

Coping Strain and Suicidal Ideation Among Pakistani adolescents: A Moderated Mediation Model of Depression and Parental Connectedness

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The association between coping strain and suicidal ideation is well-established theoretically as well as empirically, yet very little is known about the mediated and moderated pathways explaining this link. The current study investigates the mediating effect of depression and the moderating effect of parental connectedness in the path where coping strain leads to suicidal ideation. A total of 405 participants were approached via purposive sampling ($M \pm SD$ age = 15.74 ± 1.22 years) from Islamabad, Pakistan. General Health Questionnaire (GHQ-28), Coping Strain Scale from PS Scales (PSS-40), Depression Anxiety Stress Scale (DASS-21), and Multidimensional Scale of Perceived Social Support (MSPSS) were administered to assess the variables. Results from the study showed that coping strain, depression, and parental connectedness are significantly linked with suicidal ideation. Depression was found to significantly mediate the linkage between coping strain and suicidal ideation. However, the results of the moderating effect of parental connectedness were insignificant. These results imply that psychological interventions intended at reducing coping strain and depression may help decrease the risk of suicidal ideation amongst Pakistani adolescents.

Keywords. Suicidal ideation, Adolescents, Coping strain, Depression, Parental connectedness

Suicide is presently the fourth primary cause of mortality among adolescents across the globe ([Centers for Disease Control and Prevention, 2021](#); [National Institute of Mental Health, 2021](#)). Similar

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trends have been observed in Low and middle-income countries. Solely, Pakistan contributes to 77% of the global suicidal rate as they host 90% of the global child and youth population (WHO, 2013). Suicidal ideation (SI), which is defined as thoughts of harming or killing oneself (Cash & Bridge, 2009) is strongly related to suicidal attempts and suicide (Park et al., 2016). Suicidal Ideation leads to suicidal attempts (Muneeb & Hassan, 2022, 2023). Thus, it is important to identify and work on the risk factors for suicidal ideation in adolescents.

In Pakistan, many of the suicide cases reported compromise of individuals under the age of 30 thus raising concern (Khan, 1998). Some studies have reported a low suicide rate in Pakistan i.e., between zero and four point nine percent (4.9%) (Bachmann, 2018). However, such figures can be attributed to low reporting and might not be reflective of the actual situation. Because of cultural, religious, and legal reasons suicide is stigmatized in Pakistan and cases go unreported (Khan, 1998). Recent research alarmingly indicates that the cases of suicide and suicidal ideation in Pakistan are on a rise, especially in the younger population (Khan & Ali Hyder, 2006; Muneeb & Hassan, 2022; Shekhani et al., 2018). A plethora of social and psychological challenges make adolescents more vulnerable to SI (Cicchetti & Rogosch, 2002; Reschly et al., 2008). To understand the epidemiology of suicide, it is important to understand the factors that contribute to it and their relationship with each other. Research has identified that among other things, the loss of a parent, family discord, depression, social isolation, and the lack of a strong support network, including poor relationships with parents and peers can act as major risk factors for suicide among adolescents (Cash & Bridge, 2009).

The COVID-19 pandemic has had several detrimental effects on mental health (Han & Song, 2021). Thompson et al. (2021) reported a mounting rise in suicidal ideation rates during COVID-19. Additionally, there is an increasing concern that the fallout from the pandemic will take a toll on mental health across the globe (Pfefferbaum & North, 2020). The transition to the "new normal" during a period of extended social isolation brought on by COVID-19 restrictions, such as the closing of schools and social distancing (Ocampo & Yamagishi, 2020), is a significant risk factor for the development of psychopathology, such as depression (Raballo et al., 2020). Prolonged social disconnectedness during the developmental years might be difficult for some to bear (Raballo et al., 2020). If one lacks the proper skills to deal with such difficulty it may result in coping strain (Zhang, 2019). Under such circumstances, feeling loved and cared for by one's parents could act as a protective factor and aid

in buffering against negative mental health outcomes. Research has demonstrated that youth who report feelings of greater parental connectedness are less likely to experience depressive symptoms and suicidal ideation (Foster et al., 2017). Hence, there is a dire need for clinical researchers to examine those determinants that have a predictive capacity on suicidal ideation.

