, which measures the perception of all family members' contentment with the functioning of family (Shi et al., 2017). Family acts as a whole, consists of interconnected members, each one affecting and being affected by the others and every member is strongly influenced by family dynamics, associations and interactions (Francisco, Loios, & Pedro, 2016). During parental migration, it is particularly complicated for left-behind adolescents to delineate family roles and boundaries (Zhou et al., 2018). Family function may be disturbed due to parental migration. Emotional bond between father and adolescent became fragile due to the physical distance, and adolescents perceived lack of parental love and displayed deficits in family functioning (Zhao et al., 2017). Left-behind adolescents are more likely to rate family function significantly worse than non- left-behind adolescents. Some researches considered family functioning as a key to comprehend the adolescents' mental health problems (Milburn et al., 2005). Wu et al. (2017) also concluded that parental migration influenced adolescent's mental health through mediating effects of family, thus, perceived father adolescents' attachment cannot be fully understood outside the perspective of family functioning.

The role of father, mother and other significant persons in adolescents' life is mostly culturally guided (Tuli, 2012). The father's role in Pakistan is considered fundamental to maintain discipline inside the family. Living apart from adolescents tends to compromise with father's role, which may result in a worse family function, which in turn leads to externalizing-internalizing problems. Family functioning appears to be an essential mechanism relating attachment to adolescents' externalizing-internalizing problems. The mediating role of family functioning between father-adolescent attachment and externalizing-internalizing problems has not yet been studied. This study also serves to fill this gap.

In current years, the protective factors have also been given importance for left-behind adolescents. This study also investigated the role of mother nurturance as moderator. The role of mother in Pakistani culture is of great value. The first and foremost responsibility of the mother within the patriarchal family system in Pakistan is to provide care to adolescent. Mothers are typically accountable for nurturance and social-emotional support of family members (Qadir, Khan, Medhin, & Prince, 2011). The Mother's nurturance has been delineated in diverse terms including warmth, care, affection, support, and intimacy. Perception of parental nurturance is connected with physical and psychological health (Rohner & Veneziano, 2001). Negative association between increased maternal warmth and decreased adolescents' behavior problems was also reported in prior study (Stormshak, Bierman, McMahon & Lengua, 2000). Adolescents respond to the experience of being loved or unloved by their mothers. Absence of affection, nurturance, or love from the mother makes an individual more vulnerable to have problems like, aggression, low self-esteem, and emotional insecurity (Rohner & Khaleque, 2010). Adolescents who perceived their mother accessible, responsive and supportive were more likely to have low scores in aggression, delinquency, social withdrawal and had a strong tendency to be less anxious and depressed (Nunes, Faraco, Vieira, & Rubin, 2013). Formoso, Gonzales, and Aiken (2000) also found that maternal nurturance acted as a protective factor for adolescents' well-being. Due to massive migration of the paternal figure, adolescents are mostly left-behind with their mothers. Keeping in mind the position of mother as caregiver in absence of father in Pakistani culture, adolescents' perception of mother nurturance in father absent families need to be investigated. In Pakistani context, the role of maternal nurturance has not been much explored.

The notion of family care in many Asian cultures involves dynamic roles of extended family members, especially grandparents (Ochiai, 2009). A family system often serves as the foundation of all social behavior (Xie & Xia, 2011). Gorman and Braverman (2008) suggested that adolescents live with single parents have greater chances of indulging in behavioral problems. Absence of a father from a family may disturb family structure and puts the adolescents in adverse situations.

Age is an important factor to examine because children and adolescents can exhibit behavioral problems differently as they grew up in absence of fathers. Flouri (2005) reported that older adolescents tended to have lower levels of externalizing internalizing problems. Socio-demographics need to be explored to find out the differences on externalizing internalizing problems in left-behind adolescents. This study thus required to fill the gap of knowledge to get the comprehensive understanding of externalizing internalizing problems of left-behind adolescents.

Most parent-adolescent related researches focus on mothers, and the significance of fathers' attachment with adolescents have long been ignored. Living in a family with the father away for a long period of time is a part of many adolescents' life in Pakistan. In Pakistani culture, moving abroad for a job by a family member may have complex direct and indirect effects on the left-behind adolescents. This perspective has not been explored in Pakistani population. Khalid, Qadir, Chan, and Schwannauer (2018) found a significant relationship between low parental warmth and depression symptoms among adolescents. Perceived parent-child relation was also explored in relation to adolescent aggression (Fatima & Sheikh, 2016). Studies on father attachment in relation to left-behind adolescents' externalizing internalizing problems have not been much explored.

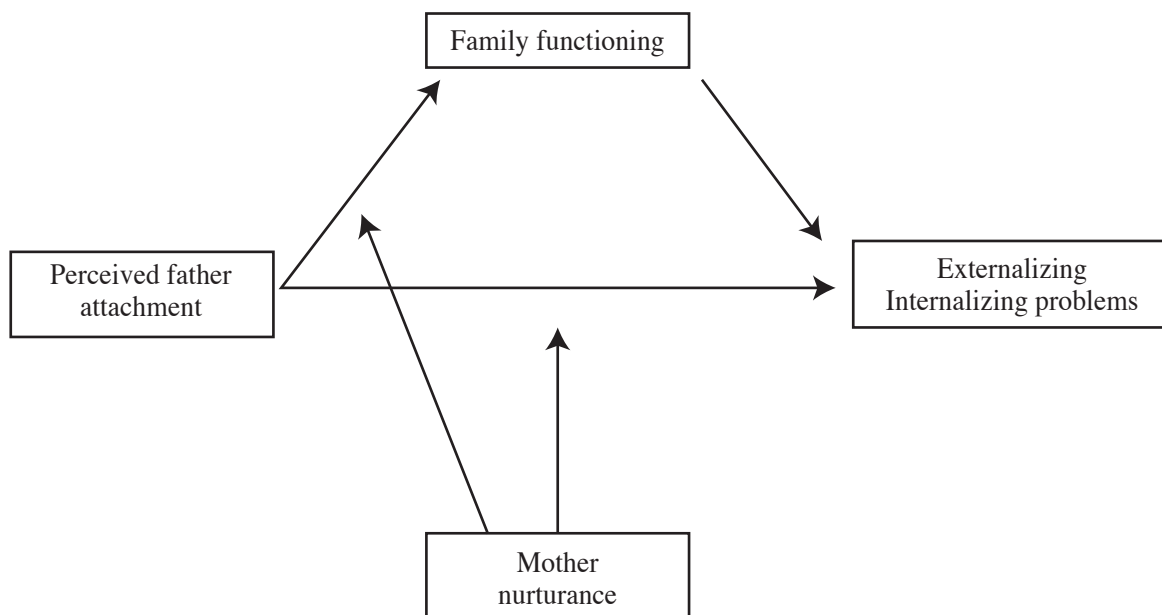
Due to lack of literature available on externalizing-internalizing problems of left-behind adolescents particularly in Pakistan, the researcher recognizes the need to devote some attention to comprehend the migrant father adolescent relationship phenomenon and other interconnected family variables especially in Pakistani population where family relations have been given a lot of significance; this area needs to be explored so that its effects on adolescents' mental health can be addressed. This study utilized a sample of adolescents to test a moderated mediation model in which, first family functioning mediated the association between father attachment and externalizing internalizing problems; second, the direct and indirect relations between father attachment and externalizing internalizing through family functioning were moderated by mother nurturance.

Overall aims of this study was to investigate the impact of father attachment on externalizing and internalizing problems of left-behind adolescents and furthermore, to explore the mediating role of family functioning and moderating role of mother nurturance in association between father adolescent attachments, and externalizing internalizing problems in the left-behind adolescent.

1. Keeping in mind the important nature of phenomena under study, the following hypotheses were proposed:
2. Perceived father attachment, family functioning and mother nurturance are negatively related to externalizing internalizing behavioral problems among left-behind adolescents.
3. Perceived father attachment is indirectly related to externalizing problems, through its relationships with family functioning.
4. Perceived father attachment is indirectly related to internalizing problems, through its relationships with family functioning.
5. Mother nurturance moderated the mediating effect of family functioning between perceived father attachment and externalizing internalizing problems among left-behind adolescents.
6. There would be significant mean differences between two groups of adolescents on externalizing internalizing problems.
7. Left-behind adolescents from nuclear family will have more externalizing internalizing problems as compare to adolescents from joined family system.



**Figure 1.**Conceptual model



## Method

### Design

Data was collected using cross sectional research design. This was the quantitative study to test the formulated hypotheses. All the data was collected from the district of Rawalpindi and Poonch Azad Kashmir.

### Sample

Due to the unregistered status of migrants in Pakistan, there is no survey available defining the proportion of left-behind adolescents in the region. The report published by the Bureau of Emigration and Overseas Employment was used to identify the areas from where a large number of people went abroad for a job. Two districts with high proportion of migrants were included. Data were collected from different schools and colleges of these two districts, Rawalpindi and Poonch. Early adolescents were included from class 8 to 10 from high schools and younger adolescents were included from intermediate level of colleges. According to the required age (13 to 18) of participants for the present study, 450 adolescents from classes (8th to 12), meeting the inclusion criteria were selected. Four criteria were made to confirm the inclusion of participants in the study: (1) participants from age 13 to 18, below age 13 might be unable to fully comprehend measures thus they were intentionally not included (2) participants with father absence more than one year (3) participants were taken care by their mothers (4) participants with no parent divorce and death.

Left-behind adolescents who met either of the following criteria were excluded (1) Adolescents with father migration less than one year (ii) with any physical disease (iii) adolescents with any psychological disease before fathers' migration (Iv) adolescents were not taken care by mothers in fathers' absence. Out of 450, 425 participants agreed to participate in the study. 425 questionnaires were distributed among left-behind adolescents with the recovery rate of 94.1%. 25 questionnaires were excluded due to large missing values. 400 participants were included in analysis. Boys were 56% and girls were 44%, 49% were lying in the age range from 13 to 15 and 51% were between 16 to 18, 49% from nuclear family system and 51% from joined family who were living with mothers and grandparents in father absence.

### Measures

**Inventory of Parent and Peer Attachment (IPPA).** The IPPA inventory consisted of 3 scales namely, father, mother and peer attachment, respectively. It is a self-report inventory with a five-point Likert scale, ranging from 1 (never true) to 5 (always true). The Father scale was used in this present study to assess left-behind adolescents' perception of father attachment. The Father Scale contains 25 items related to trust, communication and alienation between father and adolescent. A full score for father attachment can be obtained by adding the score from all 25 statements. Thus, the range for the scale was 25 to 125.

Higher scores suggest adolescents' perception of higher attachment with their fathers. Thus, the potential range for the scale was 25 to 125; with elevated scores signify more positive perception of adolescents toward their attachment with their fathers. Internal reliability Cronbach alpha was 0.87 for father attachment. Cronbach alpha reported was significantly high for father 0.80.

**Strength and Difficulties Questionnaire (SDQ).** It is a concise mental health-screening questionnaire by Goodman, Meltzer, & Bailey (1998). SDQ comprised of 20 items that are grouped into externalizing problems and internalizing problems. These 20 items are rated on 3-point Likert scale ranging from 0 to 2. Here in this study externalizing problems were measured by adding the total score on all these items (5,2,7,20,12,15,18,21,22,25) and internalizing problems were assessed by adding all score on these items (3,6,8,11,13,14,16,19,23,24). For every query, the participant chooses one of these options: "not true", "slightly true" and "certainly true." Elevated scores on the whole scale is a sign of a high likelihood of abnormalities. The scale has high internal consistency reliability with Cronbach's alpha between 0.88 and 0.86 and test-retest reliability of 0.93. The scale is found reliable having a Cronbach alpha value of 0.90.

**Self-Report Family Inventory.** Family functioning inventory was originally developed by Beavers, Hampson and Hulgus, (1990). It is a self-report instrument that consisted of 36 items. It assesses an individual's perception of his/her family's functioning. It is a five- point scale for each item ranging from 1 to 5. The Summary score can be obtained for this scale by adding all items after reverse scoring of the required items. A high score indicates individuals 'perception of better family functioning. The scale has high internal consistency reliability with Cronbach's alpha between 0.84 and 0.93 and test-retest reliability of .85. Cronbach alpha was significantly high 0.91.

**Parental nurturance Scale (PNS).** The Parental nurturance scale (PNS) was used in this study to assess adolescents' perception of their mother nurturance. One evaluates paternal nurturance and other evaluates mother nurturance. Each form consists of 24 items. For the present study mother nurturance form was used to assess adolescent's perception of mother nurturance.

Mother nurturance consists of 25 items with five- point ranging from response 1 (strongly agree) to 5 (strongly disagree). A total score is obtained by summing up all the score from 24 items. Negative items are reversed before scoring. A higher score indicates higher perception of mother nurturance. The reported internal consistency reliability with Cronbach alpha was 0.95 and test-retest reliability was 0.92. The scale is found reliable having a Cronbach alpha value of 0.90.

### **Procedure**

The study protocol was approved by the Institutional Research Review Board. Permission for data collection was taken in different steps. In the first step, permission was taken from the Director of federal and provincial educational institutions. After their permission, Headmasters, Headmistresses, and Principals of different schools and colleges were approached separately. The rationale of the study was expounded to the concerned authorities. After their permission required participants were separated from the other students who didn't match the criteria. The inclusion criteria were, father absent from home due to employment for more than one year, second, only father was migrated, third, no participant with parents divorced or separated. The Head of institute was requested to provide vacant class and all the participants who met inclusion criteria were instructed to gather in one class. The background and purpose of the study was briefed by the first author. Further after obtaining their informed consent, participants were provided directions to fill out the scales after understanding the statements cautiously. Enough time was given to complete the set of questionnaires. The Time taken for the completion of questionnaires was almost 45 minutes. Demographic sheet that enclosed detail related to their socio-demographic characteristics, paternal and family information included gender; age, family system, and duration of father outside the country were also attached with questionnaires.

### **Results**

The present study was planned to find the relationship between father's attachment and externalizing internalizing problems, through its relationships with family functioning and mother's nurturance among left- behind adolescents of age 13 to 18 from different high schools and colleges of Rawalpindi and Poonch Azad Kashmir.

Sample consisted of 400 left-behind adolescents (56%) boys and (44%) girls. Data obtained were analyzed in IBM SPSS; version 23. Descriptive statistics, i.e. mean, standard deviation and reliability of all four scales, were computed. Pearson Product Moment correlation was applied to determine the association among the study variables. Process macro was used to find the mediating role of family functioning between father adolescent attachments and externalizing internalizing problems. Moderated mediation effect was analyzed by using Model 8 in Process Macro. Moderated mediation was measured using 5000 bootstrap samples for the percentile bootstrap confidence intervals (CI).

**Table 1**  
*Bivariate Correlations Means, and Standard Deviations (N=400)*

Scale	1	2	3	4	5	M	SD
1. FA	.....	0.61**	-0.32**	-0.27**	0.39**	78.94	12.46
2. FF		....	- 0.45**	-0.42**	0.44**	105.20	24.69
3. EXTBP			.....	0.57**	-0.20**	9.71	3.56
4 INTBP				.....	-0.22**	9.58	3.33
5 MN					.....	82.81	17.95

Note. FA= Father Attachment, FF= Family Functioning EXT= Externalizing Behavioral Problem, INT = Internalizing Behavioral Problem, MN= Mother nurturance, \*\*  $p < 0.01$ .

Table 1 shows a significant negative correlation between migrant father attachment and externalizing-internalizing problems and significant positive correlation to family functioning and mother nurturance. Statistical analysis also suggests that family functioning is negatively related to externalizing and internalizing problems as low family functioning is a risk factor of behavioral problems of adolescents. Mother nurturance is negatively correlated with externalizing and internalizing problems.

**Table 2**  
*The mediating role of family functioning between perceived father attachment and internalizing problems among left behind adolescents (N=400).*

Variables	Internalizing problems			
	Model 1		Model 2	
	B	B	95% CI LL	95% CI UL
Constant	15.25**	15.81**	13.90	17.73
FA	-.07**	-.005	-.03	.02
FF		-0.05**	-.07	-.04
R <sup>2</sup>	.07	0.17		
Δ R <sup>2</sup>		.01		
F	30.91	43.24		

Note, FA= Father Attachment, FF, Family Functioning, \*\* $p < 0.01$ , \*\*\* $P < .001$ .

Result in the Table 2 shows the acceptance of the hypothesis which states that family functioning mediates the association of father adolescent attachments and internalizing behavioral problems among left-behind adolescents. Direct impact of father attachment on left- behind adolescents' internalizing problems became non-significant after controlling for the effect of family functioning ( $B = -.01$ , 95%,  $CI = -.03, .02$ ). Furthermore, the results indicate that family functioning significantly mediates the relationship between father adolescent attachment and internalizing problem ( $B = -.06$ , 95%,  $CI = -.08, -.04$ ). This mediated mode explains 01% of the variance in the domain of internalizing problems.

**Table 3**

*The mediating role of family functioning between father attachment and externalizing problems among left-behind adolescents (N=400)*

Variables	Externalizing problems			
	Model 1		Model 2	
	B	B	95% CI	
		LL	UL	
Constant	16.88**	17.48**	15.4	19.5
FA	-.09**	-.02	-.05	.01
FF		-.05**	-0.07	-.04
R <sup>2</sup>	0.31	0.20		
Δ R <sup>2</sup>		0.11		
F	44.69	51.27		

Note: FA= Father Attachment, FF= Family Functioning, \*\*P < .00.

In the Table 3, the result of mediation analysis shows that family functioning mediates the association between perceived father attachments and adolescents' externalizing problems. Results indicate that total effect of father attachment on externalizing problem is significant as described in Model 1. Direct impact of father attachment on left-behind adolescent's externalizing problems become non-significant after controlling for the effect of family functioning ( $B = -.01$ , 95% CI=  $-.03, .02$ ). Furthermore, the results show that family functioning significantly mediates the relationship between father adolescent attachment and left-behind adolescents' externalizing problem ( $B = -.07$ , 95%, CI=  $-.09, -.04$ ). This mediated model explains 11% of the variance in the domain of externalizing problems.

**Table 4**

*Conditional indirect effect of father attachment on externalizing problems through family functioning moderated by mother nurturance among left-behind adolescents (N=400)*

Predictor	Moderator MN	Mediator			Dependent		
		B	FF		B	EXBP	
			95% CL			95%CL	
			LL	UL		LL	UL
Constant		-85.51**	-66.95	104.07	20.67**	17.20	24.14
Gender		-1.01	-4.82	2.78	-0.28	-0.93	-0.35
Age		8.75**	3.37	14.12	-1.10*	-1.89	-.04
Edu		-2.12	-6.97	2.71	-0.42	-1.24	0.39
Family system		-4.16*	-8.01	-0.31	-.03	-.69	0.61
No of sibling		-2.20	-6.02	1.60	-1.13**	-1.78	-0.48
Year father absence		0.99	-1.66	3.66	-.05	-.50	0.39
Area		8.12**	2.57	13.68	-0.39	-1.34	0.55
Cfsm		0.71	-3.13	4.56	-0.12	-.77	0.52
FA		1.01**	0.85	1.17	-.02	-.05	-.01
MN		0.34**	0.18	0.49	.01	-.01	.04
FF					-.05**	-.07	-.04
FA*MN		.01**	.00	.02	-.00*	-.00	-.00
Conditional indirect	Low				-.04	-.06	-.02
	Medium				-.05	-.07	-.03
	High				-.06	-.09	-.04
R <sup>2</sup>		0.45			0.25		
F		29.60**			10.80**		
ΔR <sup>2</sup>					.02		

Note: Edu = Education, Cfsm= Communicate with father on social media, FA= Father Attachment, EXBP= Externalizing Behavioral Problem, FF= Family Functioning, MN= Mother Nurturance, \*p < .05, \*\*p < 0.01.

Table 4 shows the conditional indirect effect of perceived father attachment and externalizing problems through family functioning in the presence of the moderator, mother nurturance. The result shows that after controlling for the effect of the variables including gender, age, education, no of siblings, family system, no of year father living outside country, area, and connected with father on social media, the mother nurturance has a significant positive effect on family functioning ( $B = 0.34$ ,  $**p < .001$ ) and there is significant negative effect of family functioning ( $B = -.05$ ,  $**p < .001$ ) on externalizing problems. The result shows that mother nurturance moderates the relationship between the father-adolescent attachment and family functioning with significant positive interaction ( $B = .01$ ,  $**p < 0.01$ ). The result also shows that mother nurturance moderates the relationship between the father-adolescent attachment and externalizing problems with significant negative interaction ( $B = -.001$ ,  $*p < 0.05$ ). Moreover, Bootstrapped confidence interval (CI, 95%) shows that the conditional indirect effect of father-adolescent attachment mediates through family functioning are significant at three level of moderator low, medium and high. It indicates that when mother nurturance, is low, ( $-.04$ ,  $CI = -.06, -.02$ ) medium, ( $-.05$ ,  $CI = -.07, -.03$ ) and high, ( $-.06$ ,  $CI = -.09, -.04$ ), the externalizing problems of left behind adolescents are significantly decreased.

**Table 5**

*Conditional indirect effect of father attachment on internalizing behavior problems through family functioning moderated by mother nurturance among left-behind adolescents (N=400)*

Predictor	Moderator MN	Mediator			Dependent		
		B	FF		B	INBP	
			95% CL			95%CL	
		LL	UL	LL	UL		
Constant		-85.51**	66.95	-18.04	18.05**	14.75	21.35
Gender		-1.01	-4.82	3.97	-.07**	-0.62	0.60
Age		8.75**	3.37	14.9	-0.76*	-1.64	0.11
Edu		-2.12	-6.97	2.71	-.05	-0.84	0.72
Family system		-5.16**	-8.97	-0.32	0.10	-0.52	0.72
No of sibling		-2.20	-6.02	1.60	-0.68*	-1.30	-.07
Year father absence		0.99*	-1.66	3.66	-0.51*	-0.94	-0.08
Area		8.12**	2.57	13.68	-0.30	-1.20	0.60
Cfsm		0.71	-3.13	4.56	0.38	-0.23	1.00
FA		1.01**	0.85	1.17	-.01	-.03	-.02
MN		0.30**	0.18	0.49	-.02*	-.02	0.20
FF					-.04**	-.06	-.03
FA*MN		.01**	.03	.02	-.002*	-.00	-.00
Conditional indirect	Low				-0.38	-.05	-.02
	Medium				-0.49	-.06	-.03
	High				-.06	-.08	-.04
R <sup>2</sup>		0.22			0.45		
F		9.37***			29.60**		
ΔR <sup>2</sup>					.08		

Note: Edu= Education, Cfsm = Communicate with father on social media, FA= Father Attachment, INBP= Internalizing Behavioral Problem, FF= Family Functioning, MN= Mother Nurturance, \* $p < .05$ , \*\* $p < 0.01$ .

**Table 6**

*Mean, Standard Deviations and t-values for Age differences on externalizing internalizing problems among left-behind adolescent (N=400)*

Scale	Early adolescents (n= 196)		Late adolescents (n= 204)		t	p	95%CI		Cohen's d
	M	S.D	M	S.D			LL	UL	
	EXP	10.49	3.08	8.96			3.82	4.40	
INP	10.27	2.99	8.92	3.50	4.14	.00	0.71	1.99	0.41

Note: EXP= Externalizing Problems, INP= Internalizing Problems

Table 6 shows the mean differences between two age groups on externalizing and internalizing problems. The early adolescents ( $M = 10.49$   $SD = 3.08$ ) have higher externalizing problems and internalizing problems ( $M = 10.27$   $SD = 2.99$ ) as compared to late adolescents' externalizing problems ( $M = 8.96$   $SD = 3.82$ ) and internalizing problems ( $M = 8.92$ ,  $SD = 3.50$ ).

**Table 7**

Mean, Standard Deviations and *t*-values for family system differences on externalizing and internalizing problems among left-behind adolescent (*N*=400)

Scale	Joined ( <i>n</i> = 197)		Nuclear ( <i>n</i> = 203)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>		95%CI
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
EXP	9.34	3.41	10.07	3.67	-2.06	.01	-1.43	-.03	0.20
INP	9.17	3.21	9.98	3.40	-2.4	.03	-1.46	-.16	0.24

Note: EXP= Externalizing Problems, INP= Internalizing Problems

The finding in the Table 7 suggests that there is significant difference between adolescents living in joined family system and adolescents in nuclear family system. Adolescents living in nuclear family system have a high score on externalizing problems (*M*= 9.34, *SD* = 10.07) and internalizing problems (*M*= 9.17, *SD* =7.40) as compared to adolescents living in joined family system (*M* =10.07, *SD* = 13.67), *M* =9.98, *SD* =3.40).

### Discussion

The present study was carried out to examine the impact of migrant father attachment, on externalizing internalizing problems including the mediating role of family functioning and moderating role of mother nurturance in left-behind adolescents. An important objective of the study was to investigate the association of father attachment and left-behind the adolescent's externalizing internalizing behavioral problems, through its relationships with family functioning in the context of a traditionally collectivistic culture like Pakistan, where family relations have been given much importance.

Finding of the study indicated a negative relationship between the migrant father's attachment, and externalizing internalizing problems, thus supported the first hypothesis. These findings are in line with previous research findings (Gibson et al., 2011; Dreby, 2007) that insecure attachment has negative effects on psychological well-being of left-behind adolescents which results in many emotional and behavioral problems like symptoms of anxiety, depression, somatic problems, aggression, and emotional distress. Finding also showed significant negative relationship between family functioning and behavioral problems which were in line with prior studies (Berge, Wall, Larson, Loth, & Neumark, 2013). Poor family functioning may cause a stressful and less structured family environment, increases the chance of risky outcomes for adolescents. Findings also indicated a negative relationship between mother nurturance and externalizing-internalizing problems of adolescents.

Our results are in line with the findings of Stormshak, Bierman, McMahon & Lengua, (2000) who also reported negative association between increased maternal warmth and decreased behavior problems.

One of the main objectives of the study was to test the mediating role of family functioning. Finding of the present study revealed that family functioning fully mediated the association between father attachment and adolescents' externalizing internalizing problems, suggesting that father attachment could influence externalizing internalizing problems directly and indirectly (via family functioning) thus confirming hypothesis. Insecure father adolescent attachment adversely affects family functioning by deteriorating interaction between family members which in turn leads to negative effects on mental health of adolescents. Same finding was also reported by Rawatlal, Kliever, & Pillay, (2015) that the attachment relationship had an influence on different dimensions of family functioning i.e., communication, unity, disagreement and support. Insecure attachment can amplify adolescents' vulnerability to emotional distress, since the individual may become more susceptible in stressful situation such as family conflict. Similarly, Whisman, and McClelland, (2005) indicated that parental separation resulted in lack of affection between adolescents and parents, which hindered in positive family functioning and contributed for the development of behavioral problems. Family functioning was found to be negatively related to adolescents', internalizing and externalizing problems (Joh et al., 2013).

Due to migration, disrupted father adolescent attachment bond leads toward poor family functioning and decreases positive interaction in family which in turn, has relation with mental health problems. The weak bond between adolescents and parents adversely affects other dimensions, including mental well-being and dealing with other people. Berge et al., (2013) also found that poor family functioning may increase the chance of risky outcomes for adolescents.

An important objective of the study was to test the conditional indirect effect of mother nurturance on externalizing-internalizing problems through family functioning at different level of a moderator (mother nurturance). To better comprehend the role of mother nurturance in left-behind adolescent's externalizing-internalizing problems, we evaluated whether adolescents' perception of mother nurturance moderated the pathways through which migrant-father attachment was related to externalizing-internalizing problems directly as well as indirectly via family functioning. Moderated mediation model was created by integrating father attachment, family functioning, mother nurturance and adolescents' externalizing-internalizing problems. The analysis was done after controlling for the relevant covariant (age, gender, and family system, no of years father working outside the country, area, connected with father on social media). The conditional indirect effect of father attachment on externalizing behavior through family functioning was significant at high level of mother nurturance. Adolescents with low mother nurturance were susceptible to have mental health problems when subjected to insecure attachment, whereas adolescents with high level of mother nurturance were comparatively resistant to the mental health problems. The result showed that mother nurturance emerged as a significant moderator between father attachment and internalizing-externalizing problems through family function, and similarly finding was reported by Mejia et al., (2006) that nurturing mothering formed an environment within a family system that offered opportunities for high family functioning. Moreover, Updegraff et al. (2009) found that the mother expressed greater warmth and acceptance toward adolescents than fathers did and adolescents reacted to the experience of being cherished or unloved by their mothers. Adolescents in absence of affection, nurturance, support, or care, experienced more externalizing-internalizing problems (Rohner & Khaleque, 2010).

