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A Descriptive Study of the Prevalence of Emotional and Behavioral Challenges among Students

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Abstract: The present study explores the prevalence of emotional and behavioral problems among adolescents in Gujrat, Pakistan. The target population comprised students aged 14 to 19 years, selected from both public and private schools and colleges within the Gujrat city. An exploratory survey research design was employed, utilizing a multistage stratified sampling technique to ensure representative data. Data collection involved a demographic information sheet and the Emotional and Behavioral Problems Scale developed by Kausar et al. (2022). Of the 980 respondents, 88.5% were identified as vulnerable to emotional and behavioral issues. A significant proportion of the participants were 16 years old (21.5%), with an even distribution across genders. Half of the students were enrolled in public institutions (50.5%), followed by the Biology stream (53.3%), resided in urban areas (65.5%), and belonged to joint family systems (71.0%). Only 10.4% reported a family history of mental illness. Among those identified as vulnerable, 71.5% exhibited moderate symptoms, 26.6% mild, and 1.8% severe symptoms. These results underscore the importance of early identification and awareness initiatives within educational settings. They also suggest significant implications for mental health policies and support systems targeting students.

Keywords: Prevalence, Emotional Problems, Behavioral Issues, Students, Vulnerable

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Introduction

Emotional and behavioral problems (EBPs) among the adolescents in Pakistan have been recognized in the recent years as a significant healthcare problem. School-based and communal-based studies show that a significant percentage of teens experience symptoms of depressions, anxiety, behavioral problems, and peer problems most of which go unnoticed or undiagnosed. As an example, a cross-sectional survey conducted in Karachi on adolescents of more than 1,400 identified about 20 percent with very severe levels of EBPs, with aggression and academic problems as particularly relevant (Farooq et al., 2023). Comparable prevalence trends have been reported in other South Asian contexts, such as Bangladesh, where 13–15% of adolescents were found to have emotional and behavioral problems, with health-related quality of life emerging as a significant predictor (Khan et al., 2025). Bullying victimization has also been reported as a notable contributor to these problems, with severe cases linked to heightened psychological distress and suicidal ideation among adolescents (Kausar et al., 2022). Furthermore, a nationally representative study in 2024 reported that conduct problems were observed in 26.60%, emotional problems in 22.50%, peer problems in 13.00% and hyperactivity in 10.60% of Pakistani adolescents (Khan et al., 2024). Such findings highlight the ubiquitous nature of EBPs as well as an early and school-based identification and intervention system in Pakistan. In addition to

national contexts, EBPs among the youth have also been identified as an emerging global problem, which has far-reaching effects on academic performance, social performance, and long-term psychological well-being of the students. World Health Reporting Organization (2024) estimates that about every seventh adolescent in the world has a mental disorder, but the most common ones are a problem of a depression which is followed by anxiety and behavioral problems. Since these challenges are very broad in nature, it is critical that the manner in which such issues manifest in diverse cultural and socio-economic contexts be analysed and that local evidence towards policy and practice is created within Pakistan.

Internationally, the literature shows an increase in EBPs in children and adolescents, which is significant. These assumptions were confirmed through a thorough meta-analysis, indicating that roughly 13.4 out of every hundred young people across the globe experience clinically significant EBPs, such as anxiety and depression, as well as conduct-related problems (Polanczyk et al., 2015). A recent South Asian systematic review synthesizing 2010–2024 data reported considerable heterogeneity in prevalence across countries and highlighted consistent associations with female sex, bullying, and lower socioeconomic status, alongside school-related stressors (Mudunna et al., 2025). The review underscores that context-specific determinants amplify risk and should guide local surveillance and response. In the same way, a major school-based survey conducted in the province of Kerala in India has documented that 10.2 percent of children/adolescents presented abnormal scores on standardized measures of behavior and, therefore, the importance of these issues in educational contexts (Sarkar et al., 2021). While these findings originate from diverse contexts, they underscore the global burden of EBPs and the need for sustained, culturally responsive prevention and early intervention strategies in school systems.

Within Pakistan, the empirical picture, though still developing, indicates a substantial and heterogeneous burden. In Islamabad, Najmussaqib and Mushtaq (2023) found alarmingly high rates of behavioral problems among young schoolchildren using the Child Behavior Checklist (CBCL): 65.4% in children aged 4–6 and 36.2% in those aged 6–8. Although these figures reflect early childhood rather than adolescence, they suggest that emotional and behavioral dysregulation may be present prior to secondary school, with implications for continuity of problems into later developmental stages. Among older students, Karachi-based evidence points to a high prevalence of internalizing difficulties, Ibbad et al. (2022) reported that more than half (53.2%) of surveyed high school students experienced anxiety and depression, with higher risk among girls and respondents reporting a parental history of mental health problems. These findings mirror international patterns in which gender and family mental health history consistently emerge as salient risk factors. Keeping in view the increasing trend in emotional behavioral problems among adolescents, Kausar et al. (2022) developed an indijineous scale of measuring emotional behavioral problems in Pakistan.