Relationship between Coping Strain and Suicidal Ideation

Theoretically (Zhang, 2019) and empirically (Muneeb & Hassan, 2022) the relationship between coping strain and suicidal ideation has been justified. Coping strain is a kind of psychological strain that is marked by extreme mental pain and anguish. It is the result of two opposing sources of pressure i.e., life crisis and insufficient coping ability. Since coping strain is unbearable for the person experiencing it, the extreme solution individuals turn to escape it is suicide (Zhang, 2019). The Strain Theory of Suicide (STS) posits that coping strain (as a form of psychological strain) precedes suicidal ideation. Coping strain is a conflicting pressure that is insufferable for the individual and they start seeking a solution to end their mental anguish and attain psychological or physical equilibrium. In their quest for a solution, the person weighs the pros and cons, makes a choice, and decides that dying is more rewarding and beneficial than continuing to live (Zhang, 2019). Thus, STS explains how coping strain and suicidal ideation are related and that a direct relationship exists between the two. Studies have shown that individuals who perceive a crisis but lack sufficient skills to cope with the negative life event are more prone to suicidal ideation (Sun et al., 2020). A systematic review done by Speckens and Hawton (2005) showed that insufficient capabilities to deal with a difficult situation were positively associated with suicide. Additionally, Blankstein et al, conducted research that showed ineffective coping skills are significantly associated with suicidal ideation in a sample of undergraduate students. In young adults, active coping was found to a negative relationship with SI (Kwok & Shek, 2009, Zhang et al., 2012).

Role of Depression as Mediator in the Relationship Between Coping Strain and Suicidal Ideation

Depression is a mental disorder marked by low mood, loss of interest in activities, and other negative symptoms that cause clinical impairment in an individual's academic, social, and occupational life (American Psychiatric Association, 2013). STS suggests that psychological disorders could mediate the relationship between strain

and suicidal ideation. It hypothesizes that coping strain can either be internalized in the form of depression or exacerbate pre-existing depressive symptoms. In the presence of strain, these symptoms can thus predict an increase in suicidal ideation (Zhang, 2019). A cross-national study of American and Chinese students showed that coping strain was positively associated with depression in both samples (Zhao & Zhang, 2018). Similarly, in another study conducted by Zhang et al. (2016) on Chinese college students coping strain was found to be a predictor of depression. In a systematic review and meta-analysis comprising of 44 studies, symptoms of depression were found to be moderately associated with and predictive of suicidal ideation (Wang et al., 2017). Depression was reported to act as a mediator in the relationship between psychological strain and suicidal ideation in a study on Chinese athletes (Sun et al., 2020).

The Moderating Role of Parental Connectedness in the Relationship between Coping Strain, Depression, and Suicidal Ideation

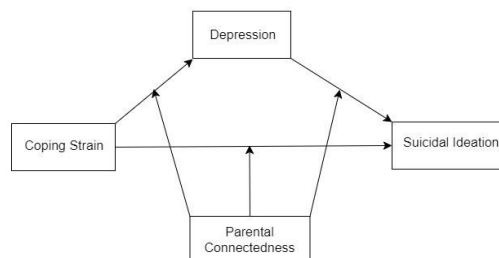
According to the Strain Theory of Suicide, strain leads to suicidal ideation through a path moderated by psychosocial factors (Zhang, 2019). One such psychosocial factor is parental connectedness. Parental connectedness is defined as the perceived extent to which parents understand, communicate with, and care about their child (Piña-Watson et al., 2014). Parents occupy a vital role and play an integral part in raising and caring for their children. In a collectivist culture like Pakistan (Routamaa & Hautala, 2008) where there has been a shift to nuclear family system over time (Ahmad et al., 2015) the relationship between parents and their child is especially important. A study on Pakistani young adults found that rearing practices that are characterized by support and warmth are linked to the development of resilience and effective coping strategies (Anwer et al., 2019). Whereas, a positive association has been reported between parental rejection and depressive symptoms (Naz & Kausar, 2013). It has also been reported that despite being a significant risk factor for suicidal ideation and behavior, depression does not always lead to suicide (Chesney et al., 2014). This makes it vital to consider protective factors such as parental connectedness in the relationship between coping strain, depression, and SI in Pakistani adolescents.

