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ARTICLE

Barriers and enablers to delivering opportunistic behaviour change interventions during the COVID-19 pandemic: A qualitative study in healthcare professionals

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Abstract

Background: In line with public health policy, healthcare professionals (HCPs) working in the UK's National Health Service (NHS) are encouraged to deliver opportunistic health behaviour change interventions during routine consultations. The impact of the COVID-19 pandemic on healthcare delivery has been wide-ranging, but little is known about how the pandemic has affected the delivery of health behaviour change interventions. The present study aimed to examine the barriers and enablers to delivering opportunistic behaviour change interventions during the COVID-19 pandemic.

Methods: Twenty-five qualitative semi-structured interviews were conducted in January 2022 with a range of patient-facing healthcare professionals (including nurses, physiotherapists, dieticians, doctors and midwives) working in the NHS. Data were analysed using reflexive thematic analysis.

Results: Two overarching themes were generated: (1) *the healthcare system's response to COVID-19*, and (2) *maintaining good HCP-patient relationships: reluctance and responsibility*. COVID-19-related barriers included exacerbated staffing pressures and a perceived inability to use IT equipment to facilitate conversations about health behaviour change (due to poor internet connectivity or ill-equipped platforms). COVID-19-related enablers included the use of video consultations enabling less awkward and more honest conversations about health behaviours.

However, some barriers and enablers remained the same as pre-pandemic, such as issues of role responsibility for discussing health behaviour change with patients, balancing holistic wellbeing advice with maintaining positive patient-HCP relationships, and reluctance to deliver opportunistic behaviour change interventions.

Discussion: The increased use of remote consultations may facilitate the delivery of opportunistic health behaviour change interventions by healthcare professionals. However, there is also a strong need to improve staffing levels, in order that staff have the psychological and physical capabilities to engage patients in these conversations.

KEYWORDS

COVID-19, healthcare professionals, making every contact count, opportunistic behaviour change intervention, qualitative

Statements of contribution

What is already known on this subject?

- Healthcare professionals in the NHS are encouraged to deliver opportunistic health behaviour change interventions
- Previous research identified lack of awareness among healthcare professionals, but also reluctance to offer advice outside their own expertise as barriers
- Consequently, there was a lack of implementation of opportunistic health behaviour change interventions during routine consultations

What does the study add?

- This study assessed the impact of the COVID-19 pandemic on the delivery of opportunistic health behaviour change interventions
- Specifically, this study identified COVID-19-related barriers and enablers to the delivery of these interventions during the pandemic
- Barriers included exacerbated staffing pressures and perceived inability to use IT equipment, while enablers included use of video consultations enabling less awkward and more honest conversations

BACKGROUND

It is widely recognized that prevention of non-communicable diseases is as much part of the healthcare professional (HCP) role as it is to treat them (Forward, 2017; Health Education England, 2022). In line with public health policy, UK HCPs are increasingly compelled to deliver opportunistic health behaviour change interventions during routine consultations in the National Health Service (NHS). Most notable of these is the "Making Every Contact Count" (MECC) policy, which encourages HCPs to deliver health

behaviour change interventions to encourage alcohol reduction, smoking cessation, increased physical activity and better diet in routine consultations with patients (Health Education England, 2022).

As such, the implementation of opportunistic health behaviour change policies, specifically MECC, has been praised as "dramatically" increasing the NHS's ability to deliver health behaviour change interventions for "minimal investment" (Ion, 2011, p. 69) via the utilization of every HCP, including non-specialists, to deliver public health messaging (Nelson et al., 2013). Indeed, studies show that opportunistic behaviour change interventions, when delivered during routine clinical consultations, can be a catalyst for patient behaviour change (Aveyard et al., 2012; Keyworth et al., 2020a; Webb et al., 2016).

Although all NHS organizations ('Trusts') are contractually obliged to implement MECC policy into practice, there are significant differences between different Trusts and services (Chisholm et al., 2019; Nelson et al., 2013). Further, both awareness of MECC and adaptation/implementation into routine clinical care has not been in line with the expectation of the positive public-health messaging effect (Keyworth et al., 2019; Keyworth, Epton, et al., 2018; Nelson et al., 2013). To illustrate, one 2018 study found that only 31% of 1387 HCPs surveyed reported having heard of the MECC policy. Interestingly however, 56% of the 1387 HCPs also reported the perceived need for providing opportunistic health-behaviour change advice (although this was given in less than 50% of these instances) (Keyworth, Epton, et al., 2018).

The reasons for the lack of awareness and lack of implementation appear multi-faceted. Keyworth et al. (2019) examined barriers and enablers to delivering opportunistic behaviour change interventions during routine clinical consultations in a qualitative interview study, with a sample of 28 HCPs (from professions including nursing, general practice, midwifery and pharmacy). While, overall, HCPs showed understanding of the importance of health behaviour change interventions, many had doubts about how much interventions could achieve and whether offering interventions beyond their area of clinical expertise is appropriate, and feasible. Furthermore, tasks and conversations relevant to their expertise would always be prioritized by healthcare professionals; and some even mentioned worrying that giving opportunistic health behaviour change interventions would add further psychological burden to their workload (Keyworth et al., 2019). The barriers described by Keyworth et al. are echoed in both qualitative and quantitative literature (Haighton et al., 2021; Harrison et al., 2022; Hollis et al., 2021; Keyworth, Epton, et al., 2018; Pallin et al., 2022). However, findings of Keyworth et al. (2019) were mapped onto a pre-existing framework (the Theoretical Domains Framework, TDF; Atkins et al., 2017), which may limit the possibility of exploring any interaction between domains. It is therefore necessary to build on these findings, using a more flexible approach to analysis which may generate additional insights.