In Pakistan, most research on adolescent mental health focuses on major cities like Karachi, Lahore, and Islamabad, while mid-sized cities such as Gujrat receive little attention. Without local, school-based data, it is difficult for education and health authorities to identify needs, plan services, or evaluate the success of interventions. Collecting city-specific evidence is key to ensuring fair access to mental health support, especially as more adolescents join formal schooling, where their challenges and the ways to address them are easier to identify. Although most school-based prevention trials originate in high-income settings, an updated systematic review of randomized studies from low- and middle-income countries suggests preventive school programs can reduce depressive symptoms, while effects on anxiety are less consistent (Dieu Yin et al., 2025). This emerging LMIC evidence base supports integrating brief, scalable components psychoeducation, skills practice, and group delivery into routine school platforms in Pakistan.

In this context, the present study explores the prevalence of emotional and behavioral problems among adolescents in Gujrat, Pakistan. Consistent with prior work conducted in other Pakistani cities, we anticipate detecting a measurable burden of internalizing and externalizing difficulties among school-going youth, with variation by gender and other socio-demographic factors (Ibbad et al., 2022). By employing a standardized, validated assessment tool suitable for the Pakistani context (Kausar et al., 2022), and by situating our analysis within the realities of local school systems, this study seeks to generate actionable evidence for stakeholders.

The objective is to produce localized data that can guide preventive and early intervention strategies in school settings, particularly in regions where mental health awareness and specialized services remain limited. By drawing attention to these issues in Gujrat, the study also seeks to support both public and private educational institutions in strengthening policies, referral mechanisms, and supports that can reduce the short- and long-term harm associated with adolescent EBPs. Reviews of universal, school-based mental health interventions indicate that cognitive-behavioral and skills-focused approaches can improve emotional well-being and reduce symptoms of depression and anxiety when implemented with fidelity and supported by trained staff (Racine et al., 2021; Zhang et al., 2022). While not all models are directly transportable, their core components; psycho-education, emotion regulation, problem-solving, and help-seeking are consistent with approaches already used by counselors and psychologists in Pakistan, suggesting scope for contextual adaptation. Crucially, any adaptation must be sensitive to local beliefs about mental health, parental involvement norms, and school governance structures to ensure engagement and sustainability. Hence, through the findings of the current study, adolescents EBPs can bring into spotlight and intervention based strategies for adolescents will enhance their positive mental health.

Methods

Study Design

The present study adopted an exploratory survey design to investigate emotional and behavioral problems among adolescents enrolled in both public and private educational institutions, including schools and colleges.

Sample Size and Participants

The sample size was determined using the Taro Yamane formula (Yamane, 1973), a method still widely employed in contemporary social science research (Adam, 2021). With the assistance of local schools and colleges, a sampling frame was established, and 980 students were selected through a multistage stratified sampling procedure to ensure broad representation. In the initial phase, the respondents were split along school (n = 490) and colleges (n = 490). The different levels of education were then further divided according to the public and the private sector giving 245 participants per sector. This was followed by stratification based on academic grade which left 122 level 9, 123 level 10, 122 level 11, and 123 level 12 students. Stratification based on gender was also used with each grade representing a near parity in the number of male and female participants; grade 9 (61 boys, 61 girls), grade 10 (61 boys, 62 girls), grade 11 (61 boys, 61 girls) and grade 12 (61 boys, 62 girls). This sampling methodology made it evenly represented in terms of educational levels, sector, grade, and gender.

Data Collection Tools

The collection of the data was performed with the help of the self-developed demographic form to identify the background information and the Emotional and Behavioral Problems Scale developed by Kausar et al. (2022) to examine adolescents aged between 14 and 19 years and their emotional and behavioral problems. It consists of 36 items on a five-point Likert scale and measures both internalizing and externalizing difficulties, showing good psychometric qualities, especially a Cronbach's alpha of .879, which implies a high level of internal validity and reliability.

Ethical Considerations

The ethical review board of the relevant institution granted its approval to the study protocol. Each participant had given informed consent, being adequately informed of the study aims, processes, and the notion that a person could quit at any time without repercussions. The survey was conducted in a safe and confidential environment, and participants were advised to answer as expected of them and thus depict their actual feelings.

