

When One Size Doesn't Fit All: Developing Gendered Internet-Based Messages for Youth About Breast Cancer and Smoking

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February 5, 2013
Presentation for the Clean Air Coalition of BC



a place of mind
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Smoking affects more than lungs....

- ▶ Tobacco smoke contains approximately 20 mammary carcinogens (California Environmental Protection Agency, 2005).
- ▶ A causal association between active smoking & regular exposure to secondhand smoke (SHS) & premenopausal breast cancer has been demonstrated (Collishaw et al., 2009).
- ▶ Vulnerability high during breast cell growth (Innes & Byers, 2001; Lash & Aschengrau, 1999; Okasha, McCarron, Gunnell, & Smith, 2003).





Goal: To raise awareness among youth about girls' increased risk for BC when exposed to tobacco smoke

Objectives:

- To develop gender- and Aboriginal-tailored messages
- To evaluate youths' responses to the tailored messages

Program of Research

START is nested within the British Columbia Adolescent Substance Use Survey (BASUS)

BASUS	Wave 2 (Spring 2010)	Wave 3 (Fall 2010)	Wave 4 (Spring 2011)	Wave 5 (Fall 2011)	Wave 6 (Spring 2012)
START	Phase 1 BASUS data used to identify and characterize groups based on smoking status, gender and ethnicity	Phase 2 Message development (Qualitative; focus groups)	Phase 3 Message delivery and evaluation using a randomized trial (including a partial cross-over) nested within the ongoing BASUS cohort study		

START: Message Development Phase

- Message strategies developed via 8 focus groups



- 43 youth aged 12 to 17 (18 were female, 20 were of Aboriginal descent)

(Bottorff et al., 2010; Haines et al., 2010)



Be Breast Friends for Life



STEP UP  **STEP OUT**

Girls' Views

- Girls should know this
- Focus on what's important to girls – e.g., connections with others (girlfriends)
- Use novel images
- Use a “real life example”
- Offer strategies to avoid tobacco exposure

“It makes more of an impact when it shows like a real life story, that it could happen, instead of statistics or facts or something.”

“[It] gave you the information that you needed to know. Because it might be hard to tell your friend to quit smoking [or] like ‘go somewhere else.’ It might be a little awkward to bring it up. And having a suggestion would make it a little easier.”

Boys' Views



- Use “catchy” but not “cheesy” messages
- Needs to be easily recognized as a message for boys - don’t pay attention to usual BC messages
- Liked idea of “respecting girls”
- Using overtly sexualized images/messaging was distracting – didn’t read the message.

Tailored START Messages

Girls' Messages

Smoking affects more than your lungs.
Cigarette smoke, even second hand smoke, puts girls at risk of **breast cancer** at an early age.



Avoid places where you and your friends are exposed to second hand smoke.

START a place of mind

If you smoke, think about quitting. Do it for yourself and for all the girls you know.

Smoking affects more than your lungs.
Cigarette smoke, even second hand smoke, puts girls at risk of **breast cancer** at an early age.



Avoid places where you and your friends are exposed to second hand smoke.

START a place of mind

If you smoke, think about quitting. Do it for yourself and for all the girls you know.

Boys' Messages

HEY GUYS, SHOW YOU CARE!
Respect the girls around you by not exposing them to second hand smoke.



SMOKING AFFECTS MORE THAN GIRLS' LUNGS.
Second hand smoke increases their risk of **breast cancer** at an early age.

START a place of mind

If you smoke, think about quitting. Do it for yourself and for all the girls you know.

HEY GUYS, SHOW YOU CARE!
Respect the girls around you by not exposing them to second hand smoke.