Much of the literature around the delivery and implementation of opportunistic health behaviour change interventions cited above is dated before the emergence of the COVID-19 pandemic. As a response to the severe acute respiratory syndrome coronavirus (SARS-CoV-2), healthcare systems around the world had to adapt, which has often included the stripping of day-to-day services to essential clinical tasks, in order to be able to redeploy staff to the clinical areas most in need of support and/or staffing, or the use of new ways of delivering care, for example, via telephone or video (Hutchings, 2020; Millwood et al., 2021; Nepogodiev et al., 2020; Seah, 2020; Sindhu, 2020; The Lancet Rheumatology, 2021).

In addition to this, the COVID-19 pandemic has been associated with behaviour changes which go beyond adherence to public health measures necessary to contain the spread of the virus, which include wearing face coverings, physical distancing and (later) vaccine uptake, but also changes in established behaviours such as physical activity, smoking and alcohol use. For example, the majority of studies report decreases in physical activity (Bu et al., 2021; Hargreaves et al., 2021; Strain et al., 2022), and increase in alcohol consumption (Clay & Parker, 2020) during the pandemic, which increase the risk for non-communicable diseases.

Due to the pressures of the COVID-19 pandemic on healthcare staff and systems, it is possible that the MECC policy has been overlooked. Given that COVID-19 has increased health inequalities (Mishra et al., 2021), supporting people to modify health behaviours is more important now than when the policy was introduced. Considering the changes in service provision due to COVID-19, there is an urgent need to understand how the delivery of behaviour change interventions has been impacted by the pandemic,

and to explore specific barriers and enablers to this activity during routine healthcare. Therefore, the present study aimed to examine the barriers and enablers to delivering opportunistic health behaviour change interventions during the COVID-19 pandemic.

METHODS

Design

We conducted a qualitative study using semi-structured telephone interviews with a range of healthcare professionals working in the NHS in the UK. The topic guide was adapted from a previous study (Keyworth et al., 2019) and explored the barriers and enablers associated with delivering opportunistic behaviour change interventions during the COVID-19 pandemic. The guide (Appendix 1) covered three key areas: general perceptions of MECC/delivering opportunistic behaviour change interventions to patients/service users during the COVID-19 pandemic, role responsibility for MECC/delivering behaviour change interventions, and barriers and enablers to delivering behaviour change interventions. Open-ended questions were used (e.g., "Please could you talk me through a time where you have provided a patient with opportunistic health behaviour change during COVID-19?" or "Could you tell me about some of the specific challenges you have faced when providing opportunistic behaviour change advice to patients/service users during COVID-19?").

Sample

HCPs with a patient-facing role working in the NHS in the UK were invited to take part in the study. The sample was heterogeneous (Tables 1 and 2), and we sought to explore a wide range of views and experiences from diverse healthcare professional groups working in different professions (DiCicco-Bloom & Crabtree, 2006). Sampling across diverse professional groups enabled understanding of cross-disciplinary barriers and enablers to delivering behaviour change interventions.

Data collection

Ethical approval was obtained from the University of Leeds, School of Psychology, and data collection took place in January 2022. Data collection was conducted by YouGov, a survey panel company who regularly conduct research in healthcare professionals, to ensure that a purposively sampled range of healthcare professionals from different disciplines could be sampled within a 4-week window. This enabled the capture of a 'snapshot' of healthcare professionals' experiences during a COVID-19 'peak' when one in 23 people in the UK had the virus (up from 1 in 70 in December 2021) (Elliott et al., 2022; Wise, 2022).

Four members (one male and three females) from YouGov conducted the interviews. Interviewers were provided with an interview topic guide (Appendix 1), and summary information sheet about the MECC policy for reference. Interviewers were encouraged to (a) use open-ended questions to allow barriers and enablers to delivering behaviour change interventions to be explored spontaneously; (b) be cautious when asking about current practice to mitigate social desirability or professional identity biases, and (c) ask participants to provide examples of any instances or delivering interventions in routine practice (where applicable). Invitation emails were distributed by YouGov, who incentivized potential participants with a points-based reward system (YouGov, 2018). The interviews were recorded and transcribed verbatim by the company, then anonymized and securely delivered to the research team for analysis. Informed consent was obtained before each interview. No personally identifiable participant data was shared with the research team, to adhere to YouGov's GDPR regulations. Interviews lasted between 30 and 54 min (mean: 39 min).

TABLE 1 Overview of participant demographics ($n = 26$).

Variables	*n*	(%)
Gender		
Male	9	34.6
Female	17	65.4
Ethnicity		
English/Welsh/Scottish/Northern Irish/British	18	69.2
Irish	1	3.8
White and Black African	2	7.7
White and Black Caribbean	1	3.8
Any other mixed/multiple ethnic background	1	3.8
Indian	2	7.7
Pakistani	1	3.8
Age		
18–24	1	3.8
25–34	9	34.6
35–44	7	26.9
45–54	8	30.8
55–64	1	3.8
HCP group		
Dentist	2	7.7
Dietitian/nutritionist	2	7.7
General practice doctor (GP)	3	11.5
Healthcare Assistant (HCA)	1	3.8
Physiotherapist	2	7.7
Nurse	4	15.4
Mental health worker	1	3.8
Therapist	1	3.8
Paramedic	1	3.8
Hospital doctor	3	11.5
Pharmacist	2	7.7
Occupational therapist	1	3.8
Midwife	3	11.5
Work setting		
Community services	2	7.7
Dentist	2	7.7
GP surgery/health centre	6	23.1
Mental health trust/service	1	3.8
NHS hospital	12	46.2
Pharmacy	1	3.8
Walk-in centre	1	3.8
Other	1	3.8
Years in current profession		
Up to 6 months	6	23.1

