

Gender Specific Competence, And Psychological Health Risk (Emotional and Behavioral Problems) Among Non-Clinical Adolescents

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Received: 08-April-2023

Revised: 12-May-2023

Accepted: 07-June-2023

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Abstract

Background: Emotional and behavioral functioning during adolescence is an important developmental outcome that strongly predicts the individual's future adjustment. It is important to identify the emotional and behavioral problems (EBPs) at an early stage for the treatment and promotion of mental health services.

Objective: In this context, the present study was conducted to compare male and female adolescents' competence and Psychological health risk (Youth-Self Report),

Methods: The sample was comprised of 120 adolescents. A cross-sectional group Design was adopted for this study. The measurement outcome for competence and health risk was Youth Self-Report TM (Narrow Band Syndrome Scale) developed by Achenbach, and Rescorla (2001). The obtained data were statistically analyzed under descriptive and inferential (Independent t-test) analysis with the help of Statistical Package for Social Sciences (SPSS-version 22).

Result: The significant difference between males and females was observed over emotional and behavioral problems distinguished under internalizing (Anxiety & Depression sub-scale) and externalizing (Rule-breaking behavior and aggressiveness sub-scale) scales. However, the difference was not found to be significant for competency risk (Activity, Academic and social) as well as health risk which are internalizing (somatic complains), and problems those are comprised under NINE- Neither Internalizing Nor Externalizing (Social and Attention Problems sub-scale) scale of health risk and their

Conclusion: Male and female are different in the prevalence of EBPs. Hence, future research could focus on exploring not only the prevalence but also the manifestation and the subjective experience of emotional and behavioral problems among different genders.

Keywords: Competence Risk, Health Risk, Internalizing, Externalizing, Neither Internalizing nor Externalizing, Anxiety, Depression, Somatic Complain, Social Problem, Thought Problem, Attention Problem, Rule-Breaking Behavior, Aggressive Behavior.

INTRODUCTION

Emotional and behavioral problems (EBP) refer to a wide range of mental health conditions that affect an individual's emotions, thoughts, and behaviors. These problems can range from mild to severe and can impact an individual's ability to function in their daily life. EBP can manifest in different ways, such as anxiety, depression, anger, impulsivity, and aggression, among others.

The latest definitions of EBP are in line with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), which is a diagnostic tool used by mental health professionals to identify and classify mental

health disorders. The DSM-5 categorizes EBP as neuro-developmental disorders, depressive disorders, anxiety disorders, trauma and stressor-related disorders, disruptive, impulse-control, and conduct disorders, and substance-related and addictive disorders, among others.

In addition to the DSM-5, the World Health Organization's International Classification of Diseases (ICD-11) also includes EBP as mental and behavioral disorders. The ICD-11 categorizes EBP as mood disorders, anxiety disorders, neuro-developmental disorders, behavioral and emotional disorders, and impulse control disorders.

Overall, the latest definitions of EBP recognize the complex and multifaceted nature of mental health conditions and aim to provide a comprehensive understanding of the various emotional and behavioral problems that individuals may experience.

Adolescence is a time of significant change and growth, as individuals navigate the transition from childhood to adulthood. Along with these changes come new emotional and behavioral challenges, which can have a significant impact on an adolescent's well-being and development. Emotional and behavioral problems among adolescents are common, with estimates suggesting that up to one-third of adolescents experience symptoms of anxiety, depression, or other mental health disorders (National Institute of Mental Health, 2020).

Gender differences in emotional and behavioral problems among adolescents have been the focus of recent research, as understanding these differences can help inform prevention and intervention efforts. While research has shown that males and females may experience emotional and behavioral problems differently, there is still much to be learned about the nature and extent of these differences.

Extensive literature addressed an association can be drawn between emotional and behavioral problems (EBP), competence, health risk, internalizing and externalizing problems among adolescents. The concept of competence as defined by the ability to effectively engage in social interactions and activities ties into the broader scope of emotional and behavioral problems. Adolescents who exhibit higher competence in these areas typically exhibit fewer emotional and behavioral problems.

