

Relationship between Coping Strategies and Psychological Distress among Adolescents in Chitral

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Abstract:

Adolescence is an important developmental stage, marked by significant biological, social, and emotional transformations that can greatly affect mental well-being. The World Health Organization (2021) reports that around 1 in 7 adolescents face mental disorders, this highlights the importance of understanding various coping strategies that could be linked with psychological distress. Studies show that effective coping mechanisms can moderate the negative impacts of stress, whereas maladaptive strategies may worsen psychological distress (Folkman et al., 2004). While there is an increasing amount of research on adolescent mental health, there remains a significant gap in studies specifically examining the relationship between coping strategies and psychological distress among adolescents. The aim of this study was to explore the relationship between coping strategies and psychological distress among adolescents in Chitral. This survey-based research involved 400 adolescents aged 17 to 19, recruited through convenience sampling from various colleges in Chitral. It was hypothesized that there would be a relationship between coping strategies and psychological distress among adolescents. DASS-21 scale (Aslam et al., 2017) will be used to measure psychological distress and coping strategies will be measured through Brief Cope scale (Carver, 1997). This result of this study indicated significant negative correlation between psychological distress and problem-focused coping ($r = -.196^*$) and significant positive correlation with avoidant coping ($r = .419^{**}$) as well as emotional-focused coping ($r = .409$). These findings developed our understanding the way adolescents utilized coping strategies and its relationship with psychological distress. These findings help teachers, parents, and health professionals to understand and address adolescents' needs and promote a healthy environment to alleviate psychological distress.

Keywords: Psychological Distress, Adolescents, Coping Mechanism

Introduction:

According to (WHO, 2017). Adolescence characterizes as the age range starting from 10 to 19, with late adolescence specifically covering ages 15 to 19. This phase of life is very important, as it comprises of significant neurological, physical, emotional, cognitive, and behavioral changes (Griffin et al., 2017). These changes are mainly determined by biological changes associated with sexual maturity and lead to sociological indicators such as educational completion, marriage,

family formation, and career searches (Smetana et al., 2006). Because of these progressive changes, individuals transitioning from adolescence to adulthood are more exposed to psychological distress. The American Psychological Association's Dictionary of Psychology (2020) describes psychological distress as a combination of distressing psychological and physical symptoms that result in mood instability for many people. It is typically viewed as a sign of emotional discomfort, often displaying symptoms of depression and anxiety, such as restlessness, lack of interest, sadness, hopelessness, and fear (Horwitz, 2002). Additionally, these symptoms can have physical manifestations that differ across cultures, including fatigue, headaches, and sleep issues (McDaniel, 1991; Kirmayer, 1989). For example, in Chinese culture, specific feelings are related with certain organs, such as fear is associated with kidneys anxiety is connected to the lungs, and anger is associated to the liver (Leung et al., 1998). Similarly, in Arab culture, there is a strong connection between depression and somatization, with depressive symptoms often displayed physically, especially in the upper body and abdomen (Al-Krenawi et al., 2000).

Stress-distress theories suggest that exposure to demanding situations that threaten an individual's psychological and physical well-being can lead to psychological distress, especially when the person struggles to cope efficiently. This distress hinders the ability to manage the situation. It is believed that psychological distress can diminish once the stressor is removed or when the individual learns effective coping strategies (Horwitz, 2002; Ridner, 2004). Additionally, psychological distress can disrupt behavior in social contexts, impacting a person's emotional and social life (Wheaton, 2007). Numerous studies have examined psychological distress to identify its warning signs and preventive factors (Lin et al., 2024; Shahet al., 2024). Psychological distress can be also recognized as a symptom of various psychological disorders, including OCD, PTSD, depression, and anxiety, which can hinder daily functioning (Phillips, 2009; Watson, 2009). As stated by the WHO (2019), half of all mental health problems arise before the age of 14 with many cases going undetected and untreated. The most common problems during this developmental stage are depression and anxiety (Costello et al., 2003; Knopf et al., 2008). A report from the Institute of Health Metrics (IHME, 2019) estimates that one in seven teenagers faces mental health challenges, marking an increase of nearly 4 million since 2020, bringing the total to approximately 175 million adolescents worldwide.

