

Parental Conflict and Adolescent Sleep Problems: The Mediating Role of Anxiety

Badhon. Ahmmed¹, Ayesha. Khan^{2*}

¹ Department of Psychology, Haripur University, Islamabad, Pakistan

² Department of Psychology, University of the Punjab, Lahore, Pakistan

* Corresponding author email address: ayesha.khan@pu.edu.pk

Article Info

Article type:

Original Article

How to cite this article:

Ahmmed, B., & Khan, A. (2025). Parental Conflict and Adolescent Sleep Problems: The Mediating Role of Anxiety. *Applied Family Therapy Journal*, 6(2), 182-191. <http://dx.doi.org/10.61838/kman.aftj.6.2.19>



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ABSTRACT

Objective: This study aimed to investigate the mediating role of anxiety in the relationship between parental conflict and adolescent sleep problems.

Methods: A descriptive correlational design was employed using a sample of 404 adolescents from Pakistan, selected based on the Morgan and Krejcie table. Participants completed standardized questionnaires measuring perceived parental conflict, anxiety symptoms, and sleep disturbances. Data analysis was conducted using SPSS-27 for Pearson correlation analysis and AMOS-21 for Structural Equation Modeling (SEM). The assumptions of normality, linearity, and multicollinearity were confirmed prior to analysis. The SEM approach allowed for testing both direct and indirect pathways within the proposed mediation model.

Findings: Results from Pearson correlation indicated significant positive associations between parental conflict and anxiety ($r = .51, p < .001$), anxiety and sleep problems ($r = .55, p < .001$), and parental conflict and sleep problems ($r = .47, p < .001$). The structural model demonstrated good fit indices ($\chi^2 = 204.38, df = 84, \chi^2/df = 2.43, GFI = 0.94, AGFI = 0.91, CFI = 0.96, TLI = 0.95, RMSEA = 0.059$). SEM analysis showed that parental conflict significantly predicted anxiety ($b = 0.38, p < .001$) and sleep problems ($b = 0.19, p < .001$), while anxiety significantly predicted sleep problems ($b = 0.42, p < .001$). The indirect effect of parental conflict on sleep problems through anxiety was also significant ($b = 0.16, p < .001$), confirming the mediating role of anxiety.

Conclusion: The findings indicate that anxiety is a significant mediator in the relationship between parental conflict and adolescent sleep disturbances. These results underscore the need for family-based and anxiety-focused interventions to address sleep problems in adolescents exposed to high-conflict home environments.

Keywords: Parental conflict, anxiety, adolescent sleep problems.

1. Introduction

Adolescence represents a critical developmental stage marked by psychological, emotional, and physiological changes that often intersect with the challenges of navigating family dynamics. One of the most essential but frequently disrupted aspects of adolescent development is sleep. Increasingly, research highlights how the quality and consistency of sleep during adolescence are vulnerable to relational and emotional stressors, especially those originating within the family environment. Among these stressors, parental conflict has emerged as a particularly potent factor influencing sleep disturbances in adolescents (Coronado, 2025). Given that poor sleep quality during this life stage is associated with numerous negative outcomes, including impaired academic functioning, mood dysregulation, and risk for mental disorders, understanding its antecedents is of critical importance (Pucci et al., 2024).

Parental conflict refers to persistent or intense disagreements and hostile interactions between caregivers that can be witnessed or sensed by children. These conflicts, when unresolved or recurring, often contribute to a home environment marked by insecurity and emotional instability. Adolescents, in particular, may be highly sensitive to parental discord due to their developmental need for emotional safety and autonomy (Y. Zhang, 2024). Recent studies suggest that adolescents who are frequently exposed to parental conflict report higher levels of sleep-related problems, including difficulty falling asleep, frequent nighttime awakenings, and daytime sleepiness (Coronado, 2025). These disruptions are often mediated by increased emotional arousal and cognitive hypervigilance, mechanisms through which family instability interferes with the ability to relax and disengage before sleep (Costa-López et al., 2023).