But adolescents with a warm, accessible and supportive mother experienced low scores in violent behavior, delinquency, and social withdrawal and are less anxious and depressed (Nunes, Faraco, Vieira, & Rubin, 2013). Thus, findings supported the view that mother's role became more significant in family functioning in father absence. Present findings indicated that higher mother nurturance was associated with lower risk of externalizing-internalizing problems; therefore, this study speculated that the level of mother nurturance acted as a protective factor against the development of externalizing-internalizing problems.

Our hypothesis related to variation on externalizing-internalizing problems in different age groups is approved i.e. those who are younger have more behavioral problems than older ones (Table 6). These findings are in line with the finding of the previous studies that behavior problems emerge during early adolescence but decrease again in late adolescence. Flouri, (2005) also reported that older adolescents seemed to have lower level of externalizing internalizing problems. Fu and Law, (2018) indicated that the skill to create positive meaning from parental migration improved with age. So it might be a reason that the older adolescents may have lower externalizing-internalizing problems. Results also showed significant differences on externalizing and internalizing problems among left-behind adolescents of two different family systems (nuclear and joined). Adolescents from nuclear families have more behavioral problems as compared to adolescents from joined families. Dufour et al. (2008) suggested that the adolescents in nuclear family headed by mother, appeared to have more emotional problems. Paternal absence may lead directly to decreased concern, motivation and supervision. Mother alone cannot always compensate for the vacant space created by migrant father. Often this empty space can be better filled by extended family i.e. including mother, grandparent or uncle and aunt. Rubin, Coplan, and Bowker, (2009) suggested that effective psychosocial support from extended family members may help adolescents to cope with father absence.

### **Implications**

This study is one of the very few preliminary researches, addressing externalizing-internalizing problems of left-behind adolescents in Pakistan and carries significant implications in the context of father migration.

In specific, this study points out the enduring negative effects of left-behind experiences, which are often ignored in family and academic studies, policies and interventions. Identifying protective factors can offer significant insights for the development of interventions aiming at the well-being of adolescents in migrant families. The mother nurturance and extended family system are found to be protective factors. It is imperative to inform parents in left-behind families to create a family environment that is more amenable for adolescents to cope with their fathers' migration. It is important that teachers, and other family members who interact with adolescents, are well equipped to recognize those left-behind adolescents who are suffering from behavioral problems owing to father absence and are also sentient of services offered to improve the well-being of these adolescents. Creation of mutual networks can act as a protective factor to minimize negative effects following father migration. The findings of this study are valuable for Pakistan and other countries experiencing a larger number of left-behind adolescents. These findings highlight the importance to plan interventions for adolescents' externalizing-internalizing problems, particularly considering the role of family functioning and mother nurturance in absence of father. It is apparent that strategies for decreasing the negative impact of father absence are needed. Our results strongly recommend planning intervention programs aimed at monitoring left-behind adolescents' mental health and supporting relationships with both parents, in order to prevent the development of externalizing-internalizing problems in adolescents.

### **Limitations**

First, data were collected with self-report measures. Therefore, the results revealed how the left-behind adolescents' perceived their attachment with migrant fathers. Thus, the findings of this study should be interpreted in the context of this limitation. In future studies, in addition to self-report measures, various assessment techniques, such as parents' reports, and teachers' reports are required. Second, despite efforts to select the representative sample, data was collected only from two districts of Pakistan which reduced the generalizability of the findings to left-behind adolescents in other areas of Pakistan. Additional studies in future with larger and more diverse sample should be conducted. Third, due to cross-sectional study, causal pathways cannot be illustrated.

In future research, qualitative studies are recommended to examine the in-depth effects of aforementioned variables. Fourth, due to the unavailability of migrant fathers and mostly uneducated mothers, data could not be collected from parents, thus all the data were collected from adolescents. It is recommended to get information from both parents and adolescents in future studies. The fifth limitation is that the current study was conducted in schools and colleges, and this study did not include adolescents who drop out of school. Although some studies in western culture found that parental migration could lead to school drop-out (McKenzie & Rapport, 2011). Future studies including a diverse sample of adolescents are still needed. Moreover, this study only focused on the left-behind adolescent; however, including non-left behind adolescents in the study, more interesting conclusions can be drawn. Likewise particular indicators of attachment dynamics and adolescents' mental health in various family contexts should be assessed by including more socio-demographics i.e., duration of father's migration, reunion, frequency of communication, and home visits.

### **Conclusion**

The current study examined the mediating and moderating role of family functioning and mother nurturance in the relationship between father attachment and externalizing-internalizing problems among left-behind adolescents. Study findings indicated that father-attachment had a negative relation with externalizing-internalizing problems which suggested that low migrant father attachment puts adolescents at risk for the development of externalizing-internalizing problems, largely through their effects on dysfunctional families. Mediation and moderated mediation analysis had also been undertaken in this study. Mediation analysis revealed the mediating role of family functioning in the relationship of father-attachment and externalizing-internalizing problems. The moderating mediation analysis showed that mother nurturance moderated the indirect effect of father-attachment on externalizing-internalizing problems through family functioning. On the whole, the present study contributes to family science by examining the respective influence of father attachment on left-behind adolescents' externalizing-internalizing problems. In sum, researchers and mental health professionals should consider underlying mechanisms of the association between migrant father attachment and left-behind adolescents' externalizing-internalizing



problems and devise effective intervention plans to prevent the development of externalizing–internalizing problems in left- behind adolescents.

### **Ethical Considerations**

Ethical approval of the study obtained from departmental committee. All participants participated after written informed consent.

### **Conflict of Interest**

None

### **Funding**

None

### **Authors' Contributions**

ZS completed the study and the article under supervision of TA. TA helped ZS to refine the conceptual model of the study and finalize the article.

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## Development and Validation of Romantic Relations Scale for Adolescents (RRS-A)

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### Abstract

**Background.** Romantic relations are usually taken as hallmark of adolescence and considered important relational factors in the development and well-being of adolescents. As no instrument was available to measure perception of romantic relations by adolescents living in eastern religious collectivist developing society, therefore, the main objective of this study was to develop an indigenous scale to measure perception of romantic relations by adolescents, both boys and girls.

**Method.** Three studies were conducted with adolescents' samples, age ranging from 16 to 18 years. Study 1 was conducted to generate item pool. Study 2 was conducted to determine factor structure and psychometric properties of the scale on sample of 506 adolescents. And study 3 was carried out to confirm factor structure through confirmatory factor analysis on another sample of adolescents ( $N = 647$ ).

**Results.** In first study, a pool of 151 items was generated. In second study, Principal Axis Factoring with Promax rotation was used for 1st order exploratory factor analysis that resulted in generation of 13 factors consisting of 74 items. Cronbach's Alpha for factors ranged from .61 to .88. Second order factor analysis resulted in three dimensions named as Intimacy ( $\alpha = .94$ ), Passion ( $\alpha = .83$ ) and Distrust ( $\alpha = .84$ ). Finally, in third study, results of hierarchical confirmatory factor analysis showed that scale had construct validity.

**Conclusion.** The results indicate that Romantic Relations Scale for Adolescents (RRS-A) is a comprehensive, valid, and reliable measure to assess the perception of romantic relations in adolescents.

**Keywords.** *Adolescents, romantic relations, intimacy, passion, distrust*



## Introduction

Romantic love, passionate love, romance, and romantic relations are not the new concepts in realm of interpersonal relations. These concepts are as old as the history of humankind. Around 3500 BCE, when writing was invented by Sumerians, passionate love was one of the first topics on which they wrote (Hatfield, Bensman & Rapson, 2012). Since then and now for centuries, poets, philosophers, artists, and writers had described various aspects of romantic love and romantic relations. The perception and acceptance of these concepts can vary from time to time and from culture to culture, but their existence cannot be denied (Karandashev, 2015).

According to Rubin (1970), romantic love consists of three components including affiliative and dependent need, predisposition to help, and exclusiveness and absorption. He proposed that romantic relationships have characteristics of both love and liking. He differentiated between romantic relationships and platonic friendship (Masuda, 2003). While Hatfield and Walster (1978) distinguished between passionate love and companionate love. Sternberg (1986) gave triangular theory of love which not only explained the nature of love but also loves in different kinds of relationships. According to Masuda (2003) and Hatfield et al. (2012) the triangular theory of love is one of the most relevant theoretical models within the realm of romantic relationships. This model has proposed three components of the romantic relationships (i.e., intimacy, passion, and commitment). It also explains eight different kinds of love (i.e., nonlove, liking, infatuated love, empty love, romantic love, companionate love, fatuous love, and consummate love). The classification is based on different combinations of three components of triangular theory of love (De Andrade, Wachelke & Howat-Rodrigues, 2015). By taking Sternberg's triangular model of love (Sternberg, 1986) as a guide, Yela (Garcia, 1998; Yela, 1996) developed tetragonal model of love. According to Yela's tetragonal model, there are four components/ dimensions of love i.e., intimacy, erotic passion, romantic passion, and commitment.

Although romantic relations can develop at any stage of life, but exploration of romantic relationships becomes an exciting challenge in adolescence (Ponti, Guarnieri, Smorti & Tani, 2010). Importance of romantic relations is undeniable during adolescence (Larson, Clore & Wood, 1999) as these relationships have many benefits for adolescents.

These relations provide social support, increase self-esteem, develop intimacy, and even prepare the adolescents for adult relationship (Bouchev & Furman, 2003; Collins, 2003; Connolly & Goldberg, 1999; Shulman, Davila & Shachar-Shapira, 2011; Shulman & Scharf, 2000). These relationships have also been found significant for well-being of the adolescents (Collins, 2003; Collins, Welsh & Furman, 2009; Giordano, Manning, & Longmore, 2006).

In 1940's, social scientists started their efforts to measure romantic love. The pioneers were mostly sociologists. One of those sociologists was Gross (1944) who developed Attitudes Toward Romanticism Scale. After Gross, other sociologists continued efforts to develop instruments including A Romanticism Scale developed by Hobart (1958), Romanticism Scale developed by Dean (1961), The Reiss Romantic Love Scale by Reiss (1964) and Romantic Love Scale by Kephart (1967). Another scale i.e., Hattis Love Scale was developed by Hattis (1965) who was a scholar from the field of medicine and public health.

In field of Psychology, Rubin is considered as a pioneer in the measurement of love. He was the first researcher who used an objective measure to assess love (Masuda, 2003). According to Rubin (1970), romantic relationships have characteristics of both love and liking. Hence, he developed Love Scale and Liking Scale to measure people's romantic love and liking for their partner (Masuda, 2003). His Love Scale measures three components of love including affiliative and dependent need, a predisposition to help, and an orientation of exclusiveness and absorption (Rubin, 1970).

Dion and Dion (1973) developed Romantic Love Questionnaire that measures attitude of the people towards romantic love, subjective emotional experiences of the people when they are in love, and the frequency, duration, and intensity of their romantic experiences. While Aron and Westbay (1996) developed Prototype of Love Scale that measures people's concepts of love and how much intimacy, passion, and commitment they experience in their own relationships.

According to Masuda (2003) and Hatfield et al. (2012), the most popular and the most commonly used scales to measure passionate or romantic love include Love Attitudes Scale, Passionate Love Scale, and Sternberg's Triangular Love Scale.

Hatfield and Sprecher (1986) developed Passionate Love Scale which measures the cognitive, physiological, and behavioural aspects of passionate love. In the same year, Hendrick and Hendrick (1986) also developed Love Attitudes Scale which was based on Lee's color theory of love. Consisting of 42 statements, it measures six love styles (i.e., eros, ludus, storage, mania, agape and pragma). There are seven items for measuring each love style. The scale also has a short version called Love Attitudes Scale: Short Form, consisting of only 24 items (Hendrick, Hendrick, & Dicke, 1998).

Sternberg (1997) developed Sternberg Triangular Love Scale (STLS) that measured three components of love (i.e., intimacy, passion, and commitment). Original Version consists of 72 items including 24 items for each component. Later, a revised version of the scale was presented consisting only 45 items wherein each component is measured by 15 items. Lemieux and Hale (1999, 2002) developed Triangular Love Scale, consisted of 19 items, that also measures intimacy, passion, and commitment.

Other measures used to assess romantic relations include Relationship Rating form (RRF) by Davis (2001) and Romance Qualities Scale by Ponti et al. (2010). Relationship Rating form (RRF) assessed seven global characteristics and 20 facets of romantic relationships and friendships. The global characteristics measured by this scale are viability, intimacy, passion, care, commitment, global satisfaction, and conflict/ambivalence (Davis, 2001). Ponti et al. (2010) developed Romance Qualities Scale and Friendship Qualities Scale to measure the quality of romantic relationships and friendships from adolescence to early adulthood. Romance Qualities Scale measures the five qualitative dimensions of romantic relationships including companionship, conflict, help, closeness, and security.

In Pakistan, Anjum and Batool (2017) has developed Perception of Romantic Love Scale. It consists of seven sub-scales which measure General, Emotional, Spiritual, Cognitive, Sexual, Marital and Behavioural aspects of romantic love.

Although, many scales are available to measure love, romance, and romantic relationships but most of the scales measure romantic love or passionate love, and a very few of them tap romantic relationships.

And even those scales that address romantic relationships, very few are developed for adolescent population. As literature support the developmental significance of romantic relations for adolescents (Bouchey & Furman, 2003; Collins, 2003; Collins et al., 2009; Connolly & Goldberg, 1999; Giordano et al., 2006; Shulman et al., 2011; Shulman & Scharf, 2000) so present study has focused on the romantic relations of the adolescents. The existing available literature indicate the availability of number of instruments to measure romantic relations, but they are western culture based. It is common for adolescents, whether they belong to western culture or non-western culture, to engage in some form in romantic relations that may be in the form of their private fantasies, conversation with friends, through social media or through display of affection by physical gestures (Connolly & McDonald, 2020). Although emotional component of romantic relations is similar in almost all cultures, but expression is different. That may be due to the reason that in western cultures, romantic relations are encouraged and adolescents are free and have autonomy to have these relations while in non-western or collectivists cultures, these relationships are regulated by social norms and rules (Connolly & McDonald, 2020). In religious collectivist culture of Pakistan, although, romantic relations are present but are kept secret or repressed. These relations are not openly expressed as they are not accepted in society. And people are reluctant to talk about these relations. So western culture-based scales are not appropriate to use in religious collectivist culture of Pakistan. Another reason for developing an indigenous scale was that most of the scales/instruments which are available are scenario based and asked respondents to respond according to feelings for their partner as on Relationship Rating Form (Davis, 2001) or to respond according to their current relationship as on Romance Qualities Scale (Ponti et al., 2010). And even some scales have each item with a blank which respondent has to fill with the name of his/her romantic partner in order to respond on the scale as for example on Love Scale (Rubin, 1970), Passionate Love Scale (Hatfield & Sprecher, 1986) and Sternberg Triangular Love Scale (Sternberg, 1997). Therefore, these scales measure actual romantic relations. And it is quite difficult to ask directly about romantic relations in a religious collectivist society where these relations exist but are not accepted at social level and adolescents are usually reluctant to talk about these relations.

Hence, to increase generalizability of scale, we focus on perception of romantic relations instead of real romantic relations. As no scale was available to measure adolescents' perception of romantic relations in the religious collectivist society of Pakistan, so an indigenous scale to measure the adolescent's perception regarding romantic relations was very much needed. Therefore, current study was designed to fill that gap. The present studies were conducted with the aim to develop a comprehensive indigenous scale having potential to measure a holistic perception of romantic relations of a collectivist society.

Three studies were carried out for the development of the scale. Main objective of the first study was to generate an item pool. For this purpose, focus group discussions were held with adolescents. Then content analysis was conducted and a large pool of statements i.e. 209 statements were generated. After evaluation by experts, 151 statements were finalized for the scale. The objective of the second study was to determine factor structure and psychometric properties of the scale. For this purpose, the finalized 151 item scale was administered on 506 adolescents. Finally, third study involving an independent sample of adolescents ( $N=647$ ) addressed confirmation of the factor structure to observe the structural validity of the newly devised instrument.

## Method

### Study 1

The main objective of this study was to generate items for the scale. This objective was achieved in a multi steps processes including focus group discussions, content analysis, expert opinion, and finalization of items.

Focus group discussions. On the basis of literature review, a focus group guideline was developed. As main objective was to develop an indigenous scale to measure perception of romantic relations by adolescents, therefore, in order to explore that how the adolescents living in religious collectivist culture perceive the romantic relations, three focus group discussions were held.

### Sample

For all focus group discussions, participants were 16 to 18 years old ( $M =16.43$ ) and all of them were regular students of 11<sup>th</sup> and 12<sup>th</sup> grade in some public or private college of Rawalpindi. First focus group, consisted of seven volunteering girls who were in 11<sup>th</sup> grade in a private college, second focus group was conducted involving eight volunteering boys who were students of 11<sup>th</sup> grade in a private college while third focus group consisted of seven volunteering girls who were students of 12<sup>th</sup> grade in a public sector college.

### Procedure

For each focus group discussion, formal permission of directors/ principals of colleges and parents of the students were taken to conduct focus group discussions. After taking informed consent of participants, focus group discussions were held in the premises of the colleges of participants. Moderator (first author of article) briefed the participants of each group about the purpose of the discussion and also requested them for active participation. Focus group guideline was used to facilitate the discussions. Focus group discussions were audio recorded by using two audio devices while assistant moderator (a research assistant) also took notes actively. First focus group discussion lasted for 57 minutes, second for 90 minutes while third discussion lasted for 70 minutes.

**Content analysis.** Audio recordings were transcribed, and content analysis was conducted on N-vivo version 10.0. Two types of analyses were conducted, an upward analysis to identify themes and a downward analysis to identify indicators. In the upward analysis, a thorough examination of data resulted in generation of twenty-two themes namely Assistance, Attention, Attraction, Benefits, Care, Closeness, Commitment, Companionship, Dating, Disadvantages, Emotions, Emotional Satisfaction, Expectations, Fascinations, Feelings, Motivations, Physical contact, Physical features, Sharing, Sincerity, Trust, and Understanding. Contents of these themes were further evaluated in a downward analysis to find indicators of these constructs. This resulted in a large pool of statements representing the above-mentioned themes. After careful evaluation and modifications, a total of 209 statements were selected.

Expert opinion/evaluation. The statements were given to a committee of four experts. All of them had experience of scale development. They also had experience of working with adolescents' population, therefore, they were familiar with the topic under study. They were requested to judge the statements independently for language appropriateness, face validity and construct relevance. They were also requested to indicate statements that require to be rephrased or discard. The statements which were approved by at least three experts were retained for scale. After making improvements, 151 statements were finalized to be used for scale.

Finalization of items. Items were arranged with six response options that ranged from completely disagree (0) to completely agree (5). In order to see that whether the language of the scale was appropriate for target population, the scale was administered on a small sample of 20 adolescents. The adolescents were 16 to 18 years old and they were students of 11<sup>th</sup> and 12<sup>th</sup> grade. They were requested to report if they found some word or statement as difficult to comprehend. On the basis of try out, it was decided to add English equivalents for some Urdu words in parenthesis which were commonly used in English and adolescent generation is less familiar to their Urdu version.

## Study 2

The main objective of this study was to determine the factor structure and psychometric properties of the scale.

**Sample and Procedure.** After taking formal permission from principals/ directors of colleges and parents of students and consent of students, scale was administered. Verbal as well as written instructions were provided. A convenience sample of 506 students (boys = 229, girls = 277) was taken from different public (58.7%) and private (41.3%) colleges. The age range of participants was 16 to 18 years and they were studying in grade 11<sup>th</sup> (62.1 %) and grade 12<sup>th</sup> (37.9 %). Adolescents who were 16 years old constituted 30.8% of sample, while 38.3% were 17 years old, and 30.8% were 18 years old. Adolescents from joint family system, a family system where three generations i.e., grandparents, parents and grandchildren were living together (Akhtar, Malik, & Begeer, 2017), represented 32% sample while 67.8% were taken from nuclear family system, a family system where two generations i.e.,

parents and their children were living together (Akhtar et al., 2017). Fathers of 42.7% adolescents were self-employed, 45.5% adolescents' fathers were employed in public sector whereas 11.5% were employed in private sector. Mothers of the majority of sample i.e., 90.5% were housewives, 8.3% adolescents' mothers were employed in public sector whereas mothers' of only 1.2% adolescents were employed in private sector.

Exploratory Factor Analysis (EFA). Before conducting first order exploratory factor analysis, appropriateness of data was checked by Kaiser-Myer-Olkin measure of sampling adequacy (KMO) and Bartlett's test of sphericity. KMO value was found to be .87 which is a good indicator of sampling adequacy as suggested by Hutcheson and Sofroniou (1999) and Bartlett's test of sphericity was also significant ( $p < .001$ ). The values of both tests indicated that data was appropriate for exploratory factor analysis.

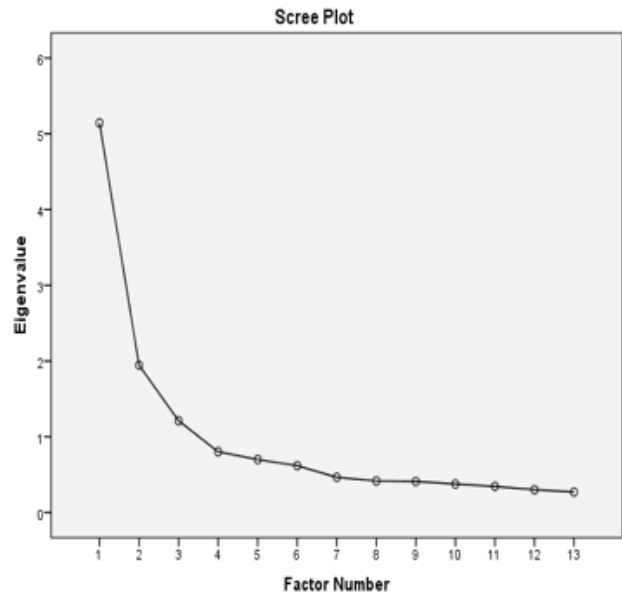
For first order EFA, Principal Axis Factoring with Promax rotation was used. Only those items which had the factor loadings of .30 or above were retained (Kline, 2005). And only those factors which had at least three items (Comrey, 1973; Thurnstone, 1947) and had Eigen values greater than 1 (Guttman, 1954; Kaisar, 1960, 1970) were selected. On the basis of above-mentioned criteria and content analysis, 74 items and 13 factors which explained 47.66% of variance were finalized. Factor loadings of the selected items are given in Table 2 for their respective factors that ranged from .30 to .92. The factors were named according to content of the items by a committee of three members.

As contents of the factors were indicating the existence of some common themes, so, second order EFA was conducted to extract dimensions from the 13 factors finalized through first order EFA. Items of the respective factors were added to compute factors and EFA was conducted by using these factors as indicators. Second order EFA was conducted on the same sample that was used in first order EFA. KMO value .88 and significant Bartlett's ( $p < .001$ ) indicated that data was appropriate for exploratory factor analysis.



Similar to first order EFA, Principal Axis Factoring with Promax rotation was used for second order EFA. Thirteen factors loaded on three dimensions explaining 63.84% of item variance. Scree plot (See Figure 1) also shows that there are three factors/ dimensions which have Eigen values greater than 1 (Guttman, 1954; Kaiser, 1960, 1970). On the basis of scree plot and content of factors, three dimensions were finalized. Factor loadings of factors for their respective dimensions ranged from .60 to .84 (Table 2). These dimensions were named Intimacy, Passion and Distrust by the review committee. Intimacy dimension consisted of seven factors i.e., Sincerity, Expectations, Sharing, Closeness, Understanding, Pleasure, and Significance. Passion dimension consisted of three factors i.e., Motive to love, Physical Attraction, and Companionship. Distrust dimension also consisted of three factors i.e., Disloyalty, Negative Dating Attitude, and Lack of Commitment.

**Figure 1.** Showing Scree Plot of second order EFA (N = 506)



To establish the psychometric properties of the scale, the internal consistency, and other descriptive statistics such as Mean, Standard deviation, Range, Skewness and Kurtosis were determined for factors and dimensions reported in the Table 1.

**Table 1**

*Shows descriptive Statistics for factors and dimensions (N = 506)*

Factors/ dimensions	No. of items	M	SD	Cronbach's Alpha	Range		Skewness	Kurtosis
					Potential	Actual		
Sharing	11	42.91	9.37	.88	0-55	4-55	-1.18	1.83
Disloyalty	9	30.71	9.50	.84	0-45	0-45	-.58	-.24
Physical Attraction	6	20.11	6.98	.82	0-30	0-30	-.67	-.09
Understanding	8	31.15	6.75	.79	0-40	3-40	-1.39	2.42
Pleasure	4	16.93	3.50	.76	0-20	2.98-20	-1.74	3.29
Closeness	6	23.56	5.10	.74	0-30	3-30	-1.21	1.72
Negative Dating attitude	6	19.64	6.96	.70	0-30	0-30	-.42	-.42
Motive to love	3	8.05	3.97	.65	0-15	0-15	-.20	-.60
Expectations	6	25.49	4.43	.71	0-30	8.96-30	-1.54	2.66
Lack of Commitment	3	8.94	3.84	.66	0-15	0-15	-.51	-.18
Significance	4	14.59	4.17	.65	0-20	0-20	-.88	.56
Companionship	4	15.37	3.68	.61	0-20	0-20	-1.03	1.21
Sincerity	4	16.28	3.55	.70	0-20	0-20	-1.37	2.29
Intimacy	43	170.91	29.49	.94	0-215	21.96-215	-1.40	2.77
Passion	13	43.52	11.66	.83	0-65	1-65	-.50	.04
Distrust	18	59.30	15.84	.84	0-90	0-90	-.51	-.09

Table 1 shows the number of items, reliabilities, skewness, kurtosis, and other descriptive statistics of the factors. Number of items in factors ranged from 3 to 11. The Cronbach's Alpha for factors ranged from .61 to .88 which shows that all factors have a high degree of internal consistency. The values of skewness and kurtosis were in acceptable range. Among three of the dimensions, Intimacy consists of seven factors having 43 items. Passion consists of three factors and have 13 items. Whereas, Distrust has three factors with their 18 items. Cronbach's Alpha for dimensions ranged from .83 to .94 indicating that all dimensions have a high degree of internal consistency. The values of skewness and kurtosis were also in acceptable range.

### Study 3

The main objective of this study was to establish the construct validity by conducting confirmatory factor analysis (CFA) on a second independent sample.

**Sample and Procedure.** After taking formal permission from principals/directors of colleges and parents of students and consent of students, scale was administered on the students. Verbal as well as written instructions were provided. A convenience sample of 647 students (boys = 285, girls = 362) was taken from different public (64.3%) and private (35.7%) colleges. The age range of sample was 16 to 18 years and they were students of 11<sup>th</sup> (55.8%), and 12<sup>th</sup> (44.2%) grade. A total of 22.3% adolescents were 16 years old, 36.6% were 17 years old, and remaining 41.1% were 18 years old. Family system distribution showed that 33.7% adolescents were from joint family system, a family system where three generations i.e., grandparents, parents and grandchildren were living together (Akhtar et al., 2017) while 66.3% were from nuclear family system, a family system where two generations i.e., parents and their children were living together (Akhtar et al., 2017). Adolescents whose fathers were self-employed constituted 36.5% of the sample, adolescents having fathers who were employed in public sector composed 35.5% of the sample, fathers of 23.6% adolescents were employed in private sector whereas fathers of remaining 3.4% adolescents had been retired from different organizations. Again, mothers of majority of the adolescents i.e., 93% were housewives and only 4.6% mothers of the adolescents were employees in public sector whereas 1.1% adolescents have mothers employed in private sector. The remaining 1.2% adolescents' mothers were self-employed.

**Confirmatory Factor analysis (CFA).** Confirmatory factor analysis was conducted on Mplus (V-7). First order CFA of factors was conducted to confirm the factor structure extracted in EFA. Overall results of first order CFA showed that though, chi-square was significant in most of the cases due to large sample size but other model fit indices such as Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA) were in acceptable range for all factors (Table 3). The results evidenced that the CFA models fitted the data well and confirmed the factor structure at the facet level. Factor loadings of all items/ variables for their respective factors are presented in Table 2.

