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The role of motivational interviewing training in supporting the practice of COVID-19 contact tracers

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MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

The role of motivational interviewing training in supporting the practice of COVID-19 contact tracers**Abstract**

Purpose: To explore ~~the impact of how~~ motivational interviewing (MI) training ~~on the practice, self-efficacy and wellbeing of might benefit the practice of~~ COVID-19 contact tracers.

Methodology: Following co-production of a MI training package, with a United Kingdom (UK) track and trace organisation, training was delivered virtually to 101 volunteer participants involved in contact tracing. ~~Pre- and post-training D~~data were captured via an online survey, ~~using incorporating~~ questions from recognised measures of occupational self-efficacy and workplace wellbeing, ~~prior to the training~~. Open data fields were used to gather feedback about participants' reasons for attending, and views about the training ~~afterwards~~.

Findings: Although the contact tracers reported high occupational self-efficacy and workplace wellbeing, both quantitative and qualitative data suggested participants saw practitioner value and utility in MI.

Research implications/limitations: The sample was self-selecting and typically involved contact tracers from UK local authorities. The study did not measure impact on compliance with self-isolation guidance and/or providing details of contacts, and larger-scale research would be needed to establish this. ~~This was not a pre- post-test evaluation study, and measures of occupational self-efficacy and workplace wellbeing were gathered to give insight into the sample and to test the feasibility of using this survey for a future large-scale study.~~

The research was conducted during the height of the pandemic. While UK COVID-19 contact tracing services have since been reduced, there are potential implications for infection control more generally.

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Practical implications: MI is potentially a useful approach for enhancing contact tracing practice. However, implementation factors should be carefully considered, to ensure effective and sustainable practice.

Social implications: Improved practice in contact tracing could have potential benefits in infection control, through improving compliance with central guidance, although this requires more widespread investigation.

Originality: This is the first empirical study to investigate how MI training could benefit COVID 19 contact tracing practice.

Keywords: contact tracing, motivational interviewing, COVID-19, occupational self-efficacy, workplace wellbeing, infection control.

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Introduction***Contact tracing***

Contact tracing locates individuals who are infected and those [who](#) have had close contact with an infected person, determining who should be tested and/or asked to self-isolate, often via telephone interviews, thus containing outbreaks to a small population (Baraniuk, 2020). In 2020, contact tracing became a national priority in the United Kingdom (UK) in light of the COVID-19 pandemic, due to its centrality to infection control; low rates of self-isolation compliance (Smith et al., 2020); and regional and centralised initiatives (Iacobucci, 2020). Emerging evidence has suggested that the success of COVID-19 contact tracing has been limited, because it relies on public adherence to isolation and reporting even though it is central to effective infection control (Keeling, Hollingsworth and Read, 2020; Davis *et al.*, 2021). Davis *et al.* (2021) reported that self-reporting and adherence can have a moderate-to-substantial impact on the efficacy of test and trace, but that it should be used as a supplemental measure, in conjunction with other approaches (e.g. effective testing, vaccination).

Large scale research by Smith *et al.* (2021), involving nearly 75,000 separate responses from over 45,000 UK residents, investigated adherence to the UK's test, trace and isolate system between March 2020 and January 2021 and found that only 42.5% of individuals complied with full self-isolation. Factors associated with non-adherence included being male, of young age, having a dependent child in the household, lower socioeconomic grade, and greater financial hardship. The UK government strategy for non-adherence to self-isolation guidance was to fine individuals for not adhering to requests to self-isolate. However, this stance appears to contravene the widely-accepted position, that intrinsic motivation, rather than extrinsic reward or sanction, promotes behavioural change (Marmot, 2015).

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Motivational interviewing

MI is a collaborative, conversational style for promoting motivation and commitment to behavioural change or towards a specific behaviour (Miller and Rollnick, 2013). A large body of evidence supports MI's effectiveness across domains including health, education, social care and the criminal justice system (Miller and Moyers, 2017) and its potential role in improving COVID-19 related safety precautions has been highlighted (Hohman et al., 2021). When used in contact tracing within sexual health, Op de Coul *et al.* (2013) found that training in MI led to positive changes in professionals' attitudes and contact tracing skills. The US Center for Disease Control and Prevention (2021) proposed that MI should be incorporated into training for case investigators and contact tracers, to facilitate client communication, amongst the skills and qualities necessary for contact tracers.