One critical pathway through which parental conflict may impact adolescent sleep is anxiety. Anxiety, a prevalent internalizing problem during adolescence, is characterized by persistent worry, somatic tension, and fear of threat. Anxiety has been closely linked with both poor sleep quality and disturbances in sleep architecture (Gendler & Blau, 2022). Adolescents living in high-conflict homes may experience chronic stress and fear of potential parental separation, physical aggression, or emotional withdrawal, all of which can contribute to elevated anxiety symptoms (X. Zhang, 2024). These symptoms, in turn, can interfere with the onset and maintenance of restful sleep, creating a maladaptive cycle of emotional distress and physiological

arousal that further impairs overall well-being (Orchard, Pass, et al., 2020).

Empirical studies increasingly support the role of anxiety as a mediating variable in the relationship between environmental stressors and adolescent sleep problems. For instance, Gendler and Blau (2022) reported that anxiety symptoms among adolescents in quarantine during the COVID-19 pandemic predicted significant changes in sleep patterns, including delayed sleep onset and non-restorative sleep (Gendler & Blau, 2022). Similarly, Manhart and Schlarb (2021) found that adolescents with chronic emotional difficulties, such as those diagnosed with inflammatory bowel disease, experienced sleep disruption primarily through increased anxiety and emotional dysregulation (Manhart & Schlarb, 2021). Given this evidence, anxiety appears to function not merely as a co-occurring condition but as an explanatory mechanism linking interpersonal stress to physiological outcomes in adolescence.

Parenting practices and parental emotional expression during conflict further shape the adolescent response to parental discord. Zuzama et al. (2021) demonstrated that adolescents whose parents exhibited low emotional expressivity during conflict reported higher anxiety levels and poorer academic performance (Zuzama et al., 2021). Parental emotional withdrawal and a lack of resolution to conflict may intensify adolescents' uncertainty and self-blame, leading to increased internalization of stress. Additionally, research suggests that maternal and paternal roles in harsh or inconsistent parenting practices can distinctly impact adolescent anxiety levels, which subsequently affect their sleep quality (Yang et al., 2024). These findings reinforce the notion that not only the presence but also the style and context of parental conflict significantly influence adolescent psychological health.

It is also essential to consider the broader implications of anxiety-related sleep disturbances for adolescent development. Sleep plays a pivotal role in regulating cognitive functioning, mood stability, and behavioral control. When disrupted, these processes can contribute to the onset of more severe psychopathology, including depression, conduct problems, and substance use (Orchard, Gregory, et al., 2020). For example, Khor et al. (2021) found that adolescents undergoing treatment for anxiety and depression benefited from parent-based interventions that targeted parenting strategies, underscoring the importance of addressing familial contributors to emotional and sleep problems (Khor et al., 2021). This aligns with studies such

as that by Pham et al. (2021), which highlight the need to monitor sleep quality in adolescents with chronic illnesses, noting the significant overlap between poor sleep and mood disturbances (Pham et al., 2021).

Cross-sectional data have consistently shown a robust association between family dysfunction and adolescent mental health outcomes. Leung (2021) conducted a longitudinal study revealing bidirectional relationships between parent–child conflict and adolescent anxiety, suggesting that not only does conflict lead to anxiety, but heightened adolescent anxiety may also increase familial tension (Leung, 2021). This dynamic interplay highlights the importance of studying these constructs within a transactional framework, recognizing the reciprocal influence of adolescent internal states and family interactions. Furthermore, cultural factors may moderate these relationships. In collectivist cultures where family cohesion is highly valued, such as in many parts of Asia and the Middle East, perceived parental conflict may have an even stronger impact on adolescent well-being (Ajoku, 2023; Riahi & Izadi-Mazidi, 2024).

