

Peer Victimization, School Connectedness, and Mental Well-Being among Adolescents

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The objective of study was to explore relationship between peer victimization (PV), school connectedness (SC) and mental well-being (MWB) among adolescents. It also aimed to explore the differences based on gender and status of school across study variables. Multidimensional Peer Victimization Scale (Mynard & Joseph, 2000), School Connectedness Scale (SCS) (Lohmeire & Lee, 2011), and Warwick-Edinburgh Mental Well-Being Scale (Stewart-Brown & Janmohamed, 2008) were used to assess study variables. In first phase, initial review of instruments was carried out. Experts from field of psychology were approached and instruments were adapted as per Pakistani culture. In the second phase, data was collected from 400 school and college going adolescents with age ranging from 14 to 19 years ($M = 16.16$, $SD = 1.86$) through convenience sampling. It was found that PV and its subscales (i.e., Physical Victimization, Verbal Victimization, Social Manipulation, and Attack on Property) were negatively related with SC and MWB. Mediation analysis indicated that SC mediates the relationship between PV and MWB and accounts for an additional 8% variance. Nonsignificant differences were observed with reference to gender and status of school on PV and its subscales except for Social Manipulation where girls had higher scores than boys. Nonsignificant differences were also apparent on SC and MWB across gender and status of school. Across status of school, students from government schools had higher scores on social manipulation as compared to students from private

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schools. It can be inferred that peer victimization negatively affects mental well-being by lowering school connectedness.

Keywords. Peer victimization, school connectedness, mental well-being, adolescents, verbal victimization

Schools are considered to have a pivotal role in socio emotional development of students. The importance of school in an adolescent's life increases not only because of amount of time spent by adolescent within schools, but, also by relations developed by teachers and peers within schools (Brown & Evans, 2002). These experiences have a predictive role in determining the success of students later in life. High sense of school connectedness (SC) among students also predict fewer behavioral problems (in & out of school) (Brown & Evans, 2002). It is considered to be a protective factor whose importance enhances manifold because of empirical evidences highlighting it as a powerful predictor of health and academic outcome of a student (Whitlock, 2006). Quality environment at school fosters a sense of belongingness, relatedness, and connectedness towards the institution; which is considered to be a predictive factor for academic success and fewer behavioral problems (Loukas, Suzuki, & Horton, 2006). Although, at every age promoting SC is important, but it enhances even more in adolescents. This can be attributed to the fact that adolescence is a phase of expansion where the child relies more on extra-familial relationships like friends, peers, and teachers at school than family for self-sufficiency (Blum, 2005; Shochet, Homel, Cockshaw, & Montgomery, 2008). Moreover, during this phase, the need to be connected to larger social ecology increases manifold. This need further enhances the importance of school for the growing adolescent (Roth & Brooks-Gunn, 2003).

The transition of going to the school involves major challenges like adjusting to the school environment, dealing with separation from parents and caregivers, adjusting to the role of student, expansion of social circle, and interaction with peers. Expansion of social interaction involves the major challenge of interacting and adjusting with peers (Lakhani, Jain, & Chandel, 2017). Negative peer interactions that are sometimes apparent in form of victimization are source of potential threat to student's physical and mental well-being (MWB). Though, diverse in terms of manifestation, it is usually apparent in forms of physical harm, verbal, and psychological abuse where the prime intention of perpetrator is to cause harm to the other person (Olweus, 1993, Stadler, Feifel, Rohmann, Vermeiren, & Poustka, 2010). It has been evident that bullying and peer victimization (PV) are most prevalent during the time period of

adolescence (Due et al., 2005; Rigby, Slee, & Martin, 2007). Regarding PV's prevalence, among grade six students in Pakistan, 94% boys and 85% girls reported of experiencing victimization by peers in some form. Further, 85% boys and 66% girls reported of being involved in victimizing fellow peers (Jan & Husain, 2015). Empirical evidences (Jan & Husain, 2015; Stadler et al., 2010) have highlighted that victimization among adolescents can have varied expressions like indirect or direct aggression, bullying, psychological aggression, verbal harassment (i.e., calling different names, cruel teasing, etc.), negative gestures and signals, and peer isolation and segregation.

