Breast cancer is the commonest cancer among women in Nigeria and globally. In Nigeria, late presentations of breast cancer cases have been consistent for three decades. It is therefore pertinent to assess the knowledge of breast cancer and its early detection measures. The study was designed to assess level of knowledge, attitude and practice of breast self-examination (BSE) among nursing students. This study was a cross-sectional survey amongst all nursing students of Lagos University Teaching Hospital. Each participant was given a self-administered questionnaire, which was designed to evaluate information such as socio-demographic data, level of knowledge of breast cancer, the attitude of the participant toward BSE and practice of BSE. The respondent's knowledge of breast cancer and breast self-examination was high (97.3%); 85.6% knew how to carry out breast self-examination correctly. Majority, 58.6% obtained their information from television/radio. The attitude of respondents to breast self-examination was good, most of the respondents, 98.5% thought breast self-examination was necessary and 84.3% claimed to have carried out breast self-examination before. Respondents' practice of breast self-examination was also good with 80.2% of the respondents claiming to carry out breast self-examination regularly. In conclusion, the level of awareness of breast cancer and breast self-examination was high among nursing students of the Lagos University Teaching Hospital.