The current study also takes into account gender and contextual variables. Research indicates that the impact of anxiety on sleep may differ based on gender, with female adolescents typically reporting higher anxiety-induced sleep disturbances than their male counterparts (Sarfo et al., 2024). In a recent study conducted in Benin, gender differences were found in sleep quality and anxiety responses, further suggesting the need to consider sociodemographic moderators when analyzing sleep problems in youth (Sarfo et al., 2024). Similarly, Habal et al. (2024) identified that adolescents experiencing conflict-related trauma in Syria displayed significant sleep disturbances, emphasizing the role of environmental stress and trauma in shaping psychological and physiological health (Habal et al., 2024).

In addition to parental conflict and anxiety, the digital behaviors of parents have also come under scrutiny. Ding et al. (2023) explored the concept of “parental phubbing”—where parents ignore children in favor of mobile device use—and found it to be a contributing factor to adolescent sleep quality issues. This behavior creates emotional distance and potentially fosters anxiety, further reinforcing the chain from familial behavior to emotional distress and poor sleep outcomes (Ding et al., 2023). Likewise, digital overuse by adolescents themselves can exacerbate sleep difficulties, but the parental role remains central in shaping emotional safety and regulation strategies (Yarger et al., 2023).

Adolescents are especially vulnerable to the interrelated effects of sleep disturbance and anxiety, as both exert a bidirectional influence. That is, while anxiety can disrupt sleep, sleep deprivation can also exacerbate anxiety symptoms. This cyclical relationship complicates the diagnostic and therapeutic landscape, necessitating integrative models that address emotional, relational, and behavioral components simultaneously (Woody et al., 2021). Moreover, anxiety-related sleep issues have been shown to affect various life domains, including school performance, peer relationships, and overall life satisfaction, underscoring their far-reaching consequences (Mosmann et al., 2023).

Despite the growing body of literature, few studies have systematically examined the mediating role of anxiety in the relationship between parental conflict and adolescent sleep disturbances using a structural equation modeling (SEM) approach. As emphasized by Zhang (2024), exploring the psychological mechanisms that underlie this pathway is crucial for developing effective interventions (X. Zhang, 2024). Furthermore, studies that consider adolescent perceptions of conflict rather than solely parental reports provide a more accurate understanding of emotional outcomes, as highlighted by Buchanan et al. (2021), who noted discrepancies between parent and adolescent interpretations of conflict events (Buchanan et al., 2021).

Given these gaps, the present study aims to investigate the mediating role of anxiety in the association between parental conflict and sleep problems among adolescents in Pakistan.

2. Methods

2.1. Study Design and Participants

This study employed a descriptive correlational design to examine the relationship between parental conflict, anxiety, and adolescent sleep problems. The statistical population included adolescents residing in Pakistan, and the sample consisted of 404 participants, selected based on the Morgan and Krejcie sample size determination table to ensure statistical adequacy. Inclusion criteria required participants to be adolescents aged between 13 and 18 years, currently enrolled in school, and living with both parents. Participants were selected using a multi-stage cluster sampling method from various schools across urban regions in Pakistan, ensuring diversity in socioeconomic background and educational settings. Prior to data collection, informed consent was obtained from both participants and their

guardians, and ethical guidelines were strictly followed throughout the research process.

2.2. Measures

2.2.1. Sleep Problems

To assess adolescent sleep problems, the Sleep Disturbance Scale for Children (SDSC) developed by Bruni et al. (1996) was utilized. This standardized tool is specifically designed for children and adolescents aged 6 to 16 years and consists of 26 items, each rated on a 5-point Likert scale ranging from 1 (never) to 5 (always), reflecting the frequency of sleep-related behaviors over the past six months. The SDSC measures six subscales: Disorders of Initiating and Maintaining Sleep, Sleep Breathing Disorders, Disorders of Arousal, Sleep-Wake Transition Disorders, Disorders of Excessive Somnolence, and Sleep Hyperhidrosis. Higher scores indicate greater severity of sleep disturbances. The SDSC has demonstrated strong psychometric properties, with Cronbach's alpha values exceeding 0.70 for most subscales, and its validity and reliability have been confirmed in numerous cross-cultural studies (Harper et al., 2023; Hashem et al., 2023; Javadzade et al., 2024; Yu & Gen, 2023).