SMOKING AFFECTS MORE THAN GIRLS' LUNGS.
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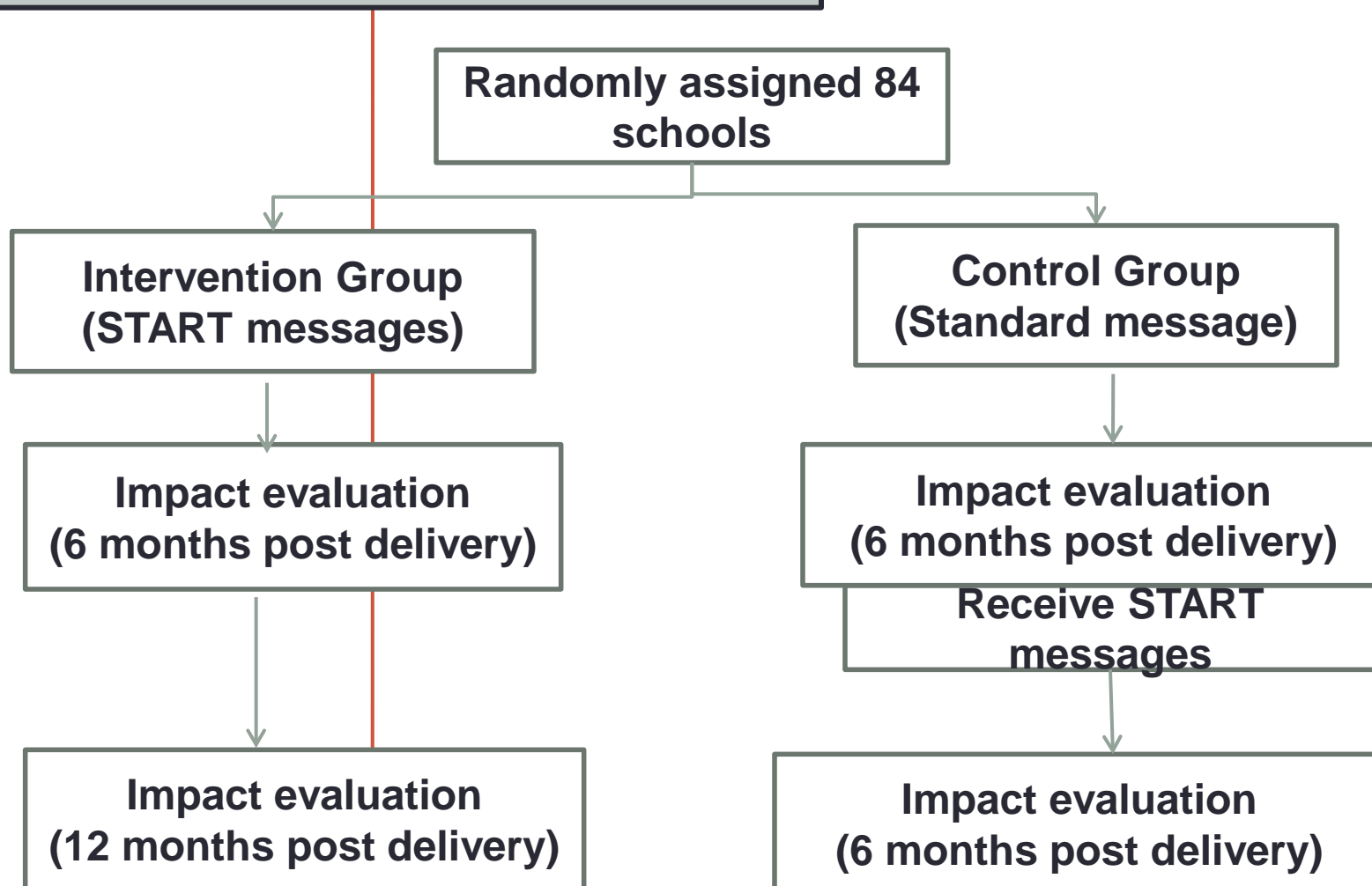
START a place of mind

If you smoke, think about quitting. Do it for yourself and for all the girls you know.

