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The Korean language version of the Health Behavior Schedule-II as a predictor of compliance

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Abstract

This study is a preliminary psychometric evaluation of the Korean language version of the Health Behavior Schedule-II as a predictor of compliance or adherence to 12 health related habits. The 12 habits are (1) performing breast self-exams; (2) obtaining pap smear screens; (3) taking medication as prescribed; (4) not smoking cigarettes; (5) wearing a bike safety helmet (if applicable); (6) protecting skin from sun; (7) flossing teeth daily; (8) wearing a seat-belt; (9) limiting alcohol consumption; (10) practicing safe sex; (11) exercising regularly; and (12) eating a healthy diet. Predictors of compliance on the Schedule include 45 situational and behavioral competency factors. Past studies have shown the Schedule to be useful for a multiethnic sample of university students in Honolulu, USA and for a mono-ethnic university sample in Stuttgart, Germany. Among a mono-ethnic university sample in Seoul, Republic of Korea, this study found the Korean version of the Schedule yielded acceptable internal consistency and stability reliability estimates. Construct validity was supported for prediction of compliance to 11 of the 12 health behaviors. Compliance enhancement implications are offered.
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1. Introduction

For several decades, Western-based behavioral health research and programming have focused on improving compliance or adherence to common health habit recommendations for the prevention and treatment of medical conditions (Conner & Norman, 1996; Frank, Heiby, & Lee, 2007; Haynes, Taylor, & Sackett, 1979; Heiby & Frank, 2003; Myers & Midence, 1998; O'Donohue & Levensky, 2006). Rates of compliance have been considered to be low and resulting in a poorer quality of life and excessive health care costs (Levensky & O'Donohue, 2006). For example, among Western samples, Christensen (2004) estimates compliance to be 60–80% for short-term regimens (e.g., taking antibiotic medication for a week), 40–80% for long-term regimens (e.g. self-monitoring of blood glucose), and 20–50% for preventive regimens (e.g., not smoking cigarettes).

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The government and health research community in Korea (i.e., the Republic of Korea or South Korea) also have been focusing on increasing compliance to health behavior recommendations (e.g., Choi, 1994; Hwang, 2004; Kim, 1985; Kim, Hwang, & Yoo, 2004; Lee et al., 2002; MOHW, 2006). The Ministry of Health and Welfare in Korea has regularly surveyed health habits of its citizens. The current report (MOHW, 2006) compares rates of compliance in Korea and the USA for several commonly prescribed health behaviors. As an example of a short-term regimen, 79% of citizens of Korea and 60% of citizens in the USA are estimated to obtain a flu vaccine. As an example of a long-term regimen, 47% of citizens of Korea and 30% of citizens of the USA are estimated to exercise regularly. As an example of a preventive regimen, 72% of citizens of Korea and 79% in the USA are estimated to not smoke cigarettes. These examples suggest that compliance rates may be similar for some health behaviors and different for others across both cultures and types of regimen.

While definitions of a healthy lifestyle have been similar worldwide (e.g., exercise regularly), the effective communication of prescriptions for behavioral change must consider the cultural context (Berry, Kessler, Fodor, & Wato, 1983; Gibson & Shong, 2005). South Korean culture was considered to be primarily Confucian until rapid industrialization and accompanying exposure to Western values rendered this characterization less accurate, particularly among the more Westernized young and university educated sector of Korea (Hyun, 2001). Therefore, at least some predictors of compliance to prescribed lifestyles found among Western samples may generalize to a Korean sample of university students.

The primary purpose of this study was to explore whether 45 predictors of compliance found among Western samples are applicable to a young and educated sample in Korea. Predictors and compliance to 12 commonly recommended health behaviors (e.g., not smoking cigarettes) were measured by the Health Behavior Schedule-II (HBS-II; Frank, Cho, Heiby, Li, & Lahtela, 2006; Frank et al., 2007; Lukens, Heiby, Barkhoff, Schlicht, & Rojas, 2006). For this study, a Korean language version (HBS-IIK) was developed and psychometrically evaluated.[4]

1.1. HBS-II predictors of compliance in mono-ethnic and multiethnic Western samples

The HBS-II is a self-report questionnaire designed to measure situational and behavioral competency factors that are conducive to self-report, have been shown to predict compliance, and have implications for empirically supported treatment and prevention programming (Heiby & Frank, 2003; Heiby, Lukens, & Frank, 2005; Heiby & Lukens, 2006; O'Donohue, Fisher, & Hayes, 2003; O'Donohue & Levensky, 2006). The original HBS-II was derived from the Health Compliance Model-II (Frank et al., 2007; Heiby et al., 2005).

The 45 HBS-II predictor items, Model components, variables the items are designed to measure, and treatment implications for each variable are listed in Table 1. All treatments listed are described in detail elsewhere (O'Donohue et al., 2003; O'Donohue & Levensky, 2006). The 12 health behaviors are listed in Table 2, which is cited in Section 3.

The HBS-II has been supported psychometrically using both English (Frank et al., 2007) and German language (Lukens et al., 2006) versions with, respectively, multiethnic Hawaii (Asian, Pacific Islander, Hawaiian, and European) and mono-ethnic German European university student samples. The utility of a modified version of the HBS-II for prediction of self-monitoring of blood glucose among multiethnic adult patients with Type 2 diabetes also has been supported (Frank et al., 2006). These HBS-II studies have demonstrated cultural specific predictors as well as those that generalize across culturally different samples (see Table 5 cited in Section 4.1). For example, worry about one's weight was predictive of moderate alcohol consumption in a multiethnic Hawaii sample but not in a Germany sample, whereas self-efficacy for moderate consumption was predictive in both samples.

1.1.1. Health Compliance Model-II

The Model (Frank et al., 2007; Heiby et al., 2005) that guided development of the HBS-II is an attempt to integrate prior theories and the disunified empirical works on potential determinants of compliance to health related habits. The

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[4] The HBS-II English version is copyrighted by Frank and Heiby (1999). The HBS-II German version is copyrighted by Frank, Heiby, and Barkhoff (2003). The HBS-II for self-monitoring of blood glucose is copyrighted by Frank and Heiby (2004). The HBS-II Korean version is copyrighted by Frank, Heiby, and Cho (2005). Requests for copies can be sent to Maxwell Frank (maxfrank@earthlink.net), Elaine Heiby (heiby@hawaii.edu), Harald Barkhoff (harald@hawaii.edu), or Sungkun Cho (sungkun@hawaii.edu).