2.2.2. Anxiety

Anxiety was measured using the Screen for Child Anxiety Related Emotional Disorders (SCARED), developed by Birmaher et al. (1997). This 41-item self-report questionnaire is designed for children and adolescents aged 8 to 18 years and assesses symptoms across five subscales: Panic/Somatic Symptoms, Generalized Anxiety Disorder, Separation Anxiety, Social Phobia, and School Avoidance. Each item is rated on a 3-point Likert scale (0 = Not True or Hardly Ever True, 1 = Somewhat True or Sometimes True, 2 = Very True or Often True), with higher total scores indicating more severe anxiety symptoms. The SCARED has shown excellent internal consistency, with Cronbach's alpha coefficients ranging from 0.74 to 0.93 across subscales, and has been validated across diverse clinical and community populations, confirming its reliability and construct validity (Orri et al., 2024; Ronald et al., 2024; Yang et al., 2024; Zhang, 2025).

2.2.3. Parental Conflict

Parental conflict was measured using the Children's Perception of Interparental Conflict Scale (CPIC),

developed by Grych, Seid, and Fincham (1992). The CPIC consists of 48 items that assess children's cognitive, emotional, and behavioral responses to interparental conflict, with items grouped into nine conceptually derived subscales, later empirically refined into three main dimensions: Conflict Properties (frequency, intensity, and resolution), Threat to the child, and Self-Blame. Responses are given on a 3-point Likert scale (1 = True, 2 = Sort of True, 3 = False). The CPIC is appropriate for children and adolescents aged 9 to 17 and has been widely used in both clinical and research settings. It has demonstrated good internal consistency ($\alpha > 0.70$ for most subscales) and its validity has been supported by correlations with related constructs such as adjustment problems and family functioning (Defanti, 2025; Witami, 2024; X. Zhang, 2024).

2.3. Data Analysis

For data analysis, both descriptive and inferential statistical methods were used. Initially, Pearson correlation analysis was conducted using SPSS version 27 to examine the bivariate relationships between adolescent sleep problems (dependent variable) and the two independent variables: anxiety and parental conflict. This analysis provided preliminary insights into the strength and direction of associations among the variables. Following this, Structural Equation Modeling (SEM) was performed using AMOS version 21 to test the hypothesized mediating role of anxiety in the relationship between parental conflict and adolescent sleep problems. SEM allowed for the evaluation of both direct and indirect effects within the proposed model and provided fit indices to assess the adequacy of the model. All statistical analyses were conducted at a significance level of 0.05.

3. Findings and Results

The study sample included 404 adolescents from Pakistan, comprising 207 females (51.2%) and 197 males (48.8%). Participants' ages ranged from 13 to 18 years, with a mean age of 15.42 years ($SD = 1.67$). Regarding educational level, 163 students (40.3%) were in middle school, 147 (36.4%) in lower secondary, and 94 (23.3%) in upper secondary. In terms of socioeconomic status, 121 participants (29.9%) reported low-income backgrounds, 201 (49.8%) identified as middle-income, and 82 (20.3%) belonged to high-income households. Most adolescents ($n = 353$, 87.4%) lived in two-parent households, while 51

(12.6%) lived in single-parent or extended family arrangements.

Table 1

Descriptive Statistics for Study Variables (N = 404)

Variable	Mean (M)	Standard Deviation (SD)
Parental Conflict	75.82	12.47
Anxiety	33.64	8.91
Adolescent Sleep Problems	44.27	10.23

The results in Table 1 show that the mean score for perceived parental conflict was 75.82 (SD = 12.47), indicating moderately high levels of conflict reported by participants. The mean score for anxiety was 33.64 (SD = 8.91), suggesting elevated anxiety symptoms in this adolescent population. The mean score for adolescent sleep problems was 44.27 (SD = 10.23), reflecting the presence of notable sleep disturbances.