MI practice centres around a 'spirit', or philosophy, of promoting acceptance, compassion, evocation (eliciting reasons for change), and partnership. Key skills, emphasised through the acronym 'OARS', are open questions, affirmations, reflections and summaries. Information is provided through a structure known as 'elicit-provide-elicited' (EPE) or 'Ask-offer-ask', which typically involves asking people what they know already, before giving additional information, having asked permission to do so. Miller and Rollnick (2013) described how asking permission first might promote a willingness to hear information, while eliciting for the second time allows for checking back clients' understanding and responses. This approach has been found to be useful in sexual health settings (Rutledge, 2007).

Previous research (cf Forrester *et al.*, 2018; Fortune *et al.*, 2019) has identified potential practice benefits of MI training;- but it should be noted that even within these studies, which involved multi-day, face-to-face training, that reported gains were marginal.

Co-production

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Flowers et al. (2021) highlighted problems associated with focusing public health efforts simply on an individual's contacts in order to reduce transmission, rather than positioning this within the complexity of the social worlds they inhabit. A rapid review by Megnin-Viggars *et al.*, (2020) emphasised the importance of collaborating with communities to understand local needs, in building trust and engagement and enabling implementation.

This exploratory study sought to consider the feasibility of developing and delivering brief, accessible MI training, for remote delivery, for COVID-19 contact tracers, during a period of national lockdown. The project involved training co-production with a local authority track and trace organisation, delivery and evaluation. It was anticipated that, in line with previous research (Op de Coul *et al.*, 2013), the training would improve the skills and self-efficacy of contact tracers, and also impact workplace wellbeing ([What Works Centre for Wellbeing, 2018](#)). The research aimed to address the following question: *To what extent can How can training in MI potentially enhance the practice, self-efficacy and wellbeing of contact tracers?*

Methodology

Phase 1 – coproduction of training

The research was conducted in two phases. During the first phase, the research team worked with a partner organisation - a local authority test, track and trace cell (TTTC) within the North West of England, identified opportunistically through existing contacts. The aim was to develop a training package, to enable MI to be used within the work of contact tracers. A series of initial consultation meetings were held with members of staff from the TTTC to:

- gain an overview of current contact tracing processes and procedures;
- identify facilitators and barriers to effective contact tracing;
- identify appropriate staff to be involved in the co-development of the training.

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Seven consultation meetings were held with members of the contact tracing teams and team leaders from environmental health, the TTTC, and health protection. Important issues highlighted, which informed the development of the training, included: effective communication; sensitive and considerate contacted for individuals who might be unwell or impacted in other ways (e.g. bereavement; loss of work); developing confidence to probe more deeply for information; having flexibility to deviate from rigid questions on the Contact Tracing and Advisory Service (CTAS) system; and ensuring individuals had access to complete information.

Following these consultations, an outline of the proposed training programme was developed, and presented to colleagues at the TTTC to review and feedback. Following further refinements, the developed training programme was piloted with a group of 11 members of TTTC staff.

Phase 2 – online training delivery

The project timeline coincided with the second national UK lockdown, and therefore all training was delivered remotely, between March and April 2021. Four training sessions were held and evaluated, including the pilot. The remaining three training sessions were advertised across professional networks, including via contacts at the regional health and social care partnership, Public Health England, the UK National Health Service (NHS) and local authorities, and publicised on Twitter. The training sessions could be [booked](#) via Eventbrite to accommodate 25 participants, however due to high demand, the capacity for each session was increased to 35. Even with this increase, the training was oversubscribed.

Training format

The online training was one full day and led by the third author, a member of the MI network of trainers (MINT). MINT made no recommendations about how MI could be integrated into contact tracing training, although discussions took place between the third author, as training

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

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3 lead, and other international MINT members on their experiences of this, particularly in the
4 United States (US). Additionally, a MINT member with infection control experience,
5 working for the World Health Organisation was consulted. Based on the coproduction phase,
6 the training was designed as a brief introduction to MI practice; leaving the consideration of
7 whether it may be useful or not in contact tracing practice to the participants. A brief outline
8 of the training is shown in Figure 1. Content centred on allowing participants to discuss their
9 tracing work and personal experience of behaviour change. Experiential learning methods
10 placed focus on the core MI skills and spirit, exploring motivation in the context of
11 behaviours, such as testing and self-isolation. Appendix 1 illustrates the type of MI style
12 conversation that a contact tracer might employ, highlighting differences compared with a
13 more typical interaction.

