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Development of a Readiness Ruler for use with alcohol brief interventions☆

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Abstract

Background: A quick method of assessing readiness to change was needed for a major study of implementing screening and alcohol brief intervention in England. For this purpose, a Readiness Ruler that had been validated among a sample of male college students in the USA was adapted and applied to a sample of excessive drinkers in a general medical practice located in a deprived area of Gateshead, England.
Methods: 72 participants identified as excessive drinkers by health professionals completed a single-item Readiness Ruler, the 12-item Readiness to Change Questionnaire (RCQ) and the AUDIT questionnaire.
Results: In terms of concurrent validity, the relationships between the Readiness Ruler, on the one hand, and either stage of change allocation or a dimensional score derived from the RCQ, on the other hand, were highly significant but weaker than expected. When patients who endorsed the "maintenance" point on the Readiness Ruler were excluded from the analysis, the above relationships were considerably strengthened for reasons that are discussed. On this basis and with another small change, a final Readiness Ruler was developed.
Conclusion: If the validity of the Readiness Ruler is confirmed in subsequent research, a quick and simple way of measuring readiness to change will be available for research or clinical work with alcohol brief interventions.

Keywords: Alcohol problems; Excessive drinking; Brief interventions; General practice; Readiness to change; Readiness Ruler

1. Introduction

An assessment of the patient's readiness to change has been regarded as an essential part of the delivery of brief interventions aimed at changing health-damaging behaviours (Samet and O'Connor, 1998; DiClemente et al., 2004; Epler et al., 2005; Williams et al., 2006). This assessment has implications for how likely the patient is to respond to a brief intervention and, in theory, for the kind of intervention that is likely to be most helpful to the patient. In routine clinical practice, readiness to change is probably most often assessed by informal questioning (Rollnick et al., 1999) but for research a range of instruments have been developed to measure the patient's readiness to change (Carey et al., 1999).

One such instrument, the *Readiness to Change Questionnaire* (RCQ: Rollnick et al., 1992; Heather et al., 1993) is based on the Transtheoretical Model (TTM) developed by Prochaska and DiClemente (1986), a model which has proved very popular among health professionals as a way of describing how people change harmful and risky behaviour. In the TTM, the stages of change are an attempt to describe the stages through which a person moves in an intentional effort to resolve a problem such as excessive alcohol consumption, with each stage representing a set of specific tasks the person needs to address to make progress (Prochaska and DiClemente, 1986). From "Precontemplation" through "Contemplation" and "Action" to "Maintenance", the person is assumed to pass from one stage to the next, with the "Relapser" re-entering the cycle at either the Precontemplation

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or Contemplation stages. In more recent versions (DiClemente and Prochaska, 1998), a "Preparation" stage has been interposed between Contemplation and Action. Since it may take many attempts before an addictive problem is finally solved, the idea of a cycle of change has been replaced by a spiral in which the person gradually approaches long-lasting recovery (DiClemente and Prochaska, 1998).

The RCQ was developed as a short (12-item) instrument to assess the stage of change a person had reached with regard to changing excessive drinking (i.e., "Precontemplation", "Contemplation" or "Action"). The RCQ has been shown to have satisfactory reliability and validity (Rollnick et al., 1992), including the prediction of treatment outcome (Heather et al., 1993). Using the RCQ, Heather et al. (1996) showed that male hospital inpatients who were not ready to change were more likely to reduce their drinking after discharge if they had received a motivationally-based brief intervention than if they had received a skills-based brief intervention, as theory would predict.

Following publication of the *Alcohol Harm Reduction Strategy for England* (Prime Minister's Strategy Unit, 2004), the Department of Health (DH) awarded a grant to a research consortium based in London and Newcastle upon Tyne for a project (SIPS: *Screening and Intervention Programme for Sensible drinking*) designed to pilot screening and brief intervention procedures in routine practice in three settings: general medical practice; accident and emergency departments; criminal justice services. In the development of the SIPS research protocol, investigators decided that a measure of readiness to change drinking behaviour before the receipt of brief intervention would be essential. Unfortunately, owing to constraints on time in a pragmatic pilot project carried out in routine practice, the RCQ was considered too long for this purpose and a quicker way of assessing readiness to change was sought.

