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Increasing uptake of FIT bowel screening: the TEMPO randomised controlled trial testing a suggested deadline and a planning tool in Scotland, UK

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**WORLD
CHANGING
GLASGOW**



CANCER
RESEARCH
UK



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SCIENTIST
OFFICE**



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Behavioural interventions

Low cost, easily implemented, highly impactful

TIPS FOR USING YOUR KIT

Here are some tips that people find helpful to make the bowel screening kit even easier. Try drawing a line from any concern you have to a tip which might help you. You can draw as many or as few lines as you like. There are no right or wrong answers.

Concerns



If I feel scared about bowel screening...



Tips



... then I'll read the instructions.



If I keep putting off using the kit...



... then I'll think that this kit could help save my life.



If I am not used to using a kit like this...



... then I'll put the kit by the toilet to remind me.



If I am worried what it might find...



... then I'll wash my hands after using the kit.



If I think using the kit is messy...



...then I'll tell myself that I'm responsible for my health.



Do you have another concern? Please write it here: *If I...*



Got a better tip? Please write it here: ...then I'll...

Scottish Bowel Screening Programme

This is your label

50 TEST
120 Demographic Street
Dundee



00001/00009

Scottish Bowel Screening Centre
Dundee
DD3 8EA

DD1 1SU

30500

Date: 25 Apr 2014
Reference No: 0112535089

Enquiries to: **0800 0121 833**

Dear XXX XXXX

Your bowel screening test can find bowel cancer early, when it can often be cured


Please return your kit within 4 weeks (by DD.MM.YYYY) or as soon as possible.

- This is your bowel screening test kit. You'll be sent a test every two years from ages 50 to 74
- The test is now **quicker and easier** to use and you do it in the privacy of your own home
- Just send one small **sample of poo** and your results will be posted within two weeks. The instructions are on the back of this letter
- Please remember to **label** and **date** your kit - we cannot test the kit without this information
- The test works by finding hidden blood in your poo – this can be a sign of bowel cancer

ORIGINAL RESEARCH



Why colorectal screening fails to achieve the uptake rates of breast and cervical cancer screening: a comparative qualitative study

Marie Kotzur ,¹ Colin McCowan,² Sara Macdonald,¹ Sally Wyke,¹ Lauren Gattin,¹ Christine Campbell,³ David Weller,⁴ Emilia Crighton,⁵ Robert J C Steele,⁶ Kathryn A Robb¹

¹Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK
²School of Medicine, University of St Andrews, St Andrews, UK
³Usher Institute, University of Edinburgh, Edinburgh, UK
⁴General Practice, University of Edinburgh, Edinburgh, UK
⁵Public Health Directorate, NHS Greater Glasgow and Clyde,

ABSTRACT

Background In Scotland, the uptake of clinic-based breast (72%) and cervical (77%) screening is higher than home-based colorectal screening (~60%). To inform new approaches to increase uptake of colorectal screening, we compared the perceptions of colorectal screening among women with different screening histories.

Methods We purposively sampled women with different screening histories to invite to semistructured interviews: (1) participated in all; (2) participated in

to collect two samples from each of three separate bowel motions and to mail their completed kit for processing. Women in Scotland are also invited to attend prearranged appointments for breast screening using mammography and to make appointments for cervical screening using the Pap smear ([table 1](#)). All three screening tests are offered at no cost to

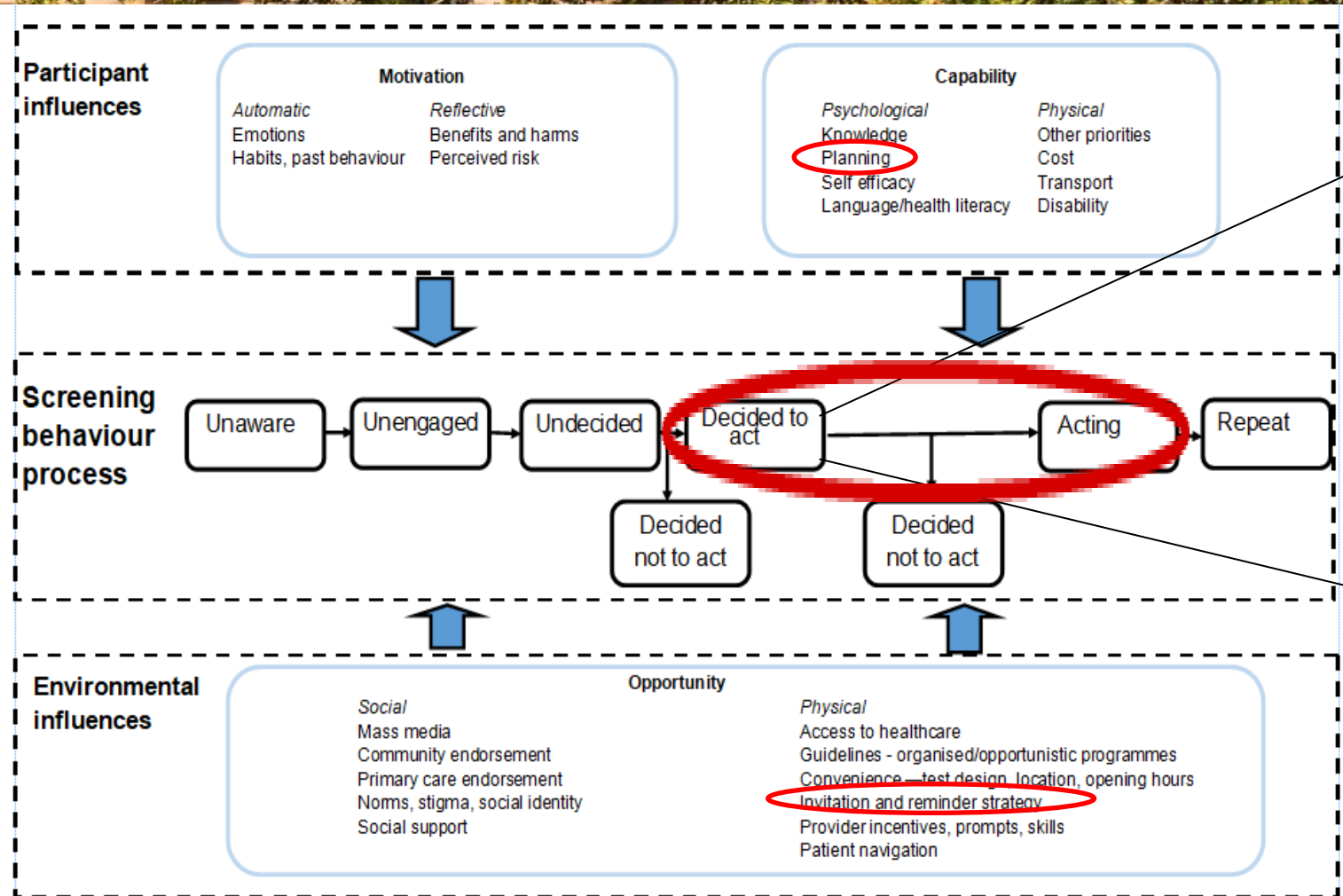


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“if it’s a bowel screening one, yep, put it somewhere and think ‘Yes, I’ll do that’ and then forget about it because it doesn’t have an appointment date. I think if something has an appointment date, you’re forced to act.”



Integrated Screening Action Model (I-SAM)



Invitation strategy:
planning support

Invitation strategy:
provide deadline



BMJ Open What are common barriers and helpful solutions to colorectal cancer screening? A cross-sectional survey to develop intervention content for a planning support tool

Marie Kotzur ,¹ Sara Macdonald,¹ Ronan E O'Carroll,² Rory C O'Connor,¹ Audrey Irvine,³ Robert J C Steele,⁴ Kathryn A Robb ¹

To cite: Kotzur M, Macdonald S, O'Carroll RE, *et al.* What are common barriers and helpful solutions to colorectal cancer screening? A cross-sectional survey to develop intervention content for a planning support tool. *BMJ Open* 2022;**12**:e062738. doi:10.1136/bmjopen-2022-062738

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/>

ABSTRACT

Objective Colorectal screening using faecal immunochemical tests (FITs) can save lives if the people invited participate. In Scotland, most people intend to complete a FIT but this is not reflected in uptake rates. Planning interventions can bridge this intention-behaviour gap. To develop a tool supporting people willing to do colorectal screening with planning to complete a FIT, this study aimed to identify frequently experienced barriers and solutions to these barriers.

Design This is a cross-sectional study.

Setting Participants were recruited through the Scottish Bowel Screening Programme to complete a mailed questionnaire.

Participants The study included 2387 participants who

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Collaboration with the Scottish Bowel Screening Programme enabled targeted recruitment of a large sample evenly matched in sex and socioeconomic status across participant groups.
- ⇒ Participants who had not completed screening were significantly older and more ethnically diverse than those who had, but this did not affect outcome measures.
- ⇒ Despite efforts to recruit similar numbers of people who had and had not completed screening, the proportions of participants who had completed screening were much larger due to an error.





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screening...



If I keep putting
off using the
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If I am not used
to using a kit
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If I am worried
what it might
find...



If I think using
the kit is
messy...



Do you have another concern?
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Tips



... then I'll read
the instructions.



... then I'll think
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help save my life.



... then I'll put the
kit by the toilet to
remind me.



... then I'll wash
my hands after
using the kit.



...then I'll tell myself
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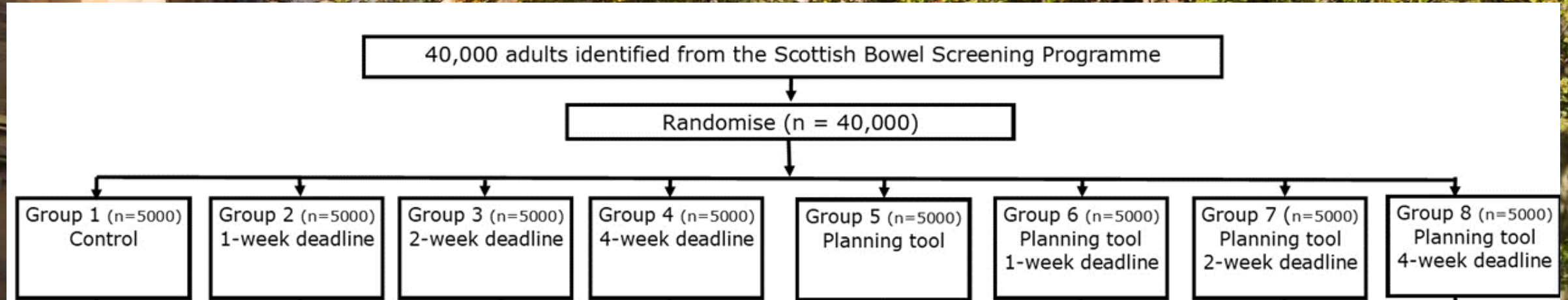
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Concerns	Tips
If I feel scared about bowel screening...	... then I'll read the instructions.
If I keep putting off using the kit...	... then I'll think that this kit could help save my life.
If I am not used to using a kit like this...	... then I'll put the kit by the toilet to remind me.
If I am worried what it might find...	... then I'll wash my hands after using the kit.
If I think using the kit is messy...	... then I'll tell myself that I'm responsible for my health.
Do you have another concern? Please write it here: If I...	Got a better tip? Please write it here: ...then I'll...



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		n=5000	n=5000	n=5000	n=5000	n=5000	n=5000	n=5000	n=5000
	Deadline	None	1-week	2-week	4-week	None	1-week	2-week	4-week
	Planning tool	No	No	No	No	Yes	Yes	Yes	Yes
FIT kit returned		66.0%	66.0%	67.9%	66.8%	63.2%	67.8%	67.0%	67.1%
Difference			0%	1.9%	0.8%	-2.8%	1.8%	1.7%	1.1%



Primary outcome. Logistic regression analysis of usable FIT kit return within 3 months. Deadline intervention treated as binary. All models adjusted for age group, sex, SIMD, and urban-rural classification.

			Adjusted odds ratio (95% CI), p-value
Model 1	Any deadline vs. no deadline		1.13 (1.08, 1.19), <0.001
	Planning tool vs. no planning tool		0.98 (0.94, 1.02), 0.3364
Model 2	Model 2 vs. Model 1	Interaction p-value	0.0041
	Any deadline vs. no deadline	No planning tool	1.05 (0.98, 1.13), 0.1545
		With planning tool	1.21 (1.13, 1.30), <0.001
	Planning tool vs. no planning tool	No deadline	0.88 (0.81, 0.96), 0.003
		Any deadline	1.02 (0.97, 1.07), 0.532
Model 1: each intervention as an independent effect Model 2: Model 1 + interaction between interventions			



How acceptable was being asked to link your concerns with tips for your bowel screening kit?

■ Completely unacceptable ■ Unacceptable ■ Neither unacceptable nor acceptable ■ Acceptable ■ Completely acceptable



Did you like or dislike being asked to link your concerns with tips for your bowel screening kit?

■ Strongly disliked ■ Disliked ■ Neither disliked nor liked ■ Liked ■ Strongly liked



How fair is it to ask people to link their concerns with tips for the bowel screening kit?

■ Very unfair ■ Unfair ■ Neither unfair nor fair ■ Fair ■ Very fair



Being asked to link my concerns with tips for the bowel screening kit helped me complete the kit

■ Strongly disagree ■ Disagree ■ Neither disagree nor agree ■ Agree ■ Strongly agree





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“Oh, I think it is fair, because if they do have concerns or, you know, that they might think, “Well, it is maybe just me that thinks like this,” but if they can read that, perhaps it might be a general concern for folk or, to have tips to help them it might reassure them a bit that they are not alone and it is not an uncommon feeling to feel like that when they are doing the test.”

(Completer, female, age 61, received planning tool)

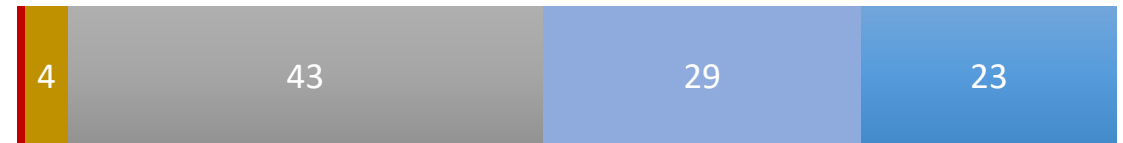


How acceptable was being given your suggested deadline for returning your bowel screening kit?



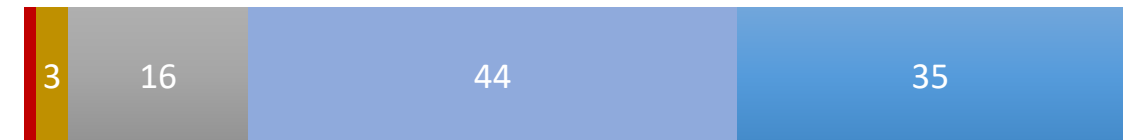
■ Completely unacceptable ■ Unacceptable ■ Neither unacceptable nor acceptable ■ Acceptable ■ Completely acceptable

Did you like or dislike being given your suggested deadline for returning your bowel screening kit?



■ Strongly disliked ■ Disliked ■ Neither disliked nor liked ■ Liked ■ Strongly liked

How fair to people is it to suggest a deadline for returning the bowel screening kit?



■ Very unfair ■ Unfair ■ Neither unfair nor fair ■ Fair ■ Very fair

Suggesting a deadline for returning the bowel screening kit helped me return the kit



■ Strongly disagree ■ Disagree ■ Neither disagree nor agree ■ Agree ■ Strongly agree



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“I think at the time I probably thought, oh, I wonder why they put a timescale on it? Do you know what I mean? Like thinking why is that? And that probably crossed my mind. And then maybe feeling a wee tiny bit panicky, thinking, oh, God, I'd better get this done, do you know what I mean?”

(Completer, female, age 56, received 1-week deadline)



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1.9%

34,000 additional people participating

20 lives saved

UK 268 lives saved



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Team Work

Dr Marie Kotzur

Dr Ben Young

Professor Alex McConnachie

Professor Colin McCowan

Professor Sara Macdonald

Dr Gareth Hollands

Audrey Irvine

Ann-Marie Digan

Professor Rory O'Connor

Professor Ronan O'Carroll

Professor Bob Steele

PPI: Lucy Robertson and Mary Cameron





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Thank you

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