Effects of needs importance and needs satisfaction on body image and health-related quality of life in Chinese mainland patients with breast cancer following surgical operation

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The purpose of the study was to identify effects of needs importance (NI) and needs satisfaction (NS) on body image (BI) and health-related quality of life (HRQoL) in Chinese mainland patients with breast cancer following surgical operation. The needs self-rating questionnaire (NSQ), the body image self-rating questionnaire (BISQ), the short form 36 health survey version 2 (SF-36v2), and the functional assessment of cancer therapy-breast version 4.0 (FACT-Bv4.0) were administered to 406 patients by trained interviewers. Multiple linear stepwise regression analysis was applied to explore the predictors of BI, SF-36v2, SF-6D (scored from SF-36v2), and FACT-Bv4.0, respectively. Structural equation modeling (SEM) analysis was performed to identify the direct, indirect, and total effects of NI and NS on BI and HRQoL. Stepwise regression analysis showed that NI, NS, and surgery type were predictors of BI. BI was the predictor of physical component summary (PCS), mental component summary (MCS), SF-6D, and FACT-Bv4.0, except for NI, NS, chronic disease, residence, employment status, radiotherapy, or marital status. SEM analysis showed that direct effects were found in BI (NI, NS, surgery type), PCS (NI, chronic disease, BI), MCS (NI, NS, surgery type, residence, BI), SF-6D (NI, residence, BI), and FACT-Bv4.0 (NS, BI, marital status). NI, NS, and surgery type had significant indirect effects on PCS, MCS, or SF-6D via BI, whereas NI and NS on FACT-Bv4.0 via BI. Regarding total effects, NI, NS, surgery type, chronic disease, and BI explained 4% variances of PCS; NI, NS, surgery type, residence, and BI explained 20% variances of MCS, and 9% variances of SF-6D, respectively. NI, NS, marital status, and BI explained 28% variances of FACT-Bv4.0. BI was important mediator between NI/NS and HRQoL. To improve HRQoL, NI and NS should be focused on in patients with breast cancer following surgical operation, especially those who had BI destruction.