

RELATIONSHIP OF RESILIENCE AND VULNERABILITY TO LATE STAGE BREAST CANCER

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Purpose: This study explored the relationship of resilience and vulnerability in women presenting with late stage (stage 3 or 4) breast cancer. Attributes of resilience include optimism, determination and a positive sense of self. Resilience is manifested when adversity is managed in a positive way and the individual rebounds. Vulnerability was defined as potential barriers to health care.

Method: The investigator conducted a secondary analysis of data from a descriptive study that examined the influence of socioeconomic and cultural factors on racial differences in late stage presentation of breast cancer. Exploratory factor analysis of 11 variables related to the resilience trait resulted in two subscales with a total of 8 variables. Patients scoring above the 75th percentile on either subscale were categorized as high resilience (HR), with the remaining categorized as low or moderate (LR). Subjects were also categorized as vulnerable (V) or not vulnerable (NV) based on their self-report of availability of transportation, adequate financial resources to meet their needs, and quality of their eyesight. The 532 subjects in the original study were then categorized into four groups based on their resilience and vulnerability: V-HR (25%); V-LR (26%); NV-HR (39%); and NV-LR (10%). The relationship of these groups to late stage breast cancer was examined with the chi-square statistic.

Findings: Vulnerability was significantly related to disease stage, with 15% of the V group presenting with late stage disease compared to 9% of the NV group [p=.04; OR=1.8; 95% C.I. 1.1-3.0]. Examining the association of vulnerability with stage controlling for resilience, over 19% of the V-HR group presented with late stage compared to 5% in the NV-HR group [p=.01; OR=4.5; 95% C.I. 1.6-12.3]. There was no significant association of resilience with disease stage. After controlling for vulnerability, there was a significant association of resilience with stage in the NV group, with late stage presentation in 12% of the LR group compared to only 5% in the HR group [p=.03; OR=2.5; 95% C.I. 1.5- 6.0].

Discussion: Vulnerability conceptualized as barriers to health care had a strong association with disease stage, even in subjects with high resilience. Vulnerable patients with high resilience were 4 times more likely to present with late stage disease than non-vulnerable subjects. Resilience was more important in the non-vulnerable group; those with low vulnerability and low resilience were 2.5 times more likely to have late stage disease than their high resilience counterparts. Implications for nurses include the importance of recognizing traits that may inhibit access to health care and incorporating education and skills to increase resilience to improve health outcomes.