(Continues)

TABLE 1 (Continued)

Variables	*n*	(%)
More than 6 months up to a year	2	7.7
More than a year up to 2 years	3	11.5
More than 2 years up to 5 years	3	11.5
More than 5 years up to 10 years	1	3.8
More than 10 years up to 15 years	5	19.2
More than 15 years up to 20 years	2	7.7
More than 20 years	4	15.4

Analysis

Reflexive Thematic Analysis (TA) was chosen due to its flexibility, and the ability to use TA without the context of an analytical framework (Braun & Clarke, 2006; Vinet & Zhedanov, 2011). A combination of both semantic and latent coding was used, although neither coding was prioritized over another, but instead utilized when either coding was interpreted as appropriate and meaningful by the researchers (Byrne, 2022). Unlike previous research, the analysis of the data was not driven by a pre-determined framework (Haighton et al., 2021; Keyworth et al., 2019), to allow for in-depth inductive analysis. One researcher (KSV) analysed all interviews, while another team member (CK) independently analysed a sub-sample of interviews (n = 10). Consequently, the researchers reviewed each other's findings during meetings, to ensure all salient aspects of the data were captured.

Information power was reached at around 12 interviews, where no more new codes were added during the analysis (Malterud et al., 2016). The software NVivo 1.6.2 for Mac was used to aid analysis.

RESULTS

Two overarching themes were generated: (1) *the healthcare system's response to COVID-19*, and (2) *maintaining good HCP-patient relationships: reluctance and responsibility*. Table 3 provides an overview of the themes.

Theme 1: The healthcare system's response to COVID-19

This theme centres around the healthcare system's response to COVID-19, the adaptation of work environments and changes to healthcare delivery, and how these adaptations became enablers and barriers to delivering opportunistic health behaviour change interventions.

Work environments

Most HCPs reported that their work environment during COVID-19 did not facilitate the delivery of opportunistic behaviour change interventions. This included both physical healthcare spaces, such as in-person hospital care, as well as services that were delivered remotely via telemedicine by phone or video consultations. For both, reasons predominantly centred around understaffing and associated heavy workloads, time pressures to see many patients within a set time frame, and unavailability (or inadequate provision of) health behaviour change materials to give to patients. For some staff using remote video

TABLE 2 Participant overview.

Name	Profession	Work environment during COVID [remote, in-person, any changes]
Anna	Dentist	Initially all phone consultations, with face-to-face appointments only for emergencies, then face-to-face consultations at reduced hours
Alice	General Practicioner (GP) [final year]	Phone, face-to-face if needed
Ashleigh	Dietician in Head and Neck Cancer	In-person on wards
Ben	GP	Phone, now phone and face-to-face
Carla	Nurse	In-person on wards
Cheryl	Dietician, with children and their parents	50–50 hospital and remote (phone and video)
Christopher	Paramedic Practitioner, working in urgent and emergency walk-ins	In-person, some phone (partly integrated into NHS 111 service)
Karen	Cardiology Nurse	All remote (phone, video)
Heather	Apprentice Occupational Therapist	Predominantly in person, some online
James	Pharmacist, involved with vaccine drive	In-person on wards
Jane	Physiotherapist in community	In-person in patients' homes [video consultation did not work due to elderly population and 'hands on' physiotherapy role]
Jamie	Junior doctor	In-person on wards
Julia	Psychological Wellbeing Practitioner (PWP)	All remote (phone, video)
Jordan	Accident & Emergency (A&E) HCA	In-person in hospital
Louise	Dentist	In-person at reduced capacity
Lou	Midwife	Phone, mainly involved with 16-week check ups
James	Pharmacist, Involved with vaccine drive	In-person
Kalila	Nurse in A & E	In-person in hospital
Katy	Pharmacist in GP practice, and in a pharmacy	Phone consultations in GP practice, In-person over counter
Michelle	Nurse [qualified as a nurse during the pandemic, initially worked as a HCA]	In-person in hospital
Shoaib	Junior Doctor (Foundation year 2) in A & E	In-person in hospital
Sonali	GP	Predominantly phone, in-person if needed
Susan	Speech and Language Therapist (Children)	Remote (phone, then video), now mix
Suzanne	Midwife, Clinical Educator for Midwives	In-person, both within maternity services but also supervisor for the COVID-19 vaccination service
Steven	Physiotherapist	Remote working, predominantly diagnostics rather than 'typical' physio treatment/s
Tim	Hospital Doctor	In-person in hospital (clinics), clinics during COVID-19, new patients: majority of consultations face-to-face

consultations, IT issues further exacerbated challenges experienced, leaving no time for opportunistic behaviour change interventions:

> If you've got 45 minutes, and you've got ten min of IT issues, and you've got, say, twenty minutes making the diagnosis or looking for investigations and all of that, you haven't got a lot of time, then, talking along the lines of treatment… So, I would say during COVID, those, sort of trimmings type things perhaps went by the wayside. -
>
> Steven, Physiotherapist

TABLE 3 Overview of themes.

