

## Original Article

# Mental Health Problems and the Associated Family and School Factors in Adolescents: A Multilevel Analysis

Zahra Hosseinkhani<sup>1</sup>, Mahboubeh Parsaeian<sup>2</sup>, Hamid-Reza Hassanabadi<sup>3</sup>, Atefeh khoshkchali<sup>4</sup>, Zahra Alinesaei<sup>4</sup>, Saharnaz Nedjat<sup>2\*</sup>

## Abstract

**Objective:** Mental health is one of the most important issues in adolescents' life. Adolescents' health is highly important, because of their role in the future. This study was conducted using multilevel analysis to investigate the risk factors at student and school levels.

**Method:** This was a cross sectional study for which 1740 students and 53 schools were selected between February and March 2018 in Qazvin, Iran. Multistage stratified cluster sampling was used for data collection. Mental health problems were measured by the Strengths and Difficulties Questionnaire (SDQ). Emotional symptom, conduct problem, hyperactivity, peer relationship problem, and prosocial behavior were the subscales. This study used multilevel analysis to determine the association between each of the questionnaire scales and students and schools variables.

**Results:** The prevalence of the mental health problems was 16.2%. Conduct problem was more prevalent than others (21.1%). Overall, the score of mental health problems was significantly lower in boys' schools, in adolescents with physical activity, and in families with high socioeconomic status. Hyperactivity and emotional symptoms were significantly higher in girls' schools. While prosocial behavior and peer relationship problems were significantly higher in boys' schools. The association between variables and the scales of mental health problems was different.

**Conclusion:** Results indicated desirable physical activity and socioeconomic status are effective components in the adolescents' mental health, and, mostly girls' schools were more vulnerable than boys' schools. Therefore, the educational authorities and health policymakers should consider this diversity to design interventional programs and pay more attention to the high-risk adolescents in different schools.

**Key words:** *Adolescents; Iran; Mental Health; Multilevel Analysis; Students; SDQ*

1. Metabolic Diseases Research Center, Research Institute for Prevention of Non-Communicable Diseases, Qazvin, University of Medical Sciences, Qazvin, Iran.
2. Department of Epidemiology and Biostatistics, School of Public Health, Knowledge Utilization Research Center, Tehran University of Medical Sciences, Tehran, Iran.
3. Department of Educational Psychology, Kharazmi University, Tehran, Iran.
4. Children Growth Research Center, Research Institute for Prevention of Non-Communicable Diseases, Qazvin University of Medical Sciences, Qazvin, Iran.

## \*Corresponding Author:

Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran, Postal Code: 644614155.

Tel: 98-21 42933333, Fax: 98-21 88992969, Email: [nejatsan@tums.ac.ir](mailto:nejatsan@tums.ac.ir)

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