EXPLORING THE ‘CANCER EFFECT’
On views about overdiagnosis and overtreatment in cervical screening among young women
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BACKGROUND:
- Overdiagnosis and overtreatment of precancerous lesions occur commonly in screening for cervical cancer amongst young women (aged 25 and under)\(^1\)
- Despite this, women may be unlikely to accept later or less frequent screening\(^2\)
- We hypothesised that this may be due to a ‘cancer effect’, that is, high negative emotions surrounding cancer which drive a higher perception of risk of cancer

AIM: To explore the ‘cancer effect’ as a potential driver of overdiagnosis in young women screening for cervical cancer.

METHOD:
- Randomised experimental study with 2x2 design
- Disease type: Cervical cancer and matched hypothetical aneurysm example
- Information type: With or without overdiagnosis information.
  - Without overdiagnosis condition given this information at T2
- Participants: 168 female university students aged 18-25 with no cancer history
- Outcomes:
  - Theory of Planned Behaviour: Intention, subjective norms, attitudes, perceived behavioural control
  - Perceived risk, emotion, decisional conflict

RESULTS:
- Distribution of intention to screen significantly different between groups (Figures 2 and 3).\(^3\)
- Intention to screen reduced within subjects at T2 for conditions (A) and (C)
- Perceived risk of disease was lower when the overdiagnosis information was presented in the non-cancer condition but not in the cancer condition.
- Knowledge was lower in the cervical cancer group
- Negative emotion significantly predicted intention in the cancer group, but not in the non-cancer group

DISCUSSION:
- Negative emotion predicted intention to screen only in the cervical cancer group, consistent with theories that emotional affect drives decision making more than factual knowledge in cancer\(^4\)
- This negative emotion may also explain the higher perceptions of risk for cancer, because emotion may drive probability judgements and lead to making more decisions at the extremes of intention.
- Overall, findings suggest that a ‘cancer effect’ may be present amongst young women given information about screening, which may drive enthusiasm for screening.

REFERENCES:

Additional overdiagnosis information: “The cervical [aneurysm] screening test cannot distinguish between abnormal changes [infections] that will become cancer [lead to an aneurysm], and lesions [infections] that would never progress to cancer [aneurysm]. Women under the age of 25 in particular have a higher risk of having a lesion [an infection] detected, but the majority will resolve without treatment. As such, over-detection is high in young women. … This means that young women may be going through unnecessary treatments, which have associated risks.”

Figure 1. Design of study.

Figure 2. Levels of intention to screen based on information for cervical cancer. (Participants n = 84).

Figure 3. Levels of intention to screen based on information for aneurysms. (Participants n = 84).