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Women's Preferences for Communication with the Cervical Screening Programme: A Qualitative Study

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Abstract

Background

In Scotland, invitations and results for cervical screening are sent by post. We ask the question is this an effective means of communication in the 21st century. Consideration of other ways of communicating with women may help to increase acceptability of the cervical screening programme.

Objective

To explore perspectives of screening-eligible women, regarding methods for communication of invitations and results from the cervical screening programme to improve acceptability.

Methods

A qualitative study design using semi-structured face-to-face or telephone interviews with women aged 25 – 65. 30 interviews were directed using visual cues to generate discussion.

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Interviews were audio recorded and transcribed verbatim. Thematic analysis of the data was conducted using a Framework approach.

Results

The main advantage of the postal system is its perceived formality, however its lack of speed was a concern. Advantages of e-communication included speed and convenience; however concerns such as lack of confidentiality and access were mentioned. Telephone communication was deemed impractical, while face-to-face communication was highly regarded. Furthermore, the majority of participants felt screening appointments set at a specific date and time may improve uptake. Overall, participants believed there is no universal solution regarding the issue of communication.

Conclusion

At present, the postal system may be an appropriate method for invitation and results for cervical screening; however there may be greater scope for preference of communication to improve the acceptability of the screening programme to women.

Key words: cervix, cervical screening, communication

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Conflict of Interest Statement

There are no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Introduction

Cervical cancer is considered a disease of the young with highest rates occurring in women between the ages of 25-29 in the UK[1] Cervical Intraepithelial Neoplasia (CIN) is often described as a 'pre-cancer' as it carries a significant risk of progressing to invasive carcinoma if undetected and untreated.[2] The cervical screening programme aims to identify CIN, and facilitates patients' progression to the appropriate further investigation and treatment.

Communication from the Cervical Screening Programme in Scotland, as in many countries, is by post. The NHS cervical screening programme invites women every three years between the ages of 25–49, and every five years to those aged 50–64.[3] As post is the primary means of communication, women need to be registered at an address with a GP in order to receive an invitation. Nevertheless Ofcom data suggests the way in which we communicate as a society is changing, hence there may be more suitable alternatives.[4]

Uptake is a key factor in the success of a screening programme.[5,6] It is concerning that uptake of cervical screening has fallen in recent years. In Scotland, the percentage of eligible women with a record of previous screening in the last 3.5 years (aged 25-49) is 70.5%, and 76.8% in women (aged 50-64) in the last 5.5 years.[7] Investigating barriers to screening is crucial, and communication is one avenue that warrants further investigation, as it is the main point of contact for screening-eligible women.

Digital Health Interventions (DHIs) and increased access to computers, smartphones and tablets offer alternatives and may be more accessible than traditional postal service. The aim of this study is to explore perspectives of screening-eligible women regarding methods of communication with cervical screening, towards improving acceptability of the programme.

Methods

Study design

This study used semi-structured face-to-face or telephone interviews with women aged 25–65 attending Gynaecology outpatient clinics, Aberdeen Royal Infirmary, Scotland.

Sample size

A total of 30 participants were interviewed. The final ten interviews specifically targeted women who irregularly attend cervical screening. 'Irregular attenders' were interviewed to elucidate whether it was an aspect of the communication system that discouraged their attendance.

Inclusion and exclusion criteria

Inclusion criteria

- Women aged 25 – 65
- Women attending a range of different clinics in the Gynaecology department
- Women with literacy/capacity to read and comprehend the letter and leaflet

Exclusion criteria

- Women who could not speak or read English

Recruitment

Recruitment took place in outpatient clinics at a single-centre in Aberdeen Royal Infirmary. If the patient was willing to participate and give written consent, an interview was arranged – either face-to-face before or after her appointment, or by telephone.

Data Collection

Interviews took place in January-June 2016. Topic guide (Figure 1) aimed to cover a range of women's experiences of communication with the Cervical Screening Programme. Interviews began discussing the participant's previous involvement with cervical screening. Then, using visual cues, various methods of communication were discussed. Cues included the current postal invitation (Figure 2), mobile health apps (Figure 3) and website CervicalCheck[8] (Figure 4). In Ireland, CervicalCheck is a website which acts as an information resource,

sends reminders and allows women to check when their next screening is due. Pros and cons were discussed and a series of open questions provided a thorough account of women's perspectives. Telephone interviewees received an envelope containing relevant cues and opened them upon instruction. Each interview was audio recorded and transcribed verbatim.

Data Analysis

Transcripts were coded using a Framework approach - an established interpretive approach using continual comparison with five stages: familiarisation with data; development of a thematic framework; indexing data, devising thematic charts; mapping and interpreting data.[9] Analysis was checked by two researchers and interpretation discussed as a team. Themes were divided into subheadings related to communication such as: post, text, Internet and app. This facilitated development of an improved, more organised thematic framework.

Ethical Approval

The University of Aberdeen, reference number: 2/041/15 sponsored the study. Research Ethics Committee approval was obtained from an NHS Research Ethics Committee (Edgbaston), reference number: 15/WM/0386, dated 6 November 2015. NHS Management Research and Development approval was also obtained from NHS Grampian: reference number 2015OG004, dated 11 November 2015. Changes to study documentation or processes were submitted for approval prior to implementation.

Results

Participant Characteristics

Participant characteristics are included in Table 1. 30 interviews were carried out – participant number stated prior to quotations. Participants were aged 25–64, with mean age of 41.8. Length of interview ranged from 9m42s–21m14s with mean of 12m26s. 28 were carried out face-to-face while two were by telephone (Table 1 and 2).

Number of common themes identified

There were a number of common themes between participants who attended regularly and those that did not. Issues with the current postal system and the value of reminders were raised. Themes of confidentiality, speed, flexibility and access were also raised in respect to various methods of communication. Overall, both groups believe that there may not be one solution that suits everyone, and multiple avenues are worth exploring.

Themes identified

Issues with the current system

Many irregularly attending participants attributed their poor attendance to gaps in the current system of communication from the screening programme, for example when abroad.

> *30: 'I never really got reminders or anything like that. And when I came back from Britain…there was a bit of complacency because I hadn't had these smears and everything seemed fine anyway'*

> *25: 'thought I attended every one, but obviously not.'*

> *29: 'I haven't been invited'*

Confidentiality

Participants were asked about their concerns regarding different methods of communication, and confidentiality was a recurring theme.

(Text) 25: 'I don't think much of texts, because if you lose your phone somebody has got it'

(Website) 23: 'Just in case anyone could access your information on there, because they're hacked all the time'

(Mobile apps) 16: 'quite often you don't get post, and you think I should have got that. I think it's more reliable if you get an email, or a text' 01: ...I probably wouldn't have the confidence of it being as secure.'

Speed

Participants expressed a sense of urgency towards receiving screening results, and some believed post was slow.

03: 'I think that would be quite good (website). I think sometimes when you hear you are going to get a letter it's that constant waiting, waiting, waiting.'

Increased speed was identified as a key advantage of communication through an app, online or email.

14: 'So I wouldn't mind having an email with my results, the quickest way to have my results would be fine.'

However a few were satisfied with the post.

18: 'I get a letter and I'm happy with a letter.'

Formality

Our findings found formality is the main advantage of postal communication. Participants regarded it as 'formal', 'official' or 'recognised'. Conversely, website, app and text-based communication were considered less formal.

03: '...post works, I can't criticise it. It seems more official as well, you know, psychologically'. Some questioned the lack of formality of receiving a result through an app.'

Access - changing address

04: 'You play games on apps. Would you take it seriously on an app?'

Participants appreciated increased access offered by alternative methods of communication,

> *17: 'I received a letter from gynaecology – but I wasn't around [...] but if it was by email, I can access my email wherever I am. If it's anything urgent and I can make a phone call, I think that would be better.'*

especially after being away from their postal address for extended periods of time.

However some participants did not think this was an issue, as they prioritised informing their GP of any change of address.

Access – age

Age was also considered a factor regarding access. Some participants believed that alternative methods of communication were more likely to be used by younger women, and

> *15: 'Yes, you need to get the younger generation in the way that they use the world - with social media, apps and all the rest of it.'*

exclude others.

Participants were asked whether they used any health-related apps and the majority did not. However some made an association to the next generation.

Fixed vs. open appointments

> *28: 'Probably my daughter would...Cause she's knows a lot of computers and she knows how to use them.'*

> *04: 'People put it off: 'oh, I'll phone up, I'll phone up tomorrow' and the weeks go by.'*

Participants were asked whether an appointment at a fixed time and date would improve attendance. It was suggested that it might be beneficial to those who postpone screening.

In contrast, some prefer to choose themselves.

> *26: 'I think it's more convenient to make your own appointment if you're working…to save you having to take time off work for it.'*

Participants who preferred fixed appointments said it was important that allocated times were negotiable.

Postal and text invitation reminders

> *23: 'I think if you had an appointment at a particular time and day, you would try and make that one, or you would have to phone up to make another one. I think that would be a lot better.'*

> *27: 'I normally respond to the first one, yes.'*

Participants generally responded to the initial invitation for screening.

> *26: 'I would be fine with that. Actually my dentist does that so I don't have an issue with that at all.'*

However some recognised the benefits of the reminder in other health systems.

Many participants rejected text to receive the invitation or result, however welcomed text reminder.

> *07: 'Well, I wouldn't mind getting a text message as a reminder, but I wouldn't like my results in a text message.'*

Opt in-opt out system – no universal solution

The website 'CervicalCheck' was one of the visual cues shown to generate discussion. Participants appreciated the additional information about screening.

> *22: 'That's good, yes, because that's how it's going now - all into computers and all into websites'.*

There were mixed views on the benefits of an app. Some were uncertain whether women would take the initiative to download it even if it was available. An opt-in or opt-out system

> *12: 'So even if …you don't want the majority, you opt out and get it by another means … choose the times and click.'*

was suggested, whereby women can choose their preferred method of communication. While others believed there may be different solutions for different people.

> *05: 'There are a lot of different ways to communicate … Maybe if there were two or three different options… maybe the patient themselves could choose which would be best for them.'*

Discussion

This study found there are a number of factors related to communication that can affect acceptability of the cervical screening programme in a Scottish teaching hospital. Communication method is a key aspect that can be targeted. While the postal service has benefits, both those who did and did not regularly attend cervical screening recognised there is also an avenue for other methods of communication of invitation and result.

Ofcom data shows huge movement towards smartphone use. From 2011 – 2018, the proportion of adults who use a smartphone has increased from 27% to 78%. Moreover, the proportion of those using mobile phones for web access has risen from 35% to 76%. It also suggests 'apps' are the main method people access online services. It is apparent the way we are communicating is evolving. 92% of Android users believed it was 'extremely' or 'very' important to have access to browse the Internet everyday, whereas only 75% felt this way about the ability to make voice calls. Furthermore, only 65% of those aged 18-24 believed making a phone call was 'extremely' or 'very' important(4). This depicts the rapidly changing landscape of communication, while also highlighting the unorthodox preferences of young people towards Internet and app-based facilities. This information can be utilised to enhance acceptability of the cervical screening programme through tailoring communication methods.

A Cochrane systematic review found that invitations are an effective method of improving uptake to cervical screening.[10] While most of its trials considered letters, it also included trials offering fixed versus open appointments, telephone calls, and verbal recommendations. It explored the effectiveness of invitational and educational interventions. While there was limited evidence to support educational interventions, invitations were found to be an effective method to increase uptake. While this Cochrane review defined increased uptake as a marker of effectiveness of invitations, our study specifically hones in on which method of communication women prefer in order to improve acceptability of a creditable service.

Participants in our study associated letter invitation as a more formal means of communication. However evidence points to this as a changing opinion in the wider public. The volume of addressed letters declined from 14.6 to 11.2 million items between 2011-2017, however parcel volumes have increased by 12% between 2016-2017. Furthermore, there is a notable trend of what 'type' of post is received by different age demographics. Those aged >75 receive less than half as many parcels than younger people (aged 25-44), and were more likely to receive personal and formal letters(4). This suggests there may not be a 'one size fits all' solution and other means of communication are worth exploring in the context of cervical screening.

Those aged 50-74 are invited to take part in the Scottish Bowel Screening Programme.[11] Some evidence shows that text reminders do not improve uptake of colorectal screening.[12] Conversely, studies show text message reminders improve participation in the cervical and breast screening programme.[13,14] A number of reasons can explain the varying effectiveness of text reminders between screening types. Different invitation modalities may be more suited to certain demographics due to the diverse ways people engage with various communication methods.[4] Another study demonstrated there are age-related barriers to cervical screening.[15] As peak age of incidence of cervical cancer is in those aged 25-29,[1] it is important to find ways to increase acceptability of screening to this group. Our findings suggest tailoring different methods of communication with the programme may help achieve this.

The World Health Organization has recently released a guideline on Digital Health Interventions (DHIs).[16] It recognises the role of digital systems in strengthening our health systems. It states there is currently limited evidence on the effect of targeted digital communication in the cervical screening programme, suggesting this is an avenue worth further exploration.

A systematic review investigated how patients and the public engage with DHIs.[17] It focuses on barriers and facilitators to their use. The main themes identified are related to personal motivation, personal life, engagement and recruitment approach and quality of the

DHI. Participants within this review expressed they would only be willing to use certain DHIs if healthcare professionals or organisations supported them. Participants believed non-postal communication would provide an earlier result. Utilising an online system such as 'women's page' on Scottish Cervical Call Recall System (SCCRS) would provide women with prompt access to their results and when their next screening test is due as well as personalised information relevant to their result. Through such DHIs, anxiety associated with awaiting results may be reduced, potentially increasing acceptability of the screening programme.

Confidentiality was also found to be an important factor when considering new communication methods. Most participants in our study felt that this could be resolved by logins with usernames and passwords. Such protective measures have been utilised by health websites such as CervicalCheck.[8]

A Great Britain-based cross-sectional survey concluded that there are multiple physical barriers to booking a cervical screening appointment, and alternative means of communication is an avenue of interest.[18] One of the aims of the NHS is extending choice for patients, focusing on the way care is provided.[19] Giving options of communication method is one area choice could be extended. Women could select how they wish to communicate with the cervical screening programme from options such as post, in person at their GP, text, online or over the phone. Allowing choice provides a personalised solution, rather than imposing one approach for all.

Strengths and Limitations

Strengths of our study include being the first to address this particular research question in this population. A qualitative design was deemed to be the most effective way of addressing this question. Moreover, participants were aged 25–65, a spread of age in accordance with the Scottish Cervical Screening Programme. Visual cues facilitated women to generate new ideas and discuss their view on alternative communication methods, and the use of semi-structured interviews with an evolving topic guide allowed for comprehensive questioning as themes emerged.

Limitations include the lack of participants who irregularly attended cervical screening. To overcome this challenge, the final ten interviews specifically recruited those who irregularly attend. A semi-structured evolving interview schedule meant those interviewed towards the end of the process were subject to more developed questioning. This was minimised by pilot interviews ensuring the interview schedule was refined prior to recruitment. Engaging with hard-to-reach groups is widely recognised as challenging. Recruiting from hospital clinic shows that even women, who did not comply with screening invitations on time, did engage with health services. However we aim to improve uptake throughout the target population and women who do not access health services or support may need a different, targeted-approach outwith the scope of this project. Furthermore, increasing use of smartphones and improvements in technology is likely to be mirrored by awareness of its capabilities. It is possible that since data collection in 2016, opinions on the use of smartphones may have changed, and there is scope for further research to investigate women's views on communication with the screening programme.

Conclusion

Our findings suggest that there is not one universal solution that will suit all women; however, there is more scope for e-communication in the future. It appears that giving women a selection of options as to how they wish to be communicated with may be the best approach. It is recommended that further research uncover which interventions provide the greatest benefit to each age group, prior to implementation of changes in communication from the Cervical Screening Programme with the aim to increase its overall acceptability to women.

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