However, higher instances of internalizing and externalizing problems are associated with a greater health risk, a term that captures the likelihood of experiencing negative health outcomes, as defined in this study. For instance, internalizing problems such as anxiety and depression may significantly impair an adolescent's ability to function effectively in daily activities, thereby reducing competence and increasing the risk for various health problems.

On the other hand, externalizing problems such as rule-breaking behavior and aggressiveness represent another spectrum of EBP, which also negatively impact competence and elevate health risk. Adolescents with high levels of such behaviors might struggle with maintaining positive relationships, abiding by societal norms, and could potentially fall into substance abuse or other risky behaviors that compromise health.

In the context of gender differences, in EBPs. The cultural and societal context also plays a critical role in these gendered experiences of emotional and behavioral problems, with various studies highlighting disparities in mental health outcomes across different cultural backgrounds. Notably, all these constructs interact in a complex and multifaceted manner. For example, high levels of EBP can lead to poor competence and higher health risk. Consequently, it's important to view these constructs not as isolated elements, but as interlinked facets of an adolescent's overall wellbeing. Understanding these associations is key to developing effective interventions that address the multifaceted nature of emotional and behavioral problems in adolescents.

RESEARCH GAP

Limited research has been conducted on gender differences in emotional and behavioral problems among adolescents. Previous studies have shown conflicting results regarding the nature and extent of gender

differences in emotional and behavioral problems. There is a need for more comprehensive studies that examine the prevalence of a wide range of emotional and behavioral problems and their gender differences. The significance of present study can be reflected to fill this gape through updated information.

OBJECTIVES

To Study and compare male and female adolescents in their competence and mental health risk using (Youth-Self Report).

Hypothesis

Male and female will be significantly different in their competence and Psychological health risk.

METHOD

SAMPLE: The present study was conducted to compare male and female adolescent a sample of, (N=120) was selected on the basis stratified sampling technique.

INCLUSION CRITERIA: When designing a future research study into the gender differences in emotional and behavioral problems among adolescents, it's crucial to specify the inclusion criteria. This helps to ensure that the study population is appropriate and consistent. Here are some criteria that might be included:

- **Age Range:** Adolescence is typically defined as the period from ages 10-19, according to the World Health Organization. However, researchers might choose to narrow this range based on the specific emotional or behavioral problems they're studying.
- **Gender:** The study would need to include both male and female participants. It could also include those who identify as non-binary or gender-diverse, if the research question extends to these populations.
- **Emotional and Behavioral Problems:** This could be defined broadly to include any kind of emotional or behavioral issue, or it could be more specific, focusing only on diagnosed conditions such as depression, anxiety, conduct disorder, etc. Diagnostic criteria may be based on the DSM-5 or similar diagnostic tool.
- **Psychological Health Status:** The study might only include participants who are physically healthy, as certain physical health conditions could influence Psychological Health includes emotional and behavioral problems.
- **Cultural and Socioeconomic Diversity:** To ensure a diverse and representative sample, the study might include criteria related to the participants' cultural background, socioeconomic status, or geographical location.
- **Language:** The participants need to be fluent in the language in which the study is conducted, whether it is English or any other language.
- **Consent:** As the study involves minors, informed consent will be required from both the adolescent participants and their legal guardians.

EXCLUSION CRITERIA: Researchers might also specify conditions under which potential participants would be excluded from the study

Other Diagnosed Disorders: Participants with diagnosed neurological or developmental disorders (such as Autism Spectrum Disorder, ADHD, etc.), severe physical illness, or psychotic disorders might be excluded as these conditions can significantly influence emotional and behavioral functioning.

- **Current Medication Use:** Adolescents who are currently taking medication for psychiatric conditions might be excluded, as these could potentially influence their emotional and behavioral status.

