

Are Adolescent Boys More Vulnerable Than Girls?

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ABSTRACT

The present study aimed to find the association between gender and adolescent psychological health. A convenient sample of 4031 adolescents (Boys=2029; Girls=2002) between the ages of 10 and 19 was used in the study. The participants completed self-report measures of risk for mental health, perceived social support, and resilience. Analysis of Variance (ANOVA) revealed that boys report higher levels of risk at various levels, including individual, school, family, social, and environmental. They also had higher overall mental health risk than girls. They also reported lower levels of perceived social support from family, friends, classmates, teachers, school, and community, than girls. Additionally, boys were found to have higher resilience than girls. The differences in risk profiles, perceived social support, and resilience based on gender offer valuable insights into the determinants of mental health among both boys and girls. These findings can inform targeted interventions and policies aimed at enhancing adolescent psychological health concerning, both genders.

Keywords: Gender, Risk For Mental Health, Perceived Social Support, Resilience, Adolescents.

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INTRODUCTION

Adolescence is the developmental period between the ages of 10 and 19 [1]. With 400 million children under the age of 18 [2], India proudly holds the distinction of having the world's largest adolescent population, with over 253 million people, in which every fifth person is between the ages of 10 and 19 years [3]. However, it is estimated that 10 to 20% of children and adolescents are affected by mental health issues globally [3]. Anxiety and depression are the prevalent mental health challenges that are commonly seen among adolescents [4]. It is observed that anxiety disorders affect approximately 3.6% of 10- to 14-year-olds and 4.6% of 15- to 19-year-olds, and depression is expected to impact 1.1% of adolescents aged 10 to 14 and 2.8% of those aged 15 to 19 [5].

Several factors influence the mental health of adolescents. The more the adolescents are exposed to risk factors, the more their risk for poor mental health [6]. Evidence shows that individual factors like self-esteem, emotional and behavioural problems, hyperactivity, and coping mechanisms; family factors like family relationships and social support from parents; and social community factors like social support from friends, teachers, and classmates influence the mental health of adolescents [7]. The children from scheduled castes, urban low-income families, rural slums, tribal communities, and other marginalized groups are affected by mental health problems as they face a variety of difficulties related to poverty, malnourishment, early marriages, poor attendance at school, poor learning outcomes, inadequate sanitation facilities, hygiene disparities, and limited access to clean water [3]. Unfavourable home environments significantly impact children's mental health, and when multiple risk factors coexist, there is a notable increase in the prevalence of mental health issues [8].

The stressors that are unmanaged contribute to or cause the development of mental health and behavioural problems among adolescents [9], and not everyone who has adverse experiences develops mental health

problems [10]. Protective factors are elements that interact with risk factors, mitigating the impact of stress and promoting the healthy development of adolescents. These factors play a crucial role in fostering resilience, which, in turn, contributes to overall mental well-being. Comparing adolescents with high family and general social support to those with low support, the latter were more likely to experience psychological distress [11]. This gives insight into exploring the supportive components that proactively encourage psychological wellness and the protective factors that minimize the possibility of developing psychological conditions. Among children with fewer risk factors, protective factors like strong interpersonal, familial, and personal resources are associated with reduced mental health issues [10]. Perceived social support, active participation in classroom activities, and parental supervision also help to protect adolescents from antisocial behaviours [12]. Along with the support, being resilient helps individuals to cope up with the stressful situations. Among juveniles, it was observed that, the higher the resilience, the greater is their mental well-being and life satisfaction [13]. Besides these, demographic factors may also influence mental health among adolescents.

Gender is an essential factor in the development of problem behaviours and plays a role in the mental health of adolescents. The feeling of being rejected by parents, avoidance behaviour, competitive behaviour among peers, and authoritarian behaviour of teachers are some of the risk factors that affect the mental health of both sexes [14]. However, boys and girls display distinct problems from childhood to adolescence [15] and respond differently to stress [16]. The distinction in coping strategies for both genders explain gender differences [17]. Boys exhibit higher externalizing problems than girls [18]. They cope with challenges by exhibiting externalizing behaviours, while girls tend to internalize their behaviours [19]. Gender differences are also susceptible to the development of an individual. For instance, studies suggest that boys experience more internalizing problems in childhood, but as they develop through adolescence, girls tend to surpass boys in internalizing problems [20]. Developmental studies have reported that early emotional and behavioural problems would result in adolescent and adult psychopathological issues, so it is important to identify the high risk of these behaviours in their development as early as possible [21].

Gender plays a pivotal role in shaping the mental health of individuals. Identifying the association between these factors may allow us to comprehend the unique vulnerabilities faced by adolescents. Adolescent boys and girls may experience different stressors and coping mechanisms, and mental health challenges can vary across regions due to cultural norms, access to resources, and environmental factors. Addressing psychological health during this critical developmental phase can prevent long-term consequences. In summary, studying the association between these factors provides insights crucial for promoting adolescent mental health, tailoring interventions, and shaping policies that foster psychological health among adolescents. The present study aimed to find the association between gender and factors related to adolescent psychological health, viz., risk for mental health, perceived social support, and resilience.

