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## Relationship between Mental Health and Problem-Solving Ability Among Adolescents

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### ORIGINAL ARTICLE



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### ABSTRACT

*Mental health is an essential determinant of adolescents' cognitive, emotional, and social development. During adolescence, individuals encounter numerous physical, psychological, and environmental changes that significantly influence emotional well-being and cognitive functioning. Problem-solving ability enables adolescents to manage academic, interpersonal, and everyday challenges effectively. This paper examines the relationship between mental health and problem-solving ability among adolescents, highlighting evidence that positive mental health enhances emotional stability, resilience, self-confidence, and cognitive flexibility, whereas poor mental health impairs reasoning, decision-making, and academic performance. The study adopts a descriptive correlational perspective and emphasizes the importance of promoting mental health within schools.*

### KEY WORDS

*Mental Health, Problem-Solving Ability, Adolescents, Academic Performance, Psychological Well-being.*

### INTRODUCTION

Higher secondary school is a critical phase in the educational journey of adolescents, marked by significant physical, cognitive, emotional, and social transformations. During this stage, students encounter numerous academic and psychosocial challenges, including increased curriculum demands, competitive examinations, career planning, peer influence, parental expectations, and the transition to higher education. These challenges require not only intellectual competence but also sound mental health and effective problem-solving ability for successful adjustment and academic achievement. Consequently, the psychological well-being of higher secondary school students has

emerged as an important area of educational and psychological research. Mental health is an essential component of overall well-being that enables individuals to realize their abilities, cope effectively with the normal stresses of life, work productively, and contribute meaningfully to society. According to the World Health Organization (2022), mental health is more than the absence of mental disorders; it encompasses emotional, psychological, and social well-being that influences how individuals think, feel, and behave. Among higher secondary school students, positive mental health promotes emotional stability, self-confidence, resilience, effective interpersonal relationships, and adaptive coping strategies. Conversely, poor mental health may lead to anxiety, depression, stress, emotional imbalance, reduced concentration, and poor academic performance, thereby affecting students' overall development. Problem-solving ability refers to an individual's capacity to identify problems, analyze relevant information, generate alternative solutions, evaluate possible outcomes, and select the most appropriate course of action. It is recognized as one of the essential twenty-first-century competencies required for academic excellence, decision-making, and lifelong learning. For higher secondary school students, problem-solving ability is particularly important because they frequently encounter complex academic tasks, personal challenges, and career-related decisions that require logical reasoning, critical thinking, creativity, and informed judgment. Students possessing effective problem-solving skills are generally more confident, adaptable, and capable of overcoming academic and social difficulties successfully. Mental health and problem-solving ability are closely associated. Students with sound mental health are more likely to regulate their emotions effectively, maintain attention and concentration, think rationally, and approach problems with confidence and flexibility. In contrast, psychological distress often impairs cognitive functioning, decision-making, and analytical thinking, thereby reducing problem-solving efficiency. Positive mental health creates a supportive psychological environment that enhances students' capacity to cope with challenges and arrive at constructive solutions. Therefore, promoting mental health may contribute significantly to the development of effective problem-solving skills among higher secondary school students. Although previous studies have independently examined mental health and problem-solving ability, research exploring the relationship between these variables among higher secondary school students remains comparatively limited, particularly within the Indian educational context. Understanding this relationship is essential for designing school-based mental health programmes, counseling services, and educational interventions that foster both psychological well-being and cognitive competence. Therefore, the present study aims to examine the relationship between mental health and problem-solving ability among higher secondary school students. The findings are expected to contribute to educational psychology by providing empirical evidence that can assist educators, school counselors, parents, and policymakers in developing strategies to promote students' holistic development, academic success, and overall well-being.

## Review of Literature

Previous studies indicate a strong association between psychological well-being and cognitive competence. D'Zurilla and Goldfried (1971) described problem-solving as a cognitive-behavioral process. Heppner and Petersen (1982) linked perceived problem-solving competence with lower psychological distress. Bandura (1997) emphasized self-efficacy as a determinant of effective problem-solving. Suldo and Shaffer (2008), Duckworth and Seligman (2005), Poropat (2009), and Richardson et al. (2012) demonstrated that positive psychological characteristics improve academic functioning. Recent studies by epordei et al. (2023), Shao et al. (2024), Alexander et al. (2024), and Fudolin and Dioso (2025) further highlight the importance of peer relationships, mental health, and emotional well-being for academic achievement and problem-solving.