A meta-analysis by McLeod et al. (2007) discovered that among children with depression, a healthy relationship between parent and child can act as a protective factor against suicidal ideation. Additionally, an association between childhood depression and parenting was also reported. Similar findings were mentioned in

research by [Lai and McBride-Chang \(2001\)](#), who reported that adolescent Hong Kong students whose parents had an authoritarian parenting style showed higher suicidal ideation rates. The overcontrolling nature and lack of warmth from parents were significantly associated with higher SI among adolescents. [Gunn et al. \(2018\)](#) also discussed that the relationship between parent and child is a huge contributor to the risk of suicidal ideation among children. A study by [Kuramoto et al. \(2016\)](#) found that higher rates of parent-child connectedness were associated with lower suicidal ideation rates and vice versa. The study reaffirmed the protective role of parent-child connectedness against suicidal ideation among adolescents. A study by [Stone et al. \(2015\)](#) reported the protective role of parent-adolescent connectedness in the suicidal pathway. [Arango et al. \(2018\)](#) explained that positive parent-adolescent connectedness acts as a protective factor even for adolescents who are at high risk of suicidal attempts.

Other research emphasizes the adult population, including their domestic problems, relationship problems, financial struggles, etc. Only a few studies highlight the prevalence and uprising cases of suicide among Pakistani students. There is a need for research on psychosocial predictors of suicide in Pakistan. Although ample literature addresses risk and protective factors for suicidal ideation ([Goodfellow et al., 2019](#); [Hill et al., 2020](#); [Miranda-Mendizábal et al., 2017](#); [Shekhani et al., 2018](#)) lesser attention is paid to the pathway that leads to it ([Muneeb & Hassan, 2022](#)). Hence, this study explores one possible pathway that could lead to SI, as supported by the Strain theory of Suicide ([Zhang, 2019](#)). The current study aimed to examine the association between coping strain, depression, suicidal ideation, and parental connectedness amongst Pakistani adolescents. In the stated pathway, depression was considered as a mediator, and parental connectedness as a moderator. The theoretical model is shown in [Figure 1](#).

Figure 1: *Theoretical Model of Moderated Mediation Effects Linking Coping Strain and Suicidal Ideation*



Hypotheses

1. Depression will mediate the relationship between coping strain and suicidal ideation in Pakistani adolescents.
2. Parental connectedness will moderate the association between coping strain and suicidal ideation among Pakistani adolescents.
3. Parental connectedness will moderate the association between coping strain and depression among Pakistani adolescents.
4. Parental connectedness will moderate the association between depression and suicidal ideation among Pakistani adolescents.

Method

Participants and Procedures

Correlational research was conducted in Islamabad, Pakistan, from February 2022 to April 2022. A total of 405 students, aged 14 to 19 years old, enrolled in schools and colleges of Islamabad were approached via purposive sampling technique. The inclusion criteria of the study encompassed adolescents aged 12 to 18 who consented to participate in the study. The average age of the sample was 15.74 years ($SD = 1.22$), with unequal gender participation (79.2% females & 20.8% males).

Prior to data collection, ethical approval for research protocols was obtained from the ethical committee of the National University of Sciences and Technology (Ref: 0988/Ethic/01/S3H/034/DBS). Next, [Westland's \(2010\)](#) a priori method was used for sample size determination; a well-known software was applied to detect effect size in multivariate analysis. Considering the significance level = 0.05, effect size = 0.30, power = 0.80 and 14 predictors generated 70 sample size. However, based on past literature, 75% of the studies testing mediation models, with a small α or β path, have the upper quartile of the sample size as 352, with a power of less than 0.8 ([Fritz & Mackinnon, 2007](#)). Then, a purposive sample technique was used to select a sample of 405 students from Islamabad, Pakistan. Before the final study, a pilot study was conducted by administering questionnaires to 30 students to check the comprehension, content, feasibility, and total time taken to respond to the questionnaires. Lastly, the final study was conducted on 405 students who are fulfilling the inclusion criteria and consented to participate in the research. All the participants were given a protocol form consisting of informed consent, a demographic sheet, and questionnaires measuring

study variables in both English and Urdu for their ease. The participants were briefed about the purpose of the study, and they were asked to complete the printed forms in class.