METHODOLOGY

Participants

A convenient sample of 4031 adolescents (2029 boys and 2002 girls) who met the inclusion criteria of the study, i.e., adolescents within the age range of 10-19 years ($M = 13.92$; $SD = 1.24$) from both government and corporation schools in Coimbatore ($n=2006$) and Tirunelveli ($n=2025$) districts were recruited. Most of the selected participants were from the 9th grade level (40.5%) and had parents with high school level of educational qualification.

Measures

Bharathiar University Risk for Mental Health Scale: A survey to assess risk for mental health was developed specifically for use in this research. An extensive review of the literature on risk for mental health was carried out to identify the domains to be assessed. An initial pool of 100 items was generated, with 20 items representing each domain: individual risk, school risk, family risk, social risk, and environmental risk. A panel of experts reviewed the preliminary items for appropriateness of the item in assessing the specific domain, with ratings ranging from 1 indicating (*strongly disagree*) to 5 (*strongly agree*). The panel approved 30 items out of 100 reviewed, so all 30 items were retained for the final survey. The final scale comprises 30

items distributed across five domains: individual, school, family, social, and environment, with each subscale containing six items that were scored on a 5-point rating scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A high score on each subscale indicated greater risk for an individual in that domain. The scores on each subscale were added up to obtain the overall mental health risk score, and the high score on the total scale shows an individual's greater risk for mental health. The Cronbach's alpha for the subscale's individual, school, family, social, environment, and overall mental health risk were 0.63, 0.67, 0.75, 0.70, 0.69, and 0.88, respectively, for the present sample.

Bharathiar University Perceived Social Support Scale: An in-depth literature review on perceived social support was done to develop a scale specifically for this research. An initial pool of 36 items was generated, with 6 items representing each domain: family, friends, classmates, teachers, school, and community. The initial items underwent scrutiny by a group of experts to assess their suitability in evaluating the specific domains indicated by the subscale, with ratings ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The panel approved 24 items out of 36 reviewed, so all 24 items were retained for the final survey. The final scale comprised 24 items distributed across six domains: family, friends, classmates, teachers, school, and community. Participants rated each item on a 5-point scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores within each dimension indicated greater perceived support in that domain. A high score on the total scale reflects an individual's strong perceived social support. In the present study, Cronbach's alpha coefficients for the subscales, family, friends, classmates, teachers, school, community, and overall perceived social support were 0.66, 0.71, 0.63, 0.84, 0.72, 0.41 and .84 respectively.

Bharathiar University Resilience Scale (BURS) [22]: consisting of 30 items rated on a 5-point scale ranging from 1 (*inappropriate*) to 5 (*most appropriate*), was used to measure an individual's resilience. The scores of the items were added up to obtain the total score, with a high score indicating a high level of resilience in an individual. The Cronbach's alpha for resilience was 0.73 for the present sample.

A personal datasheet was used to collect demographic details, including gender.

Procedure

Before gathering data from the students, the researcher ensured that proper permissions were obtained from the District Chief Educational Officers, school principals, and students' parents. Written informed consent was collected from the participants and their parents. The survey was conducted in a group setting during school hours.

RESULTS

The present study examines the association between gender and factors related to psychological health, viz., risk for mental health, perceived social support, and resilience among adolescents. The data were analyzed using one-way ANOVA.

Table 1: Summary of one-way ANOVA showing gender difference on the study variables

Variables	Boys (n=2029)		Girls (n=2002)		F
	M	SD	M	SD	
Individual risk	15.33	4.77	14.78	4.62	13.68***
School risk	15.01	5.26	13.42	4.64	102.83***
Family risk	11.92	5.41	10.78	4.68	50.47***
Social risk	13.08	5.29	11.45	4.60	108.58***
Environmental risk	14.67	5.42	13.14	4.92	87.33***
Overall risk	70.00	19.87	63.58	17.59	117.77***
Family support	17.23	2.78	17.58	2.90	16.15***
Friends' support	16.91	3.27	17.64	2.96	55.97***
Classmates' support	15.95	3.29	16.44	3.11	24.24***

Teachers' support	15.39	4.34	17.29	3.23	249.77***
School support	15.01	3.69	16.62	3.14	223.91***
Community support	14.30	3.37	14.62	3.17	9.63**
Overall perceived social support	94.77	13.19	100.20	12.34	182.21***
Resilience	106.33	14.06	105.32	14.07	5.20*

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

One-way ANOVA revealed that there is a significant gender difference on individual risk for mental health, school risk for mental health, family risk for mental health, social risk for mental health, environmental risk for mental health, overall risk for mental health, perceived family support, perceived friends support, perceived classmates support, perceived teacher support, perceived school support, perceived community support, overall perceived social support, and resilience.

The findings suggest that boys have higher individual, school, family, social, environmental, and overall mental health risk than girls. They also have lower family, friends, classmates, teachers, school, community, and overall perceived social support than girls. Additionally, boys have higher resilience than girls.