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- Figure 1 near here -

Data collection

Two A short online surveys (using Qualtrics) were developed for completion; one pre- and
one post-training. The pre-training survey captured demographic information about the
participants, their contact tracing skills, experience of contact tracing, and familiarity with
MI. It also included questions about occupational self-efficacy and workplace wellbeing,
sourced from the Occupational Self-Efficacy Scale (Schyns and con Collani, 2002) and the
Workplace Wellbeing Questionnaire (What Works Centre for Wellbeing, 2018). The purpose
of these questionnaire items was to gain an insight into how the participants were feeling
about their new contact tracing role.

The Occupational Self-Efficacy Scale consists of 20 items which address different
aspects of mastery, optimism and self-efficacy. Within the survey, seven items were adopted,
from the scale, which were most relevant to the research context. The Workplace Wellbeing
Questionnaire was designed as a diagnostic tool for improving wellbeing within the

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

workplace by exploring the impact of key drivers (e.g. health, security, environment, relationships). From this scale, the nine most relevant items were selected. The questions used can be found within Table 2, in the Findings section.

Self-reported tracing skills items were extracted from essential skills limited on a UK contact tracing job application specification (see items in Table 2). An open field, asked participants to provide their reasons for attending the training.

Participants were asked in the post-training survey about the relevance of MI to their role through closed responses items, and to provide written responses to the following prompts:

- Please describe one thing that you liked about the training
- Please suggest one thing that you would change about the training
- Further comments about the training session

Participants

A total of 124 individuals registered, with 101 participating in a training session - 11 in the pilot session (Phase 1) and 90 in the practice sessions (Phase 2). Of these, 85 completed the pre-training survey and 75 completed the post-training survey.

Out the 85 participants who completed the pre-training survey, 81.2% identified as female, and 17.6% male, with 1.2% preferring not to specify. Participants gave ages in the range 18-64, with the largest representations for the 45-54 years (27.1%) and 25-34 years (25.9%) age groups. In terms of professional context, 83.5% worked within a local authority and 31.8% with public health (respondents could specify multiple options), with smaller proportions in environmental health (5.9%), the NHS (2.4%) and a regional health and social care partnership (2.4%). Most (77.6%) worked with members of the public, with those working with businesses (31.8%), schools (31.8%) and care homes (29.4%) well-represented. As defined by Public Health England (2020), 25.9% were working at the highest tier (Tier 1)

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

of the phone-based contract tracing model, which includes managing complex outbreaks and situations. Around half (49.4%) were dedicated professional contact tracing staff, working at Tier 2; while only 3.5% (Tier 3) were call handlers. The remaining 17.6% were 'not sure', and it is plausible that less experienced Tier 3 staff might have been over-represented within this group. Only 6.8% of the sample had been involved in contact tracing for more than a year.

Fourteen percent of the sample had no current involvement in contact tracing. In some cases these were new recruits undertaking training prior to starting a new role. Others were interested in training other contact tracers, or applying MI in other areas of their organisation.

Data analysis

Quantitative data were analysed using SPSS software. Open response data were analysed using inductive thematic analysis (Braun & Clarke, 2006), using the data management software package NVivo (QSR, 2021).

Ethics

Ethical approval for the project was granted from the host university. Participants were informed that participation in the research elements of the training was voluntary, and warned that, because of the anonymous nature of responses, that data could not be retrieved after submission.

Findings

Pre-training data revealed that just over half of the participants (52.9%) were completely new to MI (see Table 1), with only one attendee considering themselves an experienced user.

Other responses suggested occupational self-efficacy, workplace wellbeing and self-reported contact tracing skills were high, with most participants offering *strongly agree* or *agree* responses to these items (see Table 2), despite a significant proportion (41.5%) not agreeing that training for the role was adequate. Twenty percent did not report confidence in dealing

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

with a situation in which they were in trouble, while 22.2% did not rate their mental health as good. However, it should be acknowledged that the training occurred within a national lockdown period; and other data related to workplace wellbeing are not suggestive of a problematic working culture.

- Table 1 near here –

- Table 2 near here -

Self-reported contact tracing skills were generally high, with only one respondent not agreeing that they had strong interpersonal and communication skills. There were also high rates of espoused empathy and cultural competence, good organisational skills and a strong work ethic. The slightly more ambiguous response for “I am a persuasive person” is interesting, given that the notion of direct persuasion is actually contrary to MI (Miller and Rollnick, 2013).

As shown in Table 3, most of the training participants who completed the post-training survey agreed or strongly agreed that the MI training was relevant, offered skills which could be used in practice, and improved practitioner confidence. It would have been interesting to hear from the small percentage of attendees who responded negatively to these prompts, to find out why they felt that the MI training was not relevant to their current practice.