Measures

The demographic sheet developed by researchers containing the information regarding the background characteristics of the respondents (i.e., gender, age, income, class, family system, and school system) was applied, the characteristics of which are shown in [Table 1](#).

Table 1: *Background Characteristics of Participants (N = 375)*

Variables	<i>F</i>	%	<i>M</i>	<i>SD</i>
Gender				
Male	78	20.8		
Female	297	79.2		
Age (years)			15.74	1.22
12-14	58	15.5		
15-17	282	75.2		
18+	33	8.8	10.11	1.15
Class				
8-10	282	75.2		
11-12	93	24.8		
Family System				
Nuclear Family	250	66.7		
Joint Family	117	31.2		
School System				
Segregated	262	69.9		
Co-education	113	30.1		
Income				
Average	113	30.1		
Above Average	80	21.3		
Unspecified	182	48.5		

Coping Strain

The Coping Strain Scale is a subscale of the Psychological Strain Scale (CSS; [Zhang et al., 2012](#); translated by researchers and validated

by [Muneeb & Hassan, 2022](#)) that measures strain marked by extreme mental pain and anguish. It comprises of 10 items on 5 Likert-type scale (1 = *Never* to 5 = *Strongly Agree*). One example of an item is “When confronted with some crises, my head usually turns blank”. The scale had a reliable Cronbach alpha score ($\alpha = .86$) in [Zhang et al., \(2019\)](#). The internal consistency in the present study of the Coping Strain Scale was 0.76.

Depression

A subscale of Depression from the Depression Anxiety Stress Scale (DASS-21; [Lovibond & Lovibond, 1995](#); translated and validated by [Aslam & Kamal, 2017](#)) is used in the present study. It consists of 7 items that measure dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia ([Antony et al., 1998](#)). The scale responses are measured on a 4-point Likert-type scale (0 = *Did not apply to me at all* to 3 *Applied to me very much*). The psychometric properties of this tool are well-established ($\alpha = .77$; [Ahmed et al., 2022](#)). The current study generated an adequate Cronbach alpha coefficient for the Depression subscale ($\alpha = .77$).

Parental Connectedness

Parental connectedness was measured by using a subscale of the Multidimensional Scale of Perceived Social Support (MSPSS) by considering four items of family dimension. (MSPSS; [Zimet et al., 1990](#); translated and validated by [Akhtar et al., 2010](#); [Tonsing et al., 2012](#)). The scale was developed to measure the extent of social support perceived by the respondents. One of the most often used instruments to assess social support is the Multidimensional Scale of Perceived Social Support (MSPSS) ([Wang et al., 2017](#)). The scales assess support perception related to three dimensions including support provided by family, support provided by friends, and support provided by special ones. For this research, we used items from the family dimension (4 items only). Items are rated on a five-point Likert Scale ranging from *Strongly Disagree* = 0 to *Strongly Agree* = 5. The Cronbach alpha value of family support items is 0.88.

Suicidal Ideation

General Health Questionnaire (GHQ-28; [Goldberg & Hillier, 1979](#); translated and validated by [Riaz & Reza, 1998](#)) measures general psychological well-being. In the present study a 4-item subset named “suicidal ideation” is used to measure SI. It is considered as a

well-established suicidal intent scale (Khokher & Khan, 2005). All items are rated on a 4-point Likert-type scale (0 = *Not at all* to 3 = *very much*). One example of the item is “Have you recently felt that life is not worth living?”. The tool had a reliable Cronbach’s alpha for 4 items ($\alpha = .85$) in the present study.

Procedure

The statistical analysis was performed using the Statistical Package for Social Sciences (IBM SPSS Statistics 20) in conjunction with PROCESS macro by Andrew Hayes (version 4.1) for mediation and moderation analysis. The significance level in Process was set at $p = .001$. The statistical analyses were conducted in three steps. First, before performing univariate, bivariate, and multivariate analyses, exploratory data analysis (EDA) was done to test preliminary assumptions (i.e., normality, homoscedasticity, linearity, multicollinearity, and quality of variance of residuals of research data). The data was cleaned and checked for normality assumptions, no multicollinearity between variables, linearity, and homoscedasticity at initial screening. Second, for mediation analysis, Hayes PROCESS macro, Model 4 was used to test our first hypothesis with a bootstrap method with 5000 resamples set at a 95% confidence interval. The effect is considered significant if zero does not lie within the range of upper and lower confidence intervals.