Prior to conducting the main analyses, assumptions of normality, linearity, and multicollinearity were examined and confirmed. Skewness and kurtosis values for all continuous variables ranged between -0.81 and 0.96,

indicating acceptable levels of normal distribution. Linearity was assessed using scatterplots, which demonstrated linear relationships between parental conflict, anxiety, and adolescent sleep problems. Multicollinearity was tested by examining tolerance and variance inflation factor (VIF) values; tolerance values ranged from 0.71 to 0.86, and all VIF values were below 1.40, indicating no multicollinearity issues. Additionally, Mahalanobis distance analysis identified no significant multivariate outliers, confirming the suitability of the dataset for Pearson correlation and Structural Equation Modeling.

Table 2

Pearson Correlations Between Study Variables (N = 404)

Variable	1	2	3
1. Parental Conflict	—		
2. Anxiety	.51** (p < .001)	—	
3. Adolescent Sleep Problems	.47** (p < .001)	.55** (p < .001)	—

As presented in Table 2, there was a significant positive correlation between parental conflict and adolescent anxiety ($r = .51, p < .001$), indicating that higher levels of parental conflict were associated with increased anxiety symptoms. Anxiety was also significantly correlated with sleep problems ($r = .55, p < .001$), suggesting that adolescents

experiencing more anxiety reported more sleep disturbances. In addition, parental conflict showed a significant positive correlation with adolescent sleep problems ($r = .47, p < .001$), indicating a direct association between these two variables.

Table 3

Model Fit Indices for the Structural Equation Model

Fit Index	Value	Recommended Threshold
Chi-Square (χ^2)	204.38	—
df	84	—
χ^2/df	2.43	< 3.00
GFI	0.94	≥ 0.90
AGFI	0.91	≥ 0.90
CFI	0.96	≥ 0.95
TLI	0.95	≥ 0.95
RMSEA	0.059	≤ 0.08

As shown in Table 3, the structural model demonstrated acceptable to excellent fit. The chi-square value was 204.38 with 84 degrees of freedom, and the ratio of χ^2 to df was 2.43, within the acceptable range. Other indices also supported the

model fit: GFI = 0.94, AGFI = 0.91, CFI = 0.96, TLI = 0.95, and RMSEA = 0.059, indicating a good fit between the hypothesized model and the observed data.