Low- and middle-income countries have a significantly huge number adolescent population, and the prevalence of common mental health disorders in these regions is notably higher than in high-income countries (Patel et al., 2008). Pakistan, classified as a low- and middle-income nation with a projected population of 220 million, ranks as the sixth most populous nation in the world (Bureau of Statistics, Government of Pakistan, 2017). The United Nations Development Programme indicated that Pakistan's Human Development Index (HDI) value in 2018 stood at 0.560 (UNDP, 2018), placing the country near the bottom of the human development spectrum, ranking 152 out of 189 countries. Consequently, Pakistan faces numerous challenges, resulting in a lower prioritization of mental health issues compared to other developing nations (Bashir, 2018). Despite high rates of adolescent mental health problems in Pakistan (WHO, 2017), there are only 3,729 outpatient mental health facilities, with just 1% designated for children and adolescents. Several reasons contribute to the progress of psychological distress among adolescents, including physical activity levels, time spent on screen, sleep duration, and family illness (Awais et al., 2021). Adolescents in Pakistan encounter considerable stressors like poverty that impede their emotional and psychological growth, experiencing violence in their homes or communities can lead to trauma and enduring mental health challenges. (Khalily et al., 2011). Additionally, socioeconomic disparities restrict access to mental health services increases their likelihood of developing mental health issues during early adolescence (Hamdani et al., 2021).

Coping strategies refer to the actions and various behavioral and cognitive tactics employed to manage distressing situations, conditions, and demands (Stanislawski, K. 2019). Lazarus and Folkman (1984) identified problem-focused and emotion-focused coping, though the distinction between these two outcomes was not clearly defined (Lazarus, R. S. 1984). Cooper and colleagues categorized the original subscales of brief-COPE (Carver, C. S. 1997) into three groups: a) problem-focused strategies (planning use of instrumental support and active coping), b) emotion-focused strategies (use of emotional support, acceptance, positive reframing, humor and religion), and c) avoidance strategies or dysfunctional (, denial, venting, behavioral disengagement, substance use, self-blame and self-distraction,) (Cooper et al., 2006).

Research has shown a connection between psychological distress and the coping strategies employed during adolescence (Colten et al., 1991; Compas, 2001). While active or constructive coping can mitigate the effects of psychological distress, ineffective coping may exacerbate it. According to depression theories (Beck et al., 1976; Teasdale et al., 1987), depression can occur when individuals amplify their natural feelings of sadness instead of alleviating them. For example, Nolen (1987) suggested that the differences in depression susceptibility between men and women may stem from women's tendency to ruminate on their depressive thoughts, which reinforces those feelings. Ebata (1991) explored the relationship between coping strategies and psychological distress in four adolescent groups, including those with depression, non-depressed controls, rheumatic diseases, and behavior disorders.

Chitral is the largest district in Khyber Pakhtunkhwa (KPK) province, with a population of 447,362 as per the 2017 Population and Housing Census. It is a distant valley, 200 miles long, located in the northwest of Pakistan near Afghanistan, characterized by limited resources and harsh weather conditions. Stress and psychiatric disorders are prevalent in this area, yet there are no psychological services available, leading to a general underestimation of adolescents mental health issues (Zaman et al., 2025). Another study (Mumford et al., 1996) found that around 15% of men 46% of women and suffer from anxiety and depressive disorders. The purposes of this study are to examine the relationship between coping strategies and psychological distress (including depression, anxiety, and stress) among adolescents and also seeks to understand the coping strategies adolescents use to manage various stressors and challenges in their daily lives.

Research Question

1. How are coping strategies associated with psychological distress among adolescents in Chitral?

Hypothesis

1. There will be an association between coping strategies and psychological distress among adolescents in Chitral.

Setting and Participants

Chitral district, located in the northwest of KPK province, has a population of 447,362 according to the 2017 census. We included students through convenience sampling from different colleges in Chitral. A total of 412 participants consented to the study and submitted completed questionnaires. After data cleaning, 400 responses were included in the analysis, with results presented in tables using SPSS version 21. The final sample consisted of 400 adolescents, evenly split between females and males.