We tested for depression as a mediator between coping strain and suicidal ideation. Lastly, to test whether parental connectedness moderates the association between coping strain and suicidal ideation Hayes PROCESS macro-Model 59 was used.

Results

In this study, the statistical analysis includes multivariate analysis, mediation tests and a moderation model. To prepare the data for proper analysis, the string data was converted into categorical numeric data. The demographic variables that were converted include gender, family system, school system, and monthly income. The errors were checked and corrected as the data was obtained and entered manually. The preliminary analysis for this procedure includes normality assumption of data, no multicollinearity between variables, linearity, and homoscedasticity (Pallant, 2007). 16 cases were eliminated due to incomplete data by excluding cases pairwise. Furthermore, 14 cases were discarded from analyses as they were potential outliers.

Table 2: *Correlations Between Coping Strain, Depression, Suicidal Ideation, and Parental Connectedness*

Variable	1	2	3	4
Coping strain	-	.62**	.476**	-.28**
Depression		-	.64**	-.422**
Suicidal ideation			-	-.416**
Parental Connectedness				-
Alpha Reliability (α)	.76	.77	.85	.85
<i>M</i>	8.17	6.34	2.87	15.8
<i>SD</i>	6.69	4.51	3.37	4.18

Note. *k* = total items.

Pearson correlation was used for the correlational analysis of the study variables. Table 2 shows that coping strain and depression were significantly associated to SI. The correlation analysis indicated a high, positive, and statically significant relationship between depression and SI, while a moderate, positive, and statically significant relationship between coping strain and SI. Furthermore, parental connectedness shows a moderate, negative, and statistically significant correlation with coping strain, depression, and suicidal ideation but a low negative correlational effect with coping strain as parental connectedness helps in developing helpful coping strategies (Anwer et al., 2019) that reduce coping strain. The table also shows reliability estimates (Cronbach alpha ' α ') and descriptive statistics (*M* and *SD*) for study variables. The overall reliability of scales used in the study ranges from 0.76 to 0.85 which shows a good internal consistency between the scales (Pallant, 2007).

Table 3: *Depression as a Mediator Between Coping Strain and Suicidal Ideation*

	<i>B</i>	<i>SE</i>	<i>p</i>	<i>LLCI</i> ⁱ	<i>ULCI</i> ⁱⁱ
Mediator variable model (Depression)					
Constant	-2.99	.66	.00	-4.3	-1.6
Coping Strain	.33***	.02	.00	.28	.37
<i>R</i> ² = .37**, <i>F</i> = 214.iii4					
Dependent variable model (Suicidal Ideation)					
Constant	-1.12	.49	.02	-2.10	-.14
Coping Strain	.04***	.02	.02	.01	.08
Depression	.41***	.03	.00	.33	.48
Coping Strain → SI ³ (total)	.18***	.01	.00	.14	.22
Coping Strain → SI (direct)	.04***	.02	.02	.01	.08
Coping strain → Depression → SI (indirec	.13	.01		.10	.16
<i>R</i> ² = .21***, <i>F</i> = 95.93					

¹ LLCI = lower limit of confidence interval.

²ULCI = upper limit of confidence interval.

³SI = Suicidal ideation.

To test for mediation effect, first we tested whether coping strain significantly impacted suicidal ideation. Next, we tested if this relationship between coping strain and suicidal ideation is mediated by depression. For mediation analysis, model 4 in PROCESS macro was used. Coping strain was found to have a positive association with suicidal ideation ($\beta = 0.18$, $p < 0.0001$), as shown in Table 3. Furthermore, the indirect effect of coping strain on suicidal ideation via depression was significant (indirect effect = 0.13, SE = 0.01, 95% CI = [0.10, 0.16]), analyzed through bootstrapping. In the given pathway coping strain leads to depression ($\beta = 0.33$, $p < 0.0001$), which then leads to suicidal ideation ($\beta = 0.41$, $p < 0.0001$). The residual direct relationship between coping strain and suicidal ideation is statistically significant ($\beta = 0.04$, $p < 0.0001$). Hence, it was found that depression significantly mediates the relationship i.e., 73.88% between coping strain and suicidal ideation.