- Table 3 near here -

Qualitative data

Participants’ reasons for attending the training were organised into six themes, as shown in Table 4. In relation to the *context for MI training*, responses indicated an eagerness and enthusiasm for learning about MI and its potential benefits to practice. They felt that it had *professional relevance* in terms of offering development opportunities and space for reflection, and there was evidence of seeking self-actualisation within their professional role

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

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3 within the theme *workplace wellbeing*. *Development of skills* was referred to frequently, with
4 participants able to contextualise the potential benefits of MI, with its focus on effective
5 communication, within their roles.
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10 - Table 4 near here -
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12 The *contact tracing context* also provided a rationale for participation. For many, this
13 was a new and unfamiliar role, for which contact tracers had been recruited or redeployed in
14 response to the pandemic. Many attended the training to improve their communication skills,
15 to support their practice and to improve outcomes. For some, the training had been
16 recommended by their employer. Other attendees highlighted the *organisational support* the
17 training provided, including the managerial benefits, networking opportunities, and the
18 possibility of improving service impact.
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28 Post-training data are outlined in Table 5. Perhaps most importantly, participants
29 highlighted *benefits to job role*, with a small number (n=4) also mentioning that the principles
30 of MI could be applied within their personal lives. There were positive comments about the
31 delivery style, although as anticipated, some attendees would have preferred face-to-face
32 training. Creating *opportunities for working with contact tracing colleagues* was valued, with
33 people relishing opportunities for networking and professional discussions, although they
34 would have liked to speak to more attendees – another potential disadvantage of online
35 delivery.
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46 - Table 5 near here -
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48 Feedback on improvement suggestions sometimes conflicted, with some individuals
49 wanting more time for training, and others feeling that it could have been delivered within a
50 shorter session. This inconsistency might reflect the different experience of attendees, and the
51 fact that the training catered for a diverse group. Other suggestions included access to face-to-
52 face training, more background to MI, and smaller numbers.
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MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Discussion

This section will revisit the research question, before considering limitations and future directions. Because COVID-19 contact tracing is not a current priority, certainly within the UK, implications of the research will be considered from a wider contact tracing, and health policy perspective.

The research aimed to answer the following research question: *How can training in MI potentially enhance the practice of contact tracers? To what extent can training in MI potentially enhance the practice, self-efficacy and wellbeing of contact tracers?* This small-scale project provides tentative evidence that MI offers a potentially useful philosophy and structure to support communication in contact tracing. Findings support previous empirical research (Op de Coul *et al.*, 2013), and potentially strengthen the rationale for guidance promoting the use of MI within professional practice (Centers for Disease Control and Prevention, 2021; Hohman *et al.*, 2021).

In the ~~United States (US)~~, Celentano *et al.* (2021), reporting on the rapid upscaling and training of the contact tracing workforce in San Francisco, found that while information about COVID-19 and local guidelines could be easily taught, “to be effective, tracers needed to learn how to do the work with compassion, humility, and empathy” (p.1616). In this US study, training focused on relational skills, consistent with the spirit of MI (Miller and Rollnick, 2013). Within the current research too, participants spotted a natural fit between MI training and contact tracing, with agreement that it was relevant and could be used effectively to enhance practice. ~~Previous research (cf Forrester *et al.*, 2018; Fortune *et al.*, 2019) has identified potential practice benefits of MI training, but it should be noted that even with these studies, which involved multi-day, face-to-face training, that reported gains were marginal.~~

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

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3 It Additionally, it should be highlighted that MI skills learnt within training quickly
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5 erode without additional training input and practice, as evidenced by systematic reviews by
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7 Hall *et al.*, (2016) and (Schwalbe, Oh and Zweben, 2014). For this reason, it can be
8
9 hypothesised that any potential benefits from participants receiving MI training as part of this
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11 study would quickly be lost if not consolidated through additional training, opportunities for
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13 practice, and supervision. Earnshaw and Atkinson (2022) highlighted multiple factors which
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15 need to be addressed for MI training to be effectively implemented into practice.
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20 MI is not a distinct skill set, with elements of the spirit, processes and skills very
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22 likely to be observable within other professional interaction. However, in situations where
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24 there is ambivalence about behaviour change, MI provides a structure for the development of
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26 relational skills (Atkinson and Earnshaw, 2019). Within this study, participants reported
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28 interest in what MI could provide, in terms of enhancing practice, as well as an openness and
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30 readiness to engage with its principles. There were also comments about skills development,
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32 organisational benefits and even use within the context of participants' personal lives,
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34 suggesting benefits could be wide-ranging. Despite this, the challenges of MI effecting
35
36 behavioural change should not be underestimated. Although research across domains
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38 highlights its effectiveness (Miller and Moyers, 2017) this has not been without criticism
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40 (Frost *et al.*, 2018). Additionally, Hohman *et al.* (2021) highlighted that MI use within
41
42 contact tracing is different from MI interactions in other settings, as the consultee is unlikely
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44 to derive personal benefits from behavioural change, such as improved physical or mental
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46 health. This suggests that more extensive research is needed to examine the potential impact
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48 of MI on contact tracing and infection control more generally.
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54 The research was conducted, at the height of the UK lockdown, and initially, the
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56 researchers were approached by the UK Health and Security Agency, with a view to
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58 conducting a randomised control trial, exploring whether using MI within COVID-19
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MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