LaBrie et al. (2005) in the USA have developed a "Readiness Ruler" for assessing readiness to change among excessive drinkers. This consists of a visual analogue scale, i.e., a line with equidistant points from 0 to 10 and written statements reflecting different stages of change at set points along the line. Patients are asked to circle the number that best describes how they feel "right now". LaBrie and colleagues gave the Readiness Ruler and the RCQ to a sample of 96 male college students in California who were identified as heavy drinkers and who had reported more than two sexual partners in the previous three months (in connection with a sub-study of readiness to change condom use). Scoring the RCQ as a continuous scale, LaBrie and colleagues reported a highly significant correlation (=0.77) between the two instruments. It was concluded that the Readiness Ruler could serve as a way of assessing motivation to change drinking behaviour when time for assessment was limited.

However, since the sample used to validate the Readiness Ruler by LaBrie and colleagues was clearly unrepresentative of excessive drinkers identified in clinical settings in England (unrepresentative in terms of age, gender, nationality and clinical status), it was thought necessary to validate the ruler in a separate project in an adult clinical sample of both genders in England. Thus the main objective of the project described in this paper was to establish the validity of a Readiness Ruler aimed at measuring readiness to change drinking behaviour among excessive drinkers identified in general medical practice.

As an additional aim, psychometric properties of the new instrument were compared between two forms of administration—self-completion and interviewer-led. This was done because, in the SIPS research protocol, administration of the Readiness Ruler was envisaged to be by self-completion in person at the initial assessment but interviewer-led by telephone at follow-up and it was necessary to check that these different forms of administration did not affect the validity of the instrument.

In addition to the aim of supporting the use of the Readiness Ruler in the DH-funded SIPS project described above, it was hoped that the validation of this scale and its publication in the scientific literature would have benefits for research and clinical practice with alcohol brief interventions and recovery from alcohol problems more generally.

2. Method

2.1. Participants

Participants were recruited from patients attending routine appointments at Teams Medical Practice, Gateshead, Tyne and Wear. This practice serves a deprived, inner-city community. It is a training practice with three full-time equivalent GPs and has a patient list of around 4650.

The total sample consisted of 72 patients. Inclusion criteria were that participants should report consuming alcohol above medically recommended benchmarks (14 units/week for women, 21 units/week for men; UK unit = 8 g ethanol) and should not be seeking treatment for an alcohol problem. Participants were excluded if they were under 18 years of age, not resident in England, had poor English skills, were experiencing severe discomfort through injury, were suffering from a serious mental health problem, were pregnant, were intoxicated at interview or were diagnosed as alcohol dependent. Diagnoses of alcohol dependence were based on clinical judgement.

2.2. Measures

The RCQ gives scores for three stages of change – Precontemplation, Contemplation and Action – with each scale represented by four items. Respondents are asked to what extent they agree with each item (e.g., "I am trying to drink less than I used to") on a 5-point Likert scale. Each item is scored between −2 (strongly disagree) and +2 (strongly agree) and scores on each scale therefore range between −8 and 8. Respondents are assigned to a stage of change by the scale which shows the highest score, with ties being decided in favour of the stage farthest along the continuum of change. In addition to stage allocation, respondents can also be given a dimensional score by summing their scores on the Contemplation and Action scales and subtracting their score on the Precontemplation scale (Budd and Rollnick, 1996).

The Readiness Ruler was adapted from a measure developed by LaBrie et al. (2005). However, in the ruler used by LaBrie and colleagues, some anchor statements were not perfectly in line with the numbers on the ruler (see Appendix B, p.115) and it was feared that this ambiguity might influence responses to the ruler and, in turn, how researchers interpreted these responses. We therefore changed the form the ruler took to what was essentially a 5-point Likert scale in which anchor statements describing different stages of change were perfectly aligned with numbers. This form of ruler was preferred to a visual analogue scale with anchor statements confined to extreme points, as described for example by Miller and Rollnick (2002), because of its superior psychometric properties (Oppenheim, 1998). Despite the ruler taking the form of a Likert scale, we continued to call it a "Readiness Ruler" for convenience and to stress its single-item characteristic.