Standard Message



START: RCT Phase



Measures

- Demographics
- Smoking behaviour
- Message viewing time
- Perceived risk
- Worry
- Information-seeking

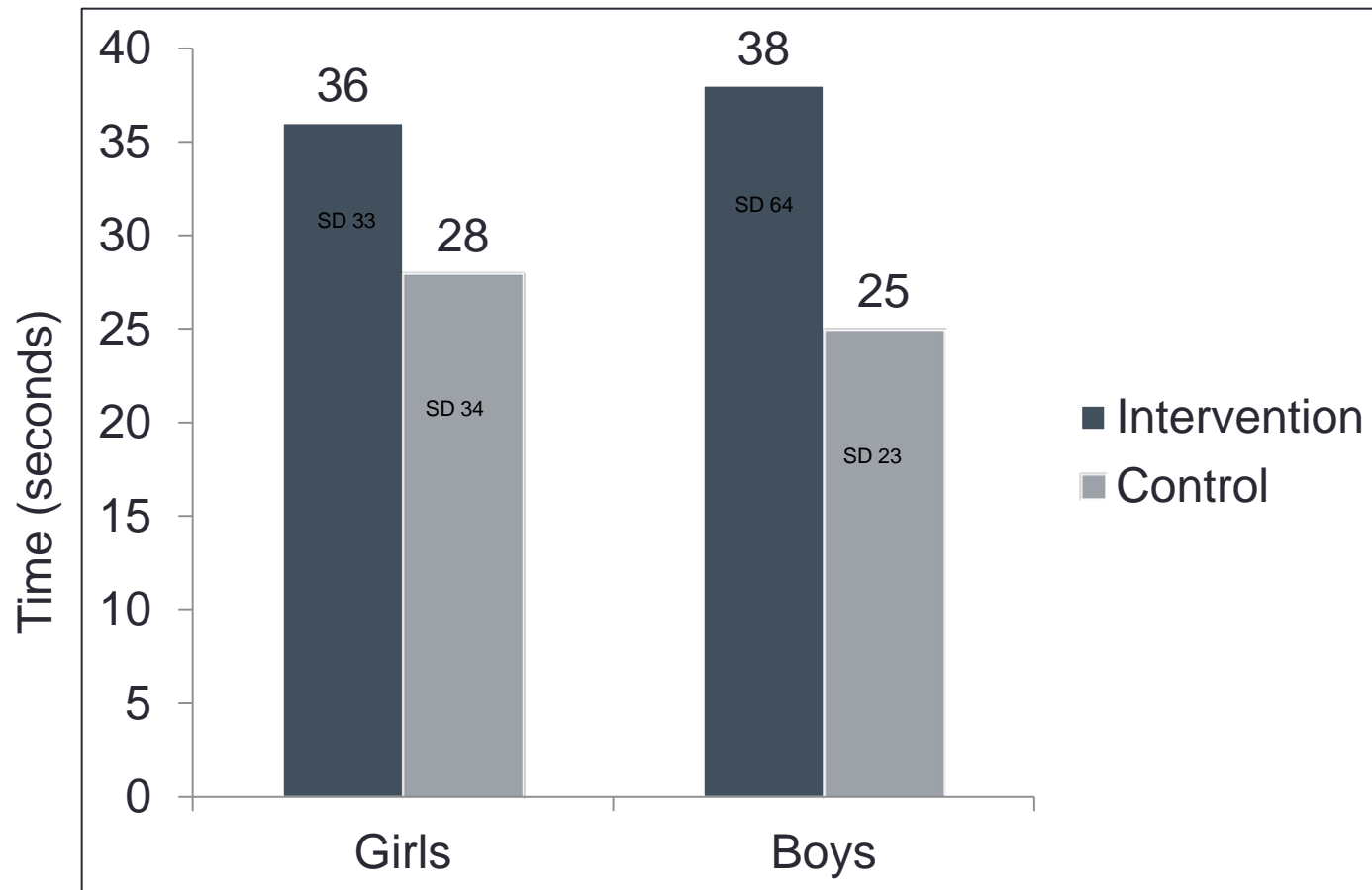


Participant Characteristics		Intervention n (%)	Control n (%)
Gender*	Male	310(48)	348(42)
	Female	339(52)	491(59)
Age in years***	13	92(14)	172(21)
	14	351(54)	480(57)
	15	206(32)	187(22)
Ethnicity	Aboriginal	71(11)	96(11.8%)
	Other	555(89)	717(88)
Family member has had BC*	Yes	153(25)	154(20)
Have tried smoking tobacco	Yes	60(9)	104(12)
Does anyone smoke in your home...?*	Yes	60(9)	107(13)
Past month's exposure to SHS	Every day	20(3)	35(4)
	Almost every day	70(11)	79(10)
	At least once a week	153(24)	236(28)
	At least once in past month	281(44)	347(43)
	Never	110(17)	119(15)
Tobacco identified as a risk factor for BC	Yes	172(27)	208(25)

