



Improving adolescents' health by identifying behavioral risk factors and protective factors

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In order to reduce behavioral risk factors in the 21st century accurate and valid information is required on these factors and also on the protective factors during these so-called stormy years. However, pre-adolescent and adolescent health does not solely involve medical and physical health; mental problems and factors have a role, too. Attention to life-long behavioral risk factors and protective factors provides an alternative paradigm. Indeed, efforts to improve adolescent and pre-adolescent health typically features interventions designed to address specific health risk behaviors, such as physical inactivity, tobacco use, alcohol and drug use, violence, unintentional injuries, and early sexual activities.¹

Global School-based Student Health Survey (GSHS) was introduced by the World Health Organization (WHO) and conducted among adolescents, aged 13-17 years, at a country level to obtain accurate information on behavioral risk factors and protective factors, with 335 items in 10 core questionnaire modules addressing the leading causes of morbidity and mortality among children and adults worldwide including alcohol and tobacco use, dietary behaviors, drug use, hygiene, mental health, physical activity, violence and unintentional injuries, sexual behaviors that contribute to human immunodeficiency virus (HIV) infection and other sexually transmitted

infections, unintended pregnancy and protective factors.²

To the best of our knowledge, this is the first study in Iran with the application of the Persian version of GSHS questionnaires among 57 high school children aged 15-17 from 7 schools selected in Tabriz, Iran, with overall homogeneity in culture and language. The reliability and validity of the GSHS questionnaire were evaluated for Iranian adolescent students.³

We found that internal consistency (Cronbach's alpha) in 2 modules of dietary behaviors (0.25) and physical activity (0.22) had the lowest reliability compared to other items. In this study, internal consistency of dietary behavior was lower than that of Canadian⁴ and Texas⁵ adolescents as developed countries. The complex interaction and interrelationship of physical inactivity and unhealthy dietary habits due to rapid nutritional transition in our community are considered a threat to the health of adolescents and it is advisable to assess these factors in adolescents in schools with this tool.

This finding suggests that although the tool that uses GSHS is accurate, it is necessary to pay more attention to issues in adolescent health-related contexts and it seems essential to pay more attention in the interpretation of data regarding items about dietary behavior and physical activity in using this questionnaire despite trans-cultural

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adaptation and validation of the GSHS questionnaire in Persian language.

On the other hand, precise measurements of activity at school for children and adolescents are important for evaluating health promotion strategies in these vulnerable groups. Wide variations in the social context of assessment, linguistic challenges, and culturally diverse population justify the assessment of reliability and validity of this questionnaire in these two scales.

Finally, this school-based self-report survey provided critical information for implementation across culturally diverse adolescents. Therefore, culturally sensitive and locally valid questionnaires are essential to

local health behavior risk factors. In addition, comparative cultural data on dietary behavior and physical activity are necessary to map the causal pathways and identify contributions of other risk factors.

Conflict of Interests

Authors have no conflict of interest.

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