Inclusion Criteria

1. Adolescents enrolled in the 1st and 2nd year of college, aged 17 to 19 years.

Exclusion Criteria

1. Adolescents who did not provide consent, and those below 17 or above 19 years of age.

Measurement

Demographic Form

The demographic form gathered data regarding participants' details, such as, education level, gender, employment status, family type, marital status, and economic background.

Depression Anxiety and Stress Scale (DASS-21)

Psychological distress, including stress, anxiety, and depression, was evaluated using the Urdu version of the DASS-21 (Aslam et al., 2017). This version has demonstrated strong psychometric properties in Pakistan, achieving an overall Cronbach's alpha of 0.93. The subscales demonstrated reliability as well, with alpha values of 0.84 for depression, 0.83 for stress, and 0.86 for anxiety (Aslam et al., 2017). Participants evaluated the items on a scale ranging from 0 (not at all) to 3 (very much) with seven items each for anxiety, depression, and stress.

Coping Orientation to Problems Experienced Inventory (Brief-COPE)

The Brief-COPE (Carver, 1997), a modified version derived from the work of Lazarus and Folkman (1984), was used to assess coping strategies. This scale features 14 subscales, each containing two items rated on a Likert scale from 1 to 4.

Problem-Focused Coping (items 2, 7, 10, 12, 14, 17, 23, 25) support-seeking behaviors and reflects proactive strategies and, demonstrating a constructive approach to dealing with stress.

Emotion-Focused Coping (items 5, 9, 13, 15, 18, 20, 21, 22, 24, 26, 27, 28) involves managing emotional responses through acceptance humor and support.

Avoidant Coping (items 1, 3, 4, 6, 8, 11, 16, 19) encompasses self-distraction, denial, indicating efforts to disengage from stressors.

The Urdu version of the Brief-COPE was used that demonstrated acceptable reliability with a Cronbach's alpha of 0.832 (Nisa et al., 2020).

Procedure

Initially, the researcher communicated the college administration to obtain approval and provide an overview of the study's purpose. Once permission was granted, participants were approached during college times. A consent form outlining the study's purpose was given to the participants. The questionnaires were distributed in class and researcher was present to assist everyone. Participants were acknowledged for their valuable contributions, and the college officials and faculty were also praised for their cooperation.

Ethical Considerations

This study was carried out with the approval of the Advanced Studies and Research Board at the University of Karachi. Written informed consent was obtained from the participants. Participants' confidentiality was ensured, and they were informed of their right to withdraw from the study at any time without repercussions. It was also emphasized that the information would be used solely for scientific purposes. Throughout the administration of the measures, all ethical considerations were upheld. The order of administering the measures and the method of instruction were kept consistent. Participants' questions, if any, were answered during the administration phase.

Statistical Analysis

All measures were scored using their scoring manual. After scoring, the data were organized using SPSS version 21. Descriptive statistics and Pearson's Product Moment Correlation, were performed for analysis.

Results

Demographic characteristics of participant

This study included 400 participants, with 197 (49.3%) were males and 203 (50.7%) were females. Among them, 154 (38.5%) were first-year students, while 246 (61.5%) were in their second year. Additionally, 245 (61.2%) attended government colleges, and 155 (38.8%) were enrolled in private colleges. Furthermore, 388 (97.0%) were single, compared to 12 (3.0%) who were married. Lastly, 253 (63.2%) came from nuclear families, while 147 (36.8%) were from joint families.

Table 1, Reliability statistics for the DASS-21 and COPE.28.

	Cronbach's Alpha	No. of items
DASS-21	0.855377	21
COPE-28	0.781950	28

Note: Internal consistency of (DASS-21) is 0.8553, and COPE.28 is 0.781950 which indicate that all items measure their corresponding construct.

Table 2 Pearson Correlation between Coping and Psychological distress (depression anxiety and stress) among participants

Variables (N = 400)	Problem-Focused	Emotion-Focused	Avoidant Coping
Psychological distress	-196**	.409**	.419**
Anxiety	-128*	.302**	.324**
Depression	-139**	.378**	.392**
Stress	-236**	.362**	.349**

* correlation is significant at the 0.05 level ** correlation is significant at the 0.01 level

The table.2. reveals significant negative correlations between problem-focused coping and overall psychological distress ($r = -196$) anxiety ($r = -128$) depression ($r = -139$), and stress ($r = -236$). In contrast, there are significant positive correlations between emotion-focused coping and overall psychological distress ($r = .409$), anxiety ($r = .302$) depression ($r = .378$) and stress ($r = .362$). The significant positive correlations were identified between avoidant coping and overall psychological distress ($r = .419$) anxiety ($r = .324$), depression ($r = .392$) and stress ($r = .349$).