Exposure to intervention

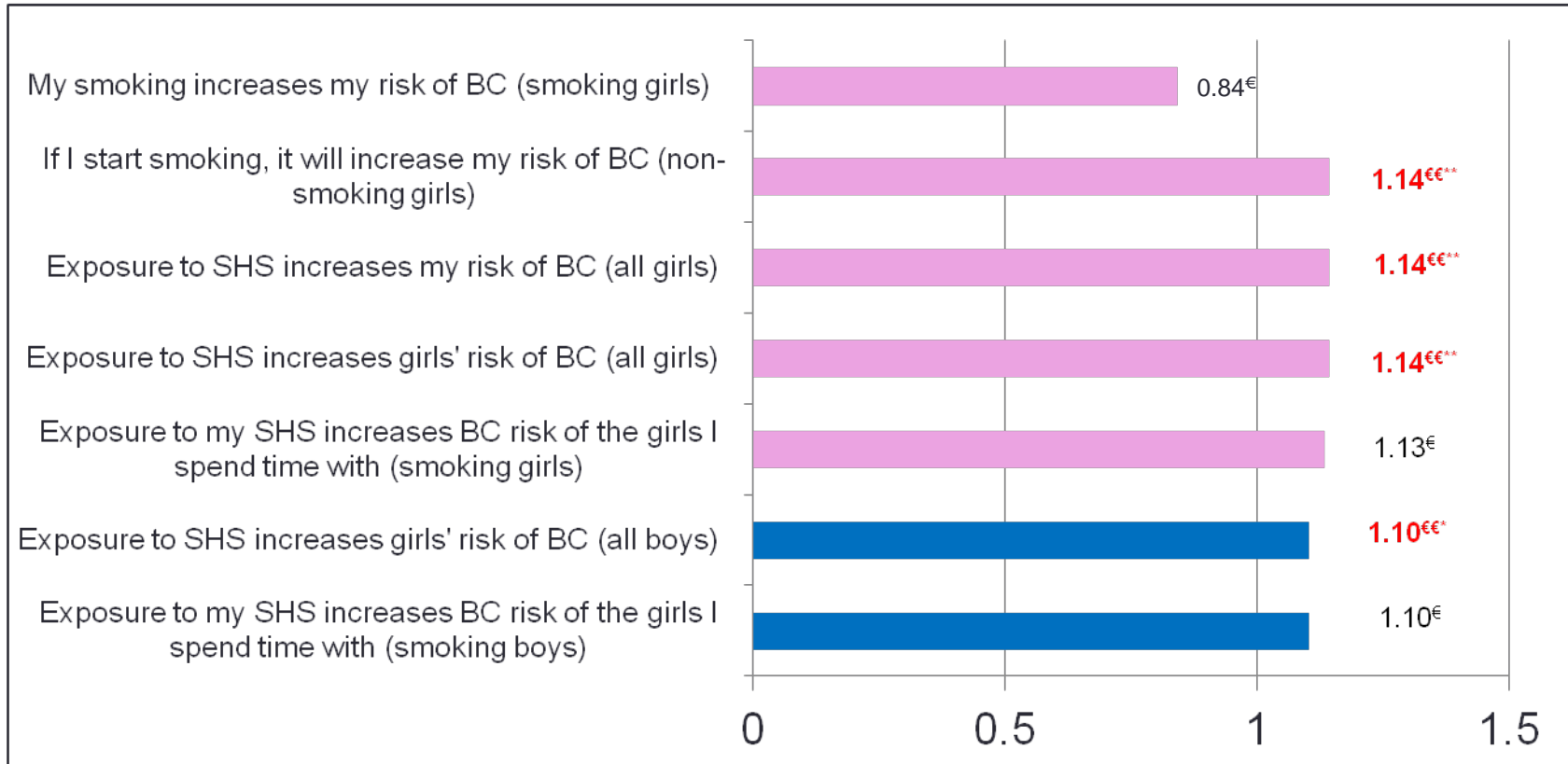


Time spent reading messages



Intervention group significantly differs from control group at $p < 0.001$

Post-intervention relative risk

