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## **Factor structure and reliability of the 12-item Sinhala version of general health questionnaires**

The General Health Questionnaire (GHQ) is widely used to detect psychiatric disorders. There are advantages of using GHQ 12 over other versions of GHQ, of which the former is brief, simple and less time consuming to administer. Therefore, it is easily used for both research purposes and in a busy clinical setting to screen patients. Even though GHQ 12 has been validated for many countries, psychometric properties in relation to the Sinhala speaking Sri Lankan population lack conclusive evidence.

The objective of this study is to determine the factor structure and the reliability of the Sinhala version of GHQ 12. This was a descriptive study including 386 patients within the age range of 18 to 75 years, attending the Out Patient Department of the Colombo North Teaching Hospital during the period between June 2009 and September 2010. The Sinhala version of GHQ-12 was given to be completed by the participants. Each item of the GHQ was rated on a four-point scale (0-1-2-3). Factor analyses were performed by applying Generalized Least Squares method using oblimin rotation. The internal consistency was assessed by calculating Cronbach's  $\alpha$  coefficient. The median age of the study population was 32.5 years (IQR= 21years) and the median GHQ score was 9 (IQR 7). GHQ 12 yielded two factor solutions. Factor I (Depression and Anxiety) accounts for 88% of the total explained variance and Factor II (Social dysfunction) 12%. Forty five percent (45 %) of the total variance can be explained by two extracted factors. There was a clear distinction between the items that loaded on the two factors. The correlation coefficient between factor I and II was 0.65. Cronbach's alpha of GHQ 12 was found to be 0.88, indicating satisfactory internal consistency.

The conclusions of the study show that GHQ 12 displays adequate reliability and validity for use in the Sinhala speaking Sri Lankan population for assessing psychiatric disorders.