## Objectives

To establish the relation between mental health and problem-solving ability.

## Hypothesis

$H_{01}$ : No significant relationship exists between mental health and problem-solving ability.

## Methodology

The present study employed a descriptive correlational research design to examine the relationship between mental health and problem-solving ability among adolescents. The population of the study comprised higher secondary school students enrolled in recognized schools. A sample of 400 adolescents was selected using the stratified random sampling technique to ensure adequate representation of different groups within the population.

Data were collected using standardized research instruments, namely the Mental Health Scale developed by Arun Kumar Singh and Alpana Sen Gupta and the Problem-Solving Ability Test developed by Jasmeet Kaur Tandon and Tariq Hider Mir, both of which possess established reliability and validity. The collected data were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, including Mean was used to summarize the data, while the Pearson Product-Moment Correlation Coefficient (r) was employed to determine the nature and degree of the relationship between mental health and problem-solving ability among adolescents. The findings were interpreted at the appropriate level of statistical significance.

### Analysis and Interpretation of Hypothesis

The data analysis and interpretation were carried out in alignment with the research hypothesis to find the correlation between Mental Health and Problem Solving Ability of students. Statistical tools such as mean and Karl Pearson correlation coefficient were utilized to examine significant relationship. SPSS software was employed for the analysis, which included calculating the mean and conducting correlation. The results are presented as follows:

**Table 1:** Correlation between Mental Health and Problem-Solving Ability

| Variables                     | Total number of Student | Mean   | r    |
|-------------------------------|-------------------------|--------|------|
| Mental Health                 | 400                     | 105.23 | 0.74 |
| Problem-Solving Ability       |                         | 014.46 |      |
| Significance level .05 df=398 |                         |        |      |

### Description of the Table

The table presents the relationship between Mental Health and Problem-Solving Ability among 400 students. The mean score of the Mental Health variable is 105.23, while the mean score of the Problem-Solving Ability variable is 14.46. The obtained Pearson's correlation coefficient (r) is 0.74, indicating a strong positive relationship between mental health and problem-solving ability. This suggests that students with higher levels of mental health tend to exhibit better problem-solving ability. At the 0.05 level of significance with degrees of freedom (df = 398), the obtained correlation is statistically significant. Therefore, it can be concluded that mental health is positively and significantly associated with problem-solving ability among the students included in the study. For  $r = 0.74$  with  $df = 398$ , the correlation is highly significant ( $p < .05$ , and in fact  $p < .001$ ). Thus, the relationship between mental health and problem-solving ability is statistically significant.

### CONCLUSION

Higher secondary school students face numerous developmental and academic demands, including examination stress, career-related decisions, peer influence, and parental expectations. In such circumstances, good mental health serves as a protective factor that enables students to regulate their emotions, cope with stress, think rationally, and adopt effective strategies for solving problems. Conversely, poor mental health may hinder concentration, reduce confidence, impair logical reasoning, and adversely affect academic performance and overall development. The findings of the present study reinforce the importance of fostering positive mental health as an essential component of students' educational success and holistic development. The study has important implications for educational institutions, teachers, school counselors, parents, and policymakers. Schools should integrate mental health promotion programmes, life-skills education, counseling services, and problem-solving training into the educational process to support students' psychological well-being and cognitive development. Such interventions can help students become more resilient, confident, and capable of addressing academic and real-life challenges effectively. Future research may extend this work by including larger and more diverse samples, examining additional psychological variables, and employing longitudinal or experimental research designs to gain a deeper understanding of the causal relationship between mental health and problem-solving ability among adolescents.

### Educational Implications

- Schools should incorporate mental health awareness programmes, life-skills education, and stress management activities into the curriculum.