Procedure

In this study, all procedures were conducted in accordance with established ethical standards. Data were collected from a representative sample of public and private school and college students using multistage stratified sampling. Participants completed a demographic information sheet and the Emotional and Behavioral Problem Scale for Adolescents, providing responses based on their genuine feelings under assurances of confidentiality.

Results

The findings of this study were interpreted using descriptive statistical techniques. Frequencies and percentages were computed to outline the demographic profile of the participants. The extent of emotional and behavioral problems was assessed through a series of frequency analyses conducted in three steps. First of all, descriptive statistics and frequencies were used to identify overall vulnerability to emotional and behavioral issues among students. Then focused specifically on descriptive and frequency analyses of those participants identified as vulnerable. Finally, the severity of emotional and behavioral problems was assessed among these vulnerable individuals.

Descriptive Statistics

The aim of descriptive statistics is to summarize and organize larger data into more concise and understandable form. It helps researchers to gain insight and draw meaningful conclusions about characteristics of sample and variable distribution.

Table 1

Frequencies (F) and Percentages (%) Values of Demographic Variables of Participants (n=980)

Variables	Categories	F	%
Age in Years			
	14	170	17.3
	15	187	19.1
	16	212	21.6
	17	162	16.5
	18	155	15.8
	19	91	9.3
Gender			
	Boys	488	49.8
	Girls	492	50.2
Category of School			
	Public	490	50.0
	Private	490	50.0
Class			
	Matric	490	50.0
	Intermediate	490	50.0
Subject			
	Biology	529	54.0
	Computer	257	26.2
	Math	90	9.2
	Arts	104	10.6
Residential Area			
	Urban	637	65.0
	Rural	341	34.8
Family System			
	Nuclear	280	28.6
	Joint	699	71.3
Mental Illness in the Family			
	Yes	104	10.6
	No	874	89.2

Descriptive analysis indicated that the largest proportion of participants (21.6%) were aged 16, whereas the smallest proportion (9.3%) were 19 years old. The gender split was nearly even, with males comprising 49.8% and females 50.2% of the sample. An equal number of students (50%) enrolled in schools and colleges were approached, and the distribution between public and private institutions was also evenly split. Half of the participants were studying at the matriculation level, and the other half at the intermediate level. Regarding academic disciplines, 54% were pursuing

Biology, 26.2% Computer Science, 9.2% Mathematics, and 10.6% Arts. Most of the respondents (65%) resided in urban areas, while 34.8% came from rural backgrounds. A minority (10.6%) reported a family history of mental illness, compared to 89.2% who did not. Additionally, 28.6% belonged to nuclear families, whereas 71.3% lived within joint family systems.

Table 2

Frequencies and Percentages of Participants about Vulnerability of EBP (n=980)

Vulnerability	F	%
No	113	11.5
Yes	867	88.5

Findings presented in Table 2 show that a substantial portion of students (88.5%) were identified as vulnerable to emotional and behavioral problems (EBPs), while only 11.5% were categorized as not vulnerable. In this analysis, a "Yes" response indicated the presence of vulnerability to EBPs, whereas a "No" response denoted its absence. These results highlight a significant prevalence of emotional and behavioral concerns among students, emphasizing the urgent need for enhanced mental health services and preventive strategies in academic environments.

Table 3

Frequencies (F) and Percentages (%) Values of Demographic Variables of Vulnerable Participants (n=867)

Variables	Categories	F	%
Age in years			
	14	151	17.4
	15	165	19.0
	16	186	21.5
	17	140	16.1
	18	139	16.0
	19	84	9.7
Gender			
	Boys	434	50.1
	Girls	433	49.9
Sector			
	Public	438	50.5
	Private	429	49.5
Class			
	Matric	435	50.2
	Intermediate	432	49.8
Subject			
	Biology	462	53.3
	Computer	255	26.0
	Math	86	9.9
	Arts	94	10.8
Residential Area			
	Urban	568	65.5
	Rural	297	34.4
Family System			
	Nuclear	250	28.8
	Joint	616	71.0
Mental Illness in the Family			
	Yes	90	10.4
	No	755	89.4

As illustrated in Table 3, the largest proportion of participants (21.5%) were 16 years old, whereas the smallest group (9.7%) comprised 19-year-olds. Gender distribution was nearly balanced, with boys accounting for 50.1% and girls for 49.9% of the sample. In terms of educational level, 50.2% of respondents were from schools and 49.8% from colleges. A slightly higher number (50.5%) were enrolled in public institutions, compared to 49.5% in private ones. Similarly, 50.2% of students were studying at the matriculation level, while 49.8% were at the intermediate level.