First order CFA of all the factors of Intimacy dimension was conducted separately. Results showed that default model of Sincerity factor had significant chi-square value ( $\chi^2 = 27.01, p = .00$ ) due to large sample size so other indices were considered. CFI and TLI values were good (CFI = .97, TLI = .90) but RMSEA = .14 appeared to be high. In second step of analysis, errors within indicators of sincerity factor were allowed to covary. Error covariance was allowed for items that is "I think, those who love each other, they hide each others' faults and shortcomings" and "Often boys and girls are very sincere to each other after entering in this romantic relationship". Content of these items is same that adolescents who love each other or have romantic relations, they are sincere with each other. Addition of error covariance resulted in improvement of the model to the data with  $\Delta \chi^2(df) = 26.90(1)$ , RMSEA = .00, CFI = 1.00, TLI = 1.00. The factor loadings of the items ranged from .43 to .88 in final model of Sincerity. Results of CFA of Expectations factor shows that, although,  $\chi^2$  is significant ( $\chi^2 = 19.44, p = .02$ ) but all other indices are in acceptable range (RMSEA = .04, CFI = .99, TLI = .99) confirming the factor structure suggested by EFA. Factor loadings of the items ranged from .46 to .81.

Default model of Sharing was satisfactory with ( $\chi^2 = 226.28, p = .00$ , RMSEA = .08, CFI = .92, TLI = .90) and it further improved when in second step of analysis errors within indicators of Sharing factor were allowed to covary. Error covariances were allowed for items of related content. Addition of these error covariances resulted in improvement of the model to the data with  $\Delta \chi^2(df) = 102.08(6)$ , RMSEA = .06.

**Table 2**

*Factor structure of Romantic Relations Scale for Adolescents in 1st order and 2nd order Factor Analysis (N=647)*

<b>First order Factor Analysis</b>			
<b>Item no.</b>	<b>Statements</b>	<b>Factor loadings</b>	
		<b>EFA</b>	<b>CFA</b>
<b>Sharing</b>			
1	Due to romantic relations, boy and girl find a person with whom they can share their everything.	.79	.60
2	Boy and girl, share their daily routine and everything with each other.	.78	.46
3	Boy and girl talk to each other about every such thing which can be discussed with some very close person or friend.	.74	.55
4	Boy and girl discuss about their liking and disliking with each other.	.73	.55
5	Boy and girl tell each other their personal and family matters.	.73	.41
6	Boy and girl share with each other the things of personal attachment.	.68	.42
7	Boy and girl who romance, they share with each other whatever is in their heart.	.68	.69
8	Boy and girl help each other in solving the problems on basis of their own experiences.	.65	.46
9	Boy and girl talk to each other about their hobbies.	.61	.37
10	Boy and girl find a person due to romantic relation with whom they can share their every problem.	.39	.68
11	Due to romance, girl becomes confident.	.36	.55
<b>DISLOYALTY</b>			
12	Boys have romantic relations to pass time.	.82	.63
13	Mostly boys are not sincere so they have romantic relations with many girls at a time.	.79	.71
14	When boys have breakup with one girl, they start relation with another girl.	.71	.72
15	Boys leave the girls after using them.	.69	.82
16	Boys flirt, they are not sincere in love.	.57	.71
17	Usually boys blackmail girls in romantic relations.	.48	.69
18	In adolescence, romantic relations do not last long.	.47	.54
19	In adolescence, romantic relations are kept to pass time.	.45	.63
20	Boys go on date with different girls.	.34	.56
<b>PHYSICAL ATTRACTION</b>			
21	When adolescent boys and girls go on a date, they hug and kiss each other with love.	.84	.69
22	Those adolescent boys and girls, who have romantic relations with each other, walk by holding each other's hand.	.75	.70
23	When adolescent boys and girls go on a date, they hold each other's hand.	.70	.75
24	Kissing and hugging by adolescent boys and girls is an expression of their love/ romance.	.66	.66
25	Boys and girls, who have romantic relations, go on a date.	.45	.56
26	On a date, boys and girls express their emotions in front of each other.	.33	.46

Cont..

Item no.	Statements	Factor loadings	
		EFA	CFA
<b>UNDERSTANDING</b>			
27	Understanding with each other develops the mutual trust.	.82	.58
28	If there is understanding with each other then romantic relations reach to the point of marriage.	.74	.65
29	When there is understanding with each other then boy and girl help each other in solving the problems.	.74	.64
30	If some problem is faced anytime, boy supports and protects the girl.	.68	.63
31	When adolescent boy and girl talk to each other, then understanding develops between them.	.68	.49
32	If boy and girl understand each other only then romantic relations can go on/ continue.	.57	.56
33	When any adolescent boy and girl spend time together then understanding develops between them.	.41	.55
34	Adolescent boys and girls adapt good habits to attract opposite gender towards them.	.32	.38
<b>PLEASURE</b>			
35	Boy's and girl's mood become very pleasant in presence of each other.	.83	.70
36	If some boy and girl are in love/ romance, they have a smile on their face when they see each other.	.75	.85
37	Boys and girls who have romantic relations they conversate through eyes.	.41	.60
38	Boy and girl feel pleasure by talking to each other.	.39	.80
<b>CLOSENESS</b>			
39	Attraction of opposite gender brings boy and girl close to each other.	.92	.47
40	Adolescent boy's and girl's feelings for each other bring them close together.	.82	.65
41	In romantic relations, adolescent boy and girl trust each other a lot.	.41	.65
42	The emotion of love and affection for each other, bring boy and girl close to one another.	.41	.85
43	I think mutual trust and confidence is essential for success of romantic relations.	.38	.50
44	Boy and girl like to spend time with each other.	.30	.60
<b>NEGATIVE DATING ATTITUDE</b>			
45	Those who go on dating, have no positive thinking.	.89	.31
46	Boy and girl who are sincere with each other, they don't hug or kiss.	.70	.60
47	When go on date, it seems good but there is loss afterward.	.58	.82
48	Adolescent boys and girls should not go on date.	.49	.65
49	Adolescent boys' and girls' kissing or hugging is not appropriate/acceptable behaviour.	.47	.58
50	If I will be in love with someone, I will like to go on a date with him/ her.	.32	.50
<b>MOTIVE TO LOVE</b>			
51	Adolescent boys and girls have romantic relations to show that they are grown up now.	.86	.53
52	Boys and girls who have no romantic relations, start to have inferiority complex so in order to get rid of that they try to have romance with someone.	.69	.67
53	Adolescent boys and girls enter in this relationship by observing their friends as having love/ romance with someone.	.67	.81

Cont..

Item no.	Statements	Factor loadings	
		EFA	CFA
<b>EXPECTATIONS</b>			
54	Girl expects that boy loves her fully.	.82	.78
55	I think when boy and girl understand each other then emotional attachment develops between them.	.49	.65
56	As compared to boys, girls have more trust on them.	.48	.46
57	Girl expects that boy cares about her.	.41	.77
58	Adolescent girl expects love and attention from the boy.	.37	.81
59	If I will love someone, I will expect to remain sincere with each other.	.34	.62
<b>LACK OF COMMITMENT</b>			
60	If there is a problem in continuing the romantic relation, boy and girl break that romantic relation.	.88	.68
61	If parents do not agree then this relationship is breakup/ ended.	.81	.49
62	Adolescent boys and girls breakup this relation on parents' order or due to harshness/ punishment by them.	.64	.32
<b>SIGNIFICANCE</b>			
63	By observing others, adolescent boy and girl has a desire that he or she also has romantic relations.	.91	.55
64	In romantic relations, adolescent boy and girl learn a lot.	.64	.70
65	By having romantic relations, feelings of loneliness disappear.	.36	.73
66	If romantic relation is ended/ finished then a person has a lot of distress.	.32	.64
<b>COMPANIONSHIP</b>			
67	Boy and girl talk to each other in privacy.	.87	.71
68	To spend time together, adolescent boys and girls bunk the college and go somewhere outside.	.57	.56
69	In this age, boys and girls who have romantic relations, go for outing together.	.50	.63
70	Boy expects that girl gives him maximum time.	.39	.62
<b>SINCERITY</b>			
71	Those who are sincere to each other they do not leave each other at any cost.	.86	.72
72	If a boy and a girl are sincere to each other, they understand each others' problems and limitations.	.57	.88
73	I think, those who love each other, they hide each others' faults and shortcomings.	.48	.55
74	Often boys and girls are very sincere to each other after entering in this romantic relationship.	.44	.43

Cont..

Second order Factor Analysis				
S. No.	Factors	Factor loadings		
		EFA	CFA	
<b>INTIMACY</b>				
1	Sincerity	.84	.50	
2	Expectations	.84	.63	
3	Sharing	.81	.68	
4	Closeness	.80	.83	
5	Understanding	.75	.70	
6	Pleasure	.71	.73	
7	Significance	.60	.72	
<b>PASSION</b>				
8	Motive to Love	.80	.44	
9	Physical Attraction	.72	.62	
10	Companionship	.67	.65	
<b>DISTRUST</b>				
11	Disloyalty	.79	.66	
12	Negative Dating Attitude	.78	.56	
13	Lack of Commitment	.65	.35	

Note. Original scale is in Urdu language. It is translated just to convey the content of items; it is not standardized translation.

CFI = .96, TLI = .94. Factor loadings of items ranged from .37 to .69 in the final model. Similarly default model of Closeness had slightly high RMSEA value (RMSEA = .09) though values of CFI and TLI were good (CFI = .97, TLI = .95). The model was improved when in second step of analysis error covariances were allowed for items of related content. Addition of these error covariances resulted in improvement of the model to the data with  $\Delta \chi^2(df) = 46.52(2)$ , RMSEA = .03, CFI = 1.00 and TLI = .99. Factor loadings in final model were ranging from .47 to .85.

Default model of Understanding had significant  $\chi^2$  value ( $\chi^2 = 128.06, p = .00$ ) with a slightly high RMSEA value (RMSEA = .09). The model improved when in second step of analysis errors within indicators of Understanding factor were allowed to covary. Error covariances were allowed for items of related content. Addition of these error covariances resulted in improvement of the model to the data with  $\Delta \chi^2(df) = 51.68(2)$ , RMSEA = .07, CFI = .96 and TLI = .94. Factor loadings of items ranged from .38 to .65. Confirmatory factor analysis of Pleasure factor showed a good model fit as all indices were in acceptable range ( $\chi^2 = 2.68, p = .26$ , RMSEA = .02, CFI = 1.00, TLI = 1.00) with factor loadings ranging from .60 to .85. CFA of Significance factor also shows a good model fit of the default model with acceptable model fit indices (RMSEA = .07, CFI = .99, TLI = .98). Factor loadings ranged from .55 to .73.

For first order CFA of the factors of Passion dimension, all three factors including Motive to love, Physical Attraction, and Companionship were tested in single model. Default model had significant  $\chi^2$  value ( $\chi^2 = 163.46, p = .00$ ) and acceptable other indices (RMSEA = .05, CFI = .98, TLI = .97) and it substantially improved after adding one error co-variance between items “To spend time together, adolescent boys and girls bunk the college and go somewhere outside” and “In this age, boys and girls who have romantic relations, go for outing together” at second step of analysis. Content if the items is same that adolescents who have romantic relations, they went out together to spend some time together or for companionship. Addition of error covariance resulted in improvement of the model to the data with  $\Delta \chi^2(df) = 51.28(1)$ , RMSEA = .04, CFI = .99, TLI = .98. Results of finally fitted model showed a good fit of the model to the data with factor loadings of Motive to love ranging from .53 to .81, Physical Attraction loadings ranging from .46 to .75 and Companionship loadings ranging from .56 to .71.

Similarly, CFA of Distrust dimension was conducted using all three factors i.e., Disloyalty, Negative Dating Attitude, and Lack of Commitment in same model. In second step of analysis, error covariance was allowed for items that is “If parents do not agree then this relationship is breakup/ ended” and “Adolescent boys and girls breakup this relation on parents’ order or due to harshness/ punishment by them”. Content of these items is same that there is no long term commitment in adolescents’ romantic relations. They break up or end up these relations if their parents do not accept these relations. Addition of one error covariance resulted in significant improvement of the model with  $\Delta \chi^2(df) = 84.31(1)$ . The final model showed a good fit of the model to the data with  $\chi^2(df)=247.87(125), p = .00, RMSEA = .04, CFI = .98$  and  $TLI = .98$ . In final model, factor loadings of indicators of Disloyalty ranged from .54 to .82, loading of Negative Dating Attitude ranged from .31 to .82 and loadings of Lack of Commitment ranged from .32 to .68.

Then second order CFA was conducted on the same sample used for the first order CFA. The results presented in the Table 3 shows that second order CFA confirmed presence of three valid dimensions extracted in EFA as representative of all 13 factors. Though the default model was a poor fit of the second order model to the data, but addition of error covariances at second step of analysis on the basis of the nature of relationship of factors resulted in significant improvement of the model to the data with  $\Delta \chi^2(df) = 212.33(7)$ . The final model showed a good fit of the model to the data with  $\chi^2(df) = 200.70(55), RMSEA = .06, CFI = .95,$  and  $TLI = .92$ .

Factor loadings of factors of Intimacy dimension ranged from .50 to .83, factor loadings of the factors of Passion dimension ranged from .44 to .65 and factor loadings of the factors of Distrust dimension ranged from .35 to .66 (Table 2).

**Table 3**

*Showing results of 1st order and 2nd order Confirmatory Factor Analysis (Indices of Model Fit) (N=647)*

Factors/ dimensions	Model in CFA	$\chi^2$	df	P	$\chi^2/df$	RMSEA	CFI	TLI	$\Delta \chi^2(df)$
1 <sup>st</sup> order CFA									
Sincerity	M1	27.01	2	.00	13.50	.14	.97	.90	
	M2	.11	1	.74	.11	.00	1.00	1.00	26.90(1)
Expectations	M1	19.44	9	.02	2.16	.04	.99	.99	
	M2	226.28	44	.00	5.14	.08	.92	.90	
Sharing	M1	124.20	38	.00	3.27	.06	.96	.94	102.08(6)
	M2	58.06	9	.00	6.45	.09	.97	.95	
Closeness	M1	11.54	7	.12	1.65	.03	1.00	.99	46.52(2)
	M2	128.06	20	.00	6.40	.09	.93	.91	
Understanding	M1	76.38	18	.00	4.24	.07	.96	.94	51.68(2)
	M2	2.68	2	.26	1.34	.02	1.00	1.00	
Pleasure	M1	7.74	2	.02	3.87	.07	.99	.98	
Significance	M1	163.46	60	.00	2.72	.05	.98	.97	
	M2	112.18	59	.00	1.90	.04	.99	.98	51.28(1)
Passion	M1	332.18	126	.00	2.64	.05	.97	.96	
	M2	247.87	125	.00	1.98	.04	.98	.98	84.31(1)
Distrust	M1								
	M2								
2 <sup>nd</sup> Order CFA									
Intimacy+ Passion+ Distrust	M1	413.03	62	.00	6.66	.09	.87	.84	
	M2	200.70	55	.00	3.65	.06	.95	.92	212.33(7)

*M1 = Default model, M2 = Finally fitted model*

Reliability analysis for the final scale was conducted on the same sample which was used for CFA by computing Cronbach's Alpha for dimensions and factors separately. The Cronbach's Alpha was ranging from .60 to .86 for factors while it was .80 to .93 for dimensions (Table 4). It shows that all factors and dimensions had good reliability.

Pearson bivariate correlations among factors and dimensions were calculated (Table 4). Results shows that Intimacy dimension is significantly positively correlated with its own factors ( $r$  ranging from .60 to .83,  $p < .01$ ) and significantly positively correlated with Passion dimension ( $r = .51, p < .01$ ) and its factors ( $r$  ranging from .31 to .41,  $p < .01$ ) whereas significantly negatively correlated with Distrust dimension ( $r = -.11, p < .01$ ) and its two factors i.e., Disloyalty

**Table 4**

*Showing Correlation matrix among factors and dimensions of Romantic Relations Scale for Adolescents and their descriptive Statistics (N = 647)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	.49**	.34**	.44**	.50**	.33**	.38**	.10*	.17**	.22**	-.02	.10*	.08*	.60**	.22**	.05
2		-	.46**	.56**	.46**	.46**	.46**	.21**	.23**	.37**	.11**	.04	.04	.71**	.34**	.10*
3			-	.56**	.55**	.51**	.52**	.20**	.32**	.28**	-.14**	-.12**	-.01	.82**	.37**	-.14**
4				-	.67**	.63**	.60**	.28**	.35**	.35**	-.12**	-.12**	-.00	.83**	.43**	-.14**
5					-	.52**	.50**	.21**	.35**	.29**	-.10**	-.06	.04	.80**	.39**	-.08*
6						-	.53**	.22**	.37**	.34**	-.05	-.09**	-.01	.72**	.42**	-.07
7							-	.47**	.35**	.36**	-.10*	-.22**	.01	.75**	.51**	-.16**
8								-	.25**	.36**	.06	-.07	.03	.31**	.64**	.02
9									-	.42**	.14**	-.13**	-.03	.41**	.83**	.03
10										-	.11**	-.03	.04	.41**	.74**	.07
11											-	.34**	.20**	-.10*	.14**	.86**
12												-	.26**	-.11**	-.12**	.72**
13													-	.02	.01	.49**
14														-	.51**	-.11**
15															-	.05
16																-
<b>M</b>	16.78	25.56	38.53	23.31	31.36	16.78	14.05	8.05	21.19	15.35	21.15	30.35	9.07	166.42	44.58	60.56
<b>SD</b>	3.18	4.59	8.98	5.0	5.81	3.45	4.60	3.97	6.30	3.94	6.39	10.02	3.62	27.13	10.73	15.03
<b>S</b>	-1.46	-1.79	-.89	-1.28	-.95	-1.84	-1.04	-.27	-.86	-1.09	-.63	-.69	-.54	-1.18	-.57	-.56
<b>K</b>	2.39	4.24	1.09	2.50	1.03	4.45	.73	-.61	.47	1.12	-.27	-.18	-.16	1.91	.14	-.25
<b><math>\alpha</math></b>	.66	.75	.79	.76	.74	.77	.70	.64	.78	.69	.70	.86	.60	.93	.80	.83

Note. 1=Sincerity, 2=Expectations, 3=Sharing, 4=Closeness, 5=Understanding, 6=Pleasure, 7=Significance, 8=Motive to Love, 9=Physical Attraction, 10=Companionship, 11=Disloyalty, 12=Negative Dating Attitude, 13=Lack of Commitment, 14=Intimacy, 15=Passion, 16=Distrust, M=Mean, SD=Standard deviation, S=Skewness, K=Kurtosis,  $\alpha$ =Cronbach's Alpha, \* $p < .05$ , \*\* $p < .01$



( $r = -.10, p < .05$ ) and Negative Dating Attitude ( $r = -.11, p < .01$ ) but has no significant correlation with its third factor i.e., Lack of Commitment. Passion dimension was significantly positively correlated with its own factors ( $r$  ranging from .64 to .83,  $p < .01$ ) and also significantly positively correlated with factors of Intimacy ( $r$  ranging from .22 to .51,  $p < .01$ ). Passion dimension had no significant correlation with Distrust dimension and one of its factors i.e., Lack of Commitment whereas it has significant positive correlations with its Disloyalty factor ( $r = .14, p < .01$ ) and significant negative correlation with Negative Dating Attitude factor ( $r = -.12, p < .01$ ). Distrust dimension was significantly positively correlated with its own factors ( $r$  ranging from .49 to .86,  $p < .01$ ) and significantly negatively correlated with four factors of intimacy dimension including Sharing, Closeness, Understanding and Significance ( $r$  ranging from -.08 to -.16,  $p < .05$ ), significantly positively correlated with its one factor i.e., Expectations ( $r = .10, p < .05$ ) and had no significant correlation with Sincerity and Pleasure factor. Whereas Distrust dimension had no significant correlation with Passion dimension and its factors.

## Discussion

The present study was conducted to investigate the perception of romantic relations by adolescents in the collectivist society of Pakistan by using an empirical approach. Although, a lot of work has been done all over the world on the romantic relations of adolescents (Collins et al., 2009; Furman & Collins, 2009; Meier & Allen, 2009) but it is relatively new area in Pakistan that needs to be explored. Given the scarcity of available instruments, this study was aimed to develop a valid, reliable, and comprehensive instrument to measure the perception of romantic relations by adolescents. Considering the cultural norms and taboos of eastern religious collectivistic developing societies, we expected that perception of romantic relations by adolescents in Pakistan will be quite different from perception of adolescents in Europe, America and other developed countries where romantic relations of adolescents are well-accepted interpersonal relations. However, we found that although some factors and dimensions were quite novel and different, but some had similar conceptualization that might be due to globalization, role of social media, and increased use of information technology in everyday life of younger generation.

Some of the factors and dimensions that were similar and have been well-researched using direct or indirect measures include Intimacy, Passion, Companionship, Closeness, Understanding and Sharing. Other factors and dimension including Sincerity, Expectations, Significance, Pleasure, Motive to Love, Physical Attraction, Distrust, Disloyalty, Negative Dating attitude, and Lack of Commitment were different, more culture specific, and rarely reported in available empirical literature. Among the well-established factors, Intimacy and Passion have been measured using different scales including Prototype of Love Scale (Aron & Westbay, 1996), Relationship Rating Form (Davis, 2001), Sternberg Triangular Love Scale (Sternberg, 1997) and Triangular Love Scale (Lemieux & Hale, 1999; Lemieux & Hale, 2002). Other well-researched factors include Companionship and Closeness, have been measured using Romantic Qualities Scale (Ponti et al., 2010), feelings of Closeness and Intimacy by Hattis Love Scale (Hattis, 1965), and Understanding and Sharing by Relationship Rating Form (Davis, 2001).

Among the newly established factors/dimensions and rarely found and studied in empirical literature, Sincerity, Expectations, Significance, and Pleasure factors of Intimacy dimension, Motive to Love and Physical Attraction factors of Passion dimension, and Distrust dimension along its factors i.e., Disloyalty, Negative Dating attitude, and Lack of Commitment seems very culture specific. In focus group discussions, students gave much importance to sincerity in romantic relations and it also emerged as a prominent factor of Intimacy dimension supported by empirical evidences in EFA and CFA.

Commitment is a well-studied factor measured by various instruments including Prototype of Love Scale (Aron & Westbay, 1996), Sternberg Triangular Love Scale (Sternberg, 1997), Triangular Love Scale (Lemieux & Hale, 1999; Lemieux & Hale, 2002), and Relationship Rating Form (Davis, 2001). Our results showed a negative conceptualization of Commitment i.e., Lack of Commitment, suggesting the significance of the negative side of perception of romantic relations.

Our results evidenced that perception of romantic relations has a prominent negative conceptualization in Pakistani adolescents by suggesting a whole new dimension i.e., Distrust along with its factors including Disloyalty, Negative Dating Attitude and Lack of Commitment which are novel concepts in our scale. These results showed that though adolescents in an eastern religious collectivistic developing society have a global perception of romantic relations, and they accept and like these relations, but they also have a negative conceptualization of romantic relations. This might be due to fact that romantic relations are not well-accepted interpersonal relations in their culture and not positively valued.

It is worth to mention that all items of the scale were generated on basis of content analysis of focus group discussions and scale was validated on a large sample that was representative of adolescents of Pakistan. Henceforth, we assume that the scale is a comprehensive measure and truly reflect the perception of romantic relations by adolescents and can be used as a reliable instrument to measure perception of romantic relations by adolescents of Pakistan and other eastern religious collectivistic developing societies.

The unique contribution of the present study is that romantic relations had emerged as a multidimensional concept having both positive and negative dimensions. The scale is a comprehensive measure having three dimensions which further consist of factors. The Intimacy dimension consists of seven factors, both Passion and Distrust dimensions consists of three factors each. Though not well-established in earlier literature, the perceived structure of the romantic relations is aligned with earlier literature suggesting that perception of romantic relations is multidimensional in nature and has both positive and negative aspects (Ponti et al., 2010).

The psychometric properties of the scale including internal consistency and intra-scale correlations further evidenced effectiveness of the instrument for measuring perception of romantic reactions in future studies. The scale was found to have good internal consistency as Cronbach's Alpha ranged from .61 to .88 for factors in study 2 and from .60 to .86 in study 3 and for dimensions Cronbach's Alpha ranged from .83 to .94 in study 2 and .80 to .93 in study 3.

Confirmatory factor analysis of factors and dimensions has validated the factor structure established in EFA. In conclusion, Romantic Relations Scale for Adolescents is a comprehensive reliable instrument with substantial evidences for its content and construct validity.

### **Implications**

The study resulted in development of a valid and reliable instrument to assess the perception of romantic relations by adolescents in eastern religious collectivistic developing societies. It will help the future researchers in exploring the phenomena of romantic relation in more detail and in variant contexts. It will also help the professionals to assess the perception of romantic relations of adolescents in dealing with their problems such as behavioural problems, problems in academics or problems in family relationships.

### **Limitations and Suggestions**

The main limitation is that during all stages of scale development, only the adolescents who were from 16 to 18 years old were taken, that is a very limited age group. The construct shall also be explored in other age groups in future studies. Another limitation of the study is that adolescents living in rural areas were not included in the sample. Future studied should include adolescents from rural areas in order to improve validity and generalizability of the scale.

### **Ethics and Consent to participate**

Ethical approval obtained

### **Consent for Publication**

Consent Approved by the authors

### **Availability of data and materials**

Contact corresponding author

### **Competing Interest**

None

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None

### **Authors' Contribution**

Conceptualization, S.T.C. and J.A.M.; Methodology, S.T.C. and J.A.M.; Investigation/data collection, S.T.C.; Analysis and interpretation, J.A.M. and S.T.C.; Supervision, J.A.M.; Writing—original draft, S.T.C.; Writing—review and editing, S.T.C. and J.A.M.; Final approval of the version to be published by J.A.M. and S.T.C., And both authors agreed to be accountable for all aspects of the work.

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## Mediating Role of Perceived Social Support between Locus of Control and Assertiveness among University Undergraduates

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### Abstract

**Background.** Assertiveness is one's capacity to stand for one's views, opinions, and rights without being manipulated by others or manipulating others for building effective social relationships. Pertinent literature proposes that locus of control and perceive social support play important role in fostering one's level of assertiveness. The present study proposed a mediating role of perceived social support between locus of control and assertiveness among university undergraduates.

**Method.** A sample of 314 undergraduates from the University of Sargodha was purposively recruited for this study. Levenson Multidimensional Locus of Control Scale (Levenson, 1973), Self-Assertiveness Scale (Zahid, 2003), and Interpersonal Support Evaluation List (Cohen, Mermelstein, Kamarck, & Hoberman, 1985) were used to operationalize locus of control, self-assertiveness, and social support respectively.

**Results.** Multiple regression analysis provided empirical support for the proposed model, and perceived social support and internal locus of control positively predicted assertiveness. Moreover, perceived social support positively mediated the relationships between internal locus of control and negatively between external locus of control and assertiveness.

**Conclusion.** Our findings indicated the differential mediating role of perceived social support between internal/external locus of control and assertiveness. Therefore, we may conclude that people with internal locus of control are more likely to perceive high degree of social support, which in turn make them more assertive. In contrast, people with external locus of control are more likely to perceive low degree of social support, which may in tum reduces their chances of being assertive.

**Keywords.** *Perceived social support, assertiveness, locus of control*



## Introduction

Human beings are social animals and for their survival, they need to interact with each other. During their interactions, sometimes they need to refuse unreasonable requests. Some individuals have the ability to say no without being afraid of any person and are confident enough to refuse unreasonable requests from others while others may lack this ability. This ability to say “no” exemplifies assertiveness, the ability that a person can stand for his/her views, opinions, and rights without being manipulated by others or manipulating others, essential for building effective social relationships (Alberti & Emmons, 2008; Castanyer, 2009).

Assertiveness comprises three different dimensions, i.e. cognitive, affective, and behavioral. Kraft and colleagues (1986), suggest cognitively assertive individuals have internal skills to cope with stressful events; and Saigh (1988) suggests, assertive individuals, regain their assertiveness after facing traumatic events. Gladding (1988) suggests that assertive individuals can easily deal with both positive and negative emotions on affective and cognitive levels while on behavioral levels, assertive individuals can easily express their emotions, can defend their goals and can easily establish favorable relationships.

The present research intended to explore the dynamics of relationships among assertiveness, locus of control (LOC), and perceived social support. Although pertinent literature suggests an association between LOC and assertiveness, however, it does not provide an insight into the mechanism of this relationship as few studies have tried to investigate the mediating mechanism of the relationship between LOC and assertiveness. The present research adds to the pertinent literature as it specifically postulates and tests perceived social support as the causal factor that links LOC with assertiveness.

Many researchers (French & Shojaee, 2014; Chibuike, Chimezie, Ogbuinya, & Omeje, 2013) indicate that there is a strong positive association between internal locus of control (ILOC) and assertiveness, especially among university students (Dinçyurek, Mehmet & Fatos, 2009).

Perceived social support (PSS) is the perception that one is cared for, is respected and is considered as a part of a group, and is positively influenced by well-being that protects victims from traumatic events such as depression, anxiety, and stress. On the other hand, a lower level of PSS is positively related to higher levels of distress (Yap & Devilly, 2004).

