

**Risk Perceptions in Women Making Decisions About Breast Cancer Preventive Therapy: A test of the TRIRISK model (Abstract only)**

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**Title:** Risk perceptions in women making decisions about breast cancer preventive therapy: a test of the TRIRISK model

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**Background:** Deliberative, experiential and affective risk perceptions independently predict health behaviours. Inconsistent evidence suggests individuals reporting high deliberative risk and high affective risk may be less likely to take preventive health actions than those reporting lower perceived risk on either scale. Within-subject stability in perceived risk is also largely unexplored. We examined these associations in a cohort of women at high risk of breast cancer making decisions about preventive therapy.

**Methods:** We approached 732 women at 20 UK hospitals to complete a survey following an appointment to discuss their breast cancer risk. Within the appointment, the option of taking tamoxifen as a prophylactic was discussed. Surveys were returned by 407/732 (55.7%) women, and 258 (63.2%) provided data at 3-months. Baseline measures included deliberative risk ('compared with women my age, my chances of breast cancer are...'), experiential risk, ('I feel vulnerable to getting breast cancer'), and affective risk ('In the past 7 days I worried about developing breast cancer'). Measures were repeated at 3-months and self-reported uptake of tamoxifen was also recorded.

**Results:** Deliberative (M=3.02 out of 5, SD=0.66), experiential (M=3.13 out of 4, SD=0.72) and affective risk (M=2.69 out of 4, SD=0.95) were elevated at baseline. Women reporting higher experiential risk perception were more likely to report higher deliberative ( $r=0.20$ ,  $p<0.01$ ) and affective ( $r=0.42$ ,  $p<0.01$ ) risk perceptions. There was no relationship between deliberative risk and affective risk. In a model adjusted for demographics, women reporting higher deliberative risk had a non-significant increased likelihood of reporting tamoxifen use at 3-months (OR=2.17, 95%CI=0.98-4.79). There was no association between either experiential risk or affective risk and tamoxifen uptake. There were no 2-way interactions between the perceived risk items on uptake of tamoxifen. Respondents reported different affective risk scores between baseline and 3-months ( $p \leq 0.001$ ); with a greater likelihood of their affective risk declining than increasing. There were no differences in experiential or deliberative perceived risk between baseline and follow-up.

**Conclusions:** The tririsk model components were related to each other, but only deliberative risk affected preventive therapy decision-making. Data on components of perceived risk collected in the general population may not generalise to high risk groups.