Discussion

Relationship between psychological distress and coping mechanisms

This study reveals significant negative correlations between problem-focused coping and several indicators of psychological distress: depression ($r = -.139^{**}$), anxiety ($r = -.128^{*}$), stress ($r = -.236^{**}$), and overall psychological distress ($r = -.196^{**}$). The relationship between psychological distress and coping mechanisms among adolescents is complex and shaped by a variety of factors. Adolescents who employ adaptive coping strategies, such as problem-solving and seeking support, typically report lower levels of psychological distress. In contrast, those who depend up on maladaptive strategies like denial or avoidance have a tendency to to experience more psychological distress (Hamid et al., 2023). These negative correlations are in line with the modern transactional model of stress and coping proposed by Lazarus et al., (1984). This model suggests that effectively utilizing of problem-focused coping strategies such as active problem-solving, planning, and taking productive actions can improve psychological distress. Several researches has similarly finding that active coping strategies can reduce feelings of depression and anxiety (Carver, 1997; Aldao et al., 2010). Another research specifies that adolescents who employ more problem-focused coping strategies are less susceptible to extreme psychological distress. These approaches empower them to handle stressors directly instead of denying or avoiding them (Thoits, P. A. (1995). These findings emphasize the vibrant need to promote problem-focused coping strategies in therapeutic environments to improve mental well-being.

In difference, this study also finds a significant positive association between emotion-focused coping and over all psychological distress ($r = .409^{**}$).and it different measures, including anxiety ($r = .302^{**}$), depression ($r = .378^{**}$), stress ($r = .362^{**}$). These findings are in line up with the work of Aldao who conducted a meta-analysis indicating that certain emotion-focused strategies may deteriorate psychological symptoms (Aldao et al.,2010), It is also important to discriminate that emotion-focused coping involves a range of strategies, some of which can be adaptive (Gross, 2015). The positive correlations observed likely indicate a prevalence of maladaptive emotion regulation strategies among participants. According to Sadaghiani et al. (2013), When people are burdened by negative thoughts like shame or guilt from past experiences, along with anxiety about an uncertain future, they often turn to emotion-focused coping. Although this approach can offer short-term relief, it does not promote direct problem-solving or the pursuit of information. As a result, individuals in distress may be drawn to emotion-focused coping because of its immediate effectiveness, even though negative emotions make it difficult for them to adopt problem-focused strategies. Additionally, relying on maladaptive emotion-focused coping can worsen negative emotional states (Aldao et al., 2010), indicating that interventions designed to decrease reliance on these strategies could be helpful for those undergoing significant distress.

Positive correlations were found between avoidant coping and overall psychological distress ($r = .419^{**}$).and its various indicators, anxiety ($r = .324^{**}$), depression ($r = .392^{**}$), stress ($r = .349^{**}$).This relationship is constant with other researches that highlighting the harmful effects of avoidance strategies. For example, Krause et al. (2017) revealed that avoidant coping was related with increased depressive symptoms in adolescents. These results also support the avoidance model of coping proposed by Folkman et al. (2004), emphasizing the importance of encouraging individuals to face stressors rather than avoid them to successfully reduce psychological distress. Studies also suggested that adolescents who use avoidant coping techniques, such as distraction or behavioral disengagement, are more risk of experiencing psychological distress, especially during stressful life events when these coping methods can worsen depression and anxiety symptoms (Lorenzo et al., 2021).