Table 4: *Results of Moderated Mediation between Coping Strain and Suicidal Ideation*

Outcome	Predictor	β	SE	t	p	LLCI	ULCI	
Depression	Constant	.13	2.32	.06	.96	-4.43	4.69	
	Coping Strain (X)	.38*	.08	5.04*	.00*	.23	.53	
	Parental Connectedness (W)	-.17	.17	-1.03	.30	-.51	.16	
	Coping Strain x Parental Connectedness	-.01	.01	-1.14	.26	-.02	.00	
	R ²	.45						
	F	94.69						
	ΔR^2	.00						
	ΔF	1.29						
	Suicidal Ideation	Constant	1.94	1.81	1.07	.29	-1.62	5.49
		Coping Strain (X)	-.01	.08	-.09	.93	-.16	.14
Depression (M)		.45*	.14	3.30*	.00*	.18	.72	
Parental Connectedness (W)		-.22	.13	-1.64	.10	-.48	.04	
Coping Strain x Parental Connectedness		.00	.01	.76	.45	-.01	.02	
Depression x Parental Connectedness		-.01	.01	-.61	.54	-.03	.01	
R ²		.42						
F		50.74						
ΔR^2 (X*W)		.00						
(M*W)		.00						
ΔF (X*W)		.57						
(M*W)		.37						

Hayes PROCESS macro model 59 was used for this moderation analysis. Table 4 shows the moderating effects of parental connectedness on total coping strain and suicidal ideation scores directly and indirectly through depression. Both models yielded significant effects, with R^2 values of .450 for the depression as the outcome variable $F(3.00, 350.00) = 94.69, p < .001$ and .420 for the suicidal ideation model $F(5.00, 348.00) = 50.74, p < .001$. These findings indicate that the independent variables explain a moderate proportion of the variance in the dependent variables.

Depression scores positively predicted suicidal ideation scores ($\beta = .45, p < .001$), suggesting that higher levels of depression are associated with higher suicidal ideation. Conversely, parental connectedness scores had a negative association with suicidal ideation scores ($\beta = -.22, p = .10$), although this effect did not reach statistical significance. Interestingly, the main effect of coping strain on suicidal ideation was not significant ($\beta = -.01, p = .93$), suggesting that coping strain does not directly influence suicidal ideation scores but does so through the mediating role of depression.

The analysis further explored potential moderation effects by examining the interaction terms ($X*W$ and $M*W$) between coping strain and parental connectedness. However, these interactions were not statistically significant ($X*W: F(1.00, 348.00) = 0.57, p = .45$; $M*W: F(1.00, 348.00) = 0.37, p = .54$). This suggests that parental connectedness does not moderate the relationship between coping strain and either depression or suicidal ideation.

In conclusion, these findings highlight the importance of depression scores in understanding suicidal ideation. While coping strain may indirectly influence SI through depression, the level of parental connectedness does not appear to moderate this relationship. Future research could explore other potential moderators such as social connectedness as a whole or investigate the underlying mechanisms through which depression mediates the effects of coping strain on suicidal ideation.

Discussion

Various studies have been conducted on suicidal ideation to examine its causal and correlational effects, but a few examined coping strain as a predictor of suicidal ideation. Furthermore, the underlying mediating and moderating roles of depression and parental connectedness in adolescents were examined based on the theoretical framework of the Strain Theory of Suicide. The results of the study show that coping strain and depression are positively correlated with

suicidal ideation and parental connectedness is negatively correlated with suicidal ideation. Moreover, depression significantly mediates the pathway between coping strain and suicidal ideation. Lastly, the role of parental connectedness as a moderator between coping strain and SI, coping strain and depression, and depression and suicidal ideation was found to be statistically insignificant among Pakistani adolescents. The findings show that moderating roles of parental connectedness as well as other psychosocial and protective factors for suicidal ideation can be further researched.

