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# Knowledge, Attitudes, and Behaviors of Nursing and Midwifery Students Regarding Breast Self-Examination in Turkey

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**T**he incidence of female breast cancer continues to increase. To date, breast cancer is one of the most commonly encountered malignancies in women around the world. With 25% prevalence, breast cancer is the most common cancer among women in Turkey (Ministry of Health, 2005). In fact, a Turkish study involving 23,384 women with cancer diagnoses from 1994–2004 revealed that 34% had breast cancer (Izmirli, Altin, Dernek, & Unsal, 2007). An estimated 30,000 women are diagnosed with breast cancer each year in Turkey (MEVA, 2008).

Breast cancer is the second leading cause (15%) of cancer deaths in women. Mortality rates are highest for women aged 20–59, followed by women aged 60–79 and those older than 80, respectively (Greenlee, Hill-Harmon, Murray, & Thun, 2001; Imaginis, 2006; Jemal et al., 2008). The incidence of breast cancer is low in younger women; however, when younger women are diagnosed, the cancer tends to progress rapidly (Imaginis; Jemal et al.). When breast cancer is diagnosed relatively early, life expectancy and quality of life increase. Early diagnosis also decreases potential for certain symptoms such as pain, resulting in decreased expenses of treatment. Early diagnosis and treatment are important in decreasing breast cancer mortality (Imaginis; Jemal et al.; Smith, Cokkinides, Eyre, & American Cancer Society, 2003). Diagnosing tumors in the breast at a diameter of less than 2 cm also increases five-year survival up to 90% (American Cancer Society, 2007).

Because complete prevention of breast cancer is not yet possible, early detection and effective therapy are important in attempting to improve diagnosis and prognosis for women with the disease (Budden, 1998). However, in contrast to more economically developed countries, where less than 10% of women present with late-stage cancer, 50% of women in less developed coun-

**Purpose/Objectives:** To investigate knowledge, attitudes, and behaviors of nursing and midwifery students regarding breast self-examination (BSE).

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

**Setting:** Aydin School of Health at Adnan Menderes University in Aydin, Turkey.

**Sample:** 244 female students of nursing and midwifery.

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

**Main Research Variables:** BSE-related knowledge, attitudes, and behaviors.

**Findings:** More than half of the study participants stated they had sufficient information about BSE from varied sources, primarily from school curricula. The students were knowledgeable about who should perform BSE and its recommended frequency; however, their knowledge of BSE techniques was limited. First-year students had negative attitudes about BSE but became more positive as they progressed in their education. Half of the study sample stated they performed BSE at recommended times and intervals, but only one-fifth used recommended BSE positions and techniques. The main reasons for not performing BSE included not knowing how to perform it (57%), not having any history of problems in the breast (39%), and forgetfulness (18%).

**Conclusions:** The results demonstrate that nursing and midwifery education has a positive effect on students' knowledge, attitudes, and behaviors regarding BSE.

**Implications for Nursing:** The findings suggest that nursing and midwifery students should be thoroughly prepared to perform BSE on themselves so they can educate other women about this important preventive procedure.

tries, such as Africa, Asia, and Latin America, present at stage III (Anderson et al., 2003).

Three basic methods are employed in diagnosing breast cancer early, but their relative use is highly debated. The methods are breast self-examination (BSE), clinical breast examination (CBE), and mammography