



Beliefs about Medicine Questionnaire

Summary

The Beliefs about Medicines Questionnaire (BMQ) aims to assess patients' beliefs and worries about taking medication for their disease.¹ The BMQ was developed based on a pool of items derived from published studies and interviews with chronically ill patients. It resulted in an 18-item questionnaire with a four-factor structure, which was stable across various illness groups. It is a patient self-administered questionnaire, which can be administered within 10 minutes.

The BMQ comprises two sections: the BMQ-Specific (Specific-Necessity and Specific-Concerns; 10 items), which assesses beliefs about the medication prescribed for personal use, and the BMQ-General (General-Harm and General-Overuse; eight items), which assesses beliefs about medication in general. The two sections of the BMQ can be used in combination or separately. All items have a five-point Likert answer option, which varies from strongly agree to strongly disagree. Higher scores indicate stronger beliefs about the corresponding concepts in each sub-scale (ie, more negative beliefs about medicines). **Validity, reliability and**

responsiveness: The BMQ has been translated into many languages² and is validated in many different patient groups, such as chronic physical illnesses,³ hypertension,⁴ general population,⁵ chronic obstructive pulmonary disease,⁶ or stroke.⁷ Several studies have confirmed the four-factor structure.^{4,8,9} The BMQ has high internal consistency; Cronbach's α of the subdomains range from 0.59 to 0.8, and Cronbach's α of the total score range from 0.66 to 0.7.^{8,10,11} A systematic review showed that the BMQ is a valid questionnaire that, compared to some other medication adherence questionnaires, allows self-efficacy to be assessed, which enhances the use of the questionnaire in medication management.¹² The BMQ has a test-retest reliability varying from $r = 0.45$ to 0.78 .¹³ With regard to predictive validity, another systematic review, including 94 studies, concluded that higher BMQ-specific-necessity agreements and fewer BMQ-specific-concerns correlate well with medication adherence (OR = 1.7, 95% CI 1.6 to 1.9; and OR = 0.5, 95% CI 0.45 to 0.56, respectively).¹⁴

Commentary

Prescribing medication is an essential part of the conservative management of most long-term conditions. Also, in physiotherapy practice, patients receive pain medication to enable them to perform exercises, as recommended in various physiotherapy guidelines, e.g. the low back pain guidelines. Whilst analgesics have demonstrated efficacy for various diseases, their effectiveness depends on adherence. However, this medication is often not taken as prescribed.¹⁵ While noncommunicable illnesses are a major part of the global burden of disease, approximately 50 to 60% of patients are non-adherent to the medicine that they have been prescribed, especially those suffering from chronic diseases.¹²

The BMQ appears to be a valid and reliable instrument assessing beliefs about medication necessity, concerns and harms. In addition, the BMQ predicts adherence to medication across various cultures. Adherence support should be tailored to the needs of the individual and address perceptions (eg, necessity beliefs and concerns) as can be measured by the BMQ. Beliefs and concerns about medicine need to be addressed during patient education, to optimise adherence and, thereby, medication effectiveness.

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