Any stressful life event, in the absence of appropriate coping skills, is experienced as intolerable distress. This distress is manifested as depression which eventually leads to suicidal ideation or attempt. An increase in the coping strain would lead to a greater internal release of the distress resulting in higher levels of depression and suicidal ideation. These findings are consistent with other studies in the past that have found an association between coping strain and depression (Zhang et al., 2016; Zhang, 2018; Zhao and Zhang, 2018; Zhang et al., 2020) and coping strain and suicidal ideation (Sun et al., 2020; Zhang, 2019; Speckens and Hawton, 2005). Coping strain was found to be a predictor for suicidal ideation in both American and Chinese undergraduate students (Zhao & Zhang, 2018), in Chinese athletes (Sun et al., 2020), Chinese stomach cancer patients (Zhang, 2019) and urban Chinese workers (Zhang et al., 2012).

Literature shows that in comparison with other coping strategies Pakistani adolescents tend to use avoidance-focused coping more frequently (Kausar and Munier, 2004) which is relatively ineffective in dealing with life challenges (Gould et al., 2004; Zhang et al., 2012). Thus, the resulting coping strain causes extreme distress to the individual and ultimately gets internalized in the form of depression. Another study conducted on Chinese college and undergraduate students revealed that coping strain was a predictor for depression even after all other variables were controlled for (Zhang et al., 2016; Zhang et al., 2020). Once an individual starts facing depressive symptoms because of an internal release of strain the depressive symptoms then start leading one to thoughts of ending their life to relieve themselves from their anguish. In line with theory and our findings, Ahookhosh et al. (2016) reported a positive correlation between depression and SI in a sample of 120 Iranian adolescents. Adolescents are more likely to indulge in thoughts about ending their lives if they're suffering from low moods, and impairments in daily functioning due to depressive symptoms. A meta-analysis of 38 studies from South Asia, including Pakistan found a prevalence of depression among both fatal and non-fatal suicide attempts (Arafat et

al., 2022). Depressive symptomatology was found to be associated with SI, especially in adolescent females according to a study by Allison et al. (2001). De Beurs et al. (2019) reported a similar positive relationship between suicidal ideation and depression. These studies are consistent with our framework in which coping strain leads to depression which acts as a mediator towards suicidal ideation.

Coping strain has been stated to relate to a lack of social integration (Zhang, 2019). This means that a lack of social connectedness may lead one to have ineffective coping strategies in the face of a crisis. Thus, STS theory suggests coping strain decreases as social connectedness increases in the form of parental connectedness. Another cross-national study done on American and Chinese students yielded similar results (Zhao and Zhang, 2018). Previous research conducted on parental connectedness has also shown that it can act as a both risk and protective factor for suicidal ideation (Gunn et al., 2018; McLeod et al., 2007; Lai and McBride-Chang, 2001). According to research by He et al. (2015), parental connectedness and SI are negatively related as youth with a stronger connection to caregivers were much less likely to report suicidal ideation. Among high-risk early adolescent population a negative correlation between SI and parental connectedness was present thus, highlighting the significance of parental affection and positive reinforcement. Females who did not report having parental caring or parental supervision were almost five times as likely to have suicidal ideation as females who reported having both factors (Logan et al., 2011). Kuramoto et al. (2016) also discovered that higher levels of parent-child connectivity were linked to reduced rates of suicidal ideation. Thus, the negative correlation between parental connectedness and SI in our study is in line with previous research. Research conducted by Aronowitz & Morrison-Beedy (2004) showed that positive mother-daughter connectedness decreases the rate of risk-taking behavior among African American adolescent girls. Stone et al. (2015) discovered that parental-adolescent connectivity protects against the suicidal pathway. For individuals that were experiencing high life stress, parental support was found to decrease life SI (Kang et al., 2017). All these findings support the moderating role of parental connectedness in the pathway leading to suicidal ideation however our study showed insignificant findings for the moderating analysis. One reason for insignificant results could be that social support from parents and peers can act as a protector if an individual is showing mild to moderate depressive symptoms but those who are diagnosed with major depressive disorder or have severe symptoms but have not been diagnosed due to no formal psychological testing tend to have

