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Emotional Mental Health Among Adolescents: A Profiling Psychosocial Risk Distribution

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Abstract

Background: Adolescents are a vulnerable population to emotional and mental health problems due to rapid biological, psychological, and social changes. National surveys have reported increasing levels of anxiety, loneliness, and behavioral problems among adolescents; however, local evidence describing the distribution of adolescent emotional and mental health problems remains limited, particularly in school settings.

Objective: This study aimed to describe the distribution and profile of emotional and mental health problems among adolescents based on school-based psychosocial screening in Bandung Regency, Indonesia.

Methods: A descriptive quantitative study with a cross-sectional design was conducted involving 1,304 adolescents who participated in a school-based mental health screening program in 2025. Emotional and behavioral problems were assessed using the Strengths and Difficulties Questionnaire (SDQ), covering five domains: emotional symptoms, conduct problems, hyperactivity, peer relationship problems, and prosocial behavior. Data were analyzed descriptively using frequencies and percentages.

Results: Most adolescents were classified as normal in the domains of emotional symptoms (67.9%), conduct problems (67.2%), hyperactivity (81.8%), and prosocial behavior (57.8%). However, a relatively high proportion of abnormal scores was observed in peer relationship problems (27.1%) and emotional symptoms (20.6%). Based on the total difficulties score, 3.4% of adolescents were categorized as abnormal, indicating the presence of a psychosocial risk burden within the adolescent population. These findings suggest that peer relationship difficulties and emotional problems constitute prominent areas of concern.

Conclusion: This study provides a descriptive overview of emotional and mental health problems among adolescents identified through school-based psychosocial screening. The findings underscore the potential role of routine screening in supporting early identification of adolescents at risk of psychosocial difficulties. Further evaluative and longitudinal studies are needed to assess the effectiveness of screening programs and related interventions in improving adolescent mental health outcomes.

Keywords: Adolescents; emotional mental health; profiling psychosocial risk; psychosocial screening; Strengths and Difficulties Questionnaire (SDQ)

INTRODUCTION

Adolescents constitute a substantial population group globally, including in Indonesia. A high proportion of adolescents may represent a demographic dividend; however, adolescence is also a critical transitional period characterized by significant physical, psychological, and intellectual changes that increase vulnerability to risk-taking behaviors. According to the World Health Organization (WHO), adolescence is defined as the age range of 10–19 years, while the Decree of the Minister of Health of the Republic of Indonesia Number 25 of 2014 defines adolescents as individuals aged 10–18 years(1). Adolescent development encompasses biological, cognitive, psychosocial, mental, and emotional domains, including brain and hormonal development as part of biological maturation(2).

According to data from the World Health Organization (2018), adolescents account for approximately 18% of the global population, or around 1.2 billion individuals worldwide. In Indonesia, data from the Badan Pusat Statistik (BPS) in 2025 reported that the adolescent population in the study context numbered approximately 22,09 million people. West Java Province has one of the largest adolescent populations 284,438 people, reflecting its demographic structure. Furthermore, BPS data (2025) indicated that the total population of Bandung Regency was 965 adolescents (3).

Adolescents are at increased risk of experiencing emotional and mental health problems. Emotional and mental health problems refer to conditions characterized by psychological distress and emotional or behavioral changes in response to stressors, which may be transient but can have long-term consequences if left unrecognized and unaddressed(4). Such problems may interfere with academic performance, social functioning, and overall developmental trajectories(5). In addition, adolescents who are at risk of exposure to traumatic events and stressful situations have a significantly increased risk of developing emotional disorders, anxiety, and behavioral problems, particularly those with limited coping resources and inadequate social support(6).

Based on the results of the national School-Based Health Survey at the junior and senior high school levels published by the Ministry of Health of the Republic of Indonesia in 2015, ten behavioral factors were identified as posing risks to adolescent health, including mental health

problems. The survey findings in Indonesia indicated that 46.01% of students experienced feelings of loneliness, with a higher prevalence among female students; 42.18% experienced anxiety or excessive worry; and 62.38% experienced complex emotional disturbances, comprising loneliness, excessive worry, and thoughts of suicide (2).