Table 4

Direct, Indirect, and Total Path Coefficients for the Structural Model

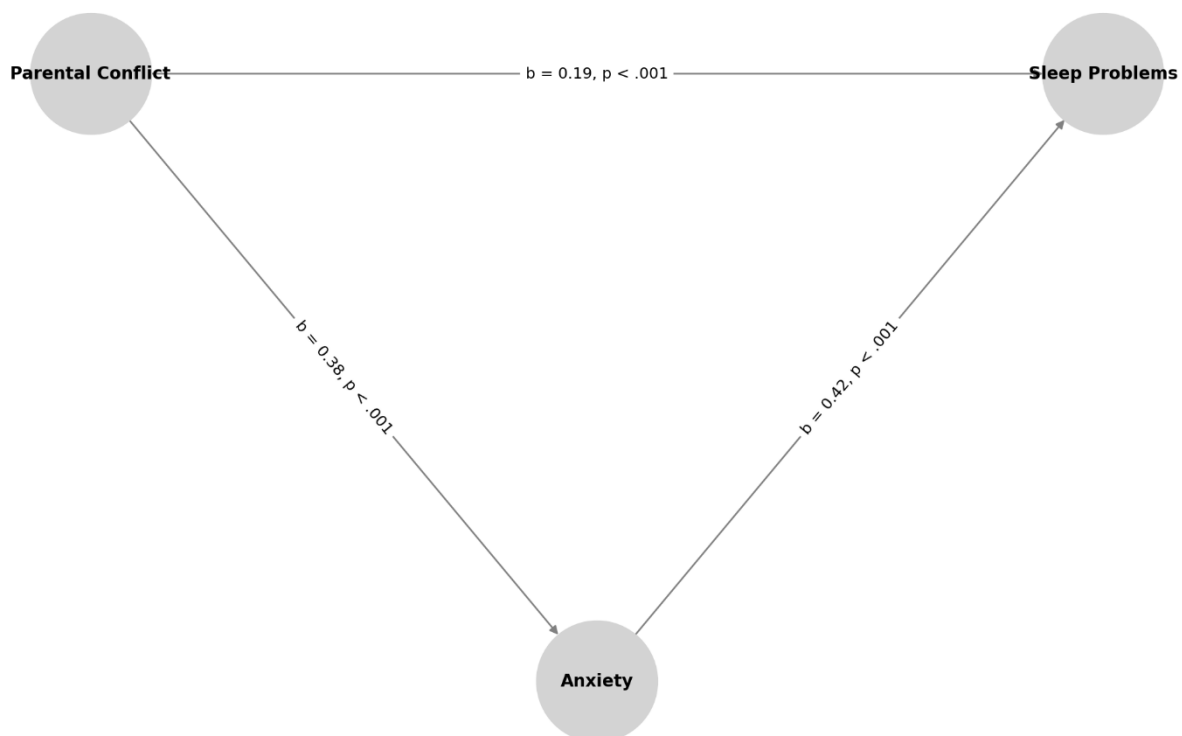
Path	b	S.E.	Beta	p
Parental Conflict → Anxiety	0.38	0.05	0.51	< .001
Anxiety → Sleep Problems	0.42	0.06	0.53	< .001
Parental Conflict → Sleep Problems	0.19	0.05	0.29	< .001
Parental Conflict → Anxiety → Sleep Problems (Indirect)	0.16	0.04	—	< .001
Total Effect: Parental Conflict → Sleep Problems	0.35	0.05	0.47	< .001

Table 4 presents the path coefficients of the SEM analysis. Parental conflict significantly predicted anxiety ($b = 0.38$, $\beta = 0.51$, $p < .001$), and anxiety significantly predicted sleep problems ($b = 0.42$, $\beta = 0.53$, $p < .001$). A direct effect of parental conflict on adolescent sleep problems was also significant ($b = 0.19$, $\beta = 0.29$, $p < .001$).

Importantly, the indirect effect of parental conflict on sleep problems through anxiety was statistically significant ($b = 0.16$, $p < .001$), confirming the mediating role of anxiety. The total effect of parental conflict on sleep problems was $b = 0.35$ ($\beta = 0.47$), indicating that both direct and indirect pathways contribute meaningfully to the outcome.

Figure 1

Model with Beta Coefficients



4. Discussion and Conclusion

The findings of this study reveal a significant positive relationship between parental conflict and adolescent sleep

problems. Additionally, anxiety was found to mediate this relationship, confirming that adolescents who perceive higher levels of parental conflict tend to experience heightened anxiety, which in turn is associated with greater

sleep disturbances. These results support the proposed model, suggesting that anxiety serves as a critical psychological pathway through which parental conflict exerts its influence on adolescent sleep quality. Pearson correlation results demonstrated significant associations between parental conflict and both anxiety and sleep problems, while structural equation modeling (SEM) confirmed the indirect pathway, indicating a robust mediating effect.

This study aligns with previous research emphasizing the role of the family environment in shaping adolescents' emotional and physiological outcomes. Consistent with Coronado's (2025) multilevel analysis, which found that daily parent-adolescent conflict predicted fluctuations in adolescents' sleep satisfaction, the present findings suggest that ongoing family discord impairs adolescents' ability to achieve restful and consistent sleep (Coronado, 2025). Adolescents may internalize the stress of parental arguments, leading to heightened states of arousal and anticipatory anxiety that interfere with sleep onset and maintenance. These mechanisms echo the emotional security theory, which posits that children's emotional regulation and sense of safety are undermined in conflictual family environments (Y. Zhang, 2024).