Avoidant coping strategies are associated with poorer mental health consequences because it prevents individuals from successfully addressing their stressors. This maladaptive approach can lead to a harmful cycle of mounting distress and further avoidance, particularly among adolescents (Lorenzo et al., 2021). Longitudinal studies have shown that adolescents who change from approach-oriented coping to avoidant coping over time are more likely to experience a significant increase in depressive symptoms. In contrast, those who move from avoidant coping to approach-oriented coping generally report a decrease in psychological distress, underscoring the vital role of adaptive coping strategies in promotion of mental well-being (Herman et al., 1995). Family dynamics and peer pressure mainly contribute to stress (Ekeze et al., 2024), as the desire for acceptance may drive adolescents to adopt maladaptive coping strategies, such as substance use or withdrawal. This issue are particularly noticeable in Chitral, where drugs are readily available and somewhat socially accepted. The relationship between coping strategies and psychological distress is further influenced by factors like social support and the adolescent's environment. A supportive family and peer network can enhance the effectiveness of coping strategies, leading to more favorable mental health outcomes (Rathakrishnan et al., 2022). Conversely, a lack of family support can impede the development of healthy coping skills, contributing to the high prevalence of psychological distress in this region, with 74% of adolescents experiencing depression, 73% dealing with anxiety, and 80% affected by stress (Zaman et al., 2025). The scarcity of mental health resources exacerbates these challenges, as many parents may not fully understand their children's emotional needs, leaving them ill-equipped to help manage stress or foster effective coping strategies. A similar situation has been observed in Uganda, where 40.2% of adolescents faced psychological distress due to significant barriers to accessing mental health care, including financial constraints and stigma (Nantaayi et al., 2022). Cultural expectations and stigmas surrounding mental health can further deter adolescents from seeking help or expressing their feelings. Additionally, academic pressures can heighten stress and anxiety, overwhelming young people and pushing them toward ineffective coping methods. To tackle these challenges, it is crucial to encourage open communication, provide consistent support, and teach effective coping strategies, thereby enhancing adolescents' ability to manage distress more successfully.

Conclusion

The study findings are very important in understanding of coping strategies that adolescents used and its association with psychological distress. As it is absorbed that there is a significant negative correlation between problem-focused coping strategies and over all psychological distress and its various distress measures, which indicate that adolescents who actively engage in problem-solving are less likely to suffer from psychological distress (e.g depression, anxiety, and stress). On the other hand, those who rely on emotion-focused coping often experience higher levels of distress. Most concerning are the strong positive correlations between avoidant coping and psychological distress, highlighting the harmful effects of avoidance strategies on mental health.

These results of this study highlight the urgent need to endorse problem-focused coping strategies and reducing dependance on emotion-focused and avoidant approaches among adolescent. Applying new educational programs, targeted interventions could significantly improve adolescents' coping skills, which improved overall mental well-being. Finally, this study emphasizes the importance of deeper understanding of these coping mechanisms to efficiently address psychological distress amongst adolescents.

Limitations and Recommendations

This study faced several limitations, primarily due to its cross-sectional survey design, which restricted the ability to establish causation between the study variables. Additionally, the absence of a qualitative component gathering insights from teacher, students, and parents hindered a deeper

exploration of the issues at hand. Such qualitative data could provide a more comprehensive understanding of adolescents' issues from various perspectives.

Furthermore, students' psychological distress and coping mechanism may also arise from other confounding factors, including financial difficulties, unstable friendships, learning challenges, bullying, concerns about appearance, and the college environment. Therefore, there is a need for further research to investigate these potential issues that were not covered in this analysis. This study employed a limited inclusion criterion, focusing solely on first- and second-year college students, which restricts its generalizability of the findings to the broader adolescent population. A more representative sample that includes higher secondary school students and various colleges across the district would yield a more comprehensive and accurate assessment of the problem

Implication

The findings of this study can assist mental health practitioners in Chitral in recognizing and addressing the coping strategies used by adolescents, thereby fostering adaptive methods to alleviate psychological distress. Schools and community organizations should establish educational programs focused on teaching effective coping skills to build resilience. Policymakers are urged to create mental health policies that prioritize education and resources within schools to foster a supportive atmosphere. It is also essential to take cultural factors into account when evaluating coping strategies, which can lead to more culturally sensitive mental health practices. Future research should investigate how coping strategies evolve over time to better understand their long-term effects. Finally, enhancing community support systems can promote adaptive coping and help reduce distress among adolescents.

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