Elliott and Gramling (1990) found a significant interaction between social support and personal assertiveness under stressful situations among 141 undergraduate college students enrolled in a psychology class. Results revealed a significant positive relationship between assertiveness and social support in stressful situations. Voitkane and Mieзите (2006) found that university students with a high level of PSS reported higher scores on assertiveness; and in a sample of university students, a positive significant relationship between assertiveness and social support was revealed (Ates, 2016).

Satici, Uysal, and Akin (2013) found a relationship between social support and locus of control. The results of the study revealed that the internal locus of control positively predicted while the external locus of control (ELOC) negatively predicted the PSS. In light of the aforementioned literature review, the present study hypothesized:

**Hypothesis 1:** ILOC and PSS will be positive predictors of assertiveness while ELOC will be the negative predictor of assertiveness.

French and Shojaee (2014) suggested that ILOC means internal attribution of success and failure and concluded that this type of attribution is linked with PSS. This concept is also proposed by (Satici et al., 2013) who proposed that people having high ILOC are less reactive to external factors and perceive more social support. Therefore, assertive individuals have a high level of PSS and have focused on positive aspects of life and they can easily take a step for their own and others' rights too. Voitkane and Mieзите (2006) claimed that people who perceive more social support are more psychologically healthy and they can focus on positive thoughts and can refuse unreasonable requests easily.

Chibuike, Chimezie, Ogbuinya, and Omeje (2013) claimed that those who used external attribution can easily refuse their responsibilities and blame the environment for consequences of events or outcomes of personal actions. Asberq and Renk (2014) claimed that people scoring high on ELOC considered external factors and perceived less level of social support and become more depressed, hopeless, and unable to score high on psychological functioning. Moreover, Ates (2016) found that PSS and assertiveness were positively correlated. Therefore, it may be inferred that when a person perceives the unavailability of a supportive group, they may become a dishonest communicator due to the lack of self-confidence and low level of self-esteem. Based on the aforementioned literature, the next hypothesis is:

**Hypothesis 2:** PSS will mediate between LOC and assertiveness.

## Method

### Participants

We used G\*Power 3.0 (Faul et al., 2008) for undertaking the power analysis. The findings of the power analysis revealed that in a multiple regression analysis with three predictor variables, a small to medium effect size of Cohen's  $f^2 = .06$  could reliably be assessed with a sample size of  $N = 279$  at  $\alpha = .05$  and a power of .95. In order to be more cautious, we recruited a purposive sample of 175 male and 175 female undergraduates from different departments of the University of Sargodha. Age of the participants ranged from 20 to 26 years ( $M = 21.84$ ,  $SD = 1.43$ ). All participants were the students of masters (semesters I & III) and BS (semesters V & VII) programs. These specific semesters were included because the academic status of the last 2 years of the BS program is equivalent to that of the MSc program. The sample included 120 students of the social sciences, 115 students of natural sciences, and 115 students of faculty of arts.

**Inclusion and Exclusion Criteria.** As per the inclusion criteria of the sample of the present study, only full-time regular students of masters (semesters I & III) and BS programs (Semesters V & VII) of the University of Sargodha within the age range of 20 to 26 years were included in the sample.

Students doing part-time jobs, post-graduate students, and students of BS and masters programs in semesters other than the ones specified in the inclusion criteria, students of other universities, and students beyond the age range of 20 to 26 years were not included in the sample as per the exclusion criteria.

### Instruments

Different self-reported instruments in Urdu were used to measure the study variables. These instruments are briefly described as follows:

#### Self-Assertiveness Scale (SA).

Assertiveness is measured through the Self-Assertiveness Scale (Zahid, 2003). It is a 5-point Likert scale with 28 items ranged from 1 = بالکل غیر متفق to 5 = بالکل متفق where items 5, 10, 15, 16, 21, 22, and 27 were reverse-scored. The scores on the scale ranged between 28-140, where higher depicted greater assertiveness. The reliability of the scale was ( $\alpha = .70$ ), determined by Zahid (2003).

#### Levenson Multidimensional Locus of Control Scale (LMLCS).

Internal and external locus of controls were measured through LMLCS (Levenson, 1973) consisting of 24 items with a 6-point Likert rating scale (-3 = "بالکل غیر متفق" to 3 = "بالکل متفق"). Three sets of scores on three sub-scale ranged between 0-48, where the three subscales (internal, chance, and powerful others) consisted of eight adjectives. High scores expressed a high level of ILOC (internal) or ELOC (powerful others) or fate (chance). The reliability coefficients for subscale are .74 (internal), .79 (chance) and .79 (powerful others) respectively (Levenson, 1973).

#### Interpersonal Support Evaluation List (ISEL).

This is a 12-item scale with a 4-point Likert response format ranging from 1 = بالکل غلط to 4 = بالکل ٹھیک (Cohen, Mermelstein, Kamarck & Hoberman, 1985). It comprises three subscales i.e. appraisal support, belonging support, and tangible support with 4 items each. The score on each subscale ranges from 4-16 or a composite score that ranges from 12-48, where higher scores on the subscale depict higher support. Items 1, 2, 7, 8, 11, and 12 are reverse scored. The reliability of the scale (Cohen et al., 1985) is moderately high ( $\alpha = .62$ ).

## Procedure

Firstly, ethical approval was taken from the institutional ethical committee for conducting this study. Secondly, permission was taken from the authors to use the selected scales. Then, permission from the heads of various academic departments of the University of Sargodha was sought for the collection of data from their students. After taking permission, participants of the study were approached and contacted personally. After taking the informed written consent from the participants, they were briefed about the aims and objectives of the present study. Participants were facilitated in case of any query. Each participant took almost 15-20 minutes for completing the questionnaire. They were assured of the confidentiality of their data. After collecting data, respondents were acknowledged for their cooperation and precious time. We distributed 359 questionnaires and collected back 350 filled questionnaires with a response rate of 97.49%. The high response rate was made possible because the researchers personally distributed and collected back the questionnaires in the classrooms.

## Results

Multivariate outliers were assessed through the calculation of Mahalanobis D2 where major variables of the present study were regressed on dummy coded demographic variables in the regression.

The SPSS cumulative density function was used to calculate the area under the chi-square curve from the left end of the distribution to the point corresponding to our statistical value. The right-tail probability of obtaining a D2 value of this size was computed by subtracting the cumulative density function value from 1. The analysis identified 36 multivariate outliers, therefore, these cases were deleted and the analyses were run on 314 cases. The missing values were replaced by linear interpolation. The reliability estimates, descriptive statistics, and correlations of variables of the present study have been illustrated in Table 1. The table demonstrated satisfactory levels of internal consistency. The correlation matrix revealed that all the correlations were in the expected directions and of the expected magnitude. Assertiveness is significantly positively correlated with PSS, ILOC, and significantly negatively correlated with a powerful subscale of LOC, the chance subscale of locus of control, and ELOC. PSS is significantly positively correlated with ILOC and negatively correlated with the powerful subscale and with the chance subscale of locus of control. CGPA was significantly positively related to ILOC and age whereas other variables are not significantly correlated (see Table 1).

**Table 1**

*Descriptive, Alpha Reliability Estimates and Correlations of Variables (N = 314)*

	<b>Variables</b>	<b>M</b>	<b>SD</b>	<b><math>\alpha</math></b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Assertiveness	100.10	11.32	.74	-				
2.	PSS	36.04	6.05	.75	.32*	-			
3.	ILOC	37.90	4.91	.53	.53*	.18*	-		
4.	ELOC	49.14	12.96	.71	-.17*	-.25*	-.02	-	
5.	Gender	-	-	-	-.06	.08	-.10	-.06	-

Note. PSS = Perceived Social Support; ILOC = Internal locus of Control; ELOC = External locus of Control \* $p < .001$

Multiple regression analysis was used to test the proposed hypotheses. ILOC, ELOS, and PSS were taken as independent variables of assertiveness (see Table 2). It revealed that internal locus of control ( $t = 10.47, p < .000$ ) and PSS ( $t = 4.33, p < .026$ ) positively and significantly predicted assertiveness. While, external locus of control ( $t = -2.23, p < .001$ ) negatively predicted assertiveness. Overall, the model was found significant,  $F(3, 310) = 54.17, p < .000$ , and indicated a 34% variance in assertiveness was contributed by ILOC, PSS, and ELOC.



**Table 2***Multiple Regression Analysis of Predictors of Assertiveness (N = 314)*

Predictor Variable	B	95% CI for B		$\beta$	$R^2$
		LL	UL		
ILOC	.86**	.69	1.02	.49	
ELOC	-.09*	-.17	-.01	-.09	.34**
PSS	.39**	.21	.56	.21	

Note. PSS = Perceived Social Support; ILOC = Internal Locus of Control; ELOC = External Locus of Control \* $p < .05$ . \*\* $p < .001$

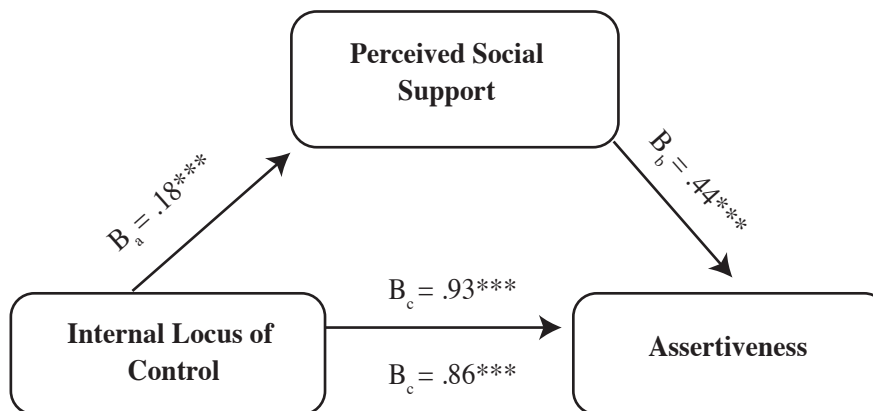
In mediation analysis, the direct and indirect effect of ILOC on assertiveness through PSS is described (see Table 3, Figure 1).

**Table 3***Direct and Indirect Effects of Internal Locus of Control on Assertiveness through PSS (N = 314)*

Outcomes	Predictors	Direct Effect			Indirect Effect		
		$\beta$	95% CI		B	95% CI	
			LL	UL		LL	UL
PSS	ILOC	.18*	.06	.27			
Assertiveness	PSS	.44*	.27	.61	.07 <sup>a</sup>	.02	.14
	ILOC	.86*	.69	1.02			
Total Effect (ILOC → Assertiveness)		.93*	.76	1.10			

Note. PSS = Perceived Social Support; ILOC = Internal Locus of Control <sup>a</sup>Sobel's  $Z = 2.64^*$ ; \* $p < .001$

The  $R^2$  value of .03 indicated that ILOC explained 3% variance in perceived social support,  $F(1, 312) = 9.98, p < .001$ . The  $R^2$  value of .33 indicated that PSS and ILOC explained 33% variance in assertiveness  $F(2, 311) = 77.77, p < .001$ . Indirect effect of ILOC on assertiveness was found to be significant ( $\beta = .07, CI_{95\%} = .02-.14$ ). It indicated that internally controlled individuals perceived more social support which in turn led them to be more assertive.



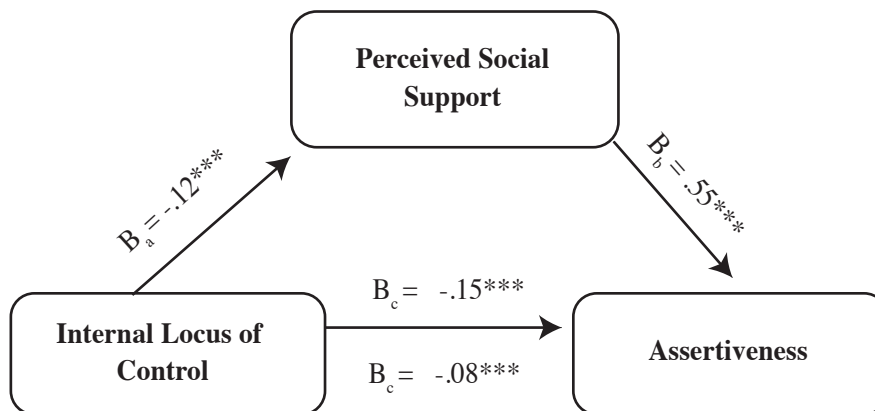
In the second model of mediation analysis, the direct and indirect effect of ELOC on assertiveness through PSS is illustrated (see Table 4, Figure 2).

**Table 4***Direct and Indirect Effects of External Locus of Control on Assertiveness through PSS (N=314)*

Outcomes	Predictors	Direct Effect			Indirect Effect		
		B	95% CI		B	95% CI	
			LL	UL		LL	UL
PSS	ELOC	-.12* *	-.17	-.07			
Assertiveness	PSS	.55* *	.35	.75	-.06 <sup>a</sup>	-.11	-.03
	ELOC	-.08	-.18	.01			
Total Effect (ELOC → Assertiveness)		-.15 *	-.24	-.06			

Note. PSS = Perceived Social Support; ELOC = External Locus of Control aSobel's  $Z = 3.45^*$ ;  $*p < .01$ ;  $**p < .001$

The  $R^2$  value of .06 indicated that ELOC explained 6% variance in PSS,  $F(1, 312) = 20.88, p < .001$ . The  $R^2$  value of .11 indicated that PSS and ELOC explained 11% variance for assertiveness  $F(2, 311) = 19.61, p < .001$ . Indirect effect of ELOC on assertiveness was found to be significant ( $\beta = -.06, 95\% CI = -.11 -.03$ ). This indirect effect reflected that externally controlled individuals perceived less social support which led them to be less assertive.

**Figure 2.** Mediating effect of PSS between external locus of control and assertiveness**Discussion**

The present study aimed at finding the relationships among PSS, LOC, and assertiveness. Furthermore, the mediating role of PSS between locus of control and assertiveness is also examined. The results of the present study indicate significant positive correlations among PSS, ILOC, and assertiveness and supporting the first hypothesis of the present study. These findings are in line with the findings of Dinçyurek, Çağlar, and Silman (2009) that found a significant positive relation between assertiveness and ILOC among students and presented that those who are internally controlled show more assertive behavior (see Table 2). In the cultural context of Pakistan, Ijaz and Yousaf (2018) found that

university students with a high degree of perceived availability of support group in times of need were more confident, assertive, and believed that their actions and behaviors were responsible for their outcomes, they knew how to act in a certain situation without getting anxious and they did not make haphazard decisions. Therefore, on account of their self-confidence, internally controlled individuals show more assertive behavior.

The finding of the present study that PSS is a significant positive predictor of assertiveness is parallel to the finding reported by Voitkane and Mieziute (2006) which suggests that students who perceive high social support are more assertive.

Assertive individuals are capable to efficiently express their needs and desires. They are ready to ask for and receive support when required. In the cultural context of Pakistan, where assertiveness is not goaded and children are directed to conceal their feelings and emotions from others even when they are right, needs a change in social support coaching children to be more assertive for their rights (see Table 2).

Our findings suggested that ELOC negatively predicted assertiveness which provided empirical support for our first hypothesis. This finding is in line with the indigenous work of Zaidi, Mohsin, and Saeed (2013) who conducted research on students of Faisalabad with the age range between 19 to 25 years and found that externally-oriented students were not good at expressing their true feelings and were less likely to express their needs in a good way. They felt hesitant to stand for their rights and might experience problems in explaining their rights and responsibilities. Similarly, the work of Lam (1993) reported a negative correlation between external locus of control and assertiveness among elderly people. People who are externally controlled blame external factors for failure and poorly evaluate different aspects of life, owing to which their perceived level of social support remains low. Thus, the study suggested that for being assertive, it is ILOC which can make a person more independent.

In addition to this, the findings of the current study supported the second hypothesis as PSS mediated between ILOC and assertiveness. PSS turned out to be the most important predictor of assertiveness as it fully mediated the relationship between ILOC and assertiveness (see Table 3). The mediating mechanism of PSS between ILOC and assertiveness can be explained in terms of French and Shojaee's (2014) assertion, which referred to ILOC as an internal acknowledgment of success and failure. This internal attribution leads toward acceptance of achievements, difficulties, and different aspects of life toward internal determinants. This judgment is essentially reflected in a greater level of perceived social support. This line of reasoning is also promoted by Satici et al. (2013) who proposed that people having high ILOC were less reactive to external factors and perceived more social support. Therefore, a high level of PSS may make people more focused on positive aspects of life which ultimately leads them to stand for their own and others' rights too which is a prominent characteristic of assertiveness.

Voitkane and Mieziute (2006) claimed that people who perceive more social support are more psychologically healthy and allow positive thoughts to come into their mind and refuse unreasonable requests easily. This consistent merging in positive perceptions may result in elevated levels of assertiveness.

Mediation analysis also revealed the mediation effect of PSS between ELOC and assertiveness. In this model, PSS predicted ELOC in a negative direction (see Table 4). The mediating role of PSS between ELOC and assertiveness can be explained by the work of Chibuike, Chimezie, Ogbuinya, and Omeje (2013) which referred to ELOC as the attribution of external factors in determining consequences (success, failure). This external attribution leads toward refusing personal responsibilities and blaming the environment for the consequences of events or outcomes of personal actions. This judgment is essentially reflected in the lower level of PSS. This line of reasoning is also promoted by Asberq and Renk (2014) who found that people who scored high on ELOC considered external factors to blame and perceived lower levels of social support. Accordingly, a low level of PSS may lead people toward focusing on negative aspects of life without regarding positive ones. This attribution leads to dependence and a low level of confidence. Similarly, it was also elucidated that people who score low on the measure of PSS are more depressed, hopeless, and unable to score high on psychological functioning.

### **Limitations and Suggestions**

Self-report measures may increase the probability of spurious relationships to account for common variance. However, the range of correlations in the present study is .12 to .53 (see Table 1) which is not very high even though many of the correlations were significant. Moreover, the cross-sectional design is not helpful for the causal interpretation of the findings. ILOC and ELOC are used as dispositional factors in the present study that influences the relationship between PSS and assertiveness. There could be other potentially mediating variables in terms of personal dispositions which must be investigated in future studies. For instance, further research should explore potential applications of PSS and assertiveness in improving psychological well-being.

## Conclusion and Implications

A review of the literature and findings of the present research suggest that perception and attribution of consequences are influential in shaping life. It can make a person independent or dependent upon others. Our findings revealed that internally controlled individuals are likely to perceive more social support and consequently be more assertive. Therefore, assertiveness can be regulated by increasing PSS because it is important in ascertaining the role it may play in assertiveness, and ILOC can be boosted because it had a positive influence on PSS (Satici et al., 2013), which paves the way toward assertiveness (Sibel, Mehmet, & Fatos, 2009). The family appears to be one of the most important factors in the development of trust, interpersonal bonding, and self-reliance. Family provides the primary impetus for boosting PSS. A supportive family environment is instrumental in inculcating such core values as trust, self-respect, and self-reliance in children. If family and close relations strengthen internal cognitive processes of self-reliance, assertiveness should increase more than other social opportunities. Therefore, attention to the method of parenting and family bonding is an indispensable factor in life skill development. Moreover, mental health training programs (such as seminars, group activities, psycho-educational studies, instrumental support, and informational support opportunities, etc.) focusing on developing the levels of PSS and assertiveness among the participants may provide a scaffolding for boosting the psychological well-being of the people. Such applications of mental health training programs can help alleviate human psychological suffering and help us live a life that is happier and more fulfilling.

## Ethics and Consent to participate

Ethical approval obtained

## Consent for Publication

Consent Approved by the authors

## Availability of data and materials

Contact corresponding author

## Competing Interest

None

## Funding

None

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## Predictive Role of Dark Triad of Personality in Social Skills and Lying Behavior of Adolescents

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### Abstract

**Objectives.** The present study attempted to explore the predictive role of dark triad of personality in social skills and lying behavior of adolescents. It was also intended to determine the mediating role of lying behavior in predicting social skills.

**Method.** Sample ( $N=350$ ) comprised of school students of grade 9 and 10 (girls = 230 and boys = 120) with age range 15 to 18 years from the government and private schools. Dark Triad of Personality Scale (Paulhus, 2013), Lying Scale (Finkenauer, Engels, & Kooten, 2006), and Matson Evaluation of Social Skills (Matson, Rotatori, & Helsel, 1983) were employed to appraise the major constructs of the study.

**Results.** Results showed that dark triad traits negatively predicted social skills and positively predicted lying behavior; whereas lying behavior was positively related with social skills. In addition, social skills significantly mediated the relationship between dark triads of personality and lying behavior of adolescents. Gender differences indicated that boys reflected higher dark triad traits and lying behavior as compared to girls; while non-significant gender differences were found in relation to social skills.

**Implications.** Findings of the study would bear implications in clinical and educational settings to regulate inclinations to lie and enhancing better interpersonal skills.

**Keywords:** *Dark triad of personality, lying behavior, social skills, adolescents.*



## Introduction

For many decades, the background of personality psychology has been overwhelmed by the Big Five attributes (Furnham, Richards, Rangel, & Jones, 2014); however, a parallel stream of research that has been rapidly gaining attention is the work on dark triad traits (Jonason, Richardson, & Potter, 2015). Paulhus (2013) described dark triad traits as a collection of three theoretically distinctive, yet, interconnected personality components comprising machiavellianism, narcissism, and psychopathy. Machiavellianism is characterized by self-intrigued conduct, manipulative methodologies to social lead and a tendency to be insensitive (Jonason et al., 2015; Kaufman, Yaden, Hyde, & Tsukayama, 2019). Narcissism includes dominance, strength, and grand feeling of self-esteem (Furnham et al., 2014); while, a subclinical narcissistic identity incorporates a feeling of significance and uniqueness, yearning for consistent consideration, expecting extraordinary supports, and being interpersonally exploitative. Psychopathy is characterized by a spontaneous behavioral style, a self-important, misleading interpersonal style, unsatisfactory set of emotions (Jones & Paulhus, 2017) and contended to add withdrawn conduct (Marcus, Preszler, & Zeigler-Hill, 2018). According to Landay, Harms, and Credé (2019), the dark triad is usually portrayed by arrogance and conceit (i.e. narcissism), manipulation and distrust (i.e. machiavellianism), and unsympathetic social mentalities and being unethical (i.e. psychopathy).

Another construct that has been explored in this study is social skills; which are generally defined as particular conduct that an individual displays to perform confidently on social tasks (Joshi, Nasim, & Goodman, 2016). Riggio, Tucker, and Throckmorton (2016) describe social skills as complicated arrangement of skills that includes communication, problem-solving, decision making, group collaboration, and self-administration. Social skills typically show individual's capacity and inclination to communicate with others and look after relationships, and keep away from socially undesirable reactions (Joshi et al., 2016). The acquisition of social skills establishes a basic framework for later academic achievement and job related aptitudes (Talwar & Lee, 2008) and involve various mechanisms including direct guidelines, peer learning, socialization practices, and avoidance plans for troubling behaviors (Riggio et al., 2016).

In the present study, lying behavior is considered as an outcome construct; while lying is regularly viewed as saying false content to someone else with the aim that other individual trusts that announcement to be valid (Antomo, Müller, Paul, Paluch, & Thalmann, 2018; Vrij, Akehurst, & Knight, 2006). Similarly, lying is considered as putting forth a purposefully false expression with the aim to betray (Harris, 2017). According to Azizli et al. (2016), lying behavior is manifested in two compositions: firstly, low-stakes falsehoods which do not intent to harm or hurt anyone and characterized by ordinary dishonesty. Secondly, high-risk deception which include hazard that liar may intent to achieve through unfair means such as cheating in exam or being deceitful in one's relationships.

Review of related literature offered insight into the possible relationships among the major constructs of the study. Given the noxious propensities related with the dark triad attributes, empirical evidences connected these three dark traits separately to lying and deceptions. For instance, machiavellianism had appeared to be a solid indicator of self-serving lies and machiavellian people are more inclined to telling falsehoods and risk-taking lying (Paulhus, 2013). Edwards et al. 2017 reported positive affiliation between narcissism and lying in an intellectual setting, which is expressive of high risk-taking deceitfulness. Jonason et al. (2015) inspected the relationship between the dark triad of traits and quantity of lying among adolescents, found that psychopathy is identified with the tendency to tell a lie for no specific reason; while, narcissism is identified with expanded self-evaluated lying capacity. In addition, self-pickup lies has positive association with narcissism; while, benevolent lies with machiavellianism. Rogoza and Ciecuch (2018) examined the dark triad traits relationships with different measures of lying and reported that individuals who are high on psychopathy have more impulsive tendency to lie; whereas, individuals with machiavellianism are more inclined to develop a detailed deceptive plan to lie. Recently, Choshen-Hillel, Shaw, and Caruso (2020) inferred that children tend to lie to appear honest and truthful as psychopathic inclinations.

In relation to the role of dark triad with social skills, Moshagen, Hilbig, and Zettler (2018) found that there is negative relationship between machiavellianism and social skills in circumstances requiring assertiveness and social reasoning. Similarly, Rauthmann and Kolar (2012) inferred that machiavellianism is negatively associated with social attribute requiring social introduction and skills. Recent set of studies (Hart, Jones, Terrizzi, & Curtis, 2019; Li, Murad, Shahzad, Khan, & Ashraf, 2020) on prominent personality models indicated that interpersonal aspects of agreeableness (i.e., confidence, straightforwardness, conformity, modesty, tender mindedness) has the strongest relationship with the dark triad. Further evidences demonstrated negative relationship of dark triad with interpersonal skills, social humility (Hodson et al., 2018), social abilities (Turnipseed & Landay, 2018), friendship quality (Stead & Frekken, 2014), and social relations with peers (Geng et al., 2016).

Prior investigations on the relationship between social skills and the ability to lie demonstrated mixed inferences. For instance, few evidences (Geng et al., 2016; Hodson et al., 2018) proposed that people who have good social skills are often more capable of socially acceptable lying. Specifically, adolescents with better social ability, which includes social skills, may tell more believable lies, and liars who are socially adept are treated with an honest conduct prejudice (Hu, Huang, Wang, Weare, & Fu, 2020). In addition, Meibauer (2018) demonstrated that children and adolescents used lying and deception as a social mechanism to make friends and to be accepted in social circle of friends. In this manner, it is conceivable that higher social abilities associate with a higher inclination to tell lies with a lesser chance to be caught as a liar. On the contrary, Morf, Horvath, and Torchetti (2011) found that adolescents equipped with good social skills are capable of figuring out multiple solutions for the interpersonal problems and prefer to be honest and truthful in their interactions. On similar note, Lavoie, Leduc, Crossman, and Talwar (2015) observed that high school students who have good social aptitudes are more straightforward and less inclined to be deceitful and to lie with their friends.

There are few, but noteworthy work has been done in Pakistan which provides an insight about the possible relationships among study variables. For instance, dark triad traits are found as a predictor of

bullying and victimization in adolescents (Fatima, 2016); while, aggressive children are high on social skills (Saleem, 2014), and personality traits of assertiveness and agreeableness positively predict social skills (Khan, 2005). In addition, acceptability of lying behavior is a function of perceivers' motives to lie (Moin, 2012).

**Gender differences.** Numerous studies focused on gender differences in relation to dark triad, social skills, and ability to lie. For instance, men scored higher on all the three traits of dark triad (Edwards, Albertson, & Verona, 2017) and are more likely to be deceitful and indulge in lying behavior as compared to women (Moin, 2012; Riggio et al., 2016). However, other set of studies (Harris, 2017; Talwar & Lee, 2008) pointed out a caution for individual differences (irrespective of gender) that, in part, accounted for the observed differences in the dark triad. Empirically, it has been observed that cheating, deception, and lying is more prevalent among male students; while, girls have shown more readiness for academic support and believed in genuine effort for attaining good academic score (Peters & Fonseca, 2020). Likewise, male adolescents are more involved in both risk taking lying and high risk deception (Jonason et al., 2015; Meibauer, 2018) and have better social skills in telling lies because they know that they are less likely to be caught in their lies (Li et al., 2020; Visser, Bay, Cook, & Myburgh, 2012). Conversely, school girls have shown better social aptitudes and standards for conduct, more talented in socially enthusiastic expressions as compared to boys (Lavoie et al., 2015).