Like other nations, it is a rising concern for Pakistan as well, where rates of peer victimization are reported to be as high as 41.3% among students. Shujja, Atta, and Shujjat (2014) highlighted that 19.6 to 24.1% sixth grade student's experience victimization by peers in some form in schools. Among them 45.1% boys and 35.5 % girls experience victimization by peers (Shaikh, 2013). Type of victimization experienced varies across gender. Indirect or covert victimization is experienced more by girls and more overt forms of victimization is experienced by boys (Crick & Nelson, 2002; Due et al., 2005; King, Wold, Tudor-Smith, & Harel, 1996; Rigby, Slee, & Martin, 2007). In Pakistani context, elementary school level indicates that socioeconomic status of the child to be a potential risk factor associated with PV (as majority of victims were from low or average socioeconomic class). Rates of its prevalence also varied across government and private schools. Students from government schools reported higher experiences of victimization from peers, which they attributed to poor policy making and implementation (Shujja et al., 2014).

Self-determination theory is central in highlighting the relationship between SC and MWB. Ryan and Deci (2000) focused on three central needs including competence, relatedness, and autonomy to be crucial in determining well-being. When applied to the school settings, researchers emphasize that well-being can be raised through school connectedness via a process of relatedness and the desire to attach or connect to others in schools (Brown & Evans, 2002; Crick & Nelson, 2002). The term *relatedness* refers to child's perception of perceived support available from significant others that is, peers, staff, and teachers. This belief enhances security and sense of connectedness with the school and it results in better academic and mental health outcomes. Relatedness, in academic environment can be explained in terms of trust and belief on others. Empirical evidence (Kloos, Trompeter, Bohlmeijer, & Westerhof, 2018; Reis et al., 2018)

indicates that sense of relatedness has a positive connection with well-being. *Competence* refers to the ability to take initiative and belief that one is capable of utilizing abilities to maximum. *Autonomy* on the other hand refers to belief to do things independently. Both are fostered in environments that provide a sense of security to the child. Schools are considered to play a crucial role in enhancing the three core elements of self-determination theory (Brown & Evans, 2002). In addition to this, relatedness, competence, and autonomy are negatively linked with mental health problems (Blum, 2005; Brown & Evans, 2002).

A cross-sectional research (Diener, 2000) indicated less symptoms of depression among students who reported higher level of happiness. They reported their strong emotional stability due to their strong relationship with their family and friends. They also attributed it to connectedness and a quality time which they spent with whom they felt connected. Another research found that 23.2% school students scored high on depression, while, 43.5% reported moderate positive wellbeing, and 33.3% reported high wellbeing (Yasmin, Taghdisi, & Nourijelyani, 2015).

According to Høglund (2007), gender significantly contributes to differences across victimization, school connectedness, and problems in adjustment. For instance, more overt victimization paired with externalizing behavioral problems are prevalent among boys (Crick & Nelson, 2002; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999). In contrast, Nolen-Hoeksema and Girgus (1994) found that girls at the age of 13 and 14 years showed more internalizing problems and depressive symptoms than boys of same age. SC can be seen more in girls as compared to boys (Langill et al., 2014). On the contrary, few researches reported nonsignificant gender differences (Paquette & Underwood, 1999) on SC and PV, which they attribute to differences in forms of victimization prevalent across gender (Langille et al., 2014). Many researchers, for example, Bolognini, Plancherel, Bettschart, and Halfon (1996) are consistent in describing differences in gender on well-being and it is proposed that self-esteem and well-being are higher in boys as compared to girls. So, with these contradictory evidences it's important to analyze and establish the direction and nature of these differences across Pakistani sample. Keeping this in mind exploration of gender differences for all study variables is one of the objectives of this study.

With advancement of research in the field of educational psychology, an increasing emphasis has been given to study the factors that can enhance the learning and MWB of students. Concepts like SC have been considered central for enhancing motivation, self-

regulation, and academic performance of students (Anderman, 2002; Baumeister, DeWall, Ciarocco, & Twenge, 2005). It is considered an emerging concept and relatively few studies have explored its mediating role (Loukas et al., 2006). It acted as a mediator in context of size of the school and within school violence (Volungis, 2016). Additionally, mediating impact of SC has been established in relationship between social skills, school climate, and satisfaction with life among students (In, Kim, & Carney, 2019). In another study mediational role of SC in relation with school climate, conduct, and depressive symptoms was only confirmed for conduct related problems, but not for depressive symptoms (Loukas et al., 2006). Based on these evidences, this research was carried out to assess the role of SC in relation between PV and MWB.