contract tracing could enhance its effectiveness in promoting adherence to guidelines and contact sharing. However, there was unfortunately insufficient time, before the dissolution of contact tracing, in line with the UK Government's "living with COVID" strategy (GOV.UK, 2022).

Limitations

This was a small sample, and it is important to recognise that within it, self-reported self-efficacy, occupational wellbeing and skills scores amongst participants were high, suggesting that the training may have helped to refine, rather than develop, practitioner confidence and competence. It is possible that staff with skills relevant to contact tracing were over-represented - findings suggesting high commitment and expertise amongst participants, which may be characteristic of individuals already working within the public sector. With the sudden onset of the COVID-19 pandemic, rapid changes to the contact tracing workforce were required. Against this backdrop, the researchers had anticipated that recent switches in job role, and resultant stresses within participants' personal and professional lives, might have manifested in low self-reported scores. This was not the case, and most attendees reported confidence and contentment with their role. __

This was not a pre- post-test evaluation study. It was insufficiently powered to determine whether the training made a different to self-reported occupational self-efficacy and workplace wellbeing. Instead, measures were gathered to give insight into the sample and to test the feasibility of using this survey for a future large-scale study. Thematic analysis, a qualitative approach was used to identify patterns within the data. It is acknowledged that another method, such as content analysis, might have allowed these patterns to be quantified, by reporting numbers or percentages of respondents highlighting the different areas.

Potentially, high self-reported scores could be related to the fact that the majority of participants were already engaged in working with members of the public. However, the type

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

of mobilised workforce involved in this study has also been a feature of other studies (cf. Celentano *et al.*, 2021; Ruebush *et al.*, 2022). Indeed Reintjes (2020) described how in Germany, existing infrastructure was utilised, with experienced civil servants redeployed to public health, allowing support for new staff members. It should also be noted that the sample was essentially self-selecting, and that there was limited uptake from contact tracers from private sector providers.

Because of the pandemic, training was online, but notably in real time. This is in contrast to other training delivered to professionals during the pandemic, which was asynchronous (cf Byrd-Williams *et al.*, 2021; Ruebush *et al.*, 2022). Previous research has tended to explore benefits and limitations of face-to-face training (Schwalbe, Oh and Zweben, 2014; Hall *et al.*, 2016; Forrester *et al.*, 2018b; Fortune *et al.*, 2019) and further research would be required to examine the effectiveness of remote MI delivery, particularly given that there are some activities which may not be feasible over a virtual interface (e.g. skills monitoring; in situ feedback; skills refinement).

This article describes the pre-and post-training views of the contact tracers on the relevance of MI to their work. The wider research project also found evidence that they were able to apply it in practice, through post training interviews. Analysis of these data are beyond the scope of this study, but will form the basis for a future paper (Barrow *et al.*, in preparation).

Future directions

While the contribution of MI within COVID contact tracing may be outdated, its role of MI in public health and infection control generally may be worth exploring. In relation to COVID, MI has also been proposed as an approach for helping individuals explore ambivalence around COVID vaccine hesitancy (Breckenridge, 2021; Gabarda and Butterworth, 2021). Comparing findings from this research with the broader literature, further