The review of aforementioned literature offered judicious reasons to design the present study. For instance, earlier researches primarily focus on dark triad in relationship choices (Azizli et al., 2016), creative ability, (Jonason et al., 2015), and aggressive behavior; however, there is a gap in the existing literature about the possible role of dark triad in negative conduct related issues such as lying behavior. In addition, earlier studies predominantly examined the relationship between much standard and renowned personality models such as Big Five and Eysneck personality theory in the development of social skills; however, there is scarcity of empirical exploration to determine the role of dark triad traits in predicting social skills. Hence, this study attempted to minimize this gap by exploring the predictive role of dark triad in social skills and lying behavior among adolescents.



Adolescence is the transitional stage and attainment of various cognitive and emotional skills performs dual function of being shaped by personality dispositions as well as endures various positive and negative outcomes. Nevertheless, adolescents are the principal focus of social scientists specifically in the relevant domains of cognitive, emotional, and behavioral problems in Western cultures; still there is a dire need for further indigenous probing to examine the predictive role of negative traits of personality that may influence their positive qualities such as social skills as well as deceptive and lying behaviors.

Major objectives of the study were to determine the role of dark triad of personality in predicting social skills and lying behavior among adolescents. It was also intended to examine the mediating role of social skills in predicting lying behavior from dark triad traits of personality. Gender differences were also investigated in relation to major constructs of the study.

Hypotheses derived from the literature review were as follows:

1. Dark triad traits (psychopathy, machiavellianism and narcissism) will negatively predict social skills and positively predict lying behavior.
2. There will be positive relationship between social skills and lying behavior.
3. Social skills will mediate the association between dark triad of personality and lying behavior.
4. Boys are more likely to express dark triad traits and lying behavior as compared to girls, while girls would reflect better social skills as compared to boys.

### Participants

The sample ( $N = 350$ ) comprised of students from schools of Rawalpindi and Islamabad, using the purposive sampling technique. The inclusion criteria was based on inclusion of only those students whose both parents were alive and living together. Respondents included boys ( $n = 120$ ) and girls ( $n = 230$ ), with age ranging from 15 to 18 years ( $M = 16.61$ ;  $SD = 4.80$ ). Educational level of the respondents included grade 9th ( $n = 229$ ) and 10th ( $n = 121$ ) and belonged from nuclear ( $n = 244$ ) and joint ( $n = 106$ ) family systems. Parental education of the respondents was minimum matric and occupational affiliations included public and private sector jobs.

### Measures

**Dark Triad of Personality Scale (Paulhus, 2013).** This scale comprised of 27 items, with three subscales having 9 items each: Machiavellianism, Narcissism, and Psychopathy. Responses were obtained on 5-point rating scale ranging from strongly disagree (1) to strongly agree (5). Possible score ranged from 27-135 where high score on each dimension indicate high inclination of that trait of dark triad. Paulhus (2013) reported the reliability of total scale as .88; while in the present study alpha coefficient of .78 was achieved for this scale. This scale has been used for adolescent population in the earlier indigenous studies (e.g., Fatima, 2016) with adequate psychometric indices (internal consistency = .81).

**Matson Evaluation of Social Skills (Matson, Rotatori, & Helsel, 1983).** The 36 items scale consisted of three subscales, that is, Assertiveness (25 items), Conceit (5 items), and Social Anxiety (6 items). Responses were acquired on 5-point rating scale ranging from strongly disagree (1) to strongly agree (5) and total score could range from 36-180 and high score on the total scale indicate better social skills. Teodoro et al. (2005) found adequate reliability of .84; while, Cronbach's alpha of .75 was achieved for the present sample.

**Lying Scale (Finkenauer, Engels, & Kooten, 2006).** This scale consisted of 12 items with 5-point rating scale ranging from never (1) to very often (5) with possible score range of 12-60 where high score indicating more tendency of lying behavior. Reliability of this scale was reported as .90 (Finkenauer et al., 2006) thereby indicating good content and concurrent validity: however, alpha of .81 was achieved for the present sample.

### Procedure

Institutional heads were contacted for official permission to conduct the study. Respondents were approached in person, were clarified about the purpose of this study and ensured about the confidentiality of the personal information. Respondents were ascertained that any personal information shared would be completely confidential and would not be disclosed at any forum. Informed consent was acquired from the respondents and were also informed that they have the right to quit if they do not want to be the part of the study. Respondents were given verbal and written instructions, and questionnaire booklets were individually administered. Although, there was no time

restriction for the completion of booklet, respondents took approximately 15-20 minutes to complete the questionnaires. Later, participants were thanked for their time and provision of valued information for the study.

## Results

Descriptive statistics showed that all the scales bear adequate reliability indices and were found to be valid for the adolescent population. Initially, linear regression was performed to determine the predictive role of dark triads in relation to social skills and lying behavior. Multiple regression was done to determine the mediating role of social skills in the relationship between dark triad of personality and lying behavior and gender differences were also tabulated.

**Table 1**

*Predictive Role of Dark Triads of Personality in Social Skills and Lying Behavior (N = 350)*

Variables	B	SE	$\beta$	R <sup>2</sup>	$\Delta R^2$	F	$\Delta F$
Social Skills **							
Constant <sup>a</sup>	31.13	.19		.21	.19	8.62	7.02 **
Mach .	-.43	.10	-.29 *				
Narci ssism	-.50	.17	-.35 **				
Psych oopathy	-.74	.13	-.42 **				
Lying Behavior **							
Constant <sup>a</sup>	66.70	.23		.28	.26	7.15	6.31 **
Mach .	.63	.16	.26 *				
Narci ssism	.53	.24	.38 **				
Psych oopathy	.86	.19	.45 **				
Lying Behavior **							
Constant <sup>a</sup>	71.50	.25					
Social Skills	.82	.14	.47 **	.33	.31	12.81	11.44 **

Note. <sup>a</sup> = Age, education, and birth order were entered as control variables. Mach. = Machiavellianism \**p* < .01. \*\**p* < .001

Table 1 showed that dark triad is significant negative predictor of social skills and significant positive predictor of lying behavior. Moreover, dark triad's dimensions (machiavellianism, narcissism, psychopathy) explained 19% variance in social skills and 26% variance in lying behavior. In addition, social skills explain 31% variance in predicting lying behavior. These findings provide substantial support for H1 and H2.

Mediating role of social skills in predicting lying behavior was tabulated through AMOS. Findings are presented in Table 2.

**Table 2**

*Mediating Role of Social Skills in Predicting Lying Behavior (N = 350)*

Criterion Variables	Predictor Variables	$\beta$	<i>p</i>	95% CI	
				LL	UL
Direct Effects					
Lying Behavior	Machiavellianism	.33	.01	1.19	5.02
Lying Behavior	Narcissism	.39	.00	1.37	7.33
Lying Behavior	Psychopathy	.47	.00	1.19	5.01
Social Skills	Machiavellianism	-.67	.00	-2.31	-0.11
Social Skills	Narcissism	-.58	.00	-3.16	-0.75
Social Skills	Psychopathy	-.43	.00	-2.82	-1.21
Lying Behavior	Social Skills	.35	.01	2.19	6.66
Indirect Effects					
Lying Behavior	Mach . through Social Skills	.06	.38	-1.08	4.09
Lying Behavior	Narcissism through Social Skills	.10	.24	-2.27	2.53
Lying Behavior	Psychopathy through Social Skills	.12	.17	-3.19	1.42

Note. Mach = Machiavellianism

Table 2 showed direct and indirect paths in predicting lying behavior. Results showed that direct effect of machiavellianism, narcissism and psychopathy (components of dark triad of personality) is significant in predicting social skills and lying behavior. Moreover, direct path between social skills and lying behavior is also significant. However, when social skills is entered as a mediator, then all these direct paths becomes nonsignificant; thereby establishing the complete mediating role of social skills in predicting lying behavior, the significant relationship between dark triad of personality's components and lying behavior becomes nonsignificant; thereby indicating complete mediating effect of social skills. These findings offer empirical support for H3.

Independent sample t-test was conducted to determine differences along the gender (boys and girls).

**Table 3**

*Gender Differences on Dark Triad of Personality, Social Skills and Lying Behavior (N=350)*

Variables	Boys (n = 183)		Girls (n = 167)		t(348)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Dark Triad (Total)	83.65	12.43	71.40	11.37	6.96	.00	-7.70	-1.01	.74
Mach .	33.38	8.27	27.83	6.72	3.68	.01	-5.32	-1.60	.38
Narcissism	31.29	7.56	25.86	5.91	4.38	.00	-5.26	-1.90	.46
Psychopathy	30.22	8.64	24.70	7.88	5.42	.00	-7.64	-3.75	.58
Social Skills	90.97	13.10	91.53	12	1.05	.27	-1.37	2.49	.07
Lying Behavior	54.83	12.39	45.51	11	8.12	.00	1.69	7.74	.95

Note. Mach. = Machiavellianism

Table 3 showed significant gender differences in relation to study variables. Findings indicated that boys displayed higher inclinations of dark triad traits and more lying behavior as compared to girls. However, nonsignificant gender differences existed in terms of social skills; hence, H4 is partially supported.

## Discussion

Findings of the study showed that dark triad traits negatively predicted social skills and positively predicted lying behavior. This inference is optimally explained by Azizli et al. (2016) stating that personality dispositions play an important role in shaping one's adjustment skills in social scenarios and at the same time making people vulnerable to various behavioral tendencies. According to Prusik and Szulawski (2019), amalgamation of dark triad traits function in a consistent manner and component of machiavellianism and psychopathy overlap to some extent in their characteristics which includes display of self-deceiving conduct, and a tendency to be insensitive towards the needs of others; thereby hindering the learning of skills necessary for social interactions and adjustment. Jonason et al. (2015) and Landay et al. (2019) further added that tendency of being psychopathic and narcissism is often intensely

connected with misdemeanor behaviors including lying behavior without any feelings of being regretful. Pincus, Cain, and Wright (2014) asserted that individuals with higher narcissistic tendencies are likely to have enhanced propensity of lying behavior. Kaufman et al. (2019) explained that such people have grandiose sense of self-worth and dominance in relationships; hence, they lie more when circumstances becomes out of their control.

Results further showed that social skills are positively associated with lying behavior. This pattern of results are genuinely explained in the context of interpersonal skills model (Joshi et al., 2016) emphasizing that social skills are one of the major component of our environmental learning which makes people to adjust their responses, interactions and behaviors in accordance to the needs of the social environment.

This model further explains that lying is considered as an adjusted response (verbal or behavioral) to attain the shared or individual target with the intention to get the things done rather with a latent intention to hurt others. Most of the inferences (Geng et al., 2016; Lavoie et al., 2015) based on applied research proposed that individuals with better social and interpersonal skills have the tendency to exaggerate and lying, primarily, as a strategy to convince others or to cover up for one's inadequacies. On similar lines, Riggio et al. (2016) found that adolescents with enhanced social skills are likely to earn more peer popularity as they are able to amplify and lie about their personal triumphs.

Likewise, Peters and Fonseca (2020) suggested that school students frequently use lie as a skill to earn approval of significant others including parents and teachers.

It has also been found that social skills mediated the relationship between the dark triad dimensions and lying behavior. Talwar and Lee's (2008) theory of social and cognitive correlates of lying behavior among children and adolescents offered reasonable explanation to grasp the mediating role of social skills. According to this theory, acquisition of social skills is contingent upon two broad factors; that is, personality traits and social exposure; where personal dispositions escalate the likelihood of the extent and nature of social learning which is later manifested in all types of behaviors including lying behavior. Hu et al. (2020) also deliberated that school children tend to use their interpersonal skills and social relations for gossips and prosocial lies. Jonason et al. (2015) inferred that presence of dark triad traits frequently influence the social and interpersonal relationships of people and may enhance their better lying capabilities.

Finally, results showed that male adolescents exhibited higher inclinations of dark triad traits and more lying behavior as compared to female adolescents; while nonsignificant gender differences existed on social skills. This finding is quite in line with prior studies indicating that psychopathic and narcissistic tendencies are more prevalent among men as compared to women. Similarly, Moin (2012) and Vrij et al. (2006) found that although lying behavior is more prevalent among male students; however, it is more of prosocial nature; while, Geng et al. (2016)

inferred that boys are high on all dimensions of dark triad and more likely to be involved in antisocial conduct and lying behaviors. Hart et al. (2019) concluded that girls are inclined to use more relational lies and inclined to use lying as a defensive mechanism to gain sympathy. However, Lavoie et al. (2015) found nonsignificant gender difference on social skills declaring that social skills are more contingent upon the nature of social circumstances and social learning; therefore, it may influence the person varying independent of one's gender.

### **Limitations and Recommendations**

The present study had few potential limitations. Firstly, the participants were selected from few schools which may restrict the variation in the demographic spread of the respondents, thereby limiting the generalizability of the findings. Secondly, the use of self-report measure may induce the unavoidable influence of social desirability and subjectivity of personal response style. Finally, there would be additional influences such as parental education and occupation that would shape the personality development of the adolescents. To enhance and improve the work for future studies, researchers should prefer diverse cohorts of sample in order to make it more reflective of general population. In addition, development of indigenous qualitative measures may offer better insight into the appraisal of personality dimensions unrestricted from the influence of desirable response patterns. Finally, future explorations may incorporate the role of other related constructs such as emotional, clinical, and educational factors that play an important role in shaping lying behavior towards parents teacher, friends, and other social activities.

### **Implications**

The current study provides baseline yet, directional data to capture the fundamental understanding of the plausible role of dark triad traits in predicting social skills and lying behavior. Therefore, findings of the study could offer multiple applications in the domains of educational and clinical settings so as to consider the role of personal dispositions in developing certain pathological and socially disapproved behaviors. In addition, the findings of the current study would be assistive in designing psychosocial interventions especially for the school children to adept better social skills and avoiding deceitful behaviors.

Furthermore, vocational and career counselors in schools would undertake personality parameters of dark triads in consideration while making evaluations and corresponding personality profiling of students which provide safeguard against adolescents likelihood of developing criminal conducts.

## Conclusion

The basic premise of the present study was to determine the predictive role of dark triad of personality in determining the social skills and lying behavior of the adolescents. Findings of the study demonstrated direct and indirect effects of the social skills in predicting lying behavior from dark triad dispositions. In addition, significant gender differences were also reflected in relation to major constructs of the study. These inferences bear potential consequences in the field of educational and personality psychology.

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## Who's the Real Terrorist: Stigmatizing Labels and the Changes in Attitude towards the Labelling Countries among Pakistani Youth in Foreign Countries

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### Abstract

**Objectives.** The primary objective of the present study was to identify various negative labels used against Pakistani Muslim immigrants in foreign countries by the natives of those countries and the changes that occurred in the attitudes of the labelled victims due to those labels. Additionally, the research also aims to investigate the consequent actions that the labelled victims performed as a result of those negative labels and extending the already established labelling theory even further.

**Method.** The final study sample comprised of eighteen Pakistani Muslim immigrants gathered before saturation point, using a theoretical sampling technique. A multiple grounded theory method was selected based on the objective of adding newer information to an already developed theory. A semi-structured interview protocol was used as the main tool for data collection which was completed in four phases, each phase consisting of five interviews with three in the last. A three-step coding including open, axial and selective coding, was used on transcribed data which was transformed into categories, themes and sub-themes using a thematic analysis method.

**Results.** The findings of the study included three main categories including the labels used, changes in attitudes and the consequent actions due to labelling; along with their respective set of themes and sub-themes. Additionally, the findings did proposed possible addition of newer perspective in the labelling theory.

**Conclusion.** This study not only achieved its study objectives but also highlighted an important prevalent issue of terrorist labelling against Pakistani Muslim immigrants in foreign countries. The study also successfully suggested newer areas for future researchers to conduct studies and further expand on the labelling theory.

**Keyword.** *Negative labels, changes in attitudes, consequent actions, multiple grounded theory*





## **Introduction**

The original labelling theory explains the concept of deviance as it suggests that the environment's negative perception about the labelled individual leads to frustration and consequently aggressive behavior. Becker's (2008) discussion on deviant in his book "Outsiders: Studies in the sociology of deviance" is useful in conceptualizing how "deviant" or "criminal" identities are created in comparison to the building of enemy identities. Becker (2008) writes, "the deviant is one to whom that label has successfully been applied; deviant behavior is behavior that people so label" (p. 9). Whereas, the enemy label is assigned to those that threaten to disrupt the social order and equilibrium of a society. From this it can be suggested that the enemy serves as a symbol not only of what one ought not to be but also of what should be hated and feared by the people.

A review of the past literature identifies labeling and discriminatory practices as a necessary function in the building of enemy identities. First, labeling creates clear divisions between "us" and "them" (Said, 1978). In context of Muslims the practice of racism and Islamophobia is a clear example of facilitation in the construction of the enemy. According to Said (1978) these discourses and practices heavily rely upon the creation of opposites and "others" which are used to ostracize and deliberately separate the dominate group from the subordinate; which is done for the sole purpose of maintaining cultural hegemony over others. On this matter Memmi et al. (2013) also wrote that racism is useful in "generating a totally negative vision of the other who is then seen grossly distorted behind mists of prejudice".

Moreover, the second function of labeling, as a part of the process of enemy building, is that by designating a group as enemies can create solidarity within the dominant group. The social construction of enemies becomes a valorizing tactic and a strategy of domination (Memmi et al., 2013) while serving to isolate labeled groups socially and thus denying them "regular human and citizenship rights" (Kinsman et al., 2000, p. 281). Furthermore "these labelled deviant or group of deviants are then segregated or isolated and this functions to alienate them from conventional society" (Kinsman et al., 2000, p. 284).

Thirdly, the labeling is a useful mechanism which legitimizes the State's actions of oppression against the so-called enemy. Classifying individuals or groups based upon perceived differences that are real or imagined often results in the party being labeled as backward, different, abnormal, or inferior both biologically and culturally (Kappeler & Potter, 2017) which is same what's currently been happening with Muslims around the globe. This labelling serves, most significantly, as a way of maintaining social control. These implied labels clarify "the moral boundaries of society and demonstrate that there are limits to how much diversity will be tolerated" (Kappeler & Potter, 2017, p. 21). This can be observed from the growing hatred in recent times where the natives of several European and Western countries are demanding to send immigrants back to their countries especially in case of Muslim immigrants by labelling them as terrorists, secluding them from rest of the society.

## **Changes in Attitude due to Labelling**

This aforementioned hatred towards other country or its people can simply be termed as Xenophobia and it can be found in every corner of the world (Geschiere, 2009; Hooper, 2018). It can also be explained as an attitudes, prejudices and behavior that reject, exclude and often vilify people, based on the perception that they are outsiders or foreigners to the community, society or national identity (Crush & Ramachandran, 2010; Hooper, 2018). There is extensive history of xenophobia and can be discovered in a broad spectrum of behaviors including discriminatory, stereotyping, and dehumanizing remarks; discriminatory policies and practices by government and private officials such as exclusion from public services to which these targeted groups are entitled; selective enforcement of by-laws by local authorities; assault and harassment by state agents particularly the police and immigration officials; as well as public threats and violence that often results in massive loss of lives and livelihoods (Misago et al., 2015).

Yakushko (2009) reports that xenophobic rhetoric often portrays immigrants as criminal, lazy, and uneducated. He added that that such term has historically been used to indicate to a fear of outsiders but in more recent times it has been linked with ethnocentrism, which is characterized by the attitude that one's own group or culture is superior to others.

Because of this difference in perception which the people of certain country hold transgressive behavior by ingroup members tends to be seen as aberrant, while similar behavior by members of an outgroup are judged to be systematic, contributing to negative stereotypes of the group as a whole (Brauer, 2001; Riek et al., 2006).

Studies on xenophobia have found that stereotype of Arabs and Muslims as violent are widespread and that ethnocentrism is a strong predictor of attitudes regarding terrorism (Huff & Kertzer, 2018; Kam & Kinder, 2007; Oswald, 2005). A clear example of ethnocentrism can be viewed from the incident of June 2015, which cites the murder of nine African Americans by “Dylann Roof”, a White supremacist, at a church in South Carolina. Following the incident, there was a debate as to whether to label or not to label Roof as a terrorist or a mass shooter. Ultimately, Roof was charged with nine counts of murder rather than on grounds of terrorism (Bump, 2015; Butler, 2015).

In comparison to that, on December of 2015, two Muslims murdered 14 people in San Bernardino, California. The FBI opened a terrorism investigation; the media quickly used the “terrorist” label; and several state governors and Presidential candidates called for an end to immigration from certain Middle Eastern countries as a response (Perliger et al., 2013). Both incidents were similar in nature as the shooters killed a large number of people and advocated extreme political views, but the public discussion of these events was quite different, leading some to believe that race/ethnicity played a critical role in shaping discourses (King, 2015). Instances such as these shows the xenophobic thinking of these Western countries against Muslims, however, this becomes more apparent in case of Pakistan where terrorism plagues the country for more than two decades.

### **Terrorist Labelling of Pakistan in Foreign Countries**

Pakistan, a country where there is approximately around 60,000 people who have lost their lives in various terrorist attacks as of yet (Dilawar & Mangi, 2017). The people who have died in this long enduring war includes many women, children and elderly without any discrimination (Bryan et al., 2016).

Unfortunately, instead of concentrating and highlighting the losses that Pakistani people have suffered from, several of international media outlets are only interested in painting Pakistan as a terrorist country further leading to the labelling of Pakistan as a terrorist state by other foreign countries and its natives (Ali, 2005; Isfahan, 2019; Mundai, 2006).

There are many people within Pakistan or outside of it who have affiliations with different terrorist groups and organizations and based on these affiliations holds resentment towards the Pakistan for various reasons (Borum, 2007; Index, 2016). This resentment can directly be linked to anti sentiments towards Pakistan that many foreign countries holds. The anti-Pakistan sentiments is a phenomenon which is well discussed throughout the literature and is commonly known as Pakistani phobia and includes hatred or hostility towards Pakistan, its residents and the overall culture of the country and ranges from criticism of public policies, to fear or an irrational fixation (Chaudhary, 2011; Vertzberger, 2019).

This has resulted in several foreign natives in opposition of Pakistan leading to Pakistani’s being labelled as terrorists and using this as a mean to bring forth violent acts upon them which could be exemplified from the incidence that took place in the late 1960’s and peaked in the 1970’s and 1980’s as violent gangs opposed to immigration took part in frequent attacks known as "Paki-bashing", which targeted and assaulted Pakistanis and other South Asians (Ashe et al., 2016). "Paki-bashing" was unleashed after Enoch Powell's inflammatory Rivers of Blood speech in 1968, with the attacks mainly connected to far-right fascist, racist and anti-immigrant movements, including the white power skinheads, the National Front, and the British National Party (BNP) (Kabir, 2012).

On the basis of aforementioned findings in the literature it can be suggested that Pakistan is a country with many controversies surrounding it for such reasons unlike many other countries immigrant’s, Pakistani immigrants has to face more difficulties in foreign countries. Additionally, Pakistan is a Muslim country and Islamophobia is exceedingly high in non-Muslim people in European and Western countries. This adds more difficulty for Pakistani immigrants in foreign countries.

For this very reason Pakistani immigrants have to suffer from negative labels throughout their time in foreign countries.

For this purpose, the present research delves in exploring the possible presence of such labelling in the present times. Additionally, if such labels are responsible for any sort of changes in the attitude of the labelled Pakistani Muslim immigrants towards the host countries and their citizens. Furthermore, the research also aims to explore the consequent actions that the labelled victims took after facing such labels by the natives of the host countries. As in the current times where moving from one country to another is a global phenomenon, with Pakistani being no exception with Pakistan facing negative terrorist labels from several countries and media outlets (Ali, 2005; Isfahan, 2019; Mundai, 2006). It is imperative to understand the stigmatization and labelling that the Pakistani Muslim immigrants have faced in foreign country due to their country of origin and their religious believes, the changes that occurs in their attitudes and their consequent actions as a result.

## Method

As the main objective of the current research work to use the concept of labelling theory to construct a novel perspective more appropriate to the current times regarding the offensive labelling of Pakistani immigrants in oversea countries, the changes it brings in the attitudes of the labelled victims and their consequent actions. The achieve this objective Multiple Grounded Theory method (MGT) was opted for as it allows the researcher to use previous literature and empirically achieved data simultaneously for development of a newer perspective or adding to a previous one (Goldkuhl & Cronholm, 2010), as both deductivism and inductivism are employed by this method (Freeman Jr, 2018; Goldkuhl & Cronholm, 2003).

## Research Question of the Study

1. What offensive labels Pakistani Muslim immigrants face in foreign countries?
2. What are the changes that occurs in the labelled Pakistani Muslim immigrants towards the labelling country and its natives?
3. What are the consequent actions of labelled Pakistani Muslim immigrants due to the offensive labels and changes in their attitudes?

## Research Objectives

1. To explain the concept of labelling on a macro level in context of labelling of Pakistani immigrants.
2. To find the different belligerent labels that Pakistani Muslim immigrants faces in foreign countries.
3. To examine the changes that occurs in Pakistani Muslim immigrants towards the labelling countries and the locals of those countries.
4. To explore the consequent actions that the Pakistani Muslim immigrants take as a result of negative labels and changes in their attitudes.

## Participants

The present study sample comprised of 18 participants in total using a theoretical sampling technique, accrued before realization of a saturation point (Breckenridge & Jones, 2009). The interviews conducted for the present study were split into four phases; each phase containing 5 interviews with 3 in the last one. The purpose of splitting the interviews was due to the requirements of grounded theory method as it suggests collection of data and analysis in a concurrent manner (Kennington, 2013). This allows researcher for addition of new topics discovered during the interviews as was done in the present study in the form of adding two newer questions; one in phase two and the other in phase three. Though the actual saturation point was realized after fifteen interviews, to strengthen the validity of the findings achieved three additional interviews were conducted making the total interviews eighteen.

**Inclusion and exclusion criteria.** The present study sample didn't have several strict criteria's, however, the few which incorporated the sample included individuals who were 1) Nationals of Pakistan; 2) were not born in foreign countries or had a dual nationality at birth; 3) had immigrated to an oversea country for a period of more than six months; and 4) were in a mentally capable state to give interview. The time period of more than six month was added to the inclusion criteria based on the logical assumption of immigration. As people who goes to foreign countries for a lesser period than six months often travels for the purpose of visiting, giving them easier option to come back to their own country in case of adverse circumstances. However, those who immigrates for a period of more than six months usually travels for the purpose of studies, occupation or moving, and lives a more normalized life in comparison

to those who travels for visit giving them far lesser option of leaving the country when they please.

Comparative to the inclusion criteria, only those individuals were excluded from the study who were 1) Not nationals of Pakistan; 2) were not currently living in Pakistan; 3) never moved to a foreign country for more than six months period; and 4) were not in appropriate mental condition for giving interview. Thus, leading to an accumulation of the following demographic information for the present study.

**Table 1**

*Demographic Information of the Participants of the Study (N=18)*

<i>Demographic Variable</i>	<i>Frequency</i>	<i>Range</i>	<i>Mean (SD)</i>	<i>%</i>
Gender				
Male	13	-	-	72.3%
Female	5	-	-	27.7%
Age	-	23 - 35	27.13(4.48)	
Ethnicity				
Asian	18	-	-	100%
Family Income	-	45000 - 250000	106875(65462)	-
Current Education				
Intermediate	1	-	-	5.5%
Undergraduate	1	-	-	5.5%
Graduate	15	-	-	83.5%
PhD	1	-	-	5.5%
Occupation in Abroad				
Blue collar Job	11	-	-	61.1%
Jobless	7	-	-	38.9%
Education Abroad				
Undergraduate	1	-	-	5.5%
Graduate	12	-	-	66.7%
PhD	1	-	-	5.5%
No Education	4	-	-	22.3%
Period of Stay				
Btw 6 months and 1 year	3	-	-	16.7%
More than a year	15	-	-	83.3%
Purpose of Stay				
Study	8	-	-	44.5%
Occupation	8	-	-	44.5%
Immigration	1	-	-	5.5%
Visit	1	-	-	5.5%
Age at Abroad	-	19 - 26	22.63(2.66)	-
Marital Status in Abroad				
Single	15	-	-	83.3%
Married/Engaged	3	-	-	16.7%
Dual Nationality				
Yes	1	-	-	5.5%
No	17	-	-	94.5%
Experienced Terrorist Label				
Yes	18	-	-	100%
Level of Terrorist Labelling				
Mild	2	-	-	11.1%
Moderate	3	-	-	16.7%
Severe	13	-	-	72.2%
Country of Labelling				
United Kingdom	9	-	-	50%
Australia	3	-	-	16.7%
America	5	-	-	27.8%
Sweden	1	-	-	5.5%

## Measures

Since the objective of the study was comprehensive exploration of the belligerent labels that participants faced in foreign countries, the changes in their attitudes due to those labels and their consequent actions a semi-structured interview protocol was employed. As it has been observed and evident that interview protocol is a formidable tool in investigating and extracting thorough information from the participants while remaining focused on the objectives and the aims of the study (Patton, 2015).