DISCUSSION

One-way ANOVA was carried out as a preliminary analysis to examine whether there is a significant difference among adolescents about gender on risk for mental health, perceived social support, and resilience. The results of the comparison between the study variables and gender revealed that boys have higher levels of individual, school, family, social, environmental, and overall mental health risks compared to girls. This aligns with the previous study reporting that boys have higher levels of risk exposure than girls [23]. In the present study, the school, social, and environmental factors were like both the genders since they came from similar socioeconomic background, yet they report different levels of risk in these domains. Boys tend to have greater negative problem orientation and intolerance of uncertainty than girls [24]. They view challenges more pessimistically and find it challenging to cope with situations where outcomes are unclear. Along with that, boys tend to have less positive attitude towards school than girls [25]. They find school subjects more challenging, dislike their teachers, and experience higher rates of bullying during break times at schools compared to girls [26]. Even among emerging adults, boys experience higher discrimination from teachers and peers [27]. Child sexual and physical abuse, serve as risk factors for the development of psychological distress and depression during adolescence [28], with a greater effect on boys [29]. Furthermore, adolescents growing up in communities characterized by reduced collective efficacy tend to experience elevated levels of depressive and anxiety symptoms [30]. In neighbourhoods with high social control, boys exhibit more delinquent behaviour than girls [31]. Despite the challenges faced, boys indicated a lower preference for seeking health care services and counselling compared to girls [32]. All these factors might have contributed to the boys perceiving and reporting higher risk for mental health than girls.

The results show that boys perceive lower social support from family, friends, classmates, teachers, schools, community and overall social support than girls. Previous findings showed that girls reported higher perceived social support than boys in overall scores [33-34] and in friend and significant other dimensions [34]. Girls have good interactions with friends, parents, teachers, and adults in the community [35], and they experience greater support from teachers compared to their boy counterparts [36]. The structure of perceived social support varies depending on a person's gender, and socialization experiences and gender-specific social roles can account for these disparities [37]. Seeking and getting assistance from women, as well as seeking and receiving emotional support, were linked to femininity in both sexes, and receiving concrete support was the sole factor associated with masculinity in both sexes [38]. According to the research, women find it easier to solicit and receive social support from close relationships when they play the feminine role, emphasizing emotional expressiveness and nurturing. In contrast, men find it more difficult to do so when they play the male role, emphasizing achievement, autonomy, and emotional control [39]. In addition, women stated that they would seek out emotional assistance more often than men [40-41].

Despite reporting a high level of risk for mental health and low perceived social support, boys were found to have higher resilience than girls. A previous study also reported that boys were more resilient than girls in

adolescence and early adulthood, but in middle adulthood, there was an insignificant gender difference between both genders [42]. There are previous studies that support the finding that boys are more resilient than girls [42-50]. Men appear to have greater heritability of resilience, and they benefit more from environmental mastery than women do [51]. There were gender disparities in the associations between childhood trauma and depressive symptoms in adolescents, as well as the interplay between resilience and emotional maltreatment throughout childhood, and depressive symptoms were particular to a specific gender. Evidence shows that boys are less likely to develop depressive symptoms compared to girls, even when they experience a childhood trauma [52]. Forgiveness was related to resilience more in boys than girls [53], which can help them have a more positive outlook in their lives. Their increased levels of resilience may be attributed to their skills and effective coping mechanisms that help them handle difficult situations. In contrast, there are studies showing a negligible and statistically insignificant difference between the genders in resilience [54-55] and, girls were more resilient than boys [56-57].

CONCLUSION

Based on the findings of our study, it is evident that gender plays significant roles in influencing the risk profiles, perceived social support, and resilience of adolescents. Even though boys faced greater individual, school, family, social, environmental, and overall mental health risks than girls, they exhibited higher levels of resilience. This suggests that boys possess inherent strengths in coping with adversity despite the risk factors they have, or they might have developed the capacity to cope with the stressors through their experience. Additionally, girls have stronger social support networks, including support from family, friends, classmates, teachers, school, and community, which may act as protective factors against adversity.

Limitations And Implications

The study is subjected to several limitations that warrant acknowledgment and careful interpretation. The study has focused only on gender differences. Demographic factors like location, grade level, parent's education and occupation, socioeconomic status, and educational systems could influence adolescents' psychological health differently, which was not the focus of the present study. Furthermore, the study relied on adolescent self-report measures, potentially introducing response bias. Future research should incorporate perspectives from family members, teachers, peers, and community members to broaden the study's scope, which can be explored using qualitative methods. The WHO Mental Health Action Plan, 2013–2020, underscores the importance of addressing developmental aspects in mental health interventions for children and young people, including their ability to manage thoughts and emotions and build social relationships. The findings of the study could provide knowledge on the risk and protective factors of psychological health among adolescents. Policymakers can use this knowledge to formulate evidence-based policies, and schools can create supportive environments that foster adolescent mental health.

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