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

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3 systematic research of MI within infection control, involving larger sampling and greater
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5 control of variables would be a logical next step, particularly where benefits to those
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7 contacted are indirect. However, it should be noted that even if positive evidence emerges,
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9 training would need to be carefully and systematically implemented within organisations, to
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11 avoid the erosion of learnt skills (Schwalbe, Oh and Zweben, 2014; Earnshaw and Atkinson,
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13 2022). Certainly, if MI training is to be considered as an enhancement to contact tracing
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15 practice, or within health policy more widely, factors beyond the initial training delivery need
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17 to be carefully considered.
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22 Although not the focus of this particular article, one strength of the training was that it
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24 was co-produced with members of a test and trace cell within a UK local authority. The
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26 potential for collaboration within this study was limited by the timescales of this project, and
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28 a rapid response to the COVID situation. With more time and planning, systematic planning
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30 might have been feasible, such as that in Flowers *et al.*'s (2021) intervention for sexually
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32 transmitted infection contact tracing for gay and bisexual men who have sex with men, which
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34 involved a multi-phased approach, including consultations with the men and their one-off
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36 partners, health professionals, and dating app providers. This research could potentially have
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38 involved contributions from members of the public who had been contacted by the local
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40 authority. More in-depth and wide-ranging consultation and co-production would be
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42 advantageous in improving future training engagement and outcomes.
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References

53
54
55 Atkinson, C. and Earnshaw, P. (2019) *Motivational Cognitive Behavioural Therapy*. London:
56
57 Routledge.
58
59
60

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

Baraniuk, C. (2020) 'Covid-19 contact tracing: A briefing', *The BMJ*, 369(May), pp. 1–3.

doi: 10.1136/bmj.m1859.

Barrow, J. et al. (in preparation) 'COVID-19 contract tracers's views about the contribution of motivational interviewing to applied practice'. *Journal of Health Organization and Management.*

Braun, V. and Clarke, V. (2006). 'Using thematic analysis in psychology'. *Qualitative Research in Psychology*, 3(2), pp. 77–101. <https://doi.org/10.1191/1478088706qp063oa>

Breckenridge, L. A. (2021) 'The use of motivational interviewing to overcome COVID-19 vaccine hesitancy', *Public Health Nursing*, 39, pp. 618–623.

Byrd-Williams, C. et al. (2021) 'Training Needs of Community Health Workers Facing the COVID-19 Pandemic in Texas: A Cross-Sectional Study', *Frontiers in Public Health*, 9(June), pp. 1–9. doi: 10.3389/fpubh.2021.689946.

Celentano, J. et al. (2021) 'Mobilizing a COVID-19 contact tracing workforce at warp speed: A framework for successful program implementation', *American Journal of Tropical Medicine and Hygiene*, 104(5), pp. 1616–1619. doi: 10.4269/ajtmh.20-1665.

Centers for Disease Control and Prevention (2021) *Training Case Investigators and Contact Tracers, COVID-19*. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/training-investigators.html>.

Davis, E. L. et al. (2021) 'Contact tracing is an imperfect tool for controlling COVID-19 transmission and relies on population adherence', *Nature Communications*, 12(1), pp. 1–8. doi: 10.1038/s41467-021-25531-5.

Earnshaw, P. and Atkinson, C. (2022) *Motivational interviewing: implementation in organisations*, *EdPsyEd*. Available at: <https://www.edpsyched.co.uk/motivational-interviewing-organisations> (Accessed: 28 December 2022).

Flowers, P. et al. (2021) *Developing a co-produced, systems-informed, sexually transmitted*

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

infection contact tracing intervention for gay and bisexual men who have sex with men and their 'one-off' sexual partners, *medRxiv*. Available at:

<https://www.medrxiv.org/content/10.1101/2021.07.07.21260064v1><https://www.medrxiv.org/content/10.1101/2021.07.07.21260064v1.abstract>.

Forrester, D. *et al.* (2018) 'A randomized controlled trial of training in Motivational Interviewing for child protection', *Children and Youth Services Review*. Elsevier, 88(February), pp. 180–190. doi: 10.1016/j.chilyouth.2018.02.014.

Fortune, J. *et al.* (2019) 'Motivational interviewing training for physiotherapy and occupational therapy students: Effect on confidence, knowledge and skills', *Patient Education and Counseling*. Elsevier Ireland Ltd, 102(4), pp. 694–700. doi: 10.1016/j.pec.2018.11.014.

Frost, H. *et al.* (2018) 'Effectiveness of Motivational Interviewing on adult behaviour change in health and social care settings : A systematic review of reviews', *PLoS ONE*, 155, pp. 1–39.

Gabarda, A. and Butterworth, S. W. (2021) 'Using Best Practices to Address COVID-19 Vaccine Hesitancy: The Case for the Motivational Interviewing Approach', *Health Promotion Practice*, 22(5), pp. 611–615. doi: 10.1177/15248399211016463.