Moreover, the results reinforce the central role of anxiety as a psychological mediator. Adolescents exposed to frequent parental conflict may develop a persistent sense of threat and instability, contributing to the emergence or exacerbation of anxiety symptoms (Ajoku, 2023). These symptoms, in turn, predict poor sleep outcomes, as anxiety is associated with heightened cognitive arousal, rumination, and hypervigilance at bedtime (Orchard, Pass, et al., 2020). This finding is consistent with the work of Gendler and Blau (2022), who documented a strong association between anxiety and altered sleep patterns among quarantined adolescents during the COVID-19 pandemic (Gendler & Blau, 2022). Similarly, Ding et al. (2023) found that parental phubbing was associated with adolescent sleep problems through increased emotional insecurity and anxiety, further illustrating how emotionally distant or inattentive parenting contributes to sleep dysfunction (Ding et al., 2023).

The observed mediating effect of anxiety also supports longitudinal and cross-sectional studies indicating that internalizing symptoms act as bridges between family stressors and health-related outcomes. For instance, Leung (2021) identified a reciprocal relationship between parent-child conflict and adolescent anxiety over time, indicating that conflict not only leads to anxiety but is also exacerbated

by it (Leung, 2021). Our results extend this understanding by linking anxiety with specific physiological impairments—namely, sleep disturbances—highlighting the cascading impact of familial dynamics on adolescent health.

Gender and contextual factors may further amplify the relationship between parental conflict, anxiety, and sleep. Sarfo et al. (2024) found that female adolescents reported higher levels of anxiety-induced sleep disturbance, suggesting that gender-specific vulnerabilities may shape how adolescents internalize family conflict (Sarfo et al., 2024). While our study did not analyze gender differences explicitly, the overall findings are consistent with this literature and suggest avenues for further exploration. Similarly, Riahi and Izadi-Mazidi (2024) emphasized the disproportionate burden on families with adolescents experiencing psychiatric disorders during the COVID-19 outbreak, which compounded stress, anxiety, and sleep issues among youth (Riahi & Izadi-Mazidi, 2024). This intersection of familial, psychological, and environmental stressors underscores the multifactorial nature of adolescent sleep health.

In understanding how parental behavior translates into adolescent outcomes, the quality and resolution of conflict emerge as critical factors. Gugliandolo et al. (2024) demonstrated that parental modeling of conflict resolution styles significantly influences adolescents' interpersonal and emotional development (Gugliandolo et al., 2024). Similarly, Mosmann et al. (2023) reported that triangulation and involvement of adolescents in parental disputes correlate with poorer adjustment outcomes, including sleep and emotional regulation (Mosmann et al., 2023). These findings suggest that it is not merely the presence of conflict, but the way it is expressed and managed, that determines its psychological toll on adolescents.

Our results also support findings from sleep-focused studies. For example, Manhart and Schlarb (2021) showed that adolescents with chronic emotional problems had sleep disruptions primarily mediated by internalizing symptoms, including anxiety (Manhart & Schlarb, 2021). Likewise, Pucci et al. (2024) identified a relationship between health behaviors, including stress and anxiety, and poor sleep quality in Portuguese adolescents (Pucci et al., 2024). These findings align with our study's emphasis on the emotional mechanisms underlying sleep problems and underscore the value of targeting anxiety in interventions aiming to improve adolescent sleep.

In addition, this study highlights the importance of considering adolescents' subjective experiences. Buchanan

et al. (2021) emphasized that adolescent perceptions of parent–adolescent emotional interactions during conflict were more strongly associated with negative outcomes than objective measures of conflict frequency or intensity (Buchanan et al., 2021). Similarly, Zuzama et al. (2021) stressed the role of parental emotional expressivity during conflicts in shaping adolescents' emotional adjustment and academic functioning (Zuzama et al., 2021). By focusing on adolescents' reported anxiety levels, our study captures this internalized response to external stressors, offering a more comprehensive understanding of the conflict-sleep link.