## Procedure

The study started with the construction of an interview protocol incorporating the objectives and aims of the study, which was then sanctioned by the ethical committee of National Institute of Psychology (NIP), Quaid-i-Azam University (QAU), Islamabad. Subsequently, participants who fulfilled the inclusion criteria of the study were invited for interviewing. Those who agreed to be a part of the study were given informed consent and demographic sheets, while being briefed about the topic of the study and what was their ethical rights such as skipping a question, taking a break if required or skipping the interview at any time they deemed necessary. After all the formal ethical concerns and participants inquiries were answered the main interviews were conducted.

All of the interviews were performed separately on a different day depending upon the availability of the interviewee and the researcher. To keep consistency across the research data same set of interview protocol was used throughout the research. However, due to the nature of grounded theory method two additional questions were added later on in different phases of the study. In total the interviews were conducted in four phases with each phase consisting of five interviews, while last phase consisting of three interviews. This again was done in accordance to the suggestions of grounded theory method as it requires a constant appraisal of gathered data and analyzed information obtained. The saturation point was realized after fifteen interviews, however, to strengthen the validity of the findings and achieved saturation three additional interviews were conducted making the total sample size eighteen.

The interview was all interpreted and transcribed into English language which were then coded using three step coding including open, axial and selective coding process.

Whereas, the demographic information was added to SPSS and was analyzed for frequencies and descriptive statistics as highlighted in Table 1 of the study. The themes were drawn from the interviews regardless of their reoccurrence or not based on the assumption of grounded theory that each theme is relevant. Additionally, all probable ethical concerns were rigorously monitored and taken great care of including protection of their privacy, and ensuring safety of their mental health throughout the interviewing process. They had the option to skip a certain question or study at any time and for that reason were not pressurized at any given time in answering any question.

In the current study a three stepped coding process (open, axial and selective coding) was employed for refinement of data and achievement of themes relevant to the study. Lastly for generating themes and subthemes of the study a thematic analysis method was selected as it gives researcher the appropriate freedom in constructing themes founded on the empirical data instead of pre-assumed hypothesis (Charmaz, 2014; Khan & Ahmad, 2014). Additionally, thematic analysis is a useful method as it allows researcher in generating global themes/categories along with themes and subthemes based on the aims and objectives of the study, in the present study i.e., the offensive labels, changes in attitudes towards the labelling countries and the consequent actions by the victims of the labels (Heydarian, 2016).

**Reliability and Validity.** Interrater reliability: In qualitative studies ensuring the reliability and validity of the research is very important aspect. Therefore, in the current study in order to maintain the interrater reliability and simultaneously increasing the sensitivity of the data, the transcripts of the interviews were forwarded to 5 random PhD scholars, un-associated with the study, to draw out themes in line with the aims and objectives of the study. These themes were then compared with the original and any missing important theme was added as a result.

**Researcher reflexivity.** For achieving higher internal validity and increasing theoretical sensitivity, researcher reflexivity was applied throughout the research process to diminish the influence of any pre-assumed hypothesis and biasness on part of the researcher.

## Results

The present results are based on themes which include the labels that were identified by the participants, used for them in foreign countries by the natives. Additionally, the changes that occurred in their attitudes towards the labelling countries and the labelers. Lastly, the actions that were performed as a consequent to the labels and the altered attitudes. The themes are compilation of different themes achieved in different interviews and includes some themes which were present in more than one participant while others that were unique to one participant. However, since the nature of the method demanded addition of every relevant data each theme achieved was added in the thematic tables. Three main categories that emerged from the interviews included: 1) Labels used against Pakistani Muslim immigrants; 2) Change in attitudes towards labelling countries; and 13) Consequent actions due to labelling. Each table represents a different category which is done to elaborately explain the given category and its themes and subthemes for clear understanding.

### Labels Used against Pakistani's in Foreign Countries

A number of labels were reported by the participants whom they endured during their painstaking time in foreign countries. The most commonly used offensive labels included words like 'Porki' and 'Paki', whereas other belligerent labels that were faced by the participants included labels such as 'Jihadi' and 'Terrorist' all as stated in Table 2.

Some common verbatims from the participants which included terrorist related labels can be observed from interviews of participant PI-15, PI-14, and PI-12 individually.

*"I was called as being a terrorist and someone like jihadi or someone who would go and harm people just on the basis of what I wore".*

*"The most important one was as a Pakistani we are labelled as terrorist. That was very hurting and humiliating".*

*"The hate in people there is really growing and slurs like terrorists just by looking at your face or coming to know you are a Muslim".*

Other, examples of demeaning offensive labels consisting of slangs used for Pakistani Muslim immigrants as 'Porki' and 'Paki' can be witnessed from statements of participant PI-1 and PI-6 respectively.

*"I told him that I am from Pakistan, so he laughed and said to other friends hey we got a porki".*

*"They have the slang Paki for people from Pakistan. And they use it in a very derogate way".*

These statements are a clear representation of the mindset that the foreign natives holds towards Pakistani Muslim immigrant suggestive of a hostile environment which the participants of the present study became victim of as they endured it throughout their stay in foreign countries.

**Table 2.** Labels Used Against Pakistani's in Foreign Countries (N=18)

No.	Categories	Themes	Codes	Verbatims
		Porki	1.1.1	<i>I told him that I am from Pakistan, so he laughed and said to other friends hey we got a porki (PI-1).</i>
		Paki	1.1.2	<i>They have the slang Paki for people from Pakistan. And they use it in a very derogate way (PI-6).</i>
1	Labels Used	Terrorists	1.1.3	<i>The hate in people there is really growing and slurs like terrorists just by looking at your face or coming to know you are a Muslim is really disrespectful and hurtful (PI-12).</i> <i>The most important one was as a Pakistani we are labelled as terrorist. That was very hurting and humiliating (PI-4).</i>
		Jihadi	1.1.4	<i>I was called as being a terrorist and someone like jihadi or someone who would go and harm people just on the basis of what I wore or my religious believes (PI-15).</i>

### Change in Attitudes towards Labelling Country

When people go to abroad or plan to go to abroad they have a perception of this beautiful land of dreams where all their wishes will be fulfilled and they will achieve all their goals and objectives. While other thinks of ways how their whole life can be improved by moving to one of these first world developed countries. However, when they are faced with harsh labels and rejection by the native of these countries all the dreams and motivation shattered, leading to formation of negative attitudes towards these countries and its citizens presented in Table 3.

**Table 3.** Change in Attitudes Towards Labelling Country (N=18)

No.	Categories	Themes	Subthemes	Codes	Verbatims
		Hostility	Aggression	2.1.1	<i>There is aggression towards them as they are not looking at your positive things, when they are here they are fine when they go back again then they start talking about negative aspects (PI-2).</i>
			Hatred	2.1.2	<i>Country like India for example such countries put blame for everything on Pakistan, they should be stand trial in international court (PI-1).</i>
			Resentment	2.1.3	<i>I feel resentful I hate those people and because of them I can't believe in white people anymore (PI-12).</i>
2	Change in Attitudes towards others Country	Denial for acceptance	Rejection	2.2.1	<i>We then reject most of the people to which they highlight it as that we want to stay reserved or we don't want to meet them (PI-2).</i>
			Disdained	2.2.2	<i>They have portrayed my country in such a way that everybody is talking bad about my country. So, I think I won't even prefer it if it was my choice. I won't even prefer going back to living there (PI-6).</i>
		Loss of belief	Opposition	2.3.1	<i>I can't believe in white people anymore. I feel as if all of them are the same and are against us (PI-11).</i>
		Loss of belief	Trust issues	2.3.2	<i>I feel as if all of them are the same and are against us and I always feel this need to prepare our self or we will be doomed (PI-15).</i>
			Align with terrorists themselves	2.3.3	<i>These countries themselves they themselves are in line with the people or organizations who are terrorizing others and themselves so their word against Pakistan (PI-18).</i>

**Hostility.** An obvious feeling and perception that the participants formed was that of aggression towards the countries that were responsible for labelling Pakistan and the participants as terrorists or similar labels. This can be observed from the statement of participant PI-2 and PI-1 statement where they stated.

*“There is aggression towards them as they are not looking at your positive things, when they are here they are fine when they go back again then they start talking about negative aspects.”*

*“Country like India for example such countries put blame for everything on Pakistan, they should be stand trial in international court.”*

These statements show clear indications of hatred and aggression towards the countries that are responsible in labelling Pakistan as terrorist country and deeming the Pakistani people to suffer as a consequence. These feeling of hatred and aggression also developed resentment in participants towards those countries and their natives as participant PI-12 reported

*“I feel resentful I hate those people and because of them I can't believe in white people anymore.”*

**Denial for acceptance.** With a clearly presence of hostility and aggression in the hearts of the labelled victims, accepting to be a productive member of those foreign countries became a difficult task for the participants. This denial for accepting these countries and their natives comes in several forms. As a result of offensive labels and the attitudes they formed, several participants rejected the idea of being friendly with any of the natives of those countries. As participant PI-2 stated

*“We then reject most of the people to which they highlight it as that we want to stay reserved or we don't want to meet them.”*

Similarly, when the pride of their country and themselves was hurt by the negative labels many participants felt disdained towards those countries and even hated the idea of ever going back to those countries. This can evidently be seen from the statement made by participant PI-6 as

*“They have portrayed my country in such a way that everybody is talking bad about my country. So, I think I won't even prefer it if it was my choice. I won't even prefer going back to living there.”*

This depicts that the apparent change brought on by the offensive labels not only created hatred and aggression in the participants but additionally pushed them to the point where considering even being friendly with any of the natives of these countries as wrong, while coming back to these countries as undesirable.

**Loss of belief.** Another change that occurred in the attitudes of the participants was their loss of belief in these countries. As before going to foreign countries and experiencing the labels many participants believed those countries and natives of those countries to be nice and corporative. As most of the knowledge or perception developed before actual experience was through media. However, after the negative experiences they considered it to be fake and deceptive. This loss of trust in natives of the foreign country added a lot of fear and paranoia in many of the participants of the study, for the safety of their country and their own selves as participant PI-11 and PI-15 stated respective statements

*“I can't believe in white people anymore. I feel as if all of them are the same and are against us.”*

*“I feel as if all of them are the same and are against us and I always feel this need to prepare our self or we will be doomed.”*

While some believed the foreign countries to be a threat for Pakistan and other felt hatred and aggression towards them. There were those as well who considered that such countries themselves are responsible for all the actual terrorism and are themselves aligned with terrorist groups and organizations, as participant PI-18 hinted

*“These countries themselves are in line with the people or organizations who are terrorizing others and themselves so their word against Pakistan.”*

From this section of the interviews it can be stated that not labelling changed the perception and attitudes of the victims towards the country that was responsible in creating those labels. This attitude was compilation of aggression, hostility, suspicion and resentment towards the host countries and its citizens.

### **Consequent Actions due to Labelling**

A very famous saying suggests that for every action there is an equal amount of reaction. In current study this statement coincides perfectly as participants who were labelled by the devaluing labels acted out in different ways. While for some a more inward reaction seemed more appropriate the other chose a more outward reaction as illustrated in Table 4 of the present study.



**Table 4.** *Consequent Actions due to Labelling*

<i>No.</i>	<i>Categories</i>	<i>Themes</i>	<i>Subthemes</i>	<i>Codes</i>	<i>Verbatims</i>
2	Consequent Action due to Labelling	Inward Activities	Self-doubt	3.1.1	<i>After coming back from abroad when you look at news you feel more like people abroad were thinking right about us (PI-2).</i>
			Shame	3.1.2	<i>I was quite embarrassed but I still managed to put a smiled on my face and said ok, but inside I was furious as hell but I had to pay my bills so I had to be nice (PI-1).</i>
			Self-harm	3.1.3	<i>I was thinking like injuring myself (PI-4).</i>
			Uncommunicative	3.1.4	<i>I was like quiet because I could not do anything about that (PI-5).</i>
		Outward Activities	Agitated	3.2.1	<i>I was usually angry at people I was irritable, irritability was like if someone were just simply talk to me I would be answering them annoyingly and irritability (PI-15).</i>
			Physical altercation/ Violence	3.2.2	<i>One of them pushed me, I just threw the punch and they all just got in to the fight (PI-12).</i>
			Getting fired from job	3.2.3	<i>The funny thing the one who did fire me himself was a Pakistani (PI-17).</i>
Moving towards illegal means	3.2.4	<i>When you are in a position where you desperately need money to sustain your life or even to fill your stomach you don't care about the rights and wrongs you just do what you have to do weather its legal or illegal (PI-13).</i>			

**Inward Activities.** While suffering most people choose to outburst due to their aggression and frustration. However, when stranded alone among a hostile crowd several participants suffered internally and caused harm to themselves either psychologically or physically. As can be observed from statements of participant PI-2 and PI-1 where they endured the pain of feeling lost and hopeless about their county's situation and even feeling tormented from inside respectively

*"After coming back from abroad when you look at news you feel more like people abroad were thinking right about us."*

*"I was quite embarrassed but I still managed to put a smiled on my face and said ok, but inside I was furious as hell but I had to pay my bills so I had to be nice."*

Not only these labels added a sense of hopelessness and torment in the participants it made some of the participants suicidal ideated or completely mute as statements from PI-4 and PI-5 depicts these as

*"I was thinking like injuring myself."*

*"I was like quiet because I could not do anything about that."*

**Outward activities.** Nevertheless, not all of the participants remained silent and endured the cruel labels and some even tried different methods like physical altercations or illegal activities. While some even suggested of even going as far to thinking of actually doing something which the labels suggested them of. The most common reaction by the participants was however in the form of aggression and agitation towards others like in case of participant PI-15 who explained

*“I was usually angry at people I was irritable, irritability was like if someone were just simply talk to me I would be answering them annoyingly and irritability.”*

Nevertheless, few went a step further and even had physical confrontations with the labelers. Participant PI-12 recalled on one experience where he got in to a physical fight after being labelled and ridiculed as he elaborated

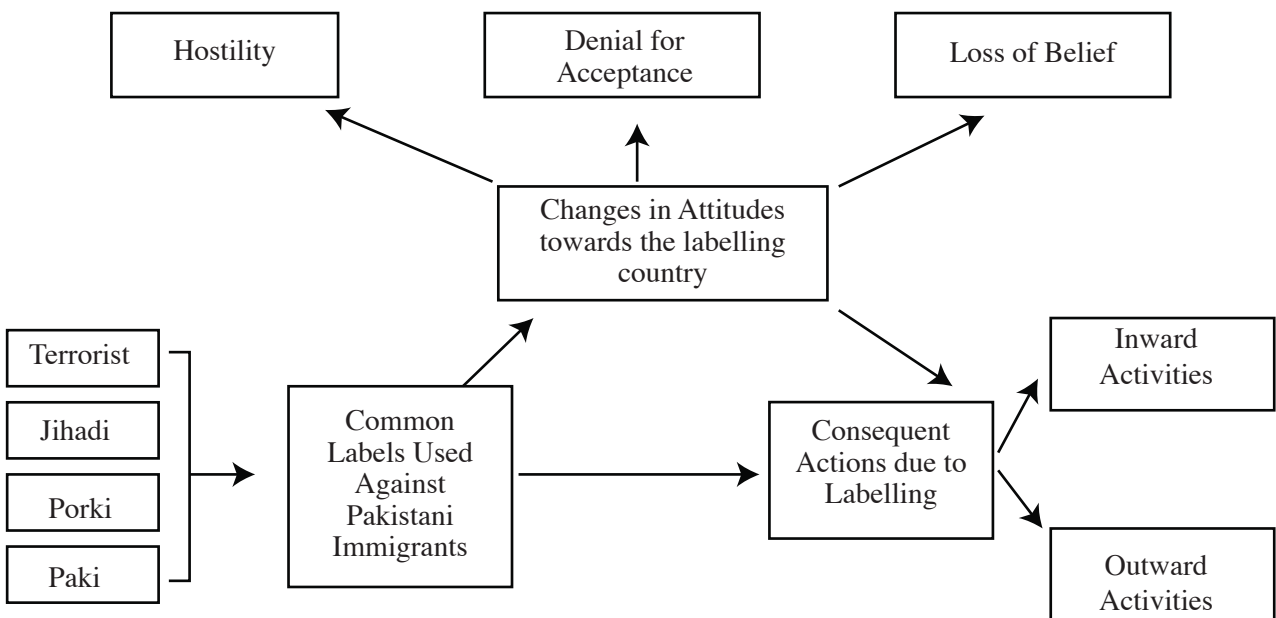
*“One of them pushed me, I just threw the punch and they all just got in to the fight.”*

While for many others this labelling and the discrimination led to getting involved in illegal activities such as participant PI-13 said

*“When you are in a position where you desperately need money to sustain your life or even to fill your stomach you don’t care about the rights and wrongs you just do what you have to do weather its legal or illegal.”*

This section shows how the negative labels and the changes in the attitudes brought out feeling of aggression not only in verbal but physical form as well, and while some thought of committing suicide few got involved in illegal actives which was not their intention at start but a situation brought upon them by the negative hostile environment.

Processing Model for Change in Attitudes and Consequent Actions due to Terrorist Labeling  
**Figure 1.** Model for changes in attitudes and consequent actions due to terrorist labeling.



The aforementioned model is a representation of the negative offensive labels and their consequent actions. Whereas, the model here suggests that the change in attitude over time due to these derogatory labels acted as a mediating variable which led to eventual actions on part of the participants of the study.

## Discussion

The aim of the present study was to explore weather in foreign countries Pakistani Muslim immigrants suffers from negative labels by the natives of the foreign countries. This assumption was based on the fact that often times on media and several other countries have labelled Pakistan as a *terrorist* country (Ali, 2005; Isfahan, 2019; Mundai, 2006). The current study endeavored in investigating whether this terrorist labelling of Pakistani Muslims immigrants also happens in foreign countries or not. Additionally, what are the extent of changes that occurs in attitudes of these labelled victims as labelling theory suggests that labelling can cause changes of perception and development of aggression and hostility towards the labelers (Cohen, 2011; Memmi et al., 2013). Furthermore, the third aim of the current study was identifying the various consequent actions of these terrorist labels and changes in attitude.

In the current study the total number of categories that were discovered upon investigation were three discussed in result section along with their respective themes and subthemes. The very first theme consisted of the labels which the individuals encountered. The most commonly used labels which multiple participants reported included tags such as *Porki*, *Paki*, *Jihadi*, and *Terrorist*; all pointing out towards the prejudice, discrimination, negative perception and schemas people in foreign countries hold towards Pakistani's. Collins English dictionary characterizes such words as offensive and derogatory (Complete, 2014; Guha, 2016). Whereas, the label, *terrorist* stems from the very perception which the foreigners holds towards Pakistan due to negative representation by media as elaborately explored and explained by Shabbir (2012) in his work. These findings not only indicated towards the presence of possible labels used against Pakistani Muslim immigrants but also led to the achievement of the first aim of the present study.

Consequently, the changes in perception and attitudes of the Pakistani Muslim immigrants towards the labelling country included *aggression*, *rejection*, *resentment*, *hatred*, *hostility* and *disdained* which are considered as a normal reaction towards the perpetrators or in this case labellers as many researches have already established that labelling causes sense of such feelings in those who are labelled (Elman, 2019; Merari, 2010).

This goes to show that negative labeling not only disrupts the social life of the targeted group rather interrupts the general mental health of that group as well (Alcalá et al., 2017) which was apparent from the findings of the consequent actions such as that of *suicidal ideation*, *feeling of embarrassment* and even *joining illegal* activities. This joining of illegal activities perfectly align with the core assumptions of labelling theory which suggests that the labels are internalized by the labelled individual which later on turns that individual into the very label (Sjöström, 2018).

While observing the consequent reactions of the participants as a result of being labelled, many of them are in line to those studies found in the literatures review such as *humiliation emotional disturbances*, *feeling of suicidal ideation*, *illegal activates*, *hatred etc.* (Bastos et al., 2010; Cho, 2009; Hanassab, 2006; Lee & Rice, 2007; Mori, 2000; Pager & Shepherd, 2008; Poyrazli & Lopez, 2007; Sherry et al., 2010). Whereas these reactions as suggested by *Figure 1* are based on the assumption of several social psychological theories which suggest that our attitudes and believes shapes our actions (Aride & Pàmies-Pallisé, 2019; Fishbein & Ajzen, 2005; Jhangiani & Tarry, 2014). From these studies it can be indicated that in the present study the actions which the participants performed was due to the changes in their attitudes after being negatively labelled by the foreign natives.

Likewise, researches on occupational difficulties of immigrant students have also suggested that international students who worked part time, suffered from several kind issues including emotional and physical stress, home sickness, lack of sleep, return back to their home country, and frustration to name a few (Arrijn et al., 1998; Bendick, 1996; Bovenkerk et al., 1995; Goldberg et al., 1996; Kwadzo, 2014). To incorporate these issues along with the labels with which the Pakistani Muslim immigrants suffered from it is of no surprise that many were severely disturbed psychologically while other got into physical altercations.

Multiple studies conducted on the mental health and well-being of immigrant students and workers have also found significant correlation between discrimination and psychological problems.

Immigrant students who encounters discrimination at institution often have several issues like low self-esteem and low self-confidence while psychological issues such as anxiety, depression and stress were found to be common among them (Brown, 2015; Hodgkinson et al., 2017; Potochnick & Perreira, 2010). Similar set of issues can be found in migrant workers as well in the present study as a direct result of labelling, stigmatization and discrimination (Delara, 2016; Kirmayer et al., 2011; Pumariega et al., 2005). These findings suggests the cruel nature of labelling and its effect in changing the attitudes of the participants towards the labelling countries and its citizens. Furthermore, the consequent actions also coincide with the findings of previous studies perfectly suggesting the realization of the last aim of the study as well.

### **Novelty of the Present Study**

The novelty of the current study lies within its method and the possible implications these findings have suggested especially in context of Pakistani culture. As terrorism is often considered and associated with those who perform an act of terrorism. However, in current times where the world is heading towards more political correctness a major part of Muslim community is suffering from the label of terrorism even when this majority has nothing to do with terrorism, especially Pakistani Muslim immigrants who have suffered from terrorism alot. This study sheds light on the grueling implications of these labels as these labels can themselves cause hatred and resentment in the hearts of Pakistani Muslim immigrants towards the labelling countries resulting in cases of actual terrorism as a consequent to these labels.

### **Implications**

There are several possible implications of the present study findings as it shows the extent to which labels and cause harm and proper methods to eradicate them are needed. The findings of the study can be helpful in identifying the possible domains in which interventions should be applied based on strategies on how to counteract these labels. Furthermore, the study results can also be used to highlight the importance of better media representation in foreign countries which in current time Pakistan needs. Lastly, these findings also added to the well-established labelling theory as the original theory constrains itself majorly within a society or culture.

The present findings suggests that the effects of labelling can be on a much larger scale and can transcend nationwide which can be useful in opening newer domains for the researchers to investigate even further on larger scales.

### **Limitations and Future Research Recommendations**

Though the researchers have practiced strict measures to reduce the possible limitations few still remained, which are addressed below:

1. Like any other qualitative study one limitation from which the present study also suffers from is low external validity. Though measures to increase the reliability and internal validity of the study were used a small sample of a population cannot be deemed as representative, and additional large-scale study incorporating the findings of the present study should be conducted in future studies.
2. Because the data was of Pakistani immigrant sample the number of female participants was rather lower due to cultural implications of not going to abroad or simply not interested in sharing their personal experiences. Studies using other explorative methods should include larger number of females to assess whether the issues of females were similar to those of males or were there significant differences.
3. Finally, the sample of the present study only included Pakistani Muslim immigrants who came back to Pakistan, while overlooking those who remained in foreign countries even after the labels. A comparative study incorporating the experiences of those who remained in foreign country should be done in future.

### **Conclusion**

Overall the study was effective in realizing the aims and objectives as it found evidences of labels that are used against Pakistani Muslim immigrants as well as the changes in the attitudes of the people due to such labels. Moreover, the study also highlighted the adverse effect of labelling in the form of psychological or deviant actions which the participants performed as a result to these labels. These findings can be useful in highlighting a topic which is mostly ignored in Pakistan and is a violation of basic human rights of immigrants. Additionally, this opens new dimensions for the labelling theory for researchers to explore.

Lastly the study has depicted how xenophobia, discrimination and racism against Pakistani Muslim community is prevalent in foreign societies and immediate actions on part of the government to establish better foreign connections is required.

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### Ethical Approval

All participants were interviewed after their written informed consent.

### Contribution of individual authors

KHS: study design, literature search, first draft, manuscript revisions, approval of the final version. AK: Supervision, literature search, manuscript revisions, approval of the final version.

### Conflict of Interest

The author declares no conflict of interest.

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## Mediating Role of Social Self-efficacy in linking Positive Thinking to Satisfaction with Life among First Year University Students

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### Abstract

**Objectives.** Present study was an attempt to examine how positive thinking among university freshers helps them to deal with challenges related to new setup and have an impact on their life satisfaction through social self-efficacy. Furthermore, it explores how changing one's thoughts about different perspective into positive ones overcoming challenges of life becomes easier, consequently, people feel socially strong and satisfied with life.

**Method.** In the present study, total 480 (Boys=218 Girls=262) newly admitted students in undergraduate programs from Faculty of Social Sciences, Bahauddin Zakariya University Multan, Pakistan with age range of 17-22 years ( $M=18.57$  &  $SD=.835$ ) participated. Participants responded on Life Oriented Test- Revised [LOT-R (Scheier et al., 1994)], Social Self-Efficacy Scale [SSES (Muris, 2001)] and Satisfaction with Life Scale [SWLS (Diener et al., 1985)] respectively. Data analyses consisted of Pearson product moment correlation coefficient and linear regression by utilizing SPSS (25.0) whereas Process Macro 3.5.0 was used to verify mediation model.

**Results.** Findings indicated that positive thinking does not predict satisfaction with life directly whereas it significantly predicts social self-efficacy ( $B= 0.45, p < 0.001$ ) and social self-efficacy predicts satisfaction with life ( $B=0.23, p < 0.001$ ). Thus, results showed that social self-efficacy fully mediates the relationship of positive thinking with satisfaction in life among students.

**Conclusion.** Social self-efficacy has been found as an imperative facet of students' life so it should be considered while designing curricula and other activities related to students.

**Keywords.** *Positive thinking, satisfaction with life, social self-efficacy, university freshers.*



## Introduction

Thoughts are autonomous in nature; either negative or positive, they influence each individual differently. Positive thinking leads to attainment, happiness and life satisfaction (Wilson, 2017). Chang (et al., 2019) identified that thinking with positivity or even its influence can enhance an individual's life satisfaction. Positivity boosts an individual's ability to perceive a situation through different perspectives, thus enabling a person to deal with stressors (Naseem & Khalid, 2010). Moreover, it also lessens academic burnout and stress (Barkhordi et al. 2010). Positive thinking effectively fades negative actions in academic settings among newly enrolled students; it also decreases academic burnout and further negative hitches (Fandokht et al., 2014).

General self-efficacy is found having an impact on life satisfaction of the students (Azizli et al., 2015). Students having high self-efficacy are competent to plan advanced objectives in life which allow to attain goals and heightened satisfaction with life (Aydm & Cos, 2011). Life satisfaction promotes a person's health emotionally and behaviourally (Proctor et al., 2008). Researchers found association between problem solving styles and life satisfaction in University students (Khan et al., 2016). It was concluded through another finding that higher levels of life satisfaction helped in heightened emotional intelligence while lower life satisfaction led to low emotional intelligence (Cazan & Năstasă, 2015). Ayoobiyan and Soleimani (2015) observed that students' decree about beliefs related to their own self influenced their academic behavior and performance.

Positive thinking is a mental and emotional process which helps to motivate a person for fronting new challenges in life with a positive attitude (Wilson, 2017). Barnett and Martinez's (2015) revealed that past thoughts associated with optimism and pessimism influence future. According to Cheikh (2017), positive thinking intensifies students' motivation and boosts their wisdom and capability. Thinking in positive configuration is advantageous because it precedes to future positive outlooks (Scheier & Carver, 1993) and also strengthens positive bonding, upturns self-esteem or self-efficacy and improves students' academic enactment (Pourrazavi & Hafezian, 2017).

Social self-efficacy is demarcated as a person's self-reliance on ones' own competencies to engage in social actions and enhanced interactions (Smith & Betz, 2000). Self-efficacy is a vital component which when considered beneath educational situations would stimulate the academic achievement and associates with academic motivation (Schunk & DiBenedetto, 2016). It is also found positively associated with novice performances (Hannon, 2014). It is observed that high level of academic self-efficacy in students would enrich academic achievements, augment concentration and higher grades (Maddux, 2016).