- **Medical or Psychiatric Condition:** Individuals might be excluded if they have a diagnosed with any medical condition, significantly influence emotional and behavioral functioning, or if they're currently undergoing any medical or psychiatric treatment.
- **Current Therapy or Counseling:** Participants currently involved in psychological or psychiatric therapy might be excluded to avoid confounding effects.
- **Substance Abuse:** Participants with a history of substance abuse might be excluded, as this could also influence emotional and behavioral problems.
- **Previous or Concurrent Participation in Other Clinical Studies:** To prevent any potential interference or overlap with other interventions, adolescents involved in other clinical studies might be excluded.
- **Inability to Understand Study Procedures:** If the participant doesn't understand the study procedures, language of the study, or cannot provide consent, they may be excluded.
- **Risk to Self or Others:** If the adolescent presents a high risk of harm to themselves or others, they might be excluded for ethical and safety reasons. In these cases, researchers should ensure the individual is referred to appropriate care.
- **Age Outside of the Defined Range:** If the study defines adolescence as a specific age range (for instance, 12-18), those younger or older would be excluded.

OPERATIONAL DEFINITIONS

Operational Definitions of Variables:

Psychological Health risk: Health risk refers to the likelihood of experiencing negative health outcomes. In this study, health risk was measured using the Youth Self-Report (YSR), which assesses various dimensions of psychopathology, including emotional and behavioral problems.

Emotional and Behavioral Problems (EBPs): In this study, emotional and behavioral problems refer to a wide range of mental health conditions that affect an individual's emotions, thoughts, and behaviors. These problems include internalizing problems (such as anxiety and depression) and externalizing problems (such as rule-breaking behavior and aggressiveness).

Competence: Competence refers to an individual's ability to engage in various activities and social interactions effectively. In this study, competence was assessed based on engagement in extracurricular activities, such as sports, hobbies, organizations, and friendships.

Internalizing problems: Internalizing problems are a specific type of emotional and behavioral problems characterized by internalizing symptoms such as anxiety and depression.

Externalizing problems: Externalizing problems are a specific type of emotional and behavioral problems characterized by externalizing symptoms such as rule-breaking behavior and aggressiveness.

Neither Internalizing Nor Externalizing (NINE): This refers to a category within the Youth Self-Report that includes social and attention problems that do not fit under the internalizing or externalizing categories.

TYPE OF RESEARCH.

Present research is Cross Sectional in nature.

MEASURE

Youth Self-Report ; Psychopathological tool used to assess adolescents' abilities and EBPs issues is the "Youth Self-Report" (YSR) (Achenbach, 1991). Competencies are evaluated in light of engagement in extracurricular activities like sports and hobbies as well as in social gatherings like organizations and friendships. The 112 items in the emotional/behavioral section are evaluated from 0 ("not true") to 2 ("very true")

or often true") based on the conduct demonstrated over the previous six months. A total problem score (103 specific problem items) and a total socially desirable score (16 socially desirable items) can be calculated from this set of items. The perceived level of overall maladjustment is measured using the whole problem scale. Achenbach (1991) divided the issue items into eight narrow-band syndromes and found that the total problem score had a retest reliability of .93. For both broad- and narrow-band measures, Abad (1998) observed appropriate levels of internal consistency (around .85 for the former and most of the latter being around .70); however, for boys, Withdrawn and Social difficulties did not achieve the .60 standard. The diagnostic accuracy identified in this study (AUC = .65) was not particularly great.

RESEARCH PROCEDURE

Researcher administered the test in a single session during class time, in a collective and anonymous manner. The principal's verbal and written consent was acquired before any test applications. Subjects were encouraged to respond honestly and told that the psychologists' understanding of them would be improved by their responses. For analyses involving composite scores, protocols with more than 8 open questions were excluded (Achenbach, 1991).

RESULT & DISCUSSION

The present study aimed to compare the male and female adolescents in their competence and Psychological health risk includes emotional and behavioural problems (EBPs) (Youth-Self Report).