The World Health Organization (2018) reports that the prevalence of mental and emotional disorders among individuals aged 10–19 years accounts for approximately 16% of the global burden of disease and injury. Half of all mental health problems begin by the age of 14, however, many cases remain undetected and untreated for various reasons, including limited knowledge or awareness of mental health among healthcare providers and stigma that discourages adolescents from seeking help. These conditions may increase the likelihood of engaging in risk-taking behaviors and adversely affect adolescents' mental and emotional well-being (5).

Despite the growing recognition of adolescent mental health as a public health concern, local evidence describing the distribution of emotional and mental health problems among adolescents in school settings remains limited(7). Most existing studies focus on specific risk factors or clinical populations, while population-based screening data are still scarce. School-based psychosocial screening offers a practical approach to identifying emotional and behavioral difficulties at an early stage and provides valuable epidemiological information to support preventive and promotive mental health programs (8).

Therefore, this study aims to describe the distribution and profile of emotional and mental health problems among adolescents based on school-based psychosocial screening in Bandung Regency, Indonesia. By providing descriptive evidence on key domains of emotional and behavioral functioning, this study seeks to contribute baseline data to inform early identification efforts and support the development of adolescent mental health interventions in school and community settings.

Adolescent emotional and mental health is a growing public health concern globally. Previous studies have shown high prevalence rates of emotional symptoms, behavioral problems, and social difficulties among adolescents, influenced by academic pressure, family environment, peer

relationships, and digital media exposure (9,10). Many of these problems begin early in adolescence and remain undetected without systematic screening. The Strengths and Difficulties Questionnaire (SDQ) is a widely used and validated tool for assessing psychosocial functioning in children and adolescents. Research supports its effectiveness in school-based and population-level screenings to identify emotional symptoms, conduct problems, hyperactivity, peer relationship problems, and prosocial behavior (11).

In Indonesia, existing studies mainly focus on specific risk factors or limited populations, with relatively few large-scale studies providing comprehensive domain-based profiles of adolescent emotional mental health. Local epidemiological evidence using standardized screening tools remains limited, particularly at the regional level. This gap underscores the need for school-based psychosocial screening studies to support early detection and inform preventive mental health interventions for adolescents.

The objective of this study is to investigate the association between social media use and mental emotional health problems among adolescents. Specifically, this study seeks to identify the prevalence of mental and emotional problems in adolescents and to examine whether the intensity and patterns of social media use are significantly related to adolescents mental emotional well being. Research Hypothesis H_1 : There is a significant association between social media use and mental emotional health problems among adolescents and H_0 : There is no significant association between social media use and mental emotional health problems among adolescents

This study contributes to the existing body of knowledge by providing empirical evidence on the association between social media use and mental emotional health problems among adolescents within the Indonesian context. By focusing on adolescents, a population that is highly vulnerable to both intensive social media exposure and mental emotional disturbances, this research enhances understanding of how contemporary digital behaviors relate to adolescent mental health. The findings are expected to enrich the mental health and nursing literature by identifying key patterns of social media use associated with mental emotional problems, thereby supporting the development of evidence based, adolescent centered, and trauma informed nursing interventions. Furthermore, this study offers practical insights

for health professionals, educators, and policymakers to inform preventive strategies, early detection, and health promotion programs aimed at improving adolescents mental and emotional well-being in the digital era.

METHODS

Study Design

This study employed a descriptive quantitative design with a cross-sectional approach to describe the mental and emotional conditions of adolescents. Data were collected through mental health screening activities conducted in several junior and senior high schools in the Bandung Regency area in 2025

Sample

The study population consisted of all adolescents involved in the school-based psychosocial screening program. An accidental (convenience) sampling technique was applied, whereby all adolescents who were present at the time of the screening activities and met the eligibility criteria were invited to participate. The final sample comprised 1,304 adolescents who fulfilled the inclusion criteria: (1) aged 13–19 years, (2) enrolled in participating junior and senior secondary schools, (3) present during data collection, and (4) willing to participate in the assessment process. Adolescents who were absent during the screening sessions or provided incomplete questionnaire responses were excluded from the analysis.

