Academic Stress and Adolescents Mental Health: A Multilevel Structural Equation Modeling (MSEM) Study in Northwest of Iran

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Abstract

Background: We aimed to determine the relation of different sources of academic stress and adolescents´ mental health through mediator variables on the student and school levels.Study design: A cross-sectional study.

Methods: Overall, 1724 students aged 12-19 yr were selected from 53 high schools in Qazvin City, northwest instead of central Iran through stratified cluster sampling. The sources of academic stress include family conditions, education system, future concerns, academic competitions, interaction with teachers, school disciplines, peer pressure, parental involvement, and financial problems. Academic self-efficacy and self-concept were the mediator constructs. The students and schools´ information were considered on levels 1 and 2, respectively. A Multilevel Structural Equation Modeling (MSEM) analysis was done.

Results: High value of academic stress was associated with reduction of mental health. On the student level, the academic stress caused by the families 0.31 (95% CI: 0.28, 0.34), peers 0.29 (95% CI: 0.27, 0.32), and the education system 0.21 (95% CI: 0.18, 0.24) had the highest impact on the adolescents´ mental health, respectively. There was a direct and indirect relation between academic stress and mental health through the self-concept. On the school level, only family

conditions stress had a relation with mental health (P=0.015, b=1.08). Academic self-efficacy showed no significant relation in the model.

Conclusion: The stress from the family is the most important source of stress associated with adolescent mental health. Self-concept unlike academic self-efficacy had an important mediating role in the relation between different sources of academic stress and adolescents' mental health.

Keywords: Academic stress **,** Mental health , Self-concept, Adolescents **,**Iran