

## Abstract

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### **A mental health appraisal of Ghanaian high school students identifies opportunities for health education and health system strengthening**

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**Purpose:** The Global Burden of Disease Study estimated that mental health conditions account for 16% of the adolescent disease and injury burden. Yet, screening for mental health conditions is rare.

**Methods:** The Strengths and Difficulties Questionnaire (SDQ) is an internationally validated, self-reported questionnaire, with positive correlation between SDQ scores and poor mental health. In 2018, we assessed the feasibility of collecting the SDQ and a health risk appraisal in two Ghanaian high schools. We assessed correlation between SDQ scores and demographic characteristics and behaviors.

**Results:** With a response rate of 93.0%, the average respondent age was 16.7 years, and 54.8% were female. The prevalence of normal (70.3%), borderline (18.5%), and abnormal (11.2%) scores in our sample indicated a higher prevalence of borderline scores relative to the normative three-band scoring system based on a United Kingdom sample (80%, 10%, and 10%, respectively). In regression analyses, females and those reporting poorer overall health had significantly higher SDQ scores (female: 1.4 points; fair health: 5.4 points and poor health: 7.4 points). Behaviors such as alcohol use (1.7 points) and sexual activity (1.3 points) were associated with worse SDQ scores, as was having friends (2.8 points) or parents (1.9-2.8 points) who smoke.

**Conclusion:** Ghanaian high school students were willing to complete the SDQ and health risk appraisal. Worsening SDQ scores were associated with behaviors that are amenable to intervention. Where administrators are willing, school-based screening and health education may be employed to expand the primary healthcare system and improve the health of adolescents.

Epidemiology Planning of health education strategies, interventions, and programs Public health or related research Social and behavioral sciences Systems thinking models (conceptual and theoretical models), applications related to public health