Instruments

The instrument used in this study was the Strengths and Difficulties Questionnaire (SDQ). The self-report version of the SDQ was administered, consisting of 25 items across five domains: emotional symptoms, conduct problems, hyperactivity, peer relationship problems, and prosocial behavior. Each item is rated on a three-point Likert scale.

The Indonesian version of the SDQ, which has been previously translated and culturally adapted, was used in this study. The SDQ was selected due to its widespread use as a psychosocial screening tool for children and adolescents and its established validity in diverse settings. In the present sample, internal consistency reliability was assessed, and Cronbach's alpha coefficients were calculated for the total difficulties score and each domain to ensure reliability within the study population.

Screening activities were conducted by trained primary healthcare center staff in collaboration with school teachers who served as facilitators to ensure standardized administration procedures.

Data Collection

Data were collected during scheduled school screening sessions. Participants completed the SDQ questionnaires under supervision to ensure comprehension and completeness. Completed questionnaires were checked for missing data, coded, and tabulated prior to analysis.

Data Analysis

Data were cleaned and analyzed. Descriptive statistics were used to summarize adolescents' emotional and mental health conditions, presented as frequencies and percentages for each SDQ domain. SDQ scores were categorized into normal, borderline, and abnormal according

to standard cut-off values. The total difficulties score was calculated by summing all domains except prosocial behavior.

Ethical Considerations

This study was conducted in accordance with ethical principles for research involving human participants. Ethical approval was obtained from the relevant institutional ethics committee. Permission to conduct the study was granted by local education authorities and participating schools.

Given that participants were minors, written informed consent was obtained from parents or legal guardians, and assent was obtained from the adolescents prior to participation. Anonymity and confidentiality were ensured by using coded data and restricting data access solely for research purposes.

RESULTS

Table 1. Frequency Distribution of Adolescents Mental Emotional Psychosocial Screening Results

| Category | Frequency (f) | Percentage (%) |
|---------------------|---------------|----------------|
| Emotional Symptoms | | |
| Normal | 885 | 67.9 |
| Borderline | 151 | 11.6 |
| Abnormal | 268 | 20.6 |
| Behavior Problems | | |
| Normal | 876 | 67.2 |
| Borderline | 236 | 18.1 |
| Abnormal | 192 | 14.7 |
| Hiperactivity | | |
| Normal | 1067 | 81.8 |
| Borderline | 147 | 11.3 |
| Abnormal | 90 | 6.9 |
| Peer Problems | | |
| Normal | 688 | 52.8 |
| Borderline | 262 | 20.1 |
| Abnormal | 354 | 27.1 |
| Prosocial Behaviour | | |
| Normal | 754 | 57.8 |
| Borderline | 229 | 17.6 |
| Abnormal | 321 | 24.6 |
| Difficulties Score | | |
| Normal | 1160 | 89.0 |
| Borderline | 100 | 7.7 |
| Abnormal | 44 | 3.4 |
| Total | 1304 | 100.0 |

Based on Table 1 regarding the psychosocial status of adolescents in Bandung Regency, screening of 1,304 adolescents revealed that in the Emotional Symptoms domain, the majority were classified as normal, comprising 885 adolescents (67.9%). However, this was followed by a substantial proportion classified as abnormal, with 268 adolescents (20.6%), and borderline, with 151 adolescents (11.6%). In the Behavior Problems domain, most adolescents were also categorized as normal, totaling 876 adolescents (67.2%), followed by those in the borderline category with 236 adolescents (18.1%) and the abnormal category with 192 adolescents (14.7%).