Overarching theme	Subthemes
Theme 1: The healthcare system's response to COVID-19	Work environments
	Changes to services
	Lack of training
	HCP communication during the pandemic
Theme 2: Maintaining good HCP-patient relationships: Reluctance & responsibility	Reluctance
	Responsibility

While the flexibility of telemedicine allowed patients to take the (video/audio) calls in places of their choosing, and improved general attendance rates, the lack of control over environments in which patients attended these appointments was problematic for the delivery of opportunistic health behaviour change interventions due to lack of privacy, or patients being in busy environments:

> Half the time they're out shopping or they're doing the school run or it's like-, it's not a good environment for them to start talking about stuff openly if they're picking the other kids up or they're in Tesco or whatever so yes. That side is a negative. -
>
> Cheryl, Nutritionist

The healthcare system's response to COVID-19 has been marked by a reallocation of resources, scaling-down of service availability, significant increases in workloads and a move towards "a basic model of consulting where you do address the patient's presenting problems, deal with those and then move onto the next" [Ben-GP]. Thus, for many HCPs, this has meant a shift from focusing on patients' holistic wellbeing to a focus on the acute problems where the delivery of opportunistic health behaviour change interventions was not deemed a priority, and consequently not delivered. HCPs displayed an awareness of the consequences of this, by stating that the quality of care delivered was less holistic and less patient centred. While these issues, to a degree, predated the COVID-19 pandemic, it was discussed that the pandemic exacerbated these. For example, consultation times were reduced to allow for Personal Protective Equipment (PPE) changes, leaving even less time during consultations:

> …workload is to the point where their patient interaction is what's needed to keep the patient well… There's not the hours in a day, the capacity… to be able to do anything more. -
>
> Jamie, Junior doctor

> …you don't have much time. Patients have often struggled to get an appointment and they normally have about five problems… so it's just not-, even if you want it to be a priority it's not really, and you have to, by the time you've found out what the patient's come for and you've done what you need to do, you've… run out of time. -
>
> Alice, GP

Both before, and during the pandemic, some areas of healthcare were deemed as better placed to offer opportunistic health behaviour change to patients, which included general practice and psychiatry/psychology services, compared to environments where the focus was on acute medical care or end-of-life.

However, some HCPs reported unexpected and new opportunities for opportunistic health behaviour change interventions because of COVID-19, alongside a new enthusiasm for its delivery (which was, perhaps, previously disregarded as "a tick box exercise", - Sonali, GP).

Two of these opportunities were the result of vaccination efforts: James, a pharmacist, reported that during the mandatory 15-min wait post COVID-19 vaccination, he and his team offered health behaviour

change advice or blood pressure checks to patients, while Suzanne, a midwife who was supervising vaccinations, reported recommending a smear test to one of the nervous patients at the centre. However, opportunities did not only arise in the new vaccination centres, but elsewhere: an A&E nurse, discussed that, due to her work environment being significantly less busy during the first wave of the pandemic and the "only one [service] open to the public", she was able to spend more time with patients and offer more advice which made her feel like she was "giving better quality care". Further, a HCA, reported that the emergence of COVID-19 itself reminded him and his team to engage in opportunistic health behaviour change, as "it's become… paramount… to really try and spread the message to as many people… you may only have one opportunity really to get the message across to a patient" as "lifestyle can make people more vulnerable to COVID" (Jordan, HCA).

> I think I was able to give better, more holistic care in A&E because of the better environment it was, and then the last year it's just been back to normal, seeing 250 to 300 patients a day, but initially it was between 80 and 120. So, just that reduced volume, yes, made me feel like I was giving better quality care. -
>
> Khalila, A&E nurse

Thus, it appears as though the healthcare system's adaptation to the COVID-19 pandemic has created some opportunities to deliver opportunistic health behaviour change intervention where there were none, or few, before.

Changes to services

Participants reported that another key pandemic-related barrier to offering opportunistic health behaviour change was that the services they would refer patients to, such as smoking cessation services or even gyms, were unavailable due to COVID-19. This made HCPs reluctant to offer any opportunistic health behaviour change interventions. Long waiting lists for services to be referred to were also seen as barriers, as HCPs perceived this to be an ineffective way to encourage health behaviour change.

> It's almost stoke while the iron is hot, so if you had that conversation with somebody and, you know, persuaded them maybe, you know, 'It might be an idea to talk to somebody about-', whatever it is, better eating habits or something, and then that person has got to wait three or four months to see somebody. -
>
> Susan, Speech and language therapist

The move of some health services to online delivery, especially those associated with social prescribing, was received sceptically by participants due to it being inaccessible to older people without internet access, or due to "everyone… [being] sick of [online]" (Alice, GP):

> Those services have been significantly affected by the COVID, kind of, restrictions, and I suppose that would be, yes, that might be a bit of a blocker on me starting that question in the first place. If I end up not having anywhere to point that patient to. -
>
> Ben, GP

> And, every time you go from an activities point of view, there's been times where gyms or otherwise have been closed. -
>
> Jamie, Junior doctor

Lack of training

The reallocation of resources also meant that for a long time, staff did not receive training on the delivery of health behaviour interventions, and many mentioned that the training they may have received pre-COVID-19 was substandard, ineffective, "death by PowerPoint" [Christopher, Paramedic] or informal with HCPs having to educate each other without formal input. However, this was contradicted by many HCPs discussing the importance of health behaviour change interventions for the future and long-term viability of the healthcare system. Not offering health behaviour change interventions also appeared to relate to a lack of confidence how to "structure those kinds of conversations" [Ben, GP]:

> Possibly a lack of knowledge… if we were talking to a woman about alcohol … we'd say that you need to cut down in pregnancy or stop altogether but actually having that knowledge base around it to back it up in case they were to ask further questions, maybe… -
>
> Suzanne, Midwife

HCP-patient communication during the pandemic

The way that HCP-patient communication took place was significantly impacted by the pandemic; with HCPs either having significantly less or minimal face-to-face contact than before, or always wearing PPE, especially face masks, when interacting with patients. Face-to-face interactions where patients and HCPs were wearing masks, and remote consultations, were cited as barriers to giving opportunistic health behaviour change interventions. For in-person consultations, HCPs reported that masks restricted communication, prevented facial expressions from being read and subsequently understood, and that any conversation took longer as a result [and exacerbated time pressures], thus conversations that required extra time and effort, were not sought. Masks were also perceived as making interactions "less personal" [Carla, nurse], and thus as a barrier to developing good rapport, which the HCP-patient relationships deemed necessary to broach sensitive subjects, such as health behaviour and/or health behaviour change interventions. This also directly links with many HCPs discussing fears of offending patients and compromising good relationships:

> … obviously we're wearing a facemask when we're talking to the patient, that's quite difficult because they can't see this part of your face, they can't see whether you're smiling, or they can't fully see your facial expressions, and sometimes that just makes communication a bit difficult. -
>
> Jane, Physiotherapist

Phone consultations were perceived as creating barriers to discussing behaviour change. Due to the nature of phone consultations, there is a lack of visual or olfactory cues, such as looks regarding weight/obesity and or smells for smokers. In in-person consultations, such cues would have likely prompted HCPs to offer opportunistic health behaviour change interventions, whereas without these prompts, HCPs were less likely to give health behaviour change interventions. Furthermore, HCPs also reported reluctance in discussing health behaviour change interventions in phone consultations due to the lack of non-verbal cues, and cited worries of angering or upsetting patient when discussing health or health behaviour change. Finally, phone consultations were also seen as barriers due to the lack of ability to demonstrate behaviours that may help patients, such as how to brush their teeth correctly ("even using models to, kind of, show them things, you can't do that over the phone…" - Anna, Dentist):

> So, the difficulty of it being over the phone is obviously, a picture's worth a thousand words, isn't it? You can look at somebody and I can straight away say, if they look emaciated or look malnourished, or you see muscle wasting. -
>
> Ashleigh, Dietician

> I suppose the only thing is that having a conversation over the phone loses the subtlety of un-verbal communication and people can't always see that you're saying something to be kind and to help them. -
>
> Sonali, GP

> In person, yes, definitely… I think, you know, when you're communicating with people, lot of communication is nonverbal and, you know, over the phone you're not getting the cues.
>
> Stephen, Physiotherapist

The view of remote consultations being less effective for delivering opportunistic health behaviour change was not shared by all participants, however. Phone consultations were described as "less awkward" (Alice, GP), more honest ("sometimes when patients are in front of you, they just say what they think you want to hear", Alice – GP) and making patients more receptive to opportunistic health behaviour change interventions ("… when you're doing it just over the phone, … people are a lot more receptive to the information but not only that, they contemplate it and that translates to change or behavioural change." Julia, PWP).

Theme 2: Maintaining good HCP-patient relationships: Reluctance & responsibility

Narratives around the reluctance to offer opportunistic health behaviour change interventions to patients/service users, and questions regarding whose responsibility were also common across the interviews.

Reluctance

Reluctance to offer opportunistic health behaviour change interventions was especially discussed in relation to wishing to maintain good patient-HCP relationships. In detail, HCPs were afraid of compromising these relationships by offending or upsetting patients by offering advice about health behaviours, such as dietary intake and/or physical activity, or even suffering more serious repercussions, such as complaints or challenging patient behaviour. HCPs also made it clear that patients themselves often prefer a "quick fix" (Khalila, A&E nurse & Alice, GP), rather than having to make adjustments to health behaviours:

> Yes, and I think from patients' point of view I think it's easy to see why they would find that frustrating. If you're in a lot of pain and you're struggling to do normal tasks around the house you just want to be out of pain, you're not necessarily going to be wanting to commit and, you know, time and energy into weight management or things that are really difficult if your main thing is pain.
>
> Alice, GP

Worries about causing offence or upset were prevalent before the COVID-19 pandemic but were exacerbated by communication limitations that resulted from COVID-19:

> I think people, similar to keyboard warriors and stuff, they feel very brave when they're behind a phone or you can't see their face or, yes, behind a screen they get very brave and a bit cheeky sometimes, whereas if you're saying it face to face they're a little bit more, kind of, yes, understanding or they'll take it on a wee bit better. They'll respond to it better anyway… So, yes, I did not enjoy the three months on the phone. It was hard.
>
> Anna, Dentist

Obesity and weight were topics that the HPCs felt much more reluctant to discuss, compared to health behaviours, such as smoking and alcohol. For some, this was because of the stigma attached to obesity and not wanting to upset patients, for others, it was due to learning about body positivity and an increasing understanding "that it's probably not directly-, or it [weight] is not amenable to individual action and individual patient changes" (Ben, GP) or for fear of complaints. Reluctance to offer opportunistic health behaviour change intervention was also linked with previous practice of offering opportunistic health behaviour change intervention, but patients not taking the advice. ("… just feel a bit kind of demotivated by the fact that sometimes it feels like hitting your head against a brick wall." - Alice, GP).

Responsibility

Another clear facilitator to the delivery of opportunistic health behaviour change interventions, both pre-and during COVID-19, was whether the HCP perceived this to be part of their role and their responsibility:

> I mean, if somebody was really severely overweight that they couldn't sit in the dental chair then I would say, 'You might need to think about losing a few', but at the same time that's not my remit.
>
> Anna, Dentist

> Parents take great umbrage to being told their kids are fat, and they, you know, quite rightly might say to me, 'Well, what do you know about it? You're a speech therapist, you're here because he can't speak'… I don't feel that's my role. I don't feel like I have time to go into that and have that expertise.
>
> Susan, Speech and Language therapist

> Definitely. So… with cancer patients… who are coming in for surgery, we do a lot of motivational interviewing… if you stop smoking, then your outcomes will be better for your surgery,… I think I use it day to day.
>
> Ashleigh, Dietician

Pertinently, even though some HCPs did feel it was part of their role, they disclosed both lack of confidence and reluctance to offer advice outside of their area of medical expertise. This was true both pre- and during COVID-19. Khalila, a nurse, drew a direct link between lack of confidence, fear of compromising the HCP-patient relationship and lack of training. Thus, this illustrated the interconnectivity of the themes:

> I think that is the biggest thing, as well, is professional confidence in doing it, and trying to keep that therapeutic relationship with the patient and not offend them.
>
> Khalila, nurse

Out of the HCPs, it was predominantly GPs and younger HCPs who were the most likely group to deliver opportunistic health behaviour change interventions. However, they still indicated that they would like training on how to deliver opportunistic health behaviour change intervention, especially around how to structure these conversations, which suggests that training received is still insufficient.