Result Table-1: Summary of Descriptive Values & t (Independent)-test Analysis

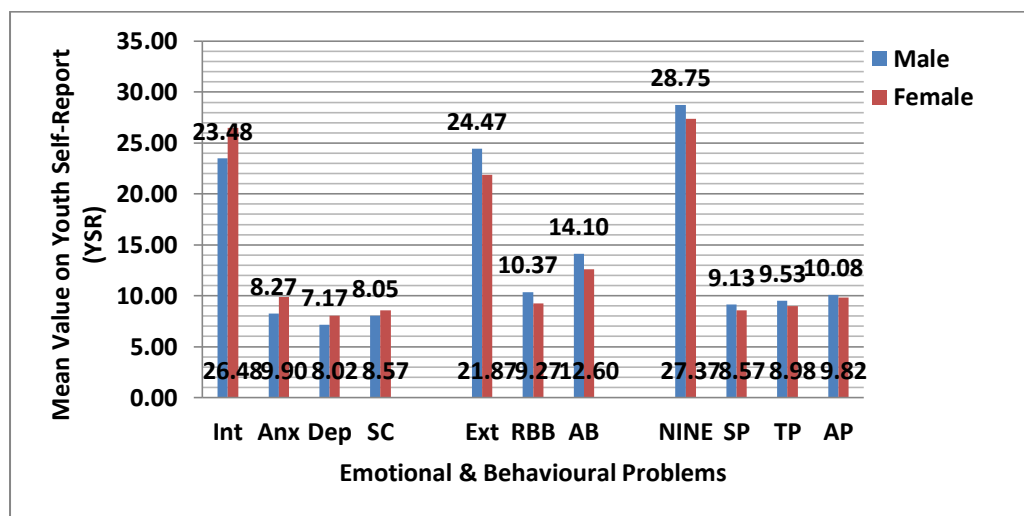
<i>Measures</i>	<i>Male</i>		<i>Female</i>		<i>t Value</i>	<i>p</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
<i>Int</i>	23.483	3.753	26.483	4.489	3.971	0.001
<i>Anx</i>	8.267	1.745	9.900	2.454	4.201	0.001
<i>Dep</i>	7.167	1.796	8.017	2.087	2.391	0.018
<i>SC</i>	8.050	2.020	8.567	1.566	1.565	0.120
<i>Ext</i>	24.467	4.463	21.867	5.163	-2.951	0.004
<i>RBB</i>	10.367	2.217	9.267	2.810	-2.381	0.019
<i>AB</i>	14.100	3.052	12.600	3.216	-2.610	0.010
<i>NINE</i>	28.750	4.086	27.367	5.387	-1.585	0.116
<i>SP</i>	9.133	2.070	8.566	2.746	-1.275	0.205
<i>TP</i>	9.533	1.980	8.983	1.809	-1.586	0.115
<i>AP</i>	10.080	1.860	9.817	1.987	-0.758	0.450

- Int: Internalizing problems (Anx: Anxiety, Dep: Depression, SC: Somatic complaints)
- Ext: Externalizing problems (RBB: Rule-breaking behavior, AB: Aggressive behavior)
- NINE: Neither Internalizing Nor Externalizing (SP: Social problems, TP: Thought problems, AP: Attention problems)

Result Table 1 shows the mean scores and standard deviations for various measures of emotional and behavioural problems for male and female adolescents, as well as the t-values and p-values indicating the significance of the differences between males and females.

The results show that females had significantly higher scores than males on measures of internalizing problems, anxiety, and depression. On the other hand, males had significantly higher scores on measures of externalizing problems, rule-breaking behavior, and aggressive behavior. However, there were no significant differences between males and females on measures of somatic complaints, social problems, thought problems, or attention problems. Overall, these results suggest that there are gender differences in the prevalence and nature of emotional and behavioural problems among adolescents.