For the Hyperactivity domain, the largest proportion of adolescents fell within the normal category, accounting for 1,067 adolescents (81.8%), followed by the borderline category with 147 adolescents (11.3%) and the abnormal category with 90 adolescents (6.9%). In the Peer Relationship Problems domain, approximately half of the adolescents were classified as normal, totaling 688 adolescents (52.8%). Nevertheless, nearly half of the respondents were identified as having difficulties, with 354 adolescents (27.1%) categorized as abnormal and 262 adolescents (20.1%) as borderline.

Regarding adolescents strengths in the Prosocial Behavior domain, 754 adolescents (57.8%) were within the normal range, followed by 321 adolescents (24.6%) in the abnormal category and 229 adolescents (17.6%) in the borderline category. In addition to strengths, the Total Difficulties category indicated that most adolescents were classified as normal, with 1,160 adolescents (89.0%). Meanwhile, 100 adolescents (7.7%) were categorized as borderline and 44 adolescents (3.4%) as abnormal.

DISCUSSION

Mental and emotional problems are conditions of psychological distress that may be temporary in nature but have the potential to develop into pathological conditions if not managed adequately (5). Common early symptoms include confusion, excessive anxiety, and emotional instability, which, if persistent, may interfere with adolescents' social and academic functioning (1). The proportion of abnormal mental emotional symptoms of 20.6% observed in this study is consistent with reports from the World Health Organization, which indicate that

approximately 20% of adolescents globally experience emotional problems related to academic stress, social relationships, and pressures from the digital environment (10).

International longitudinal studies have also demonstrated that internalizing disorders among adolescents have increased significantly since 2010 (9). The Strengths and Difficulties Questionnaire (SDQ) has been shown to have good validity as a population screening instrument, particularly for the emotional symptoms subscale, although its sensitivity and specificity are moderate (11).

The borderline group, comprising 151 adolescents (11.6%), represents a transitional population with heightened psychosocial vulnerability. Although not classified as abnormal, adolescents in this category are at increased risk of developing clinically significant mental-emotional problems without early intervention. Evidence suggests that borderline symptoms often reflect subthreshold emotional and behavioral difficulties that may impair academic functioning and peer relationships.

Psychological vulnerability during adolescence, including low self-concept, may exacerbate emotional symptoms and increase the risk of subsequent mental comorbidity (12). In addition, behavioral difficulties observed in the borderline group may indicate latent externalizing risks, as problematic behaviors frequently emerge as maladaptive responses to emotional distress and prolonged psychosocial stressors, thereby increasing overall psychosocial burden (13). These findings underscore the importance of early identification and preventive psychosocial interventions for adolescents in the borderline category.

Behavioral problems observed in the borderline and abnormal groups reflect the presence of latent externalizing behavior risks. The literature indicates that problematic behaviors in adolescents are generally maladaptive responses to emotional distress and sustained psychosocial stressors. Behavioral problems often co-occur with emotional symptoms and social relational conflicts and contribute cumulatively to an increased psychosocial burden (14).

Furthermore, a psychometric study by Bezborodovs et al. (2022) confirmed that the conduct problems subscale of the Strengths and Difficulties Questionnaire (SDQ) demonstrates good validity in detecting behavioral risk,

including among borderline groups that are often not clinically identified(11). These findings reinforce that the proportion of adolescents classified as borderline and abnormal in this study represents a meaningful psychosocial risk and warrants early, population-based interventions. National studies have also reported that adolescents with emotional disorders are more likely to exhibit aggressive, impulsive, and antisocial behaviors, including cyberbullying (15,16).

