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# Cervical Cancer Screening Among Taiwanese Women: A Transtheoretical Approach

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**I**ncidence and mortality rates of cervical cancer worldwide have decreased markedly in the past decades, mainly because of the Papanicolaou (Pap) test, which detects the disease as well as precancerous lesions. American Cancer Society (ACS), 2008) guidelines recommend initial screening for cervical cancer with Pap testing three years after the onset of sexual activity and no later than age 21. All women who are or have been sexually active and still have a cervix should be screened every year with the regular Pap test or every two years with the newer liquid-based test until age 30, with intervals then extended to two to three years based on past screening results and risk factors (ACS, 2008).

Since the late 1990s, cervical cancer has been among the top five causes of death in Taiwanese women (Cancer Registry of Taiwan, 2007). Since 1996, the Bureau of National Health Insurance of Taiwan (NHI, 2006) has offered Pap screenings at no charge for women older than age 30 and screenings for a small copayment for women younger than age 30. Despite the reported health benefits and the availability of free or low-cost Pap screening, 30%–50% of adult Taiwanese women have never had a Pap test, a rate attributable to youth, lack of knowledge about cervical cancer and Pap tests, perception of fewer benefits from and greater barriers to a Pap test, low education levels, unemployment, and having never married (Chen et al., 2007; Hou, 2005; Hou, Fernandez, Baumler, Parcel, & Chen, 2003; Koong, Yen, & Chen, 2006; Liao, Wang, Lin, Hsieh, & Sung, 2006; Lin, Chen, Liu, & Lin, 2008; Wang & Lin, 1996; Wang, Huang, Chou, & Chang, 2006).

The complexity of women's decisions surrounding regular Pap test screening was the impetus for this theory-driven study. The transtheoretical model of change (TTM) (Prochaska, Redding, & Evers, 2002) was used as a guide for the study. The model was developed in the early 1980s and was applied primarily to smoking cessation (Prochaska & DiClemente, 1983). The TTM

**Purpose/Objectives:** To assess Papanicolaou (Pap) test screening behaviors of Taiwanese women, to explore factors affecting stages of change, and to determine whether constructs from the transtheoretical model are applicable to Taiwanese women with regard to Pap screening.

**Design:** Descriptive, cross-sectional.

**Setting:** A hospital in Taiwan.

**Sample:** 222 female hospital workers.

**Methods:** Data were collected with a questionnaire.

**Main Research Variables:** Cervical screening behavior, perceived barriers and benefits, self-efficacy, and stages of change.

**Findings:** Fifty-six percent of participants reported engaging in regular screening practice. The stage of respondents' cervical cancer screening was significantly associated with age, marital status, and history of human papilloma virus–positive and abnormal tests. Self-efficacy scores were significantly higher for women who were in action or maintenance than those in precontemplation or relapse ( $p < 0.0001$ ). Women in relapse reported significantly more perceived barriers than those in action-maintenance ( $p = 0.005$ ). No significant differences were found in the level of perceived benefits ( $p = 0.702$ ) to regular Pap screening among women in the various stages.

**Conclusions:** Pap screening was low among the entire sample and nonexistent among women younger than age 30. The transtheoretical model only was partially applicable to the Taiwanese women in this study.

**Implications for Nursing:** Reinforcement of self-efficacy was more important for women in the sample than emphasizing the benefits of or decreasing the barriers to regular Pap screening. Strategies for younger unmarried women might include education programs emphasizing the importance of routine annual screening and enhancing women's understanding of the relationship between Pap tests and cervical cancer.

notes that people differ in their readiness to adopt new behaviors, which can be best understood by using three key constructs: stages of change, self-efficacy, and decisional balance (perceived benefits and barriers).