GOV.UK (2022) *PM statement on living with COVID: 21 February 2022*. Available at: <https://www.gov.uk/government/speeches/pm-statement-on-living-with-covid-21-february-2022> (Accessed: 5 December 2022).

Hall, K. *et al.* (2016) 'After 30 years of dissemination, have we achieved sustained practice change in motivational interviewing?', *Addiction*, 111(7), pp. 1144–1150. doi: 10.1111/add.13014.

Hohman, M., McMaster, F. and Woodruff, S. I. (2021) 'Contact Tracing for COVID-19: The Use of Motivational Interviewing and the Role of Social Work', *Clinical Social Work*

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

1
2
3 *Journal*. Springer US, (0123456789). doi: 10.1007/s10615-021-00802-2.

4
5
6 Iacobucci, G. (2020) 'Covid-19: UK pledges to reintroduce contact tracing to fight virus',
7
8 *BMJ (Clinical research ed.)*, 369(April), p. m1591. doi: 10.1136/bmj.m1591.

9
10
11 Keeling, M. J., Hollingsworth, T. D. and Read, J. M. (2020) 'Efficacy of contact tracing for
12
13 the containment of the 2019 novel coronavirus (COVID-19)', *Journal of Epidemiology and*
14
15 *Community Health*, 74(10), pp. 861–866. doi: 10.1136/jech-2020-214051.

16
17 Marmot, M. (2015) *The Health Gap: the Challenge of an Unequal World*. London:
18
19 Bloomsbury Publishing.

20
21 Megnin-Viggars, O. *et al.* (2020) 'Facilitators and barriers to engagement with contact
22
23 tracing during infectious disease outbreaks: A rapid review of the evidence', *PLoS ONE*. doi:
24
25 10.1371/journal.pone.0241473.

26
27
28 Miller, W. R. and Moyers, T. B. (2017) 'Motivational interviewing and the clinical science of
29
30 Carl Rogers', *Journal of Consulting and Clinical Psychology*, 85(8), pp. 757–766. doi:
31
32 10.1037/ccp0000179.

33
34
35 Miller, W. R. and Rollnick, S. (2013) *Motivational Interviewing, Third Edition: Helping*
36
37 *People Change*. New York: Guilford Press.

38
39
40 Op de Coul, E. L. M. *et al.* (2013) 'With whom did you have sex? Evaluation of a partner
41
42 notification training for STI professionals using motivational interviewing', *Patient*
43
44 *Education and Counseling*, 93(3), pp. 596–603. doi: 10.1016/j.pec.2013.08.025.

45
46
47 Public Health England (2020) *COVID-19: Draft contact tracing operating model, 23 April*
48
49 *2020, PHC contact tracing and advice system*. Available at:

50
51 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data
52
53 [/file/890182/s0274-covid-19-draft-contact-tracing-operating-model-230420-sage30.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/890182/s0274-covid-19-draft-contact-tracing-operating-model-230420-sage30.pdf).

54
55
56 Reintjes, R. (2020) 'Lessons in contact tracing from Germany: Germany built on existing
57
58 local infrastructure to get ahead of the covid-19 pandemic', *The BMJ*, 369, pp. 1–2. doi:

MOTIVATIONAL INTERVIEWING FOR COVID CONTACT TRACING

1
2
3 10.1136/bmj.m2522.

4
5 Ruebush, E. *et al.* (2022) 'Implementation of a Nationwide Knowledge-Based COVID-19
6 Contact Tracing Training Program, 2020', *Public Health Reports*. doi:

7
8
9 10.1177/00333549221101327.

10
11
12 Rutledge, S. E. (2007) 'Single-session motivational enhancement counseling to support
13 change toward reduction of HIV transmission by HIV positive persons', *Archives of Sexual*
14
15
16
17
18
19 *Behavior*, 36(2), pp. 313–319. doi: 10.1007/s10508-006-9077-8.

20
21
22
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56
57
58
59
60
Schwalbe, C. S., Oh, H. Y. and Zweben, A. (2014) 'Sustaining motivational interviewing: A
meta-analysis of training studies', *Addiction*, 109(8). doi: 10.1111/add.12558.

Schyns, B. and con Collani, G. (2002) 'A new occupational self-efficacy scale and its relation
to personality constructs and organizational variables', *European Journal of Work and*
Organizational Psychology, 11(2), pp. 219–241. doi: doi.org/10.1080/13594320244000148.