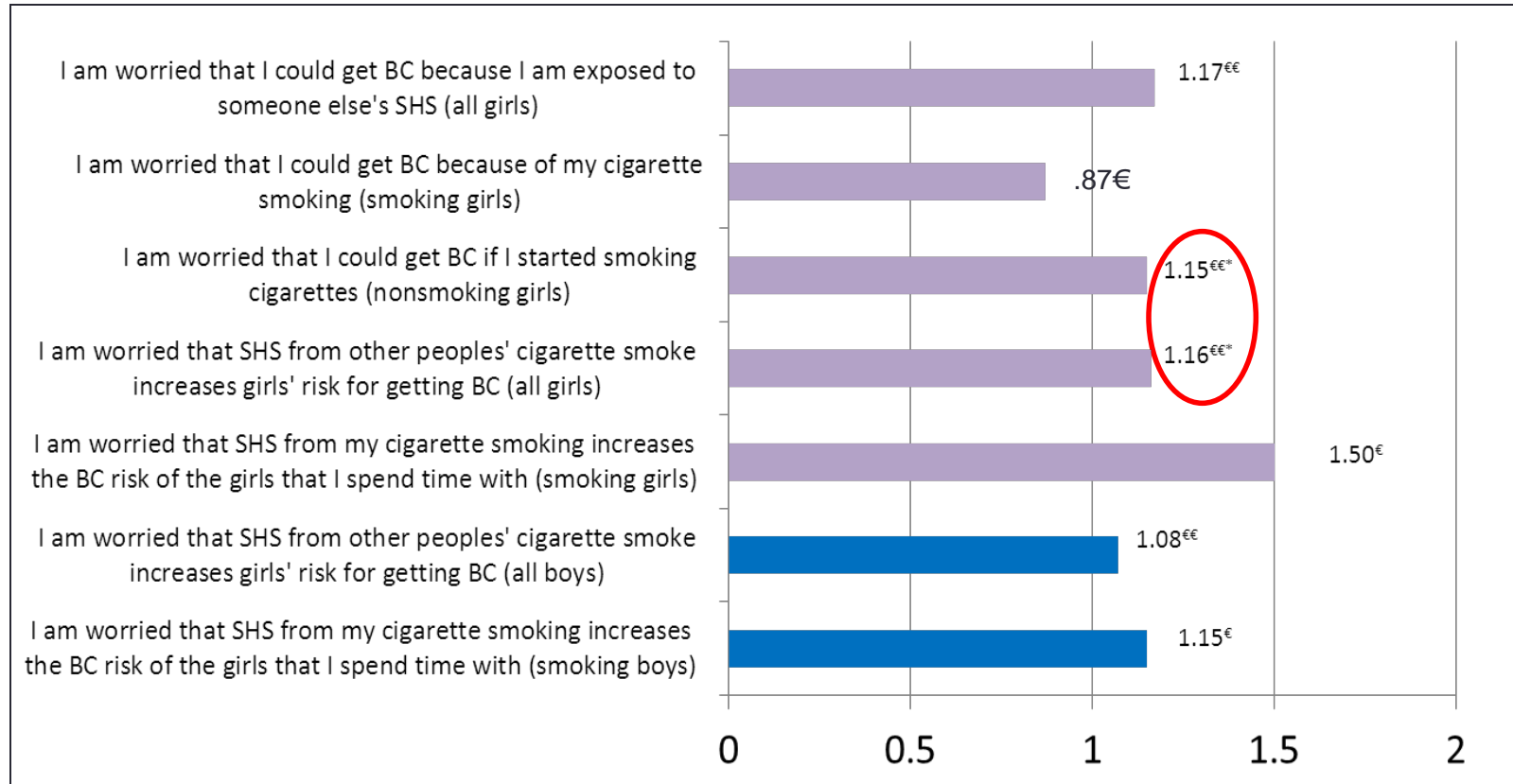


[€] Unadjusted RR due to small sample size

^{€€} Adjusted RR for age, family history of BC, smoking status of family and peers, and having tried cigarettes.