Figure 1: Graphical Representation of Descriptive Value for Gender



While comparing prevalence of internalizing problem between males and females, as measured by the total mean score on YSR, the mean score for males was found to be 23.48 ± 3.75 , while the mean score for females was 26.48 ± 4.48 . The t-value was indicating that the difference between the two means was statistically significant ($t=3.97$, $p<0.001$). This means that females in this study were found to have higher levels of internalizing problem behavior compared to males.

The findings of this study are consistent with enormous literature

Gender differences in emotional and behavioral problems refer to the variations in the prevalence, symptoms, and severity of emotional and behavioral disorders between males and females. Studies have consistently shown that males and females may experience emotional and behavioral problems differently, with females generally reporting higher levels of internalizing problems such as anxiety and depression, and males reporting higher levels of externalizing problems such as conduct disorder and substance use disorders.

Research has also shown that gender differences in emotional and behavioral problems may be influenced by various factors, including biological, psychological, and social factors. For instance, hormonal differences between males and females have been linked to the development of certain emotional and behavioral problems. Additionally, societal and cultural expectations around gender roles and behaviors may also play a role in shaping the way that males and females experience and express emotional and behavioral problems.

Understanding gender differences in emotional and behavioral problems among adolescents is crucial for the development of effective prevention and intervention strategies. By recognizing these differences and tailoring

interventions to address them, mental health professionals can better support the needs of all adolescents and promote positive mental health outcomes.

Anubhav et al., (2023) reported that EBPs issues were 30% common, with girls being more severely impacted. The most frequent psychiatric condition was internalizing syndrome. Lack of emotional ties to the mother, parental addiction, and marital discord were all found to be significant factors by regression analysis. Additionally, a study by Zhang et al., (2021) found that females reported higher levels of anxiety and depression symptoms than males. Another study conducted in Italy by Lanzarini et al., (2021) found that females reported lower levels of self-esteem and more negative body image than males, and also reported higher levels of eating disorder symptoms.

Hossain et al., (2021) conducted also found that females had higher levels of anxiety and depression symptoms than males. The study also found that females had lower levels of self-esteem and higher levels of emotional dysregulation. Furthermore, O'Keeffe et al., (2021) conducted a longitudinal study of Irish adolescents and found that females had higher levels of internalizing symptoms, such as anxiety and depression, than males. The study also found that males had higher levels of externalizing symptoms, such as aggression and delinquency, than females. Likewise, Oosterhoff et al., (2020) conducted a longitudinal study of American adolescents and found that females reported more negative emotional experiences like anxiety and depression, related to the COVID-19 pandemic than males. Similarly, a meta-analysis conducted by McLaughlin et al., (2020) also found that females had higher rates of anxiety disorders, depression, and eating disorders, while males had higher rates of ADHD and substance use disorders. Studies further highlighted the role of cultural background and individual differences in the development of emotional and behavioral problems among adolescents. For example, a study conducted by Mistry et al., (2019) found that Asian American adolescents reported higher levels of anxiety and depression symptoms than other racial/ethnic groups, while African American adolescents reported higher levels of conduct disorder symptoms.

Previous research by Miia Bask (2014), also found that girls were more prone to experiencing internalizing problem behavior. Certainly, internalizing problem behavior can have negative impacts on an individual's emotional well-being and social functioning. Therefore, it is important to identify and address these issues in adolescents, especially among females who may be at a greater risk.

The results of the study show that there is a significant difference between males and females in terms of anxiety. The mean score for males was 8.26, with a standard deviation of 1.75, while the mean score for females was 9.90, with a standard deviation of 2.45. The t-value was 4.20, with a p-value less than 0.001, indicating that the difference in mean scores between the two groups was statistically significant.

