Abstract

Introduction: Prodromal symptoms are warning symptoms of an impending Acute Coronary Syndrome (ACS). The present study was conducted for (1) developing Acute Coronary Syndromes-Screening Scale (ACS-SS); (2) investigating the psychometric properties of the Prodromal Symptoms-Screening Scale (PS-SS), and ACS-SS, and (3) the frequency of prodromal symptoms.

Methods: In the first step, to determine the ACS-SS items, a literature review was performed and 70 prodromal symptoms were extracted. The content validity and opinions of the researchers were used to reducing the number of the items. One hundred and thirteen patients diagnosed with ACS completed the 22 derived items and using the Exploratory Factor Analysis, items and dimensions of the ACS-SS were determined. In the second step, after the translation of PS-SS, the final version of the PS-SS, ACS-SS and the checklist of 70 items for investigating the psychometric properties and the frequency of prodromal symptoms were completed by196 patients with ACS and 205 healthy people in terms of cardiac status. Reliability and validity of the scales were assessed, and the PS-SS sensitivity and specificity was calculated.

Results: Chest pain (61.7%), diaphoresis (55.6%), and anxiety (50.5%) were the most common prodromal symptoms in this study. In determining the factor structure of both instruments, goodness of fit indices including IFI, CFI, and GFI (above 0.9), and internal consistency confirmed the PS-SS single-factor and the ACS-SS four-factor structures.

Considering the higher scores in the patient group than in the healthy group (p <0.001), the criterion validity of both scales was confirmed, but the sensitivity and specificity of PS-SS were calculated at the best state with the cut-off point of 18.5, 65.3 and 52.7.

Conclusion: This study confirmed the ACS-SS psychometric properties and showed that ACS-SS is an appropriate tool for screening ACS prodromal symptoms. It was also shown that despite the confirmation psychometric properties of PS-SS, due to its low sensitivity and specificity, this tool has no diagnostic value for screening ACS in Iran.

Key words: prodromal symptoms; Acute coronary syndrome; Psychometric; Prodromal Symptoms-Screening Scale; Acute Coronary Syndromes-Screening Scale