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Sources of academic stress among Iranian adolescents: a multilevel study from Qazvin City, Iran

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Abstract

Background: Academic stress can cause mental and physical problems and affect adolescents' healthy development. This study aimed to estimate academic stress and explore its sources at the individual- and school levels among school-going adolescents in the city of Qazvin, Iran.

Results: This cross-sectional study used a stratified cluster sampling to recruit 1724 students aged 12–19 years from 53 schools in Qazvin City. Data were collected using a validated self-administered questionnaire. The mean academic stress score was 45.7 (95% CI 45.2, 46.3). The stress level was statistically higher among older 47.5 (95% CI 46.7, 48.3) than younger 44.1 (95% CI 43.4, 44.9) adolescents. The main academic stressors included: future uncertainty 69.7 (95% CI 68.8, 70.7), academic competition 58.5 (95% CI 57.3, 59.6), and interaction with teachers 56.1 (95% CI 55.3, 56.9). Gender, educational period, school type, family socioeconomic status, and father's education were associated with academic stress.

Conclusions: We conducted a multilevel study using a random sample of male and female students in the city of Qazvin, Iran. Results indicated moderate levels of stress among Iranian adolescents. The academic stress was associated with several individual and school-level variables. Students and their families and teachers need education on stress prevention methods and coping mechanisms. Future research should focus on developing and testing multilevel policies and interventions to improve students' mental health and academic performance.

Keywords: Academic stress, Adolescence, Students, Multilevel analysis, Iran

Background

Academic stress is a public health concern [1]. While schooling aims at preparing children to become physically, mentally, and professionally prepared for their adult life, it can pose a burden on their mental health [2–4]. The high expectations of parents and teachers [5] from 'students' school performance (examination grades), large amounts of homework, and malfunctioned student-teacher and peer relations are some examples of potential stressors [6]. For their simple coping mechanisms [7], long-term exposure to stress may result in

mental health issues such as anxiety disorders and depression [8, 3]. Stress can also cause stomachache, sleep disorders, and feeling exhausted [9, 10]. If not treated properly, stress, and the associated mental health issues can persist into adulthood and increase the risk of chronic illness later in life [11]. Stress can also affect the school performance and 'students' motivation, which results in higher stress levels and worry in a vicarious loop [12]. It also increases the risk of problem behaviors [13].

Most of the recent literature on academic stress among adolescents belongs to low- and middle-income countries [3, 14–17]. The reported stress levels among school-aged adolescents across countries in Asia have shown minimal variations [18], and females have shown higher stress levels than males [10]. The most commonly

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