

ABSTRACT

Background: Globally, headache among adolescents has been identified as a public health problem. Scarcity of evidence among adolescents in Sri Lanka has hindered appreciation of the magnitude of the problem.

Objective: To determine the prevalence of headaches and to assess school performance and quality of life (QoL) associated with headaches among adolescents aged 13 to 15 years in the district of Colombo and to determine correlates of migraine and/or Tension Type Headache (TTH) and pattern of help seeking behaviour.

Methods: Adolescent HARDSHIP questionnaire was validated as a self-administered tool to detect headache and to assess QoL while Migraine Specific QoL Questionnaire was validated to assess QoL among migraineurs using a triangulation of criterion, construct and concurrent validity and reliability. A cross-sectional study among 13-15 years (n=920) selected by a multistage cluster sampling from public schools of Colombo District determined the period prevalence of any headache, migraine and TTH and QoL associated with headache. School performance was assessed through recorded term test marks. A cross-sectional analytical study between diagnosed migraine and/or TTH (n=237) and those with no lifetime headache (n=230) determined the correlates of migraine and/or TTH. Data were through self-administered questionnaire from adolescents, interviewer-administered questionnaire from parents and anthropometry and vision through measurements. Identification of correlates was by multivariate analysis. Focused group discussions assessed the pattern of help seeking behavior

Results: Adolescent HARDSHIP questionnaire-Sinhala was sensitive (75.6%-100%) and specific (88.1%-100%) to detect headache and its types. Construct validity of the MSQ-A Sinhala model in CFA showed a marginally good fit. Both tools showed adequate reliability

Crude prevalence of any headache during life time among aged 13-15 years was 77.2% (95%CI:74.4%-79.9%) while one-year, one-month, one-week and one-day prevalence were 71.5% (95%CI:68.4-74.4), 48.6% (95%CI:45.3-51.9), 39.5% (95%CI:36.5-43.0) and 21% (95%CI 18.4-23.8), respectively. All except one-day prevalence was significantly higher among females. One-year prevalence of migraine was 20.6%

(95%CI:18.0-23.4) while it was 23% (95%CI:20.3-25.9) for TTH. Assessing QoL showed that among those with any headache in the previous month, 30.8% (n=135) had lost full school days and 12.1% (n=53) had left the school early. Males and migraines showed poorer QoL associated with headache. Migraines showed worst impact. Academic performance among those with headache showed that females performed significantly better compared to males.

Correlates of migraine and or TTH were non- Sinhalese (adjusted OR= 6.0), residing in their own home (adjusted OR=7.9), with both parents (adjusted OR=2.1), not born by normal vaginal delivery (adjusted OR=2), physical exercise <60 minutes per week day (adjusted OR=3.3), playing video/computer games >one hour per weekend day (adjusted OR=5.3), obesity/overweight (adjusted OR=79.9), motion sickness (adjusted OR=2.4), mental health problems (abnormal conduct score of Strength and difficulties Questionnaire (adjusted OR=7.3) moderate/high scores of Depression, Anxiety and stress scale-21 (depression-adjusted OR=5.0), stress-adjusted OR=4.6, anxiety-adjusted OR=2.6) and stressful life events related to academic work (adjusted OR=5.6). Several gaps existed in receiving and providing help for the adolescents with headaches

Conclusion and Recommendations: Prevalence of headache was high among adolescents in Colombo district warranting a screening programme recommended to be incorporated to the existing school health programme. A comprehensive preventive intervention should be designed and implemented to prevent primary headaches among adolescents in schools by making use of the modifiable factors identified.

Key words: Primary headaches, standardized prevalence, migraines, stress