When categorized by academic discipline, 53.3% of students were enrolled in Biology, followed by 26.0% in Computer Science, 9.9% in Mathematics, and 10.8% in Arts. The majority of participants (65.5%) reported living in urban areas, while 34.3% came from rural backgrounds. Additionally, 10.4% disclosed a family history of mental health issues, whereas 89.4% reported none. Regarding family structure, 28.8% of students lived in nuclear families, while the majority (71.0%) resided in joint family systems.

Table 4

Frequencies and Percentages according to the Severity Levels of EBPS among Vulnerable Participants (n=867)

Severity Levels of EBPS	F	%
Mild (65-96)	231	26.6
Moderate (97-128)	620	71.5
Severe (129-160)	16	1.8

Table 4 reveals that most of the participants (71.5%) were found to exhibit emotional and behavioral problems (EBPs) at a moderate severity level. A smaller segment of the sample (26.6%) experienced EBPs at a mild level, while only a minimal proportion (1.8%) reported symptoms at a severe level.

Discussion

Emotional and behavioral problems (EBPs) among adolescents have become an increasingly critical public health concern, especially in low- and middle-income countries such as Pakistan where structured, school-based mental health services are often lacking. Without timely recognition and appropriate intervention, EBPs can compromise educational attainment, impair peer and family relationships, and predispose individuals to chronic mental health conditions in adulthood. In settings characterized by low mental health literacy with stigmatization, most teenagers fail to get the assistance that they need and this increases over time (Ishrat et al., 2024). Early detection and intervention are highly relevant to the possibility of adverse consequences like school dropouts, risk behavior, and ineffective psychosocial functioning since evidence lives up to the expectation that these measures result in the decreased probability of such outcomes (Ahmed et al., 2022; Hamdani et al., 2024). Recent systematic reviews confirm that early school-based screening combined with low-intensity interventions significantly reduces the progression of subthreshold symptoms into full-blown disorders and improves academic engagement in adolescents from low- and middle-income countries (Fazel et al., 2021; Singla et al., 2023).

The current study has made a valuable and original contribution since the current research has assisted in recording the prevalence and severity of the EBPs among the adolescents in Gujrat. The results obtained showed that the proportion of identified students at risk constituted an alarmingly high percentage (88.5%), with the largest majority experiencing moderate symptoms (71.5%) and the rest the mild (26.6%) and the severe ones (1.8%). These findings imply that there is a small number of adolescents that are in acute distress, but a significantly higher number of adolescents who experience chronic emotional and behavioral problems, which would be amenable to preventive dimensions as long as they could be identified early. The prevalence, panic-specifically, of moderate- level cases indicates that scalable and school-based programs that emphasize emotional regulation and social skills training as well as resiliency development might bear a significant in the quantity of the populace wellbeing in this environment.

When compared with prior studies, the prevalence rate in the current study appears higher than many national estimates but remains within plausible bounds given methodological and contextual variations. For instance, Ibbad et al. (2022) reported that 53.2% of high school students in Karachi experienced clinically significant anxiety and depression, with significantly higher prevalence among females and those with a family history of mental illness.

Similarly, Najmussaqib and Mushtaq (2023) found that 65.4% of children aged 4–6 and 36.2% of those aged 6–8 in Islamabad exhibited behavioral problems in the borderline or clinical range, with social–emotional competence serving as a protective factor. Comparable figures have been reported in Bangladesh, where emotional disorders were present in 9.09% of adolescents, conduct disorder in 21.72%, hyperactivity in 6.21%, and peer-relationship difficulties in 15.10%—all significantly associated with gender, urban residence, and socioeconomic factors (Al-Mamun et al., 2024). Additionally, a telephone-based survey in Islamabad reported prevalence rates of emotional problems (22.5%), behavioral problems (26.6%), peer problems (13%), and hyperactivity (10.6%) among school-aged children, with maternal education emerging as a significant predictor (Naveed et al., 2020). Comparable prevalence levels have also been documented in Jordan, where 13.9% of children and 19.7% of adolescents scored in the abnormal range on the SDQ, with conduct and peer problems most commonly reported (Al-Shami et al., 2024). The higher prevalence in Gujrat could be linked to differences in the assessment tool used—here, the culturally validated Emotional and Behavioral Problems Scale (Kausar et al., 2022)—as well as the inclusion of both school and college students, who may collectively experience a wider range of academic and social stressors.