suicidal thoughts leading to attempt despite strong social support. [Conner et al. \(2016\)](#) in his study found similar results that parental connectedness was related to a lower risk of suicidal behavior in adolescents, given that they have no history of severe depressive symptoms. [Logan et al. \(2011\)](#) research conducted on long-term risks for suicidal ideation and parental connectedness showed similar results and found parental connectedness non-significant with suicidal ideation. [Logan et al. \(2011\)](#) underscores the importance of a multifaceted social support network, highlighting the significance of not just parental connectedness but also support from teachers, peers, communities, and organizations in buffering against suicidal ideation. Adolescents who have strong school connections can reach out to their teachers for help, which decreases their risk for suicidal ideation ([Arango et al., 2018](#)). This is particularly salient in collectivist cultures like Pakistan where non-parental support networks can play a pivotal role due to prevalent authoritarian parenting styles characterized by less warmth, more control, and communication barriers. Such parenting style may hinder the development of strong parent-child affective bonds ([Yaseen, 2006](#)), thus diminishing the moderating effect of parental connectedness between coping strain, depression, and SI as observed in our study. These findings align with prior research by [Arango et al. \(2018\)](#) and [Logan et al. \(2011\)](#) that emphasizes the significance of broader social connectedness over parental connectedness alone in mitigating mental health risks among adolescents.

Limitations and Future Recommendations

The current study like any other research study has certain limitations. It is a correlational study design hence causality between the variables cannot be inferred. Studies in the future should use a longitudinal design to establish a causal relationship between the variables. For data collection, self-report measures were used. Such measures are prone to social desirability and self-report bias. Studies in the future can employ a multimethod approach to ensure the validity of the findings. Furthermore, the study variables were limited to coping strain, depression, and parental connectedness as predictor, mediator, and moderator for suicidal ideation respectively. Future studies shall inspect other protective and risk factors leading to suicide in adolescents. Moreover, the study can be replicated by using random sampling for the generalization of results while also recruiting youth from other geographical locations. Social media platforms possess the potential to serve as a significant dissemination channel for research findings on suicide ideation (SI). By leveraging these platforms

strategically, future researchers can contribute to broader societal awareness and education regarding the various factors associated with both risk for and protection against SI. This approach could not only foster national-level awareness but also establish social media as a medium for facilitating suicide prevention campaigns. Lastly, in post – Covid,19 times, the effect of social isolation and decreased social connectedness on suicidal ideation among Pakistani adolescents would be an expansion in the area of knowledge on suicidal ideation.

Strengths of The Current Study

The study contributed to developing insight regarding suicidal ideation in Pakistani adolescents, particularly those who are enrolled in schools and colleges. It shed light on the various psychosocial risk and protective factors that play a role in determining suicidal ideation in adolescents. The findings from this study can be utilized by professionals in a variety of fields including policymakers, counselors, education administrators, and school and college staff. Intervention and prevention programs can be devised for adolescents to address suicidal ideation before it progresses to suicidal behavior and increasing suicide rates can be controlled.

Clinical and Practical Implications

According to the results of the study, students from various schools and colleges in Rawalpindi and Islamabad suffered from suicidal ideation. To minimize suicidal attempts, special attention needs to be paid to developing intervention and prevention programs. At the school and college level, programs and activities can be designed to decrease the rates of suicide among adolescents. They can be equipped with healthy and appropriate coping strategies to effectively deal with any life crises. The significance of social connectedness among adolescents needs to be emphasized and sessions can be arranged by schools and college counselors to psycho-educate parents regarding effective parenting styles. Parents and teachers should focus on improving children's life skills along with their education to improve their general well-being so they might succeed in the future. Therapists and school and college counselors can incorporate the data from the study into their practice and devise intervention and therapy plans in light of the studied variables.

Conclusion

The present study revealed that coping strain serves as a strong predictor of suicidal ideation. In this association, depression is one of

the most significant mediators that correlates strongly with coping strain and suicidal ideation. Although staunchly supported by theory, parental connectedness solely is not a significant moderator between coping strain and SI, coping strain and depression, and depression and suicidal ideation. However, further research on its holistic aspect i.e., social connectedness among adolescents might significantly impact this pathway. The findings from this study can be utilized by professionals in a variety of fields including policymakers, counselors, education administrators, and school and college staff. Intervention and prevention programs can be devised for adolescents to address suicidal ideation before it progresses to suicidal behavior and increasing suicide rates can be minimized.

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Received 09 January 2023

Revision received 25 April 2024