* $p < 0.01$, ** $p < 0.001$

Post-intervention worry

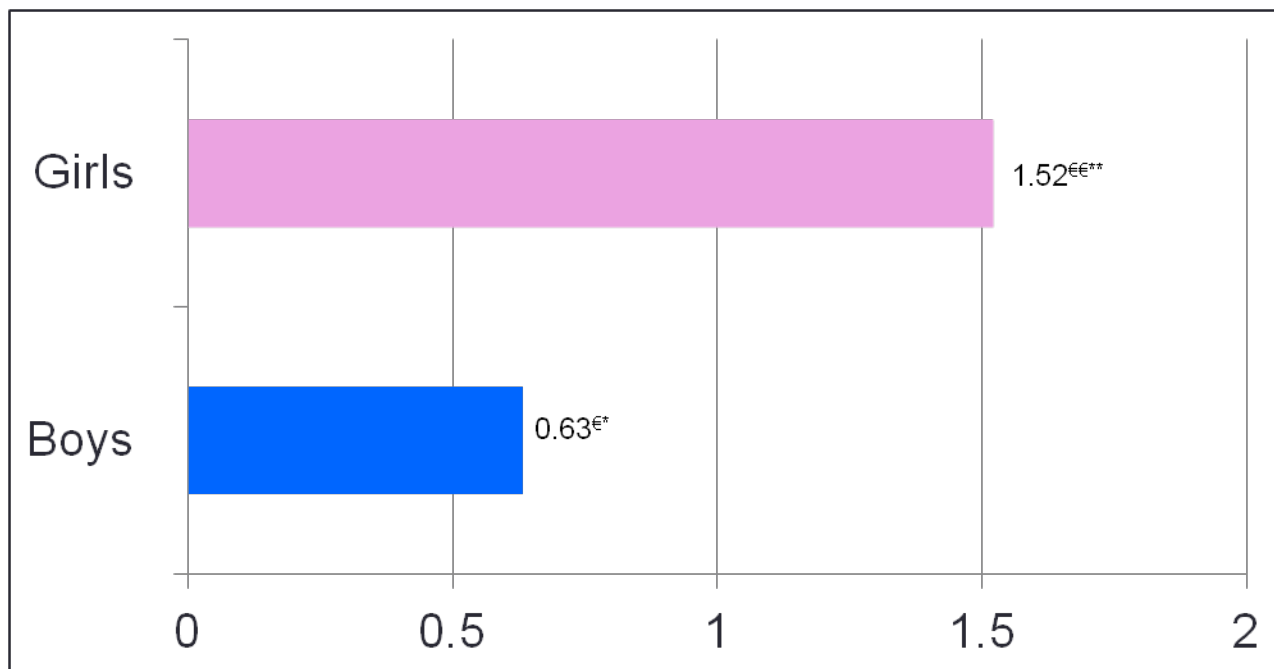


€ Unadjusted RR due to small sample size

€€ Adjusted RR for age, family history of BC, smoking status of family and peers, and having tried cigarettes.

* $p < 0.01$

Interest in receiving more information



€ Unadjusted RR due to small sample size

€€ Adjusted RR for age, family history of BC, smoking status of family and peers, and having tried cigarettes.

* $p < 0.01$, ** $p < 0.001$

*Girls' responses significantly differed at $p < 0.05$

Conclusions

- Tailored + framed, gender-specific messages appear to increase awareness
- Girls' response may be related to physical/social changes with transition to womanhood
- Findings suggest masculine norms can be repositioned to promote young men's involvement in girls/women's health issues
- Interactive technologies hold promise for cost-effective, gendered health promotion



Acknowledgements

□ Team members:

R. Haines-Saah, J. L. Oliffe,
P. Hutchinson, P.A. Ratner,
C.T.C. Okoli, C. Gotay, K. Johnson,
L.L. Struik, J. Schwartz, J. Memetovic
J. Stevens

□ Funding for the project:

- Canadian Breast Cancer Research Alliance
- Canadian Breast Cancer Foundation
- Career support for Chris Richardson: MSFHR, CIHR

□ Graphic Designers:

- Think Media



References

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