In the hyperactivity and attention problems domain, the borderline group remains clinically significant, as adolescents in this category often experience concentration difficulties and mental fatigue in the absence of a formal diagnosis, which can adversely affect academic performance and psychological well being (11,14). A study by Sun (2023) demonstrated that the quality of interpersonal relationships influences mental health both directly and indirectly through psychological safety and self regulation capacity(17). Children and adolescents who develop emotional problems in early adolescence are substantially more likely to have underlying neurodevelopmental conditions, such as ADHD and ASD, compared with those without early-onset emotional problems. In addition, this group demonstrates indicators of neurodevelopmental liability, reflecting neurodevelopmental mechanisms that influence emotional regulation and behavioral control (18). These findings underscore that emotional problems emerging in early adolescence should not be viewed as isolated conditions, but rather as manifestations of an underlying neurodevelopmental profile, with important implications for early identification, screening, and intervention

Prosocial behavior functions as a protective factor that strengthens interpersonal relationships and mental resilience. In addition, self-management abilities are significantly associated with stress levels, which are conceptually linked to emotional regulation and prosocial behavior (19). Prosocial behavior represents a key dimension of adolescent psychosocial functioning and reflects positive social competencies such as helping, sharing, and showing concern for others. Evidence from SDQ-based research indicates that prosocial behavior constitutes a distinct construct, separate from internalizing and externalizing problems, and serves as an important indicator of adaptive social functioning. Higher levels of prosocial

behavior are associated with better peer relationships and overall psychosocial well-being, whereas lower prosocial scores are often linked to greater emotional and behavioral difficulties(20). These findings highlight the importance of considering prosocial behavior not merely as the absence of problems, but as a protective factor that supports resilience and positive development during adolescence.

Therefore, peer relationship problems and low levels of prosocial behavior constitute key factors contributing to adolescents psychosocial burden and should be prioritized in school and community based promotive and preventive interventions(19). Peer relationships are a crucial aspect of adolescents' psychosocial development, as during this stage adolescents increasingly rely on peers as sources of social support, identity formation, and emotional regulation. Evidence indicates that a proportion of adolescents experience peer relationship problems, such as difficulties in forming friendships, conflicts with peers, or tendencies toward social withdrawal. These conditions reflect disruptions in social development that may adversely affect adolescents' sense of belonging and social competence(21).

Emotional and behavioral difficulties 7.7% borderline and 4% abnormal represent a critical dimension of adolescent mental health. A notable proportion of adolescents experiencing elevated levels of difficulties reflects impairments in emotional regulation, adaptive behavior, and daily functioning. This condition suggests that psychosocial problems during adolescence are often multidimensional, encompassing a combination of internalizing and externalizing difficulties that interact and collectively affect overall psychosocial well-being(22). The *total difficulties* category therefore serves as a comprehensive indicator for identifying adolescents at risk of academic, social, and emotional dysfunction, underscoring the importance of early screening and preventive interventions in adolescent mental health promotion efforts(23,24).

Overall, although the majority of adolescents were classified within the normal category, the presence of borderline and abnormal groups across all SDQ domains indicates a latent psychosocial burden. Both international and national literature consistently emphasize that the borderline group represents a strategic target for screening and early intervention, as

interventions implemented at this stage have been shown to be more effective than those initiated at the clinical disorder stage (9).

The Strengths and Difficulties Questionnaire (SDQ) is a widely used screening instrument intended to identify adolescents at potential psychosocial risk rather than to establish clinical diagnoses. SDQ scores indicate possible emotional or behavioral problems that warrant further clinical assessment, but are not equivalent to formal diagnoses (11). Therefore, the findings of this study underscore the urgency of developing school, family, and community based promotive and preventive programs that focus on emotional regulation, social skills, and prosocial behavior(25).

CONCLUSION

Most adolescents demonstrated normal psychosocial functioning, but a significant proportion fell into borderline and abnormal categories, indicating latent emotional, behavioral, and social vulnerabilities. These findings underscore the importance of early identification and referral facilitation for at-risk adolescents, particularly those in the borderline category, to support adaptive development. Schools, families, and community programs should implement structured screening, monitoring, and referral systems focusing on emotional regulation (mindfulness-based music), social skills, and prosocial behavior. Future research is recommended to assess long-term outcomes and the effectiveness of early referral programs.

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Conflict of Interest

The authors declare that there are no conflicts of interest associated with this study.

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