In the light of researches cited above, it can be inferred that the relationship between PV and MWB is well-established. Yet, intermediate mechanisms by which PV affects MWB need to be explored further. Studies (Jan & Husain, 2015; Shujja et al., 2014) aimed at establishing the prevalence of victimization in Pakistan indicated that the rates of victimization by peers are high. Therefore, protective factors are important to be explored in this regard and SC is one of those factors. If SC is high, students would have sense of belongingness, relatedness, and trust on school, teachers, staff, and administration. Experience of PV impacts well-being by altering the sense of connectedness with school. The study intends to test the proposed model by exploring role of intermediate factor that is, SC in relation between PV and MWB.

Hypotheses

1. There will be a negative relationship between peer victimization, school connectedness, and mental well-being in adolescents.
2. School connectedness will mediate the relationship between peer victimization and mental well-being in adolescents.
3. Students from government school will score high on peer victimization as compared to students from private schools.

Method

Sample

Convenience sampling technique was employed for data collection. Participants comprised of 400 students (245 boys & 155 girls) with age ranging from 14 to 19 years ($M = 16.16$,

$SD = 1.86$). Data were collected from schools of Rawalpindi (both government and private sector).

Table 1

Demographic Characteristics of Sample (N = 400)

Variable	f (%)	Variable	f (%)
Gender		Class	
Boys	245 (61.3)	Matric	225 (56.2)
Girls	155 (38.7)	Intermediate	175 (43.8)
Age (in years)		Sector	
14 -16	224 (56.0)	Government	113 (28.2)
17-19	176 (44.0)	Private	287 (71.8)

Table 1 summarizes the demographic characteristics of sample. Almost 61% of the sample comprised of male participants and 38% comprised of female participants. In addition, 28 % of the sample was form government schools and 71 % of the sample was from private schools.

Instruments

Multidimensional Peer Victimization Scale (MPVS). PV was assessed by 16 item MPVS (Mynard & Joseph, 2000). It comprises of four subscales: Physical Victimization (Item no. 6, 7, 8, & 9), Social Manipulation (Item no. 2, 11, 13, & 14), Verbal Victimization (Item no. 1, 4, 5, & 16), and Attack on Property (Item no. 3, 10, 12, & 15). MPVS is a three-point scale with responses ranging from 0 (*not at all*) to 2 (*more than once*) with a reliability of $\alpha = .84$ (Mynard & Joseph, 2000). The overall score can range from 0 to 32, whereas the score on each subscale can range from 0 to 8. High scores on this scale and subscale indicates high experience of peer victimization.

School Connectedness Scale (SCS). SC was assessed by 54 item SCS (Lohmeire & Lee, 2011) with responses rating from 1 (*completely false*) to 5 (*completely true*). Item number 7, 8, 12, 13, 15, 16, 22, 26, 28, 29, 33, 34, 36, 39, 40, 44, 45, 46, 47, and 54 are reverse scored. The reliability of the scale was found to be .79 (Lohmeire & Lee, 2011). Scores can range from 54 to 270. High scores indicate higher level of school connectedness and vice versa.

Warwick-Edinburgh Mental Well-being Scale. MWB was assessed through Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown & Janmohamed, 2008). It comprises of 14 items with response options ranging from 1 (*none of the above*) to 5

(*representing all of the time*). Scores can vary from 14 to 70 with high scores indicating higher mental well-being and vice versa. The reliability was found to be $\alpha = .80$ (Stewart-Brown & Janmohamed, 2008).