Krumrei-Mancuso (et al., 2013) examined academic self-efficacy and concluded that it was positively correlated with the GPA of earliest semester however 1st semester GPA acted as a mediator between psychosocial dynamics and GPA of last semester, whereas, satisfaction with life was predicted by psychosocial dynamics. It was also observed that social connectedness; self-esteem and career success were associated with psychological well-being (Helliwell & Putnam, 2004). Findings indicated that positive affect and well-being boost life success and satisfaction (Leung et al. 2011). Bordwine and Huebner (2010), explored through Fredrickson's theory the role of coping in mediating the association between positive affect and adolescents' school satisfaction and the results demonstrated that positivity in students supplemented life satisfaction and work as coping strategies. Another study revealed that female students have more problem-solving styles adaptation which leads to satisfaction in life as compared to male students (Khan et al., 2016)

Present study explored the impact of positive thinking with social self-efficacy that affects the academic quality, students' knowledge and capabilities. Social self-efficacy worked as a mediator between the relationship in positive thinking and satisfaction with life. It also emphasised on the significance of positive thinking in newly enrolled students' life as it aimed at examining the relationship between positive thinking and satisfaction with life among newly inducted University students. Moreover, it focused on investigating mediating role of social self-efficacy in linking positive thinking with life satisfaction.

On the basis of literature review, the following model was devised to explain hypotheses of the study.

**Figure 1.** Conceptual Model

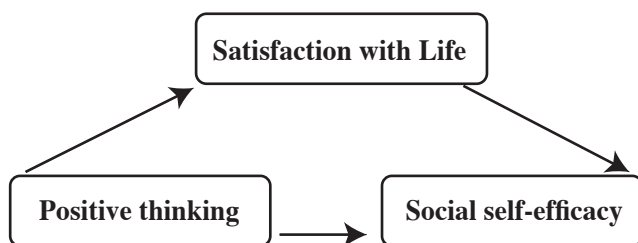


Figure 1. Illustrates the mediating role of social self-efficacy between the relationship of positive thinking and satisfaction with life. There is a significant relationship among social self-efficacy, positive thinking and satisfaction in life. Social self-efficacy mediates in linking positive thinking on satisfaction in life among first year University students.

## Method

### Sample

Study sample consisted of four hundred and eighty ( $N=480$ ) freshly admitted students in Arts & Social Sciences Departments of Bahauddin Zakariya University Multan. Sample size was calculated through online A-priori statistics calculator for structure equation modelling (Soper, 2019) in which effect size was 0.2 with 0.8 desired statistical power level at 0.05 probability. Further number of latent variable is 1 and number of observed variables is 2. The minimum sample size calculated to detect effect was four hundred ( $N=400$ ), which with 20% attrition rate 480. Participants were 218 male and 262 female students. Participants' age ranged between 17 to 22 years ( $M=18.57$  &  $SD=.835$ ).

Sample was approached through multistage random sampling. Participants were enrolled in 4 Year BS program in eight departments of faculty of Arts and Social Sciences at Bahauddin Zakariya University Multan. Total students enrolled in 8 departments were 625 while calculated sample size was 480. Afterword's proportionate sample for each department was calculated through  $n/N*100$ .

**Study design and measurement of variables.** Present study aimed at investigating how social self-efficacy of undergraduate students play a role in linking positive thinking to satisfaction with life. For this, on standardized questionnaires, data was collected that is quantitative in nature. While participants belong to different age ages and demographic characteristics, therefore present study employs cross sectional research design and sample was approached through Survey method for data collection.

**Life Orientation Test –Revised.** The instrument was applied in the present study to examine the positive thinking patters (optimism) in first year university students. It contains ten items examining the optimism and pessimism (LOT-R- Scheier et al., 1994). In this scale, three items phrased positively (1,4, & 10) measure optimism; three reverse coded items (3, 7 & 9) measure pessimism while remaining four (2, 5, 6, & 8) act as fillers of the fillers which were not scored. The response rate of items lies in zero to four point Likert scale where zero stands for strongly disagree while four means strongly agree. Internal consistency for optimism for the present study was 0.79.

**Social Self-Efficacy Scale.** The instrument was applied to examine students' social self-efficacy (SSES- Muris, 2001). It consists of eight items which examine self-assessment of young people through which their abilities to negotiate in social situations, their involvement and other interactions in society are revealed. The respondent responses scored from one to five where 1 as not very well to 5 as very well. All items scores have to be summed together to get the final score of each respondent. Not any item in this scale needs a reverse scoring. Internal consistency of 0.82 was computed for the current study.

**Satisfaction with Life Scale.** The instrument examines level of satisfaction in respondent's life (SWLS- Diener et al., 1985). It contains five items which are self-report in nature. The scoring range of this tool lies from one to seven where 1 is strongly disagree response to 7 that is strongly agree response. Total points the instrument ranges are from 5-35. Computed alpha is 0.87 for the present study.

## Procedure

Faculty of Arts & Social Sciences consisted on 16 departments. Researcher decided to approach 50% departments for data collection to approach the representative sample. On first stage, a list of departments was prepared and through online random number generator ([www.randomization.com](http://www.randomization.com)) 8 departments were selected. On second stage, selected departmental admin offices were contacted to take lists of students enrolled in 1st semester of 4-year BS program. Among 8 departments, 5 departments have Morning and Evening both programs while 3 departments have only morning programs.

Present study was approved by the Board of Studies, Department of Applied Psychology, Bahauddin Zakariya University, Multan. For approaching students, prior permission was collected through Departmental Heads. Afterwards, a booklet containing Life orientation test, social self-efficacy scale and satisfaction with life scale along with demographic sheet was provided to participants.

## Results

Keeping in view the main objectives of the study, results are presented in this section. Descriptive and inferential statistics were employed to analyse the data.

**Table 1**

*Demographic characteristics of sample (N=480)*

Variables	Categories	Frequency	% age	M (SD)
Age				18.57 (0.83)
Gender	Male	218	45.4	
	Female	262	54.6	
Subject	Economics	84	17.5	
	Education	75	15.6	
	Communication Studies	80	16.7	
	Anthropology	65	13.5	
	Applied Psychology	62	12.9	
	Gender studies	43	9.0	
	International Relation	34	7.1	
	Sociology	37	7.7	
Program	Morning	294	61.3	
	Evening	186	38.7	
Attending University	Day Scholars	182	58.7	
	Hostelites	198	41.3	

Table 1 presents demographic characteristics of the study participants. It depicts that composition of sample was 45.4% male and 54.6% female first year university students enrolled in undergraduate degree program in various departments of the faculty of social science. Among them, 61.3% were enrolled in morning program while 38.7% got admission in evening program. Moreover, 58.7% first year students were day scholars while 41.3% students were residing in hostels.

**Table 2**

*Inter correlation among study variables (N = 480)*

Variables	1	2	3
Optimism	1	.21**	.038
Social Self Efficacy		1	.19*
Satisfaction with life			1

*P*<0.05\*

Table-2 shows that there is a significant relationship between optimism (positive thinking), and social self-efficacy ( $r=0.219$ ;  $p<0.05$ ); whereas optimism (positive thinking) is not correlated to satisfaction with life ( $r=0.038$ ;  $p>0.05$ ). Moreover, it indicates a significant positive correlation between social self-efficacy and satisfaction with life ( $r=0.195$ ;  $p<0.05$ ).

**Table 3**

*Mediation and Indirect effects (N = 480)*

	SSE		Opt-SSE-SWL				Indirect effect of M				
	1 <sup>st</sup>		2 <sup>nd</sup>		3 <sup>rd</sup>		Indirect effect	SE	95% CI		
	B	SE	B	SE	B	SE			LL	UL	
Age	0.267	0.25	0.57	0.31	0.64	0.32	SSE	.106*	0.03	0.04	0.19
Gender	-0.02	0.43	0.26	0.53	0.26	0.54					
Opt	0.45***	0.09	-0.02	0.11	0.077	0.11					
SSE					0.23***	0.05					
F	8.39***		1.52		5.54***						
R <sup>2</sup>	0.05		0.009		0.044						

Note. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . (Opt: Optimism; SSE: Social Self-efficacy; SWL: Satisfaction with Life; CI, confidence interval; LLCI, lower level confidence interval; SE, standard error; ULCI, upper level confidence interval).

**Figure 2.** Mediation Model

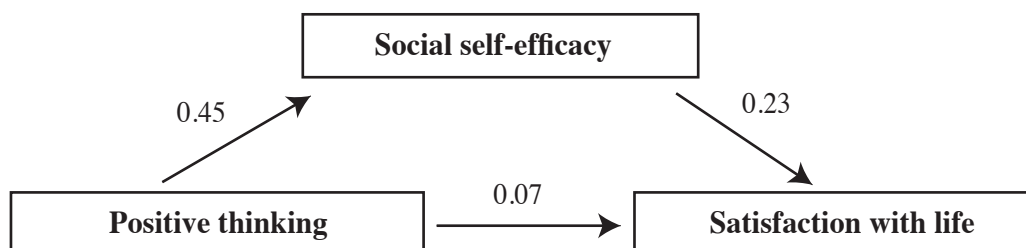


Table 3 shows the testament of mediation model which indicates indirect effect of optimism on satisfaction with life among first year university student through social self-efficacy. The model was tested in three stages. In first step, after controlling the age and gender, there was statistically significant effect of optimism (positive thinking) on social self-efficacy ( $B=0.45, p < 0.001$ ). In step, 2, the effect of optimism (positive thinking) on the satisfaction with life was statistically insignificant ( $B= -0.02, p > 0.05$ ). While, in last step, both optimism (positive thinking) and social self-efficacy were used as inputs, results indicate that social self-efficacy had a statistically significant effect on the satisfaction with life ( $B= 0.23, p < 0.001$ ) thus, full mediation model is evident through results in which optimism (positive thinking) increases the satisfaction with life through social self-efficacy among first year undergraduate university students.

## Discussion

The present study was aimed to explore the impact of positive thinking on life satisfaction where social self-efficacy worked as a mediator. It has been found in results that there is a significant relationship among optimism (positive thinking), social self-efficacy and satisfaction with life i.e. there is a positive correlation between social self-efficacy and satisfaction with life. Also, social self-efficacy and optimism are positively correlated. It was assumed that satisfaction with life will be found having significant relationship with optimism in freshly admitted students' campus life but contrary to this the results in Table 2 show that optimism has insignificant relationship to satisfaction with life in students while optimism and social self-efficacy significantly related to satisfaction with life in students. In the present study, positive thinking or optimism has been found placing significant impact on various aspects of individuals' life but it has not been found significantly effecting one's satisfaction with life. Whereas, in a study of 211 college students, interpersonal and life satisfaction in relation to optimism/ positivity was analysed.

Afterwards individual hierarchical regression analyses were performed, and it was concluded that positivity/ optimism was an important predictor of both academic and interpersonal life gratification among college students (Chang, 1998).

The results in the present study showed no such relationship between optimism and satisfaction with life as the previous literature has shown that life satisfaction leads to positive emotions and positive orientation of thoughts among people (Sanchez & Vazquez, 2014). The findings do not contradict the study's hypothesis and have shown strong relationship between social self-efficacy and satisfaction with life. Therefore, impact of social self-efficacy was prominent on the life satisfaction in university students who were freshly admitted (Jhang, 2019).

A study has found that self-efficacy had a strong relationship with satisfaction in life and academic achievements among students (Doménech-Betoret et al. 2017). Present research further explored social self-efficacy as a mediator between positive thinking and satisfaction with life. As from the Table 3 of results section that presented the pathway model, has illustrated that social self-efficacy has a significant role in mediating positive thinking (optimism) and life satisfaction in students. In another study, positive affectivity encouraged positive emotions which led to higher life satisfaction in college students of China (Chang et al., 2019). Therefore, it can be stated that all three research variables were inter linked where one variable correlated with the other and social self-efficacy acted as a mediator (Beiranvand, et al., 2019; Kim, Kim, Hwang, & Lee, 2020)

## Conclusion

The present study therefore found strong association among positive thinking towards social self-efficacy and showed insignificance when was correlated with positive thinking and life satisfaction. There was significant impact of social self-efficacy on satisfaction with life. Moreover, it also explored mediation of social self-efficacy. Findings clearly explain more of the positivity in thinking leads to higher stage of social self-efficacy.

Students completely concentrate on everything that occur in their surroundings, thus satisfaction with life is higher when correlated with social self-efficacy positively. Positive thinking and satisfaction with life have been found insignificant in their association among students. Therefore, social self- efficacy reveals higher levels of satisfaction with life instead of positive thinking among first year Social sciences university students of Bahauddin Zakariya University. It also signifies the impact of positive thinking, how it changes the way people look around. With positivity, students will become enough competent into social interactions that will lead their life satisfaction.

### **Limitations**

The present study has few limitations including the sample of the current study was limited to few Departments of the university which are part of the only one faculty i.e. social sciences. Therefore, study findings cannot be generalized for all the University students due to scarce approach of sample. Moreover, psychological variables were examined only among first year university students of under graduate degree program. It also relied on the context and settings of students from a single institute of Pakistan restricted to Social Sciences Departments.

### **Future recommendations and Implications**

After completed the analysis, findings indicated some recommendations regarding the future studies and also study implications are described as follows: The recommendation for future studies is to expand scope and focus of the study by adding some other variables like academic achievement, GPA effect, etc. It would be important to collect authentic data from participants as present study consisted of self-report measures and have some biasness or subjectivity of the participants. Future studies must consider the training or workshops of students before measuring the variables for understanding of the change in them. It would contain some positive skills training and some other motivational training that may help students to boost their efficacy in University and will have an impact on their life satisfaction.

The present study showed significant link between satisfaction with life and social self-efficacy which provides information regarding social connection and communication of students. It also provides direction for the betterment of students regarding their academic achievements. It is also recommended that future study must consider more participants as the sample n the present study was limited because of which the generalization of results was not prominently higher.

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### **Conflict of Interest**

There is no conflict of interest

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### **Availability of data and materials**

The datasets of the current study are available from the corresponding authors on reasonable request.

### **Authors' contribution**

RA: Conceptualization of the work; Reviewing and finalizing draft, statistical analysis; ZNH: Data collection; Write-up for Initial draft; SM: Write up for final draft; AN: Proof reading and formatting; MS: Reviewing write-up for final draft

### **Ethics approval and consent to participate**

Present study was approved by the Board of Studies, Department of Applied Psychology, Bahauddin Zakariya University, Multan. Written consent was obtained from all participants.

### **Competing interests**

The authors declare to have no competing interests.

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## Post-Traumatic Growth in Bereaved Individuals: Impact of Social Support and Socio-demographic Variables

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### Abstract

**Background.** Social support and socio-demographic characteristics have been explored in past studies which have examined post-traumatic growth. The main aim of this study was to examine whether social support and socio-demographic variables (age of deceased, education level of participants, and nature of death) are related to post-traumatic growth. Exploring mean group differences on social support and post-traumatic growth were also focused.

**Method.** Data were collected from 260 bereaved parents and spouses in the age range of 20–90 years ( $M = 45.20$ ,  $SD = 14.57$ ). Social Support Questionnaire-Short Form (Sarason et al., 1987) and Post-traumatic Growth Inventory-Short Form (Cann et al., 2010) were used to assess social support and post traumatic growth.

**Results.** Results indicated positive and weak relationship of social support with post-traumatic growth. Mean group differences on socio-demographic characteristics were found to be statistically non-significant and not meaningful. Age of deceased and education level of participants significantly predicted post-traumatic growth; however nature of death and social support did not significantly predict post-traumatic growth.

**Conclusion.** The findings draw attention to enhancing the quality of social support and considering the socio-demographic characteristics in devising support plans for extremely distressed individuals. Limitations of the study and directions for future researches are discussed.

**Keywords.** *Social support, socio-demographic variables, post-traumatic growth, bereavement*



## Introduction

Post-traumatic growth as concept emerged from positive psychology in 1990s. it was coined in book *Trauma and Transformation* (Tedeschi & Calhoun, 1995). Post-traumatic growth refers to adaptive psychological transformation (Munsoor, 2019; Naik & Khan, 2019) in areas such as perception about self, others and life philosophy (Tedeschi & Calhoun, 1996). According to the original measurement model of post-traumatic growth, these three domains are further reflected in five dimensions which include personal strengths (e.g., increased self-reliance); new possibilities (e.g., changed direction in life); relating to others (e.g., increased interpersonal closeness), appreciation of life (e.g., changed priorities, appreciation of each day); and spiritual change (e.g., stronger faith, deeper understanding of spirituality) (Tedeschi & Calhoun, 1996).

Experience of growth is expected to possibly happen in context of struggling with extremely stressful events such as bereavement. Though, traditionally, negative outcomes after loss of loved ones and other negative events have been documented (e.g., Baral & Bhagawati, 2019; Sveen et al., 2019; Waugh et al., 2018; Zhou et al, 2019)., yet there have also been reports of growth in aftermath of adverse events including bereavement (Barrett-Bernstein et al., 2019; Su et al., 2019; Weir, 2020). For the sake of present study, post-traumatic growth is understood as positive changes experienced as result of coping with loss of child or spouse.

Social support is conceptualized as a person's perception of being valued and cared for (Taylor, 2007). Social support as a potential protective factor may help in dealing effectively with hard times (Xanthopoulos & Daniel, 2013). Research also indicates that social support can facilitate experience of growth after adversity (e.g., Nisa & Rizvi, 2017).

Literature has mentioned that coping strategies (i.e., social support) and socio-demographic characteristics impact the outcome of bereavement (e.g., Starcevic, 2019). According to Aflakseir et al (2018) coping through social support is a significant predictor of post traumatic growth.

Positive association of social support with growth has been observed in a range of samples such as survivors of different types of cancer (Barrett-Bernstein et al, 2019; Chen et al., 2019), individuals bereaved by violent and natural death (Drapeau et al., 2019), diabetic older adults (Senol-Durak & Durak, 2018), burn survivors (Su et al., 2019), and people living with HIV (Rzeszutek, 2017). However, some recent studies have observed no evidence of relationship between social support and post-traumatic growth (e.g. Hill & Watkins, 2017; Wu et al., 2016).

No study could have been found in obtainable extant literature that had examined age of deceased in relation to post-traumatic growth. Violent and sudden death of significant other has been reported to be linked with less post-traumatic growth (Fisher et al., 2020). There have been inconsistent findings on relation of education level with post traumatic growth (Aliche et al., 2019; Rahmani et al., 2012; Sörensen et al., 2019; Vanhooren et al, 2018).

Since 1990s there has been abundance of researches on post-traumatic growth globally. However, research on post- traumatic growth in Pakistan is in emerging phase. There have been studies on post-traumatic growth but hardly any study in Pakistan has examined impact of social support and socio-demographic characteristics on post-traumatic growth in a sample of bereaved parents and spouses. Importantly, the present study focused both sudden and expected causes of death which had rendered the participants bereaved. To build on and to address the gaps in the extant literature, the present study focused mainly on discovering relation of social support and socio-demographic characteristics with post-traumatic growth. Among the socio-demographic characteristics, age of deceased, educational level participants and nature of death (sudden and violent death/natural death due to illness) were the focus of the present study. Moreover, the study also tried to clarify if there were any meaningful differences on social support and post-traumatic growth in relation to socio-demographic characteristics of the study participants. Following hypotheses were formulated for the present study:

**H1:** More education will predict higher post-traumatic growth.

**H2:** Sudden/violent death will predict reduced post-traumatic growth.

**H3:** Social support will predict higher post-traumatic growth.

## Method

### Sample

A total of 260 bereaved parents and spouses took part in the present study. The participants were included in the study through a combined approach of purposive convenient and snowball sampling technique. Inclusion and exclusion criteria were (a) a period of 24 months was necessary to have been passed since the death;(b) secondly, in case of bereaved parents, it was necessary that both parents agreed to participate in the study otherwise single parent was not included in the study; (c) thirdly, the participants were supposed be residents of Baluchistan Province irrespective of their ethnicity. The participants included 145 (55.8%) female and 115(44.2) male; 135(51.9%) parents and 125 (48.1%)spouses. Age of the sample was between 20 to 90 years ( $M = 45.20$ ,  $SD = 14.57$ ). Among participants 128 (49.2%) were bereaved by natural death and 132 (50.8%) were bereaved by sudden/violent death. Education level of the participants included illiterate 118 (45.4%), up to primary 23 (8.8%), up to middle 16 (6.2%), up to matriculation 34 (13.1%), Intermediate 17 (6.5%), Graduation 28 (10.8%), Master/equivalent 20 (7.7%), and MPhil/PhD 4 (1.5%). Age of the deceased was divided into the following categories: One year and below 27 (10.4%), up to five years 11 (4.2%), up to ten years 13 (5 %), between eleven to twenty years 35 (13.5%), between twenty one to thirty years 55 (21.2%), between thirty one to forty years 43 (16.5%), between forty one to fifty years 25 (9.6%), between fifty one and sixty years 22 (8.5%), between sixty one and seventy years 16 (6.2%), and above 70 years 13 (5%). Among the deceased 89 (34.2%) were female and 171 (65.8%) were male.

### Instruments

The participants completed self-reported scales of Social Support Questionnaire-Short Form, Post-traumatic Growth Inventory-Short Form along with a demographic sheet and an informed consent form.

### Social Support Questionnaire-Short

**Form.** Social support was measured by the Urdu adapted version of Social Support Questionnaire-Short Form, originally developed by Sarason et al. (1987). It is a 6-item scale to assess the number of available significant others that could provide support and the second part of the scale assess the satisfaction of the participants with the available support. The present study has used only the second part of the scale. Response options are rated from 1(*very dissatisfied*) to 6 (very satisfied). The Confirmatory Factor Analysis of the scale was conducted and it showed good model fit, with  $\chi^2 (df) = 64.39$  with value of CFI=0.99, IFI= 0.99 and RMSEA=0.04. Alpha reliability value of the scale scores for the present sample is .88.

### Post-traumatic Growth Inventory-Short

**Form.** Post-traumatic growth was assessed by Post-traumatic Growth Inventory-Short Form developed by Cann et al.(2010) and adapted in local context by Aziz (2012). This Inventory consisted of 10-items,used to assess the experience of positive changes in five domains and each statement is responded to with options from 0 (I did not experience this change as result of my crisis) to 5 (I did experience to a very great degree).The present study has used it as a single dimensional construct. The CFA of the scale was conducted and it showed adequate model fit, with  $\chi^2 (df) = 70.04$  with value of CFI=0.92, IFI= 0.93 and RMSEA=0.06. Alpha reliability value of the scores on this scale for the present sample is .78.

### Procedure

Participants in the present study were bereaved parents and spouses. In the context of cultural norms of Balochistan and the distress provoking nature of bereavement related data, it was not easy to conveniently collect data. Through the use of personal acquaintances and then snow-ball technique the researcher accessed the bereaved parents and spouses at their residence or workplace and obtained their consent for completing the scales. The participants were ensured about the privacy of their data and they were also given the choice to quit completion of the scales if they felt uneasy due to the distressing nature of bereavement experience. Each participant completed the scales individually and independently, however they were provided guidance by the researcher if the participants asked for regarding completion of the scales. Response rate of returning the scales in completed form was 95%.

Approval of the present study was obtained from the Institutional Review Board under IRB Number: F.No.D-107-1(03)/Ph.D./2014-Admin. Permission of the original author of Social Support Questionnaire-Short Form was obtained via email for the translation and use of the scale for the research.

### Statistical Analysis

Statistical analyses were performed through SPSS (22 VERSION). Confirmatory Factor Analysis (CFA) was performed using Amos in SPSS to ensure the construct validity of the two scales of the study (social Support Questionnaire-Short Form and Post-traumatic Growth Inventory-Short Form; *See Instruments section for CFA results*). Descriptive statistics on the on the sample were obtained along with Cronbach's alpha of the scales. Skewness and kurtosis were examined to address the normality of social support and post-traumatic growth variables. Pearson's correlations were used to explore relationships between the variables.

**Table 1**  
*Correlations between the Study Variables (N = 260)*

Variables	Range	M	SD	$\alpha$	Skew	1	2	3	4	5
Age of deceased	20-90	45.20	14.57			-	-	-	.01	-.17**
Educational level							-	-	-.02	.15*
Nature of death								-	.02	-.04
Social support	6-36	30.32	7.81	.88	-1.84				-	.08
Post Traumatic Growth	1-48	27.47	9.15	.78	.005					-

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

Table 1 indicates positive and weak relationship of social support with post traumatic growth. Age of deceased, education level of participants, and nature of death are marginally related to social support. The nature of death is negatively and weakly related to growth. However, age of deceased is significantly negatively and education level of participants is significantly positively related to post-traumatic growth.

**Table 2**  
*Mean differences across expected death and sudden death (N = 260)*

Variable	Expected Death (n=128)		Sudden Death (n=132)		t(258)	P	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Social Support	30.14	7.90	30.49	7.74	-.36	.71	-2.26	1.55	.04
Post-traumatic Growth	27.88	9.16	27.08	9.15	.69	.48	-1.44	3.02	-.08

Note: \*\*  $p < .01$ , \* $p < .05$ ; CI = Confidence Interval. LL = Lower Limit. UL = Upper Limit

Independent sample t-test and one-way ANOVA analyses were used to explore mean group differences on social support and post-traumatic growth. To test the hypotheses, a linear hierarchical regression analyses were used with socio-demographic variables (age of deceased, education level of participants, and nature of death) as predictors in first model and social support in the second model.

### Results

Descriptive statistics of the sample were obtained on the study variables. The data had no missing values and there were no extreme outliers in the data. The mean scores for social support was 30.32( $SD=7.81$ ) with a score range of 6-36 and for post traumatic growth, it was 27.47( $SD= 9.15$ ) with a score range of 1-48. The values of skewness for social support and post traumatic growth were -1.84 and .005 respectively which were within the acceptable range of  $\pm 1.96$ . The alpha reliability values for the test scores on social support and post-traumatic growth were .88 and .78 respectively (Table 1).

Results of t-test analysis indicated (Table 2) that there are no statistically significant mean group differences on social support ( $t = -.36, p = .71$ ) and post-traumatic growth ( $t = .69, p = .48$ ) based on nature of death. No meaningful mean group differences on social support and post-traumatic growth were observed based on age of deceased and education level except the following: death of one year and below age group of deceased led to statistically significant higher level of post-traumatic growth as compared to age groups of 21 -30 years and 51-60 years; participants with education level of up to primary reported significantly higher post-traumatic growth as compared to illiterate participants (table not displayed).

For testing the hypotheses of the study, multiple linear hierarchical regression analyses were run in which age of the deceased, education level and nature of death were entered in the first step, and social support was entered in the equation in second step (Table 3). The results of the first stage showed that age of deceased, education level of participants and nature of death collectively explained 4.7 % of the variance (Adjusted  $R^2 = .035$ ) in post-traumatic growth which was significantly different from statistical zero ( $F(3, 256) = 4.17, p = .007$ ).

Social support was entered in the equation in second stage and the total variance explained by the model in post-traumatic growth was 5.5% (Adjusted  $R^2 = .040$ ). The introduction of social support explained additional .8% in post-traumatic growth after controlling for age of deceased, education level and nature of death ( $\Delta R^2 = .008; (F(1, 255) = 3.67, p = .006)$ ).

Age of deceased was statistically significant predictor of post traumatic growth. Education level of participants was observed as statistically significant positive predictor for post-traumatic growth; however nature of death (This variable was dichotomous and labeled as 1 = expected death and 2 = sudden/violent death) was negative but statistically not significant predictor for post traumatic growth ( $B = -.61, CI = -2.81 - 1.59$ ). These findings resulted in acceptance of the first hypothesis and non-acceptance of the second hypothesis respectively. Social support was observed as statistically non-significant predictor for post-traumatic growth resulting in non-acceptance of the third hypothesis.

**Table 3**  
*Hierarchical Regression Analyses of predictors of Post-traumatic Growth (N = 260)*

	Post Traumatic Growth		
	Model 1	Model 2	
	<i>B</i>	<i>B</i>	95 % <i>CI</i>
Constant	30.34**	27.23**	[26.03 – 34.66]
Age	-.56*	-.56*	[-1.11 – -.20]
Education Level	.52*	.53*	[.02 – 1.03]
Nature of Death	-.61	-.64	[-2.81 – 1.59]
Social Support	.01	.10	[-.036 – .24]
$R^2$	.047	.055	
<i>F</i>	4.17**	3.67**	
$\Delta R^2$		.008	
$\Delta F$		2.13	

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

Overall, the results of the hierarchical regression showed that age of deceased and education level are statistically significant predictors of post-traumatic growth and the introduction of social support in second stage ( $\Delta F = 2.13, p = .14$ ) did not create statistically significant change in the overall model (Table 2).