Gender patterns in the literature also warrant consideration. While the Gujrat sample exhibited near parity in vulnerability between boys (50.1%) and girls (49.9%), prior research often documents higher rates among female adolescents (Farooq et al., 2023). This divergence may stem from socio-cultural norms affecting emotional expression, differences in coping strategies, or the study's rigorous stratified sampling design, which ensured balanced representation by gender. Similarly, the demographic characteristics of the current sample—particularly the predominance of urban residence (65.5%) and joint family systems (71.0%)—reflect the local context and may influence both risk and resilience factors. While joint families can provide broader social support networks, they may also contribute to interpersonal stress, especially for adolescents navigating autonomy and identity development.

The severity distribution observed in this study is consistent with findings from intervention trials in Pakistan. The Early Adolescent Skills for Emotions (EASE) program, evaluated in rural Rawalpindi, significantly reduced psychological distress among adolescents, achieving an effect size of approximately 0.35 (Hamdani et al., 2024). Given that the majority of cases in Gujrat are of moderate severity, such low-intensity, scalable interventions could be feasibly implemented in local schools, with potential for wide-reaching benefits. The cultural adaptation of interventions, along with teacher training and community engagement, would be critical for sustainability and effectiveness. Evidence from other LMICs, such as India and Nigeria, also supports the feasibility of teacher-delivered, group-based emotional skills programs in reducing emotional distress and improving classroom behavior (Shinde et al., 2022; Esan et al., 2024).

International literature provides further perspective on these findings. Racine et al. (2021) reported that the COVID-19 pandemic nearly doubled the prevalence of clinically significant symptoms of depression and anxiety among children and adolescents worldwide. Similarly, Zhang et al. (2022) synthesized longitudinal evidence showing that these elevated levels persisted beyond the acute pandemic period. Although the present study was not designed to specifically assess pandemic-related effects, it is plausible that residual impacts, such as educational disruption, social isolation, and economic strain may have contributed to the high prevalence rates observed.

From a policy and practice standpoint, the current findings underscore the urgent need for integrated school mental health frameworks in Pakistan. These should encompass universal prevention (e.g., social-emotional learning curricula), targeted interventions for at-risk students, and referral pathways for those with severe symptoms. Culturally responsive psychoeducational initiatives can help reduce stigma and improve mental health literacy among students, teachers, and parents alike. Strengthening collaborations between educational institutions, healthcare providers, and community organizations would be vital to expanding access to services and building supportive environments that foster adolescent well-being.

In sum, this study not only adds to the sparse literature on adolescent mental health in mid-sized Pakistani cities but also highlights the magnitude of the challenge and the opportunities for early, contextually adapted intervention. The high prevalence of EBPs (88.5%) in Gujrat should serve as a call to action for educators, policymakers, and mental health professionals to prioritize adolescent mental health within the broader public health agenda. Further research employing longitudinal designs and mixed-method approaches would be beneficial to explore causal pathways, evaluate intervention effectiveness, and inform evidence-based policy formulation.

Limitations

Irrespective of its contribution, this research has a few limitations which ought to be taken into account during the interpretation of the results. It is not possible to draw causal connections and inferences between demographic factors and emotional or behavioral problems since the design used by the study authors is cross-sectional; further research should be conducted longitudinally to consider the changes in time and the routes of causality. Second, data were collected solely through self-report measures, which may be subject to social desirability bias and recall inaccuracies. Although the Emotional and Behavioral Problems Scale used in this study is culturally validated, the reliance on a single instrument limits the scope of assessment to the constructs it measures. Third, the sample was drawn exclusively from educational institutions in Gujrat, which may reduce the generalizability of the results to out-of-school adolescents or those in other geographic regions of Pakistan. Finally, while the study employed a large, stratified sample, certain potentially influential variables, such as socioeconomic status, parental education, and exposure to adverse life events were not included in the analysis and could be addressed in future research. Recognizing these limitations is important for guiding the interpretation of results and for informing the design of more comprehensive, multi-method studies in the future.

Conclusion and Implications

The results of this study point to the need for systemic change. Educational institutions should consider routine emotional and behavioral screening, establish school counseling programs, and train teachers in mental health first aid. Policymakers should address adolescent well-being as a priority, especially in rural districts like Gujrat where resources are limited. Research based interventions and collaborative efforts can reduce long-term risks for affected students.

The implications point toward the necessity for structural reforms. Schools should implement regular screenings for emotional and behavioral issues, establish accessible counseling services, and provide educators with training in basic mental health support. In parallel, policymakers must recognize adolescent mental health as a critical area of concern, particularly in those areas, where access to psychological services remains limited. Evidence-based interventions and intersectoral collaboration can play a vital role in minimizing long-term psychological risks and fostering healthier developmental outcomes for young learners.

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