Procedure

In order to assess the cultural appropriateness, ease of comprehension of items, and item difficulty, pilot study was carried out, which comprised the first phase of study. Feedback was taken from three PhD scholars, which was later followed by a committee approach. Based upon suggestions few adaptations were made in School Connectedness Scale. For item 2, 10, 12, 17, and 31 word “adult” was elaborated further with “teachers and staff”. Similarly, “academic and extracurricular activities” were added to explain “activities” in item 14. “Things” in item 18, was explained through additional explanation “obeying rules and participation in extracurricular activities”. Lastly, in item 46, synonym for “goof off” (remain absent-minded) was added. Other two measures were rated as easy to comprehend by committee so no changes were made for these scales.

Following the ethical procedures, schools were contacted to get consent for data collection. Purpose of research was shared with them. Afterwards, students were approached in their regular academic settings. They were also briefed about the nature of study. It was assured that data would only be used for research purposes. Data collection was conducted through individual administration using the technique of convenience sampling. In case of any confusion, clarification was given by researcher. In the end both school administration and participants were thanked for their corporation and active involvement.

Results

In order to assess the relationship between study variables Pearson Product Moment Correlation was computed. In order to confirm the mediating role of SC in relation between PV and MWB mediational analysis was carried out. The role of demographic variables was explored via independent sample *t*-test.

Table 2

Descriptive Statistics of Peer Victimization Scale and its Subscales, School Connectedness Scale, & Mental Well-Being Scale (N = 400)

Scales	N	α	M	SD	Range		skewness
					Potential	Actual	
Peer Victimization	16	.80	9.88	6.22	0-32	0-32	.53
Attack on Property	4	.69	2.66	1.81	0-8	0-8	.70
Physical Victimization	4	.70	2.16	1.93	0-8	0-8	.90
Social Manipulation	4	.72	2.21	2.04	0-8	0-8	.84
Verbal Victimization	4	.75	2.85	2.02	0-8	0-8	.30
School Connectedness	54	.85	17.81	22.84	54-270	117-261	.81
Mental Well-Being	12	.78	51.08	9.75	12-60	14-60	.33

Note. N = no. of items

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

Reliability estimates in Table 2 indicates that that all scales and their subscales have acceptable to good reliabilities. Normality of data is evident by values of skewness and kurtosis.

Inter-scale correlation was computed in Table 3 to assess the relationship among study variables.

Table 3

Correlation Between Peer Victimization, School Connectedness, and Mental Well-Being (N = 400)

Variables	2	3	4	5	6	7
1. Peer Victimization	.78**	.75**	.76**	.76**	-.44**	-.22**
2. Physical Victimization	-	.42**	.45**	.45**	-.40**	-.16**
3. Social Manipulation	-	-	.47**	.46**	-.43**	-.19**
4. Verbal Victimization	-	-	-	.43**	-.23**	-.20**
5. Attack on Property	-	-	-	-	-.30**	-.13**
6. School Connectedness	-	-	-	-	-	.36**
7. Mental Well-Being	-	-	-	-	-	-

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

Table 3 indicates significant and negative relationship of PV (and its subscales) with both SC and MWB. Subscales of PV are showing positive relationship with each other pointing towards its construct validity. A significant positive relationship also is apparent between SC and MWB.

Table 4

Mediating Role of School Connectedness in Relationship Between Peer Victimization and Mental Well-Being (N = 400)

Predictors	Mental Well-Being			
	Model 1	Model 2	95 % CI	
	B	B	LL	UL
(Constant)	60.31	24.27	12.25	36.29
Peer Victimization	-.35**	-.12	-.28	.18
School Connectedness		.13**	.09	.03
<i>R</i> ²	.05	.13		
<i>F</i>	21.66**	31.18**		

Note. * $p < .05$. ** $p < .01$.

Table 4 indicates that peer victimization negatively predicts their mental wellbeing ($B = -1.64$, $t = 4.65$, $p = .01$) accounting for 5% variance. However, this variance increased to 13% after adding mediator in model 2. Additionally, Sobel test showed significant indirect effect ($B = -.22$) with an associated z -score ($z = -5.37$), it can be inferred that SC completely mediates the relationship between PV and MWB.