Smith, L. E. *et al.* (2021) 'Adherence to the test, trace, and isolate system in the UK: Results
from 37 nationally representative surveys', *The BMJ*, 372, pp. 2020–2022. doi:
10.1136/bmj.n608.

What Works Centre for Wellbeing (2018) *Workplace Wellbeing Questionnaire*:

Methodology. What Works Centre for Wellbeing. Available at:

<https://whatworkswellbeing.org/product/workplace-wellbeing-questionnaire-methodology/>.

Figure 1: Outline of MI contact tracing training

- Background to the training and to MI
- Empirical evidence for MI
- Definitions of MI
- Spirit of MI
- Exercise exemplifying the different between persuasion and MI
- Processes of MI
- Using the OARS skills
- Practising open questions and affirmations
- Elicit-provide-elicite
- Listening and empathy
- Simple and complex reflections
- Reflections practice activity
- Working with sustain talk, discord and resistance

Table 1: Knowledge of motivational interviewing (MI)

	N=85	%
I am completely new to MI and have no prior experience	45	52.9
I know a little about MI (eg from reading or an introductory session)	27	31.8
I have had some MI training and would like to use the approach in my work	12	14.1
I am a well-trained and experienced user of MI	1	1.2

Table 2: Data from pre-training questionnaire, relating to previous training, occupational self-efficacy, workplace wellbeing, and self-reported contact tracing skills

	No of responses	Strongly agree %	Agree %	Neither agree nor disagree %	Disagree %	Strongly disagree %
Views about previous contact tracer training						
Training for contact tracing was adequate	82	14.6	43.9	29.3	9.8	2.4
Occupational self-efficacy (job-related self-confidence)						
Thanks to my resourcefulness I know how to handle unforeseen situations	85	24.7	68.2	5.9	1.2	0.0
If I am in trouble at my work, I can usually think of something to do	85	16.5	63.5	17.6	2.4	0.0
I can remain calm when facing difficulties in my job because I can rely on my abilities	85	30.6	62.4	7.1	0.0	0.0
When I am confronted with a problem in my job, I can usually find several solutions	85	17.6	67.1	14.1	1.2	0.0
No matter what comes my way in my job, I'm usually able to handle it	85	15.3	76.5	7.1	1.2	0.0
My past experiences in my job have prepared me well for my occupational future	84	25.0	65.5	8.3	1.2	0.0
I meet the goals that I set for myself in my job	85	17.6	65.9	15.3	1.2	0.0
Wellbeing at work						
Overall, I am satisfied with my present job	85	30.6	58.8	9.4	1.2	0.0
I would recommend my organisation as a great place to work	85	44.7	47.1	8.2	0.0	0.0
My physical health is good	85	25.9	64.7	5.9	3.5	0.0
My mental health is good	85	22.4	56.5	11.8	9.4	0.0
I feel safe from threats and physical hazards in my work environment	85	42.4	52.9	4.7	0.0	0.0
I am satisfied with my physical working environment	85	36.5	54.1	8.2	1.2	0.0
I get help and support from my manager	85	55.3	38.8	5.9	0.0	0.0
I get help and support from my colleagues	84	58.3	40.5	0.0	1.2	0.0
My job gives me the feeling of work well done	85	40.0	50.6	9.4	0.0	0.0
Contact tracing skills						

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3	I have strong communication and interpersonal skills	85	40.0	58.8	1.2	0.0
4	I am a persuasive person	85	15.3	63.5	18.8	2.4
5	I am able to demonstrate empathy and cultural competence	85	45.9	50.6	3.5	0.0
6	I have strong organisational skills	85	38.8	54.1	4.7	2.4
7	I am adept at critical thinking	85	23.5	64.7	11.8	0.0
8	I have a strong work ethic	85	64.7	31.8	3.5	0.0
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Table 3: Data from post-training questionnaire, relating to relevance of MI training to practice

	No of responses	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Relevance of MI training						
The training is relevant to my work in contact tracing	73	52.1	37.0	6.8	1.4	2.7
I intend to use MI skills learned in the training session in my work as a contact tracer	73	46.6	42.5	6.8	1.4	2.7
I feel I can approach my work as a contact tracer with greater confidence having received the training	73	39.7	45.2	9.6	2.7	2.7

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Table 4: Reasons for attending the training session

Theme	Node
Context for MI training	Benefits of training
	Interesting
	Learn more about MI
	New to MI
	Openness to learning MI
	Previous use of MI
	Seeking further knowledge of MI
Contact tracing context	Support for research
	Deployment