

Development and validating an adherence assessment tool for asthma patients.

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Abstract

Background: Adherence to medication is the cornerstone to achieve the best treatment outcome. Pharmacists are healthcare professionals found in a pivotal position to assess asthma patients on their adherence to treatment, and hence deliver appropriate follow-up counselling. Thus, a short, brief, feasible, reliable, and valid measure of patient adherence is needed to enable that vital patient care service.

Objective: To develop a valid and reliable adherence assessment tool for asthmatic patients that speaks the Arabic language.

Methods: The Adherence to Asthma Medication Questionnaire (AAMQ) was developed based on an extensive literature review, followed by applying the Delphi technique, and then it was pilot-tested by 55 patients. The final developed AAMQ was completed by 213 patients with asthma. Psychometric evaluation was assessed including internal validity, criterion validity (concurrent and predictive validity), and construct validity.

Results: The AAMQ is a 13 items questionnaire developed to assess asthmatic patients' adherence to their medications. The questionnaire is feasible as it can be completed within an average of 2 minutes. It has a high internal validity (Cronbach's $\alpha=0.867$) and split-half reliability (0.743). Criterion-concurrent validity was established by comparing the AAMQ to the Test of the Adherence to Inhaler (TAI). Criterion-predictive validity was established by comparing the AAMQ to the Asthma

Control Test (ACT) questionnaire and the Positive Health Behaviors Scale (PHBS). Construct validity was established through AAMQ factor analysis which revealed two factors explaining 51.76% of the total variance, with factor 1 contributing to 39.08% and factor 2 contributing to 12.68% of the variance.

Conclusion: The AAMQ developed in this study is a potentially useful tool to assess Arabic speaking asthma patient's adherence to asthma medications. It is a reliable and valid questionnaire with a number of desirable characteristics as it has a high internal validity, good criterion validity, and strong construct validity. It includes both types of questions (n=13); some general questions and other questions specifically for asthma. The AAMQ is a suitable questionnaire that can identify non-adherent patients and reveal the reasons behind their non-adherence (intentional or unintentional non- adherence).