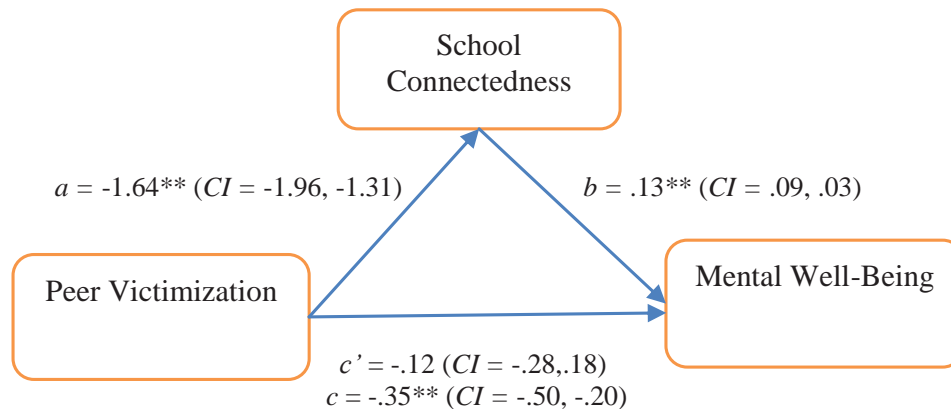


Figure 1. Mediating effect of SC between PV and MWB.

Figure 1 confirms the mediating role of school connectedness in relation between peer victimization and mental wellbeing. While, school connectedness of adolescents positively predicts their mental well-being ($B = .13$, $t = 6.21$, $p = .00$) but after adding it as a mediator, the relationship between PV and MWB becomes non-significant ($B = .12$, $t = 1.57$, $p = .11$). Additionally, Sobel test showed significant indirect effect ($B = -.22$) with an associated z -score ($z = -5.37$) and p -value ($p = .00$), it can be inferred that SC completely mediates the relationship between PV and MWB and accounts for an additional 8 % variance.

In order to assess gender and school status differences along study variables independent sample *t*-test was carried out. Only significant difference was observed across Social Manipulation (subscale of peer victimization) for both gender and school status. Female scored high ($M = 6.34, SD = 2$) than males ($M = 5.95, SD = 1.76$) with *t* statistics of 2.04, with an effect size of .20. However, students from government school scored high ($M = 6.33, SD = 2.02$) in comparison to private school students ($M = 6.00, SD = 1.79$) with a *t*-value of 1.60, with an effect size of .17. Nonsignificant differences were observed with respect to school connectedness, mental well-being, peer victimization, and all its subscales for both gender and school status.

Discussion

This study aimed at exploring the relationship between peer victimization, school connectedness, and mental well-being among adolescents. Additionally, it also aimed at studying the role of demographic variables including gender and school sector (i.e., government vs. private) with study variables.

In light of empirical evidences, it was hypothesized that peer victimization will be negatively related to school connectedness and mental well-being among adolescents. Correlation analysis (see Table 2) confirmed the proposed hypothesis, which explains that PV is negatively related to SC and MWB among adolescents. It can be inferred that experience of traumatic events like victimization leads to development of aversion or negative feelings not only towards the perpetrator, but also towards place of victimization. If school is the place of victimization, then the likelihood of developing negative feelings towards school and feelings of helplessness also increases. This leads to impaired mental health, which is often apparent in the form of mental health problems like anxiety and depression. All these problems collectively lead to school absenteeism and poor academic performance (Boulton, Chau, Whiteh, Amataya, & Murray, 2009; You et al., 2008). Negative experiences like PV at schools leads to outcome like school disliking accompanied by refusal to go to school, as it inculcates fear regarding safety and security and poses threat to basic needs of relatedness and belongingness (Buhs, Ladd, & Herald, 2006). Empirical evidence also indicates that adolescent, being victimized at home or school are at great risk of behavioral problems (You et al., 2008). Chronic and repeated exposure to PV (i.e., both overt and covert forms) is a risk factor associated with depression and related ineffectuality, which further contributes to low mental well-being (Stadler et al., 2010).

PV also showed negative relationship with domains of MWB (see Table 2). Findings are in line with the existing literature, those students who face both form of victimization, relational and physical, and are victims of bullying would develop externalizing problems (Woods, Bloomfield, & Karstadt, 2000). These adolescents would have more anxiety and become depressed easily (Hawker & Boulton, 2000) and would also have more psychotic symptoms and problems (Bebbington et al., 2004), factors that can contribute to poor MWB.