Furthermore, the current findings reflect broader societal and health-related concerns. Yarger et al. (2023) found that adolescent mental health declined during the COVID-19 pandemic, with increased anxiety and disrupted sleep as common consequences of prolonged family stress and uncertainty (Yarger et al., 2023). Likewise, Nazzal et al. (2023) reported a high prevalence of anxiety, sleep bruxism, and temporomandibular disorders among children and adolescents during the pandemic, suggesting a systemic impact of stressors on youth health (Nazzal et al., 2023). These findings further contextualize our results within a larger framework of adolescent vulnerability to environmental and relational disruptions.

Parental emotional withdrawal and harsh parenting practices were also emphasized by Yang et al. (2024), who reported that both maternal and paternal harsh parenting predicted anxiety symptoms in adolescents through indirect psychological pathways (Yang et al., 2024). These insights reinforce the idea that emotionally unavailable or conflict-prone parenting environments heighten adolescents' anxiety responses, ultimately affecting sleep. Similarly, Orchard et al. (2020) found that adolescents with high anxiety levels reported poor sleep quality and irregular sleep schedules, often preceding the onset of depression (Orchard, Pass, et al., 2020). This underscores the need for early intervention in anxiety symptoms to prevent cascading emotional and physiological impairments.

Another important consideration is the bidirectionality of these processes. Woody et al. (2021) documented reciprocal transmission of social anxiety between parents and adolescents, particularly during conflict interactions, suggesting that adolescents' anxiety may feed back into family conflict patterns (Woody et al., 2021). This dynamic may perpetuate a cycle of conflict and distress, reinforcing sleep problems over time. Similarly, Orchard et al. (2020) presented a case illustration of brief CBT-I for depressed adolescents, noting that improvements in sleep significantly

reduced emotional distress and improved family functioning (Orchard, Gregory, et al., 2020). These results imply that interventions addressing adolescent sleep and anxiety may have reciprocal benefits for family relationships.

5. Suggestions and Limitations

Despite its valuable contributions, this study is not without limitations. First, the cross-sectional design limits the ability to infer causality among variables. While the model tested is theoretically and empirically supported, longitudinal studies are needed to establish directionality. Second, data were collected via self-report questionnaires, which may introduce response biases such as social desirability or recall inaccuracies. Third, the sample was limited to adolescents residing in Pakistan, which may affect the generalizability of findings to other cultural or geographical contexts. Additionally, the study did not assess the specific characteristics of parental conflict (e.g., intensity, resolution), nor did it differentiate between maternal and paternal influences, which may have distinct effects on adolescent outcomes.

Future research should explore these relationships using longitudinal designs to examine temporal patterns and causal links between parental conflict, anxiety, and sleep problems. Incorporating multi-informant data, including parental and teacher reports, would enhance the validity of findings and reduce self-report biases. Studies could also benefit from investigating potential moderators such as gender, temperament, and cultural values to understand how individual differences shape the experience of family conflict. Further exploration of protective factors—such as parental emotional support, conflict resolution training, or adolescent coping strategies—would provide insights into mitigating the negative effects of conflict. Moreover, distinguishing between constructive and destructive conflict could refine our understanding of which types are most harmful to adolescent well-being.

The findings from this study highlight the need for family-based interventions that address not only overt conflict but also the emotional climate within the home. Programs focused on improving parental communication, emotional regulation, and conflict resolution could be instrumental in reducing adolescent anxiety and promoting better sleep hygiene. Mental health practitioners working with adolescents should assess family dynamics as part of a comprehensive evaluation and consider anxiety management strategies when addressing sleep issues.

Schools and community centers could also implement psychoeducational workshops for parents to raise awareness of the indirect impact of conflict on adolescent health. Lastly, promoting open family dialogue and emotional safety may serve as a foundation for healthier psychological and behavioral outcomes among youth.

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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