## Discussion

In this study, it was observed that social support is very weakly related to post-traumatic growth and it does not significantly predict growth in bereaved individuals. Sorensen and colleagues have also reported insignificant relationship of received support with post-traumatic growth (Sorensen et al., 2019). However, other studies have reported statistically significant association of social support with post-traumatic growth (Aliche et al, 2019; Cui et al., 2017; Drapeau et al., 2019; Mesidor & Sly, 2019). One of the possible reasons for non-significant association in the present study might be the fact that the available support did not meet the psycho-social and emotional needs of participants (Shang et al., 2020) and this non-efficacy of the available social support might be a reflection of the local society in which providing social support is treated more like a social norm rather than a sophisticated coping mechanism.

Moreover, the inconsistency between present study findings on social support as predictor and that of past studies may be explained through understanding the delicate nature of social support. An important dimension of social support is satisfaction with available support. It is possible that social support is abundant around the bereaved parents and spouses, yet the psycho-social and emotional needs of the bereaved are not matched by the available support. As mentioned earlier, in local context, providing and receiving support from significant others are viewed as a kind of social norm rather than active mechanism of dealing with the loss. It is therefore, perhaps, that social support in the present study showed very weak relation with growth and failed to significantly predict post-traumatic growth in bereaved parents and spouses.

The present study indicated that sudden/violent death is statistically non-significant predictor of reduced post-traumatic growth. Though this finding is in line with the assumption of the present study (Hypothesis: 2), however, it is statistically non-significant that's why it does not justify the acceptance of the second hypothesis of the present study. Past studies have reported that sudden/violent death is statistically significantly related to less post-traumatic growth (e.g. Fisher et al., 2020). Individuals bereaved by sudden and violent death report experience of less post-traumatic growth as such individuals go through more intense grief and distress.

The severe nature of grief possibly interferes with the cognitive resolution of the traumatic experience.

The findings in the present study indicated education level significant positive predictor of growth. Past studies have examined education level with reference to post-traumatic growth and they have reported mixed findings. Some studies have reported association of more education with higher post-traumatic growth (Rahmani et al, 2012), some studies have observed negative association of education with growth (e.g., Sorensen et al, 2019; Vanhooren et al., 2018), and still other studies have documented no meaningful relation of education level with growth (Aliche et al., 2019). Relevant explanation for findings on education level may be the possible role of some explanatory factor or contextual factor in relationship between education level and growth. This calls for further research on clarifying the mechanisms and factors involved in relationship of education level with growth.

There have been hardly any studies focusing age of deceased in relation to post-traumatic growth. The present study addressed this gap and examined age of the deceased as predictor of growth and the results indicated that age is a statistically significant negative predictor of growth which implies that younger age is related with higher growth. However, analysis of variance indicated no meaningful mean group differences on post-traumatic growth in relation to age of deceased (*see result section*). Absence of clear and meaningful differences on age of deceased indicates that the effect of age might be intermingled with other factors such as relationship of bereaved with the deceased, socio-economic dependence of the bereaved on deceased, and possibly other contextual factors. The present study also did not observe statistically significant differences on social support and post-traumatic growth based on age of deceased and nature of death. Past studies have also indicated mixed findings in this regard. The findings on mean group differences in the present study call for further empirical researches to bring forth a clear picture of these differences.

## Conclusion

The findings of the present study call for attention to enhancing the quality instead of quantity of social support to help extremely distressed individuals. It further calls for careful consideration of socio-demographic characteristics by mental health professionals in their support plans for the bereaved and traumatized individuals.

## Limitations

The correlation and cross-section design of the present study does not allow for the causal inference of the findings and time-related changes in the relationship of the study variables. Since the data were collected only from parents and spouses and only from Balochistan Province therefore the findings of the study may not be generalized to other significant relationships of the deceased and populations of other regions.

## Ethics and Consent to participate

Ethical approval obtained

## Consent for Publication

Consent Approved by the authors

## Availability of data and materials

Not Applicable

## Competing Interest

None

## Funding

None

## Authors' Contribution

S.A.A conceptualized the idea, design and completed the entire article (introduction, literature, analyses, discussion and conclusion). Edited the manuscript before submission. M.A.H contributed to the analyses, discussion, conclusion and formatting of the article. Approved the revised version before submission.

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## Adaptation and Validation of the New Indices of Religious Orientation Revised Scale

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### Abstract

**Objective.** The purpose of this study was to adapt and validate the New Indices of Religious Orientation Revised (NIROR) scale, which has been developed in different cultural settings, for a study of Pakistani university students. The NIROR was developed by Francis, Fawcett, Robbins, and Stairs (2016), consisting of 27 items for Canadian-Christian respondents. It measures intrinsic religious orientation, extrinsic religious orientation, and quest religious orientation.

**Method.** In this study, we have culturally adapted the scale for Pakistani sample. The validity indices were ascertained on a sample of 300 participants, these included; undergraduate, graduate, and post-graduate students taken from different departments of four universities of Islamabad.

**Results.** The *EFA*, using the common factor analysis method, resulted in the final structure of the scale into 18 items with four factors, the first factor's reliability was  $\alpha = .87$ , the second factor's  $\alpha = .82$ , the third factor's  $\alpha = .79$  and the fourth factor's  $\alpha = .75$ . *EFA* was followed by the *CFA* on a new sample ( $n=498$ ) to confirm the factors' structure. The *CFA* revealed a good model fit for the four factors solution of this scale that is  $\chi^2(125) = 291.34$ ;  $\chi^2/df = 2.33$ ; root mean square error of approximation (RMSEA) = .05; goodness-of-fit index (*GFI*) = .94; Tucker-Lewis index (*TLI*) = .93; confirmatory fit index (*CFI*) = .94; normed fit index (*NFI*) = .90.

**Conclusion.** It is concluded that the adapted version with four factors is a reliable and valid measure to be used for Muslim adults in the Pakistani context.

**Keywords.** *New indices of religious orientation revised scale, intrinsic, extrinsic, quest, muslims, pakistan, psychometrics.*



## Introduction

With regards to research on religiosity and religious orientation (Allport & Kramer, 1946; Kirkpatrick, 1949; Rosenblith, 1949; Stouffer, 1955; Rokeach, 1960; Struening, 1963), a significant shift occurred with the research of Allport and Ross (1967), in which they introduced the terms extrinsic and intrinsic religious orientations. According to this distinction, the extrinsically orientated religious individuals are self-centric and use their religion for utilitarian interests. On the other hand, intrinsically oriented individuals consider their faith as an end in itself, not a means to achieve some personal benefits (Allport & Ross, 1967; Kirkpatrick, 1989; Batson, Schoenrade, & Ventis, 1993; Whitley, & Kite, 2016; Younas, Muqtadir, & Khan, 2018). In other words, extrinsic orientation indicates immature religiosity that enables individuals to achieve their selfish goals. In comparison, the intrinsic religious orientation points to a sincere and genuine religious belief and individuals' way of life (Tiliopoulos, Bikker, Coxon, & Hawkin, 2007). Kirkpatrick (1989) introduced the two sub-dimensions of extrinsic orientation: the personal extrinsic and the social extrinsic. Social extrinsic orientation deals with attainment of social benefits, while personal extrinsic orientation deals with overcoming and controlling personal psychological troubles and distress (Flere & Lavric, 2008).

Furthermore, Batson and Ventis (1982) proposed a third orientation called quest religious orientation. According to them, this orientation is related to an individual's religious search. The quest-oriented individuals consider the religious questions vital for themselves and try to find the answers. This orientation is determined by "the degree to which an individual's religion involves an open-ended, responsive dialogue with existential questions raised by the contradictions and tragedies of life" (Batson, Schoenrade, & Ventis, 1993). Such individuals are always ready to face criticism and are open to change. A 12 items scale was developed to measure religion as quest orientation (Batson & Schoenrade, 1991a, Batson & Schoenrade, 1991b). With the popularization of the theory of religious orientation, various measures were developed to assess these dimensions of religious orientations (Allport & Ross, 1967; Gorsuch & McPherson, 1989; Batson & Schoenrade, 1991a; Batson & Schoenrade, 1991b; Worthington et al., 2003; Francis, 2007; Koenig & Bussing, 2010; Francis, Fawcett, Robbins, & Stairs, 2016).

Allport and Ross (1967) developed a 20 items religious orientation scale (ROS) that incorporated the intrinsic and extrinsic religious dimensions. Gorsuch and Venable (1983) adapted this scale to make it usable for both adults and children and named it Age Universal I-E Scale. Gorsuch and McPherson (1989) later reviewed the ROS items and incorporated the sub-dimensions of extrinsic orientation: personal extrinsic and social extrinsic. This scale was translated and adapted by Khan, Ghous, and Malik (2016) for Pakistani population which was used by Younas, Muqtadir, and Khan (2018) in their study of Pakistani Muslim and Christian adults.

Worthington et al. (2003) used a different approach to ROS. They introduced religious commitment as the key variable of their scale, which distinguishes between intrapersonal and interpersonal religiosity. They called this scale the "Religious Commitment Inventory (RCI)." Koenig and Bussing (2010) developed a short scale consisting five items. Three items measure the intrinsic orientation, one of the organizational religious activities, and one that focuses on non-organizational activity. This scale was named the "Duke University Religion Index" (DUREL) scale.

Francis (2007) developed the "New Indices of Religious Orientation scale (NIRO)" that incorporated the three constructs of intrinsic, extrinsic, and quest orientations, which were earlier measured separately. This scale is used in several studies, including those by Francis (2010), Jewell, and Robbins (2010), Williams (2010), and Walker (2015). However, the NIRO was limited to adult and articulate populations. Francis et al. (2016) reformulated the items of NIRO, and the revised scale appeared New Indices of Religious Orientation Revised scale (NIROR), which was validated on adolescents between the ages of 12 and 19 years. The overall Cronbach alpha is 0.74 with three sub-scales; extrinsic, intrinsic, and quest was 0.65, 0.82, and 0.75, respectively. This scale gives equal weight to each dimension: intrinsic religious orientation, extrinsic religious orientation, and quest religious orientation.

NIROR was used in a study on adult prisoners of corruption in relation to dark triad personality in Kedungpane Semarang Prison (Kaumbur, Wismanto, and Hardjanta, 2017). The reliability coefficient of 19 items scale came out as 0.85.

In another study, NIROR was adapted (Elias, Yaacob, and Othman, 2018) on a sample of Malaysian respondents. Fabry (2018) also adapted the two sub-scales of the NIROR scale, excluding the quest scale on the Ethiopian population, in her master's dissertation. She found established reliability of 12 items of intrinsic and extrinsic religious orientation on her local sample.

This world is full of cultural, religious, linguistic, and ethnic diversities. If an instrument developed in a specific religious or cultural context is to be used in different cultural settings, it must be adapted, keeping in view the nuances of beliefs, language, and ethnicity of the target culture. There is always a need for cross-culturally reliable and validated scales (Widenfelt et al., 2005; Rojjanasrirat, 2011), which is a good solution for the lack of scale in the target population. Brislin, Lonner, and Thorndike (1973) have suggested avoiding idioms, vague language, double barreled sentences, adverbs indicating time, when adapting a scale.

Khan, Ghous, and Malik (2016) adapted the Age Universal I-E Scale, revised by Gorsuch and McPherson (1989), for Pakistani adults. However, this scale misses the quest dimension of religious orientation. Therefore, we intended to use the NIROR (Francis et al., 2016) in the Pakistani context. This scale gives equal weightage to the intrinsic, extrinsic, and quest religious orientation. It is the most recent scale to measure religious orientation according to our knowledge. It uses simple language as it was developed for adolescents. Yet, before use, it is required to establish the cross-cultural utility of measure and confirming its validity on a local sample.

Validation of scale is a continuous process that adds to its meaningfulness and usefulness in a given context. Without validating a scale on a specific sample of study, the results drawn are considered meaningless in social sciences (Zumbo, Gelin, & Hubley, 2002). The existing scale without modification may not produce suitable results (Garcia & Martinez, 2008). Thus, the emphasis is given to a standardized instrument to measure the responses (Gjersing, Caplehorn, & Clausen, 2010). The purpose of the current study is to adapt and validate the NIROR scale into a Pakistani and Muslim context and for a different age group, between 18 to 40 years.

## Method

### Adaptation of Items

The NIROR scale was developed for Christian respondents in Canada for adolescents between the ages of 12 and 19 years. The aim of this study was to adapt and validate this scale from the Canadian-Christian context to the Pakistani-Muslim context. We thoroughly reviewed and adapted all the 27 items of the NIROR scale to fit them for the Muslim respondents for adults between the ages of 18 and 40 years. The items of the original scale were translated following Brislin, Lonner, and Thorndike (1973) suggestion of using simple language. We replaced the Christian-religious terminologies with the somehow equivalent Muslim-religious terminologies following Werner and Campbell (1970) and Brislin (1976).

Thus, the term "Christian faith" was replaced by "Islamic faith," such as the item in original scale "While I believe in the Christian faith, there are more important things in my life" was replaced with "While I believe in the Islamic faith, there are more important things in my life." We changed the word 'church' was changed with 'masjid' such as "One reason for me going to church is to connect with others my own age" was replaced by "One reason for me going to masjid is to connect with others of my age." Christ's family was replaced with Muslim *Ummah*, such as the item "The church is most important to me as a place to be part of Christ's family" to "The masjid is most important to me as a place to be part of the Muslim *Ummah*."

Afterward, the adapted items were discussed with a panel of experts to address the face validity as done and suggested by Urbina (2004). The panel included two professors and three lecturers of the Psychology Department of the International Islamic University Islamabad. We incorporated their opinions following Parasuraman, Zeithaml, and Malhotra (2005). These items were then piloted on a small sample of 30 university students to improve understanding of the scale's items.

### Administration of the Adapted Version

We administered the adapted version of the NIROR scale to 315 undergraduate, graduate, and post-graduate students of four different universities of Islamabad following the recommendation of Clark and Watson (1995). The data collected was then entered into SPSS (Version 25) sheet.

Fifteen forms were found incomplete and thus excluded from the analysis. Before running the analysis, the data were cleaned and screened for missing values.

## Results

### Sample Characteristics

Out of 315 responded, 300 participated in the study, including 152 males and 148 females (Mean age = 1.41 and  $SD=0.629$ ). The sample was further subdivided in sample of students enrolled in BS ( $n=208$ ), MS ( $n=71$ ), PhD ( $n=12$ ) programs. We used a diverse sample of participants drawn on the basis of convenience random sampling procedures. Informed written consent was obtained before the assessment. Majority of the students were from the province of Punjab (57%) followed by students from Khyber Pakhtunkhwa (31.6%), Baluchistan (5.2%), and Sindh (4.5%) and the federal area (1.7%). The sample was also denominationally diverse; they represent 5 *maslaks* (different Muslim school of thoughts). A total of 118 (40.3%) students represented Deobandī *maslak* 91 (31%) to Barelvī, 50 (17%) to Ahl-e-Ḥadīth, 20 (7%) to Shī'a and 14 (5%) students to 'Others'.

### Exploratory Factor Analysis

We performed a common factor analysis for 27 adapted items of NIROR to determine its validity and factor structure of the adapted version. Validity is one of the primary criteria for the evaluation of an instrument. It tells us whether the scale accurately measures the concept under investigation or not (Kramer, Douglas, & Vicky, 2009; Brains & Manheim, 2011; Zikmund, Babin, Carr, & Griffin, 2013; Hair, Black, Babin, & Anderson, 2014). The two methods of sample suitability were utilized: (i) The Kaiser-Meyer-Olkin called KMO and (ii) Bartlett's Test of Sphericity. A score for KMO below 0.5 is considered unacceptable (Kaiser, 1974). The value of KMO for this test was 0.80, which is far better than 0.5. Similarly, Bartlett's Test of Sphericity was statistically significant ( $p < 0.001$ ). The analysis yielded four factors solution. The factors were retained following the rule of Eigenvalue, according to which the factors less than 1.0 should be dropped (DeVellis, 2017). The cumulative variance for the four factors achieved was 51.9% (Table 1). The factor first Eigenvalue explained 21.6% of the variance. The second, third, and fourth explained 15%, 9.71%, and 5.63%, respectively.

## Method

### Adaptation of Items

The NIROR scale was developed for Christian respondents in Canada for adolescents between the ages of 12 and 19 years. The aim of this study was to adapt and validate this scale from the Canadian-Christian context to the Pakistani-Muslim context. We thoroughly reviewed and adapted all the 27 items of the NIROR scale to fit them for the Muslim respondents for adults between the ages of 18 and 40 years. The items of the original scale were translated following Brislin, Lonner, and Thorndike (1973) suggestion of using simple language. We replaced the Christian-religious terminologies with the somehow equivalent Muslim-religious terminologies following Werner and Campbell (1970) and Brislin (1976).

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### Administration of the Adapted Version

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**Table 1***Total Variance Explained (N=300)*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.33	24.06	24.06	3.89	21.61	21.61
2	3.23	17.96	42.02	2.70	15	36.61
3	2.19	12.16	54.18	1.75	9.71	46.32
4	1.47	8.16	62.34	1.01	5.63	51.94

The rotation technique adapted for this analysis was oblique (DeVellis, 2017). Thus, we used a Promax rotation. The Pattern matrix showed four factors with strong factor loadings (Table 2). The communality ranged from .40 to .70, and the items with communality below 0.3 were removed following the suggestion of Hadi, Abdullah, and Sentosa (2016). We repeated the process a couple of times and removed all those items which were cross-loaded until we reach a simple structure (Fabrigar, & Wegener, 2012). Both convergent validity and discriminant validity (Mohajan, 2017) were achieved for the NIROR scale. Table 3 reveals that the six items of the quest, six items of intrinsic, three items of extrinsic social, and three items of extrinsic compartmentalization relate to their same constructs. Hence, all the items converged on relevant factors.

**Table 2***Pattern Matrix Showing Factor Loadings (N= 300)*

Variable	Items	Factor Loadings
Quest Religious orientation	Q23: For me, doubting is an important part of what it means to be Muslim.	.78
	Q26: I am constantly questioning my religious beliefs.	.78
	Q22: I value my religious doubts and questions.	.71
	Q27: There are many religious issues on which my views are still changing.	.70
	Q24: Questions are more important to my Muslim faith than are the answers.	.69
	Q25: As I grow and change, I expect my faith to grow and change as well.	.66
Intrinsic Religious orientation	INT10: My Islamic faith shapes how I live my daily life.	.71
	INT12: My Islamic faith really shapes the way I treat people.	.68
	INT14: I go to masjid because it helps me feel close to Allah.	.67
	INT15: The masjid is most important to me as a place to be part of the Muslim <i>Ummah</i>	.66
	INT11: I try hard to carry my Islamic faith over into all other areas of my life.	.64
	INT18: I pray mainly because it deepens my relationships with Allah.	.59
Extrinsic Social orientation	ES5: A key reason for my interest in masjid/mosque is that it is socially enjoyable.	.84
	ES6: I go to masjid because it helps me to feel part of a community.	.74
	ES4: One reason for me going to the mosque is to connect with others of my age	.66
Extrinsic Compartment orientation	EC1: While I believe in the Islamic faith, there are more important things in my life.	.81
	EC3: Occasionally, I have comprised my Islamic beliefs to fit in better with my friends.	.67
	EC2: While I am a Muslim, I do not let my faith influence my daily life.	.63

### Reliability Analysis

Reliability indices of an instrument is another criterion for establishing an instrument’s validity on a particular sample. For this purpose, we used estimates of internal consistency reliability (Zikmund et al., 2013; Hair, Black, Babin, & Anderson, 2014), which is commonly tested by using the Cronbach Alpha coefficient method. This method verifies an instrument’s or scale’s reliability by analyzing the degree to which the scales’ items intend to measure (Cronbach, 1951). Cronbach Alpha coefficient ranges from 0 to 1, and the value below 0.60 is a sign of poor reliability (Hair, Black, Babin, & Anderson, 2014). However, the value between 0.70 and 0.80 is a sign of good reliability (Zikmund et al., 2013).

As a next step, we calculated the Cronbach’s alpha for all the 18 items together and the four factors separately. Two items were deleted utilizing the “Cronbach’s alpha if item deleted” option to improve the coefficient alpha of the overall scale. Table 3 shows that Cronbach’s alpha of all the four factors was greater than 0.70. Similarly, the alpha for the overall scale was 0.81.

**Table 3**  
*Reliability Statistics of NIROR Scale (N= 300)*

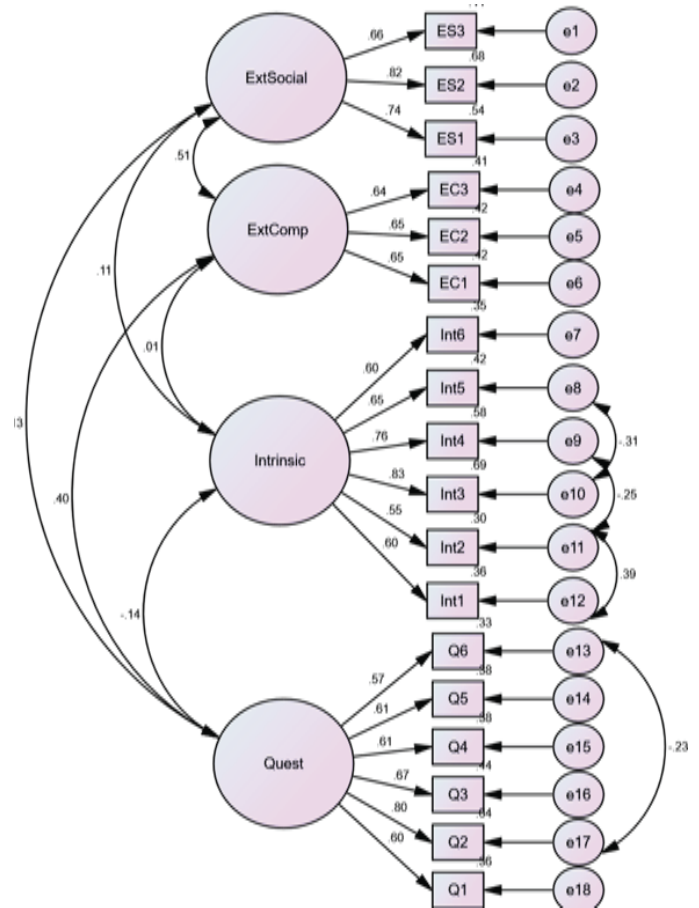
Factors	Cronbach’s Alpha Value	N of Items
Quest	0.87	06
Intrinsic	0.82	06
Extrinsic Social	0.79	03
Extrinsic Compartmentalization	0.75	03
<b>Total</b>	<b>0.81</b>	<b>18</b>

### Confirmatory Factor Analysis

EFA was followed by the Confirmatory factor analysis (CFA) to confirm the factors’ structure (Hu & Li, 2015). For this purpose, AMOS-22 was used. A new sample ( $n=498$ ) was used following the recommendation of the new data set for CFA (Henson & Roberts, 2006; Hu & Li, 2015). Participants consisted of 321 (64.5%) male and 177 (35.5%) female students. Three hundred fifty-four students were enrolled in BS, 121 in MS, and 23 in PhD programs. Majority students were Punjabi (52.6%) followed by Pashtun (32.9%), other (13.1%), Sindhi (1.2%) and Baloch (.2%).

The regression weights were above 0.50, showing the suitability of the items. The error variables were co-varied as they were representing the same factors that are intrinsic and quest factors (Figure 1). Model fit indices revealed a good fit with  $\chi^2(125) = 291.34$ ;  $\chi^2/df = 2.33$ ; root mean square error of approximation (RMSEA) = .05; goodness-of-fit index (GFI) = .94; Tucker-Lewis index (TLI) = .93; confirmatory fit index (CFI) = .94; normed fit index (NFI) = .90,  $p < 0.001$ .

**Figure 1.** CFA Model of NIROR Scale (N=498)



### Discussion

We carried out this study to adapt and validate the New Indices of Religious Orientation Revised Scale (NIROR) on the Pakistani Muslim population. The original scale was developed by Francis et al. (2016), consisting of 27 items. They reformulated the NIRO (Francis, 2007) scale and produced the NIROR for adolescents between 12 and 19. This scale was developed for Canadian-Christian respondents. The overall Cronbach alpha of the original scale is .74 with three sub-scales; extrinsic (.65), intrinsic (.82), and quest (.75) that is used to measure intrinsic religious orientation, extrinsic religious orientation, and quest religious orientation.



The purpose of the current study was to adapt and validate the NIROR scale into a Pakistani-Muslim context and for a different age group between the ages of 18 and 40. We adapted all the 27 items after discussions with a panel of experts to address the face validity. After obtaining the adapted items, the scale was administered to a small sample of 30 university students of Islamabad to improve the understanding of the scale's items. Then, we administered the adapted version of the NIROR scale to 315 undergraduate, graduate, and post-graduate students of four different universities of Islamabad, following the recommendation of Clark and Watson (1995). The data collected was then entered into SPSS (Version 25) sheet. A common factor analysis discovered four factors with factor loading more than or equal to 0.59, which are as follows:

**Factor 1.** 6 items loaded on this factor were related to “quest religious orientation.” These items were related to respondents’ quest orientation. Quest religious-oriented individuals are religiously open-minded (Batson, Schoenrade, & Ventis, 1993) and always ready to accept change (Batson & Schoenrade, 1991a). Items retained in this factor were items no Q23, Q26, Q22, Q27, Q24, and Q25.

**Factor 2.** Six items loaded on its related factor “intrinsic religious orientation.” Intrinsic religious-oriented individuals are said to live their religion as an end (Allport & Ross, 1967). Items loaded on this factor were related to intrinsic orientation. This factor included item number INT10, INT12, INT14, INT15, INT11, and INT18.

**Factor 3.** In the NIROR scale, the “extrinsic religious orientation” was composed of three dimensions measuring compartmentalization, social support, and personal support. Common factor analysis revealed only two factors of the “extrinsic religious orientation.” Thus, three items of Extrinsic religious orientation loaded on a separate factor, named “extrinsic social religious orientation,” which was social support in the original scale. Extrinsic social individuals are defined by Kirkpatrick (1989) as those individuals who do not follow their religion in a real sense but for their social acceptability. This factor included item number ES5, ES6, and ES4. Factor Four: Three items of “extrinsic religious orientation” loaded on factor 4. This factor was named “extrinsic compartmentalization.”

According to Francis et al. (2016), individuals who score high on this factor keep their religion at a distance and do not let it influence their daily life. Items loaded on this factor were EC1, EC3, and EC2.

The Cronbach’s alpha for all the 18 items together found was 0.81 better than the original scale, which is 0.74 (2016). The quest religious orientation, intrinsic religious orientation, extrinsic social, and extrinsic compartmentalization was  $\alpha = .87$ ,  $\alpha = .82$ ,  $\alpha = .79$ , and  $\alpha = .75$  respectively. Thus, alpha indicated a good internal consistency of the scale. The EFA was followed by the CFA in order to confirm the resulted factors’ structure. The CFA revealed a good model fit for the four factors solution of this scale that was  $\chi^2(125) = 291.34$ ;  $\chi^2/df = 2.33$ ; root mean square error of approximation (RMSEA) = .05; goodness-of-fit index (GFI) = .94; Tucker-Lewis index (TLI) = .93; confirmatory fit index (CFI) = .94; normed fit index (NFI) = .90.

## Conclusion

This study pertained to the adaptation and validation of the New Indices of Religious Orientation Revised Scale (NIROR), which was originally developed for Canadian Christian adolescents. We adapted it for Muslim adults in the Pakistani context. The methods, procedures, and tests applied in the process show that the adapted version with four factors is reliable and valid to measure the intrinsic, personal extrinsic, social extrinsic, and quest religious orientation of the intended population. Thus, the adapted NIROR scale is suitable for measuring the religious orientations of Pakistani Muslims.

## Ethics Approval and Consent to Participate

This paper is a part of a study approved by the Board of Advance Studies and Research (BASR) of International Islamic University, Islamabad thus has subsequently got Ethical approval. We took written consent of the participants before they participated in the study.

## Availability of Data and Materials

Data sets used in this study are available from the corresponding author on reasonable request.

## Competing Interests

The authors are well informed and declare no conflict of interest.

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## Authors' Contribution

K. R. conceptualized the idea, contributed to study design, completed the entire article, including introduction, literature, data collection, discussion, and conclusion. M. T. K. supervised the study, contributed to study design, including introduction, literature, discussion, and conclusion. M. A. supervised the study, contributed to the introduction, literature, adaptation of the items, data collection procedures, and edited the whole draft.

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