These findings are consistent with previous research conducted by Hosseini and Khazali (2013), which also found that female students had higher levels of anxiety compared to male students, particularly in the subscales of physiological anxiety and worry. This suggests that females may be more prone to experiencing symptoms of anxiety related to physical sensations and worry than males. However, there was no significant difference between males and females in the subscale of concentration. Hence, accepting Hypothesis H1

The findings of this study have important implications for the identification and treatment of anxiety disorders among adolescents. It is important for healthcare professionals, educators, and parents to recognize that females may be more vulnerable to experiencing symptoms of anxiety, and to provide appropriate support and resources to help them manage their symptoms. This could include counseling, therapy, or medication as needed.

Overall, the results of this study suggest that gender differences exist in the prevalence of EBPs among adolescents. Healthcare professionals, educators, and parents should be aware of these differences and take appropriate steps to support adolescents who may be experiencing emotional and behavioral problems.

CONCLUSION

In a nutshell, gender differences is said to be remarkable for competence and Psychological health risk i.e. emotional and behavioral problems (EBPs). Females had significantly higher scores than males in measures of internalizing problems, anxiety, and depression. On the other hand, males had significantly higher scores in measures of externalizing problems, rule-breaking behavior, and aggressive behavior. However, there were no significant differences between males and females in measures of somatic complaints, social problems, thought problems, or attention problems.

Understanding these gender differences is crucial for the development of effective prevention and intervention strategies in mental health. By recognizing these differences, mental health professionals can tailor interventions to address the specific needs of male and female adolescents and promote positive mental health outcomes.

It is important to note that the study has certain limitations, such as the small sample size and the use of self-report measures, which may be subject to bias. Future research with larger and more diverse samples is needed to further explore gender differences in emotional and behavioral problems among adolescents.

Overall, this study contributes to the existing literature on gender differences in emotional and behavioral problems and highlights the importance of addressing these differences in mental health interventions for adolescents.

SCOPE FOR FUTURE RESEARCH

Research into emotional and behavioral problems among adolescents is an important and complex field with significant implications for public health, education, and social welfare. This research has identified a multitude of factors contributing to these problems, including biological, psychological, and social influences.

Gender differences in emotional and behavioral problems among adolescents is a significant area of study, as it could help tailor intervention strategies to better suit each gender's specific needs. For example, research to date has shown that males tend to externalize their problems more often (through disruptive, hyperactive, and aggressive behavior), while females tend to internalize their problems more frequently (through symptoms such as anxiety and depression).

The scope for future research in this area is expansive and multidimensional. Some potential avenues could include:

1. **Longitudinal Studies:** These could monitor and compare the development of emotional and behavioral problems in boys and girls from childhood to adolescence to adulthood, providing a more comprehensive picture of how these problems evolve over time.
2. **Biological Factors:** As our understanding of the brain and genetics continues to grow, research could examine how these factors contribute to gender differences in emotional and behavioral problems.
3. **Socio-Cultural Influences:** Further research could explore how societal expectations and norms around gender affect the development and expression of emotional and behavioral problems in adolescents.
4. **Intersectionality:** The experiences of adolescents are influenced not just by gender but also by factors such as race, class, and sexual orientation. Future research could focus on how these intersecting identities influence the prevalence and manifestation of emotional and behavioral problems.
5. **Treatment Strategies:** There is a need for more studies evaluating the efficacy of gender-specific interventions and treatments for emotional and behavioral problems. This could involve testing new therapies or modifying existing ones to better meet the distinct needs of boys and girls.

6. Digital Age Impacts: The rise of social media and digital technology use among adolescents has been linked with increased emotional and behavioral problems. Research could delve deeper into the role of these technologies, and whether they affect boys and girls differently.

7. Protective Factors: While much of the research focuses on risk factors, future studies could also examine protective factors that help mitigate emotional and behavioral problems, and whether these are influenced by gender.

8. Prevalence and Manifestation: Future research could focus on exploring not only the prevalence but also the manifestation and the subjective experience of emotional and behavioral problems among different genders.

This field of research is particularly important given the high prevalence of emotional and behavioral problems among adolescents and the profound impact these issues can have on the individuals affected and their communities. Gender-informed strategies can help address these problems more effectively, potentially reducing their incidence and improving the lives of countless young people.

