

Psychometric evaluation of the smoking cessation Processes of Change scale in an adolescent sample[☆]

Bettina B. Hoepfner^a, Wayne F. Velicer^{a,*}, Colleen A. Redding^a, Joseph S. Rossi^a,
James O. Prochaska^a, Unto E. Pallonen^b, Kathryn S. Meier^a

^a Cancer Prevention Research Center, 2 Chafee Road, University of Rhode Island, Kingston, RI, 02881-0808, USA

^b Center for Health Promotion and Prevention Research, University of Texas Health Science Center at
Houston School of Public Health, USA

Abstract

The Processes of Change are the cognitions, behaviors, and emotions that people employ to change their behaviors. However, the processes of change remain the least studied dimension of the transtheoretical model. The present study presents a psychometric evaluation of the short form of the processes of change inventory for smoking cessation in an adolescent sample of 798 ninth-grade smokers from 22 Rhode Island high schools. The majority of the sample was white (87.2%), split approximately evenly as regards to gender (48.1% female), with an average age of 14.3 (SD=0.6) years of age. The same hierarchical model established on the adult sample was fit to the 20-item inventory. This model included 10 primary factors representing the processes of change and two second order factors that grouped the processes into five behavioral and five experiential processes of change. Model fit indices (RMSEA=0.08, CFI=0.92) supported the hypothesized structure. External validation was established by testing for stage differences in the use of the ten processes. A significant MANOVA ($F(4, 793)=18.517, p<0.001$) and separate ANOVAs demonstrated that the use of all ten processes increased across the stages, as predicted by the transtheoretical model of behavior change. The processes of change help guide researchers, clinicians, and intervention program developers towards effective strategies to assist individuals at all stages of change progress towards healthier behaviors.

© 2005 Elsevier Ltd. All rights reserved.

Keywords: Stage of change; Transtheoretical model; Processes of change; Smoking cessation; Adolescents

[☆] Grants CA50087 from the National Cancer Institute supported this research.

* Corresponding author.

E-mail address: velicer@uri.edu (W.F. Velicer).

URL: <http://www.uri.edu/research/crpc> (W.F. Velicer).

The importance of adolescent smoking cessation to prevent smoking related diseases and death has long been recognized. Among adults who have ever smoked daily, 82% tried their first cigarette before the age of 18 (US Department of Health and Human Services, 1994), and it is estimated that almost one half of current adolescent smokers who continue to smoke regularly will die from a smoking related disease (US Department of Health and Human Services, 2000). Smoking rates for grades 9 through 12 have declined in recent years after a peak in 1997. While recent improvements are encouraging, they represent a regaining of the ground lost in the early 1990s, and to date smoking rates remain unacceptably high at approximately 27% for 12th graders (Johnston, O'Malley, Bachman, & Schulenberg, 2005). In fact, for most adolescent subgroups, rates of tobacco use must still be at least halved to meet Healthy People 2010 target criteria (US Department of Health and Human Services, 2000).

Adolescent smoking cessation research has gained momentum in recent years yet remains in its infancy. The currently available database on adolescent smoking cessation research is limited in size and is characterized by little success and methodological inadequacies (Mermelstein et al., 2002; Sussman, Lichtman, Ritt, & Pallonen, 1999). Usually, the many methodological challenges of this research area are highlighted in regards to primary treatment outcomes (Mermelstein et al., 2002; Sussman, 2002; Sussman et al., 1999), but these challenges also persist in all the other aspects of this research area, including the construction and validation of appropriate secondary outcome and process measures.

To date, most interventions for adolescent smokers have been based on adult treatment models and have not been tailored to adolescents (Henningfield, Michaelides, & Sussman, 2000). The numerous psychological, social, and physical changes that characterize adolescence, however, make it unlikely that measures developed for adult smokers can be borrowed without adaptation for adolescent smokers (Mermelstein et al., 2002). This paper addresses the need for the adaptation of measures by presenting the empirical validation of the processes of change inventory previously developed for adult smokers (Prochaska, Velicer, DiClemente, & Fava, 1988) for adolescent smokers.

1. Processes of change inventory

The transtheoretical model (Prochaska & Velicer, 1997) can be conceptualized as involving three dimensions: the temporal dimension, the independent variable dimension, and the intermediate variable dimension. The central organizing construct of the model is the temporal dimension, represented by five Stages of Change describing different levels of readiness to change. The independent dimension is composed of the processes of change that act as strategies to bring about change. The intermediate dimension (Velicer, Rossi, Prochaska, & DiClemente, 1996) is represented by behavioral measures, the Decisional Balance Inventory (Velicer, DiClemente, Prochaska, & Brandenburg, 1985) and the Self Efficacy or Situational Temptations Inventory (Velicer, DiClemente, Rossi, & Prochaska, 1990).

Of these three dimensions, the processes of change (Prochaska et al., 1988) is the dimension that has received the least attention. The Processes represent cognitive, emotional, and behavioral strategies for changing one's behavior. The ten Processes have an hierarchical structure with ten primary factors and two higher order factor that represent two broad dimensions, experiential and behavioral (Prochaska et al., 1988). Behavioral processes include Stimulus Control, Counter Conditioning, Reinforcement Management, Self Liberation, and Helping Relationships. Experiential processes include Consciousness Raising, Dramatic Relief, Environmental Reevaluation, Self-reevaluation, and Social Liberation.

Download English Version:

<https://daneshyari.com/en/article/900005>

Download Persian Version:

<https://daneshyari.com/article/900005>

[Daneshyari.com](https://daneshyari.com)