DISCUSSION

This is the first study to identify the barriers and enablers across diverse healthcare professional groups when delivering behaviour change interventions during the COVID-19 pandemic. The following two

themes were generated: "The healthcare system's response to COVID-19" (Theme 1) and "Maintaining good HCP-patient relationships: Reluctance and responsibility" (Theme 2). Results showed that due to the healthcare system's response to the pandemic, HCPs faced barriers to delivering opportunistic behaviour change interventions, such as exacerbated staffing pressures and a perceived inability to use IT equipment to facilitate conversations about health behaviour change, but also experienced unexpected enablers, such as the use of video consultations enabling less awkward and more honest conversations about health behaviours. In addition, some barriers and enablers remained the same as pre-pandemic, such as issues of role responsibility for discussing health behaviour change with patients, balancing holistic well-being advice with maintaining positive patient-HCP relationships, and reluctance to deliver opportunistic behaviour change interventions.

Comparison with existing literature

Some of the COVID-19-related changes in HCPs' work environments became barriers to delivering opportunistic health behaviour change interventions. These included staffing pressures and heavy workloads which – to a degree – existed prior to the pandemic but were undoubtedly exacerbated by it. Conversely, some participants described unexpected environmental improvements which facilitated opportunistic health behaviour change conversations. For example, A&E, a hospital department typically associated with a focus on acute medical conditions, became a place where it was possible to deliver opportunistic health behaviour change interventions during the first wave of the pandemic as there were fewer patients coming into the department. Similarly, pharmacists used innovative ways to engage with patients during mandatory post-vaccination wait. While many of the findings, such as a lack of time and workload pressures, are echoed in the literature as barriers to the implementation of opportunistic health behaviour change interventions pre-pandemic (Keyworth et al., 2019, 2020b; Parchment et al., 2021), the current results add to the evidence that the health service overall, in its response to the pandemic, became less holistic and patient-centred (Curnow et al., 2021). Thus, it is paramount that the NHS is equipped with the resources and tools to ensure that the prevention and management of long-term health conditions is a focus of routine healthcare consultations in the months to come.

Inadequate resourcing, or unavailability of services due to the pandemic, such as smoking cessation clinics or gyms to exercise, were also perceived as a barrier. Due to the inevitable delays patients would have had in accessing these services at the time, HCPs felt it was not a good use of resources to invest energy in discussing health behaviour with them. HCPs' perception about advice-alone being inefficient is echoed by the literature, suggesting that lasting behaviour change following opportunistic health behaviour change intervention are unlikely to be sustained if it is not supported by further interventions (Butler et al., 2013).

It was also reported that there was a lack of training on the delivery of opportunistic health behaviour change intervention during the pandemic; a finding that is consistent with previous research (Keyworth et al., 2020a). There is a growing body of literature showing that training on opportunistic health behaviour change interventions, such as on MECC or Healthy Conversation Skills, are effective in terms of increasing HCPs' confidence to give and competence to discuss opportunistic health behaviour change interventions (Chisholm et al., 2019; Lawrence et al., 2016, 2020; Parchment et al., 2021). To recover this expertise within the health service, organizations will need to invest in, and deliver, training on opportunistic health behaviour change intervention which target confidence-building.

During the pandemic, healthcare systems have become reliant on remote consultations (Greenhalgh et al., 2020; Murphy et al., 2021). The impact of these was discussed in terms of barriers and enablers to the delivery of opportunistic health behaviour change interventions; and appeared to largely depend on HCPs' professions, with those focusing on acute presentation of illness reporting more barriers than those focusing on more holistic wellbeing. While some HCPs felt that remote consultations made patients more honest and some interactions less awkward, thus enabling the delivery of opportunistic health behaviour change interventions, others discussed the difficulty of lack of visual or olfactory cues as indicators for patients' health (behaviours) or being unable to determine whether patients were lying about

health behaviours as barriers. Other barriers to the identified were patients being in unsuitable environments, such as noisy or public places, that prevented them from speaking openly. Thus, using teleconsultations has meant that HCPs have less control over the environments in which patients receive their consultations, which has a direct influence on the delivery of healthcare which includes opportunistic health behaviour change intervention.

The wearing of face coverings has become mandatory for UK HCPs, to protect patients and staff. However, the current results show the consequences of mask wearing on HCP-patient communication. HCPs reported feeling worried about prevention of facial expressions to be read and understood during interactions, and about masks making interactions less personal – which was especially a worry when communicating sensitive topics, such as health behaviours, where a good patient-HCP relationship was deemed essential. Such issues have been highlighted recently (Marler & Ditton, 2021; Samarasekara, 2021). While there is some evidence suggesting that telemedicine, such as telephone psychological therapy, may be just as effective as in-person psychological therapy (Irvine et al., 2020), it could be suggested that there is a difference between HCPs that are used to delivering remote consultations (and thus working with a lack of in-person cues) and those who are used to deliver 'in-person' care and are perhaps more worried about broaching subjects such as health behaviour, or even deliver opportunistic health behaviour change interventions, when HCPs feel there is too much room for misinterpretation. In addition to the move to telehealth (which may be positive for delivery of opportunistic health behaviour change interventions), it is paramount to conduct research investigating how to overcome these issues and to alleviate HCPs' fears of offending patients due to lack of facial expression reading in in-person consultation, especially considering that masks are likely to be permanent feature in healthcare (UK Health Security Agency, 2022).