Author contributions: Conceptualization, Manglani, Aggarwal, Babel, & Bachani; Methodology, Manglani, and Aggarwal; Data Collection, Babel, Bachani; Data analysis, Manglani, & Aggarwal; Writing—original draft preparation, Manglani, Aggarwal, Bachani, & Babel; Writing—review and editing, Manglani, Babel, Bachani. All authors have read and agreed to the published version of the manuscript.

Conflict of interest: The Authors declare that there is no conflict of interest.

Acknowledgements: We are thankful to all the participants for providing their valuable time for this research.

REFERENCES

1. Achenbach, T. M. (1991). Manual for the Youth Self-Report and 1991 profile. Department of Psychiatry, University of Vermont.
2. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
3. Ask, M., Salmela-Aro, K., & Nurmi, J. E. (2014). Internalizing problems in adolescence: Linking loneliness, social anxiety symptoms, and depressive symptoms over time. *Journal of Adolescence*, 37(6), 817-826. <https://doi.org/10.1016/j.adolescence.2014.05.012>
4. Dua, A. B., Chandra, P., & Arora, S. (2023). Emotional and Behavioural Problems in School Going Children (5-16 years) in and around Meerut. *Indian Journal of Public Health Research & Development*, 14(1), 38-42.
5. Hossain, M. M., Rahman, M. M., Kabir, R., Momen, M. A., & Islam, R. (2021). Gender differences in anxiety, depression and psychological distress among Bangladeshi adolescents: A school-based cross-sectional study. *BMC Psychiatry*, 21(1), 148. <https://doi.org/10.1186/s12888-021-03139-w>
6. Lanzarini, C., Baiocco, R., Cacioppo, M., Ioverno, S., & Laghi, F. (2021). Gender differences in self-esteem, body image, and eating disorder symptoms among Italian adolescents. *Journal of Youth and Adolescence*, 50(8), 1494-1505. doi: 10.1007/s10964-021-01409-5
7. McLaughlin, K. A., Green, J. G., Alegría, M., Costello, E. J., Gruber, M. J., Sampson, N. A., & Zaslavsky, A. M. (2020). Gender differences in the prevalence of DSM-IV-TR mental health disorders among adolescents: Results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of Abnormal Psychology*, 129(4), 400-410. doi: 10.1037/abn0000539
8. National Institute of Mental Health. (2020). Mental health information: Statistics. Retrieved from <https://www.nimh.nih.gov/health/statistics/index.shtml>
9. O'Keeffe, L. M., McElroy, E., O'Brien, S., Donnelly, P., & MacCarron, P. (2021). Gender differences in longitudinal trajectories of internalizing and externalizing symptoms during adolescence. *Journal of Adolescence*, 88, 1-10. <https://doi.org/10.1016/j.adolescence.2021.02.002>

10. Oosterhoff, B., Palmer, C. A., Wilson, J., & Shook, N. (2020). Adolescents' motivations to engage in social distancing during the COVID-19 pandemic: Associations with mental and social health. *Journal of Adolescent Health, 67*(2), 179-185. <https://doi.org/10.1016/j.jadohealth.2020.05.004>
11. World Health Organization. (2019). *International classification of diseases for mortality and morbidity statistics* (11th ed.). <https://icd.who.int/browse11/l-m/en>
12. Yeung, J. W., Zhang, Z., & Kim, T. Y. (2019). Gender differences in depressive symptoms and social support among Hong Kong adolescents: The mediating role of self-esteem. *Journal of Child and Family Studies, 28*(12), 3383-3393. <https://doi.org/10.1007/s10826-019-01525-9>
13. Zhang, Y., Li, X., Deng, J., Wang, Y., & Yu, B. (2021). Gender differences in anxiety and depression symptoms among adolescents in China: A moderated mediation model of self-esteem and coping styles. *Journal of Adolescence, 91*, 84-92. doi:10.1016/j.adolescence.2021.06.005