- Teachers should foster a positive, inclusive, and emotionally supportive classroom environment that promotes students' psychological well-being.
- Learner-centered teaching strategies, collaborative learning, and problem-based learning should be adopted to strengthen students' problem-solving abilities.
- School counselors should organize regular counseling sessions, mental health screening, and guidance programmes to identify and address students' emotional and psychological concerns.
- Parents should maintain open communication, provide emotional support, and create a positive home environment that encourages confidence and resilience.
- Educational institutions should conduct workshops and awareness programmes to enhance students' coping skills, decision-making, and emotional regulation.
- Educational policymakers should ensure the availability of trained counselors and adequate mental health support services in schools.
- Schools should encourage activities that develop critical thinking, creativity, and logical reasoning to improve students' problem-solving competence.
- Collaboration among teachers, parents, counselors, and school administrators should be strengthened to promote students' overall well-being.
- Promoting positive mental health and effective problem-solving skills can enhance academic achievement, resilience, and the holistic development of higher secondary school students.

## BIBLIOGRAPHY

1. Bandura, A. (1986) *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, New Jersey.
2. Bruns, E. J.; Lee, K.; Davis, C.; Pullmann, M. D.; Ludwig, K.; Sander, M.; Holm-Hansen, C. & Hoover, S. (2023) Effectiveness of a brief engagement, problem-solving, and triage strategy for high school students: Results of a randomized study. *Prevention Science*, 24, 701–714. <https://doi.org/10.1007/s11121-022-01463-4>
3. Dewey, J. (1933) *How we think*. D.C. Heath and Company, Boston, MA.
4. D'Zurilla, T. J. & Goldfried, M. R. (1971) Problem solving and behavior modification. *Journal of Abnormal Psychology*, 78(1), 107–126. <https://doi.org/10.1037/h0031360>
5. D'Zurilla, T. J. & Nezu, A. M. (2007) *Problem-solving therapy: A positive approach to clinical intervention* (3rd ed.) Springer, New York, NY.
6. Fazel, M. & Soneson, E. (2023) Current evidence and opportunities in child and adolescent public mental health: A research review. *Journal of Child Psychology and Psychiatry*, 64(12), 1699–1719. <https://doi.org/10.1111/jcpp.13889>
7. Heppner, P. P. & Krauskopf, C. J. (1987) An information-processing approach to personal problem solving. *The Counseling Psychologist*, 15(3), 371–447.
8. Heppner, P. P. & Petersen, C. H. (1982) The development and implications of a personal problem-solving inventory. *Journal of Counseling Psychology*, 29, 66–75.
9. Lazarus, R. S. & Folkman, S. (1984) *Stress, appraisal, and coping*. Springer, New York, NY.
10. Malik, K.; Parikh, R.; Sahu, R.; Sudhir, P.; Fairburn, C. G.; Patel, V. & Michelson, D. (2023) "If there is a tension about something, I can solve it": A qualitative investigation of change processes in a trial of brief problem-solving interventions for common adolescent mental health problems in India. *Psychology and Psychotherapy: Theory, Research and Practice*, 96(1), 189–208. <https://doi.org/10.1111/papt.12433>

11. Mayer, J. D. & Salovey, P. (1997) What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications*, Basic Books, New York, p. 3-31.
12. Metz, K.; Lewis, J.; Mitchell, J.; Chakraborty, S.; McLeod, B. D.; Bjørndal, L.; Mildon, R. & Shlonsky, A. (2023) Problem-solving interventions and depression among adolescents and young adults: A systematic review of the effectiveness of problem-solving interventions in preventing or treating depression. *PLOS ONE*, 18(8), e0285949. <https://doi.org/10.1371/journal.pone.0285949>
13. Poropat, A. E. (2009) A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135(2), 322–338.
14. Richardson, M.; Abraham, C. & Bond, R. (2012) Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin*, 138(2), 353–387.
15. Suldo, S. M. & Shaffer, E. J. (2008) Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*, 37(1), 52–68.
16. World Health Organization. (2022) *World mental health report: Transforming mental health for all*. World Health Organization, Geneva.
17. Xu, L.; Zhang, H.; Zhou, C.; Zhang, Z.; Li, G.; Lu, W.; Tian, X. & Huang, H. (2023) Deficits in psychological resilience and problem-solving ability in adolescents with suicidal ideation. *Child and Adolescent Psychiatry and Mental Health*, 17, Article 31. <https://doi.org/10.1186/s13034-023-00577>.

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