It was further hypothesized that SC will mediate the relationship between PV and MWB. Research has shown that PV affects MWB by reducing connectedness (Wang, Selman, Dishion, & Stormshak, 2010) of adolescents. Victimization by peers not only leads to development of negative attitude towards the perpetrator, but also towards the place where victimization occurs. This can be attributed to the reason that low perceived levels of SC lead feelings of helplessness where the child perceives that no support is available to deal with any arising difficult situation. This feeling of helplessness negatively affects the mental well-being of adolescents (Loukas et al., 2006). Its association with positive results like improved academic achievement, performance, adaptive psychosocial adjustment, and well-being (Allen & Bowles, 2012) could be a best possible explanation for its protective role. Empirical researches furnish evidence that feeling of belongingness at school is a strongest aspect for the well-being of students (MacNeil, Prater, & Busch, 2009; Zullig, Huebner, & Patton, 2011).

Further, findings indicate that nonsignificant difference was apparent between boys and girls on SC. Literature indicates that due to socialization, girls rate connectedness higher as compared to boys (King et al., 1996). Contrary to this, researches indicate that boys reported significantly higher level of connectedness with academic institution in comparison to girls (Bonny, Britto, Klostermann, Hornung, & Slap, 2000). It can be inferred that mixed findings (Bonny et al., 2000; Whitlock, 2006), have been apparent with respect to gender on SC. Despite this, researchers agree on the fact that school is an important source of socialization for both boys and girls. The changing gender norms and amount of time spent at school can be considered a key factor playing role in nonsignificant differences apparent on SC (Schulze & Naidu, 2014). Across gender, only significant difference was obtained on Social Manipulation, a subscale of PV, which is supported by previous research findings that more covert forms of victimization to be apparent among girls (Crick & Nelson, 2002). Further, the pattern of socialization seems to play a pivotal role for explaining this finding. The schools these days in

Pakistan are undergoing a process of transformation where more effective strategies are being designed for dealing with problematic behaviors exhibited by children. Expression of victimization in overt forms that is, 'physical' is easily detected and steps are taken for its prevention. However, expression of victimization in more covert forms like manipulation are less likely to get noticed. Girls are more likely to indulge in social manipulation, because they might perceive it safe as the chances of being caught for this are relatively low (Khawar, Malik, & Batool, 2015).

It was further hypothesized that students from government schools would be more involved in peer victimization than students from private schools. However, nonsignificant differences were found for peer victimization across school status. Only significant difference was apparent on subscale of Social Manipulation where students from government schools scored higher than their counterparts. This can be attributed to active involvement of school personnel's from private schools on making effective policies to deal with all forms of manipulation that is, the covert forms of victimization. Schools in Pakistan are undergoing a transition where zero tolerance policy against any form of victimization is being implemented. Mostly in government schools, policies are directed towards controlling more overt forms of peer victimization (Khawar et al., 2015; Kuperminc, Leadbeater, & Blatt, 2001). Evidences for presence of higher levels of social manipulation in public sector schools in comparison to private also highlights the fact that there is a need for designing proactive strategies for dealing with overt forms of peer victimization.

Limitations and Suggestions

One of the few potential weaknesses of study is regarding generalizability of findings. Sample was taken only from schools of Rawalpindi, which reduces the external validity of the study. To get rich information, the study could be comprised of larger sample including other schools from different cities including both urban and rural settings. Use of self-report measures also raises concerns regarding accuracy of results.

Conclusion and Implications

Present research establishes that peer victimization is negatively related with school connectedness and mental well-being among adolescents. Though, the relationship between peer victimization and mental well-being is well established in previous researches as well,

but, present research adds to the existing literature by confirming the mediating role of school connectedness in relationship between peer victimization and mental well-being. Schools are in an exceptional position to play a critical role in developing the feeling of connectedness and security among adolescents. Raising awareness about this position of school is very much important as it can lead to development of healthy adolescents and can positively contribute to their mental wellbeing. Schools must use school connectedness as a proactive strategy and teach children social skills, which can enhance their attachment to their schools. Inculcating sense of connectedness among students can help them deal effectively with victimization as they perceive help as available. This can enhance their mental well-being as well.

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