

Body Esteem and Self-examination in British Men and Women

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ABSTRACT

Background: Breast and testicular cancers affect a substantial and increasing proportion of the global population. Self-examination encourages early detection and treatment of these cancers, which positively impacts on patient quality of life and survival.

Methods: The present study investigated the role of body esteem in breast and testicular self-examination. Men ($N = 60$) and women ($N = 90$) recruited from a British University completed the body esteem scale and either the testicular self-examination or breast self-examination questionnaire.

Results: Logistic regression models revealed that body esteem predicted women's intention to engage in breast self-examination. Women with higher levels of sexual attractiveness and those with lower levels of weight concern were more likely to report that they would regularly self-examine in the future. Body esteem did not however, distinguish between those women that did or did not currently self-examine or predict men's current or intended testicular self-examination.

Conclusion: The findings have implications for the promotion of self-examination and highlight an emerging area of preventive health research.

Keywords: Body image, breast cancer, health behavior, self-examination, testicular cancer

INTRODUCTION

Breast and testicular cancers affect a substantial and increasing proportion of the global population.^[1-8] The early treatment of these cancers impacts on the invasiveness of treatment, patient quality of life and survival rates, emphasizing the importance of timely cancer detection. Self-examination provides an effective method to promote early detection that does not require professional health care assistance or specialist equipment.^[9-11] Self-examination may also encourage men and women to engage in the maintenance of their own health.^[12]

The promotion of self-examination remains controversial and the recommendations made by health organizations are inconsistent.^[13] For example, in the US self-examination is not endorsed by the US Preventive Task force, the American

Cancer Society frames it as a personal choice and the American College of Obstetricians and Gynecologists recommends regular monthly self-examination.^[14-16] In part this controversy reflects the anxiety associated with self-examination and the number of benign biopsies that may occur.^[13,17,18] Research demonstrating that self-examination identifies over half of tumors and enhances detection of other diseases however, indicates the positive outcomes associated with self-examination.^[19,20]

Despite the advantages of early detection, engagement in testicular and breast self-examination is low.^[21-26] In particular, self-examination on the recommended regular monthly basis is lower than 10%.^[27] Therefore, it is important to understand the factors that encourage this behavior. Previous research suggests that both intrinsic factors such as fear and extrinsic factors such as the influence of mass media may impact on engagement in self-examination.^[28,29]

Breast and testicular self-examination involve sensitive parts of the body. Only one previous study has sought to determine the relationship between body image and breast self-examination however, no research has investigated body image in relation to testicular self-examination. Chait, Thompson and Jacobsen^[30] found that women with higher levels of body satisfaction were more likely to have performed skin self-examination than those with low body satisfaction. Although, Chait *et al.* did not find that body image predicted breast self-examination, women in other studies have commented that "I believe strongly in the importance of self-examination but I think my relationship to/with my breasts stops me"^[31] suggesting that this area requires additional consideration. Body image insecurities may also impact on testicular self-examination. Testicular cancer involves a part of the body associated with perceptions of masculinity, attractiveness and sexual function, all important aspects of self-esteem and development.^[32] Furthermore, a positive genital self-image predicts testicular self-examination.^[33]

The current study investigates the impact of body esteem on current and future breast and testicular self-examination. It was predicted that men and women with positive body esteem would be more likely to self-examine (current behavior

and future intentions) than those with a low or negative body esteem.

METHODS

Men ($N = 60$) aged between 18-43 ($M = 22.67$, $SD = 5.14$) and women ($N = 90$) aged between 18-60 ($M = 21.80$, $SD = 7.30$) were opportunity sampled from a British university. After providing informed consent, men and women completed a questionnaire containing body esteem and self-examination measures. The body esteem scale includes 35 items on a scale from 1 ('have strong negative feelings for') to 7 ('have strong positive feelings for').^[34] The scale comprises of 3 subscales, calculated separately for male and female participants. Cronbach's alphas were high for all female subscales: *Sexual attractiveness* (0.82); *weight concern* (0.92); and *physical condition* (0.89). Following removal of one item, each of the male subscales: *Physical attractiveness* (0.80); *upper body strength* (0.83); and *physical condition* (0.85) also achieved high Cronbach's alpha scores. Inter-correlations between subscales ranged from 0.57 (*physical attractiveness* and *physical condition* in males) to 0.72 (*physical condition* and *upper body strength* in males). Participants also completed the first section of either the testicular self-examination questionnaire or the breast self-examination questionnaire (adapted from the testicular self-examination questionnaire) consisting of 15 and 16 items respectively, each requiring a *yes/no* response.^[21] For example 'I perform breast self-examination at least once a month' and 'I have performed testicular self-examination at least once in the past'. The research received approval from the University Ethics Committee and was conducted in accordance with The Code of Ethics of the World Medical Association. Binary logistic regression was used to investigate the extent to which body esteem predicts current and intended breast or testicular self-examination.

RESULTS

The majority of men (68%) reported that they had performed self-examination at least once in the past, and 65% indicated that they self-examined occasionally but not on a regular basis. When asked about their intention to self-examine at the recommended frequency (i.e. at least once a month)

only 27% indicated that they would do so in the future. Women revealed a similar pattern of behavior. When asked whether they had performed self-examination at least once in the past 52% indicated that they had, but only 39% reported that they currently examined on an occasional basis. When asked whether they intended to self-examine in the future, 57% said that they would do this at least once per month.

Binary logistic regression was used to explore the extent to which body esteem subscales predicted breast and testicular self-examination. For women, a model testing whether body esteem distinguished between those who did and did not occasionally self-examine was not significant ($\chi^2(3, N = 90) = 2.37, P > 0.05$). However, a model testing whether body esteem distinguished between participants reporting that they would or would not self-examine at least once per month in the future was significant ($\chi^2(3, N = 90) = 14.46, P < 0.01$). The model explained between 15.0% (Cox and Snell R^2) and 20.2% (Nagelkerke R^2) of the variance in self-examination intentions. Sexual attractiveness ($B = -0.11, Wald = 8.41, P < 0.05$) and weight concern ($B = 0.07, Wald = 7.32, P < 0.01$) were significant independent predictors.

Women with higher levels of sexual attractiveness and those with lower levels of weight concern were more likely to report that they would regularly self-examine in the future. For men, models testing whether body esteem distinguished between those who did and did not occasionally self-examine ($\chi^2(3, N = 60) = 5.38, P > 0.05$) or those that expected to self-examine at least once per month in the future were not significant ($\chi^2(3, N = 60) = 0.32, P > 0.05$). The significant contributions made by each independent variable are displayed in Tables 1 and 2 for female and male participants, respectively.

DISCUSSION

The study revealed that body esteem did not predict men's current or intended testicular self-examination. In contrast body esteem predicted women's intended breast self-examination; women with higher levels of sexual attractiveness and those with lower levels of weight concern were more likely to report that they would regularly self-examine in the future. Body esteem did not however, distinguish between those women that did or did not currently examine. Findings are consistent with research indicating that women

Table 1: Logistic regression predicting women's current occasional self-examination and intention to self-examine once per month in the future

Examination frequency	Predictor	95.0% CI for odds ratio							
		B	S.E.	Wald	df	P	Odds ratio	Lower	Upper
Current	Sexual attractiveness	0.04	0.03	1.72	1	0.19	0.96	0.90	1.02
	Weight concern	0.01	0.02	0.32	1	0.57	1.01	0.97	1.06
	Physical condition	-0.01	0.03	0.04	1	0.84	0.99	0.93	1.06
Future	Sexual attractiveness	-0.11	0.04	8.41	1	0.00	0.90	0.83	0.97
	Weight concern	0.07	0.03	7.32	1	0.01	1.08	1.02	1.14
	Physical condition	-0.03	0.04	0.55	1	0.46	0.97	0.91	1.04

Table 2: Logistic regression predicting men's current occasional self-examination and intention to self-examine once per month in the future

Examination frequency	Predictor	95.0% CI for odds ratio							
		B	S.E.	Wald	df	P	Odds ratio	Lower	Upper
Current	Physical attractiveness	0.11	0.06	3.69	1	0.06	0.90	0.80	1.00
	Upper body strength	0.05	0.07	0.39	1	0.53	1.05	0.91	1.21
	Physical condition	-0.01	0.4	0.02	1	0.89	0.99	0.92	1.08
Future	Physical attractiveness	-0.02	0.06	0.08	1	0.78	0.98	0.88	1.10
	Upper body strength	0.01	0.08	0.02	1	0.90	1.01	0.87	1.17
	Physical condition	-0.01	0.05	0.08	1	0.78	0.99	0.90	1.08

who do not self-examine have a poor relationship with their breasts and the relationship between body image and skin self-examination.^[29,30] These findings together with the lower levels of mammographic screening in underweight and extremely obese women^[35] suggests that physical appearance and perceptions of appearance impact on the early detection of cancer and preventive care.

Differences between male and female body esteem may to some extent account for the finding that body esteem predicted women's but not men's intended self-examination behavior. Women express greater concern than men about their bodies and the female body is sexually objectified and is valued more for its aesthetic appeal than for its functional qualities.^[36,37] Furthermore, men are less responsive to external factors such as the media or social context.^[38] There are of course important differences between breast and testicular self-examination; for example, women are encouraged to self-examine in front of the mirror, which may intensify the experience and awareness of body form. Future research should consider these gender differences in more detail.

The current study recruited a largely Caucasian sample and may not adequately reflect the experience of a more culturally diverse population. Caucasian men and women are more likely to engage in self-examination than other ethnic groups, with Asian men and women particularly reluctant to engage in self-examination and screening.^[23,39,40] Reasons for these cultural differences may include sexual conservatism, embarrassment, greater sex guilt, and beliefs about modesty or the partner's involvement.^[41,42] A greater understanding of cultural norms and beliefs is required in order to accommodate the needs of a multi cultural society; future research should include men and women from a more diverse range of ages and ethnic backgrounds, educational and socioeconomic backgrounds and sexual orientation. Furthermore, the study relied on an opportunity sample. Men and women with direct experience of cancer or with a distorted body image may have been reluctant to participate and additional research should employ a wider more representative sample to consider these issues further.

To conclude, the original predictions received partial support. Body esteem predicted women's

intention to engage in breast self-examination; low levels of weight concern and higher self-rated sexual attractiveness were associated with greater intention to self-examine in the future. Body esteem did not however, distinguish between those women that did or did not currently self-examine or predict men's current or intended testicular self-examination. The findings have implications for the promotion of self-examination and highlight an emerging area of preventive health research. Future research should investigate the importance of cultural beliefs in relation to physical appearance, sexuality and self-examination.

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