Our study also describes narratives around the juxtaposition of maintaining good HCP-patient relationships while delivering holistic healthcare. Many HCPs in the sample reported a reluctance to discuss opportunistic health behaviour change intervention to fears of offending or upsetting patients, or more generally about compromising the HCP-patient relationship. Despite HCPs' recognition for the need for opportunistic health behaviour change intervention, these fears acted as barriers to delivery. This is in accordance with findings by Keyworth, Epton, et al. (2018), who found that fewer than 50% of their sample of 1387 HCPs delivered opportunistic health behaviour change intervention, despite a perceived need for it. Further, it also became clear that not all HCPs regarded opportunistic health behaviour change intervention as their responsibility and felt that giving advice about an area of health outside of their area of expertise was inappropriate, such as a speech and language therapist giving advice on exercise or weight loss.

A small number of participants also discussed how being asked to deliver opportunistic health behaviour change interventions, in addition to their primary clinical roles, was extra labour they did not have the mindset for, especially during the pandemic. There has been much discussion about the impact of policies, such as MECC, that propose the role extension of public service professionals and their impact on well-being: it is now largely being recognized that these "add on" services come at a cost to the professionals delivering those, and add extra emotional labour to their tasks (Needham et al., 2021); thus, without further support and training, this role extension is not viable. This is directly echoed in the findings, without investment in the healthcare system (including reduction in work pressures, increases in staffing numbers and consultation times) and investment in training of HCPs, the struggle to deliver opportunistic health behaviour change interventions will remain. While GPs appear best placed to offer opportunistic health behaviour change interventions, participating GPs all discussed that delivery of opportunistic health behaviour change interventions should not be the sole responsibility of primary care HCPs.

Implications for practice

The findings suggest that supporting HCPs to deliver opportunistic behaviour change interventions must acknowledge the added pressures caused by COVID-19, and in particular focus on two key areas. First, there has to be a capitalization on environments that are perceived to be conducive and helpful for delivering behaviour change interventions, which includes ensuring remote consultations have sufficient

privacy to allow for sensitive topics to be discussed (as reported by healthcare professionals in our study). Second, enhancing healthcare professionals' capabilities to deliver behaviour change interventions, by providing the necessary training and support to capitalize on the opportunities created by new technological approaches to healthcare consultations in light of COVID-19, is also paramount. Technology-based interventions show considerable promise for supporting healthcare professional practice more broadly (Keyworth, Hart, et al., 2018), and with suggestions that remote consultations may be part of routine healthcare in the longer-term (Tilley, 2021), more focus could be placed on developing interventions focused on supporting delivering behaviour change interventions. For example, brief interventions focus on: (a) identifying barriers to behaviour change, and (b) linking them with possible enablers, may be one way of supporting healthcare professionals to deliver behaviour change interventions.

Strengths and limitations

The sampling frame enabled recruitment of a wide range of views from diverse professional groups working in different medical professions, with varying priorities and opinions. Consequently, this enhances the depth and richness of the data (DiCicco-Bloom & Crabtree, 2006) and provides important insights that can be used to develop and deliver interventions to support healthcare professionals to deliver behaviour change interventions.

Using a reflexive thematic analysis approach without a pre-determined analytical framework, may have allowed themes to be generated more spontaneously, rather than as a result of being in line with a specific framework, such as the TDF (e.g., Keyworth et al., 2019). Although the authors acknowledge that there were, ultimately, some overlaps between the generated themes and domains of the TDF. Consequently, this means that the researchers were able to understand the cross-disciplinary barriers and enablers to delivering behaviour change interventions, which may facilitate the implementation of public health policies designed to deliver behaviour change interventions at scale.

There are limitations to this study. Not all NHS healthcare professionals are reflected in the study's sample, this may mean that some barriers and facilitators may not have been covered or explored. Further, participants in the present study were drawn from a pre-existing sample of people (as part of YouGov's panel membership) who had volunteered to be interviewed. While the sampling frame aimed to capture the widest possible variation of views and opinions, and our sample size was deemed to be sufficient to answer our research questions, there may be additional views that were not captured in the present sample. In addition, this study only drew on the analysis of interviews, and did not employ any triangulation, which may mean that some perspectives and experiences are under- or not represented in the current findings (Carter et al., 2014).

CONCLUSIONS

COVID-19 has brought new opportunities for healthcare professionals to engage patients in conversations about health behaviour change, in line with public health strategies (Health Education England, 2022). However, there are a number of challenges faced by healthcare professionals which must be addressed in future intervention development studies, and which must acknowledge COVID-19-specific barriers to delivering behaviour change interventions. The current study has identified (1) key barriers to delivering opportunistic health behaviour change interventions in routine care, which included exacerbated staffing pressures and perceived inability to use IT equipment effectively, (2) key enablers to delivering opportunistic health behaviour change interventions in routine care, which included the effective use of video consultations enabling less awkward and more honest conversations, and also (3) identified important opportunities to engage patients in discussions about health behaviours during routine clinical interactions in light of COVID-19. Developing brief interventions that could be delivered across healthcare professional groups is an important step in supporting healthcare professionals to deliver opportunistic behaviour change intervention.

AUTHOR CONTRIBUTIONS

Katharina Sophie Vogt: Conceptualization; data curation; formal analysis; investigation; methodology; resources; software; validation; writing – original draft; writing – review and editing. **Judith Johnson:** Conceptualization; funding acquisition; methodology; supervision; writing – review and editing. **Mark Conner:** Conceptualization; investigation; project administration; writing – review and editing. **Christopher J. Armitage:** Conceptualization; methodology; writing – review and editing. **Chris Keyworth:** Conceptualization; data curation; formal analysis; funding acquisition; investigation; methodology; project administration; resources; supervision; validation; writing – original draft; writing – review and editing.

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CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to declare.

DATA AVAILABILITY STATEMENT

Data can be requested from the corresponding author upon reasonable request.

ETHICS APPROVAL

Ethics approval was granted by the University of Leeds [Reference PSYC-398] and adhered to the British Psychology Society's Code of Ethics and Conduct.

CONSENT TO PARTICIPATE

Informed consent was obtained from all participants, no deception was involved.

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APPENDIX 1: INTERVIEW SCHEDULE.

Introduction

- Please start by introducing yourself – 1st name and role / main responsibilities.
    - How long have you been in your current role?
    - How long have you been working as an NHS healthcare professional in total?

Your role

- Are you familiar with the term 'opportunistic health behaviour change'?
    - Provide definition if required: whereby health behaviour change is discussed during a routine medical consultation, and might include talking about improving diet, doing more physical activity, quitting smoking, losing weight, or reducing alcohol intake. Also otherwise encouraged by the UK public health policy 'Making Every Contact Count' (MECC).
- Please could you talk me through a time where you have provided a patient with opportunistic health behaviour change during COVID-19?
    - **IF THEY HAVE, probe**: in-person vs remote, reason for patient visit, how it was approached, how it was received by patient, result in any extra treatment / medication
    - **IF THEY HAVEN'T, probe**: Why not? Has COVID-19 had an impact on this?
- **IF RESPONDENT HAS PROVIDED OPPORTUNISTIC HEALTH BEHAVIOUR CHANGE DURING COVID-19**: How did you feel about this experience? Was it successful?
    - **Probe**: in-person vs remote, advantages/disadvantages of remote consultations (when discussing diet, physical activity, alcohol, smoking), level of confidence doing this, how would they define success

General perceptions of MECC/delivering opportunistic behaviour change interventions to patients/service users during COVID-19

- Could you tell me how your practice has changed during COVID-19?
    - **Probe generally**: number of patients seen, average appointment times, impact on quality of care, drivers of any changes
    - **Probe**: impact on ability to deliver opportunistic health behaviour change advice during COVID-19 – i.e. has it been made more easy or more difficult? Why/Why not?
- What did you think about the 'Making Every Contact Count (MECC)' policy in general **before COVID-19?** (If unfamiliar, reintroduce definition)
    - Do you think healthcare professionals practice/followed MECC prior to COVID-19? Why/why not? **Probe**: place of work
    - What impact do you think this had?
- What do you think about MECC/delivering opportunistic behaviour change advice in your practice/place of work **during COVID-19?**
    - Do you think healthcare professionals have been practicing/following MECC? Why/why not?
    - Bearing in mind the potential new ways of working (e.g. remote working) as a result of COVID-19, how easy do you think it is to encourage behavioural changes in patients?
    - What impact do you hope/believe opportunistic behaviour change advice has?
    - What impact do you think COVID-19 has had on healthcare professionals ability to deliver health behaviour change interventions?

Role responsibility for MECC/delivering opportunistic behaviour change advice

- Do you see delivering opportunistic behaviour change advice as something you are personally responsible for?
  - To what extent is it a priority for you? Why/Why not?
- What do you think are the benefits of MECC/delivering opportunistic behaviour change advice?
  - **Probe**: benefits to patient, benefits to healthcare system, benefits to society
  - **Probe**: harms of not initiating discussions about health behaviour with patients
- Would you say that generally you are in a habit of 'Making Every Contact Count' /delivering opportunistic behaviour change advice?
  - If no, what would be helpful in developing a routine/habit of MECC?
  - **Probe**: have you noticed to promote MECC/delivering opportunistic behaviour change advice at your practice/place of work? If yes, ask for examples
- When was the last time you remember having a conversation with a colleague about MECC or hearing about it?
  - **Probe**: what was discussed, outcome of conversation

BARRIERS to delivering behaviour change advice to patients

- What have been the main challenges of providing opportunistic behaviour change advice to patients/service users during COVID-19?
  - **Probe**: Current knowledge, training, confidence
  - **Probe**: Any differences between remote consultations and in-person consultations
- Could you tell me about some of the specific challenges you have faced when providing opportunistic behaviour change advice to patients/service users during COVID-19?
  - **Probe examples related to**: improving diet, reducing alcohol consumption, increasing physical activity, quitting smoking, losing weight
  - **Probe**: how/if challenges have been overcome

Enablers to delivering behaviour change advice to patients (10 min)

- What resources have you found helpful when providing opportunistic behaviour change advice to patients/service users during COVID-19?
  - **Probe**: resources, training, knowledge, experiences
  - **Probe examples related to**: improving diet, reducing alcohol consumption, increasing physical activity, quitting smoking, losing weight
- Could you tell me about a time you've successfully engaged a patient in a conversation about healthy lifestyle during a routine conversation during COVID-19 (since March 2020)?
  - **Probe on**: suspected reasons for success, knowledge of impact after conversation
- Do you receive any support from your colleagues to engage in MECC-related activities?
  - **IF SO, probe**: what sort of support? How beneficial is this?
  - **IF NOT, probe**: would you like to have received any support? What sort of support would you like?
- To what extent does the work environment provide the opportunity to engage in MECC-related activities?
  - **Probe**: in-person vs remote, priorities, time pressures
- Is there anything that we haven't covered that you feel is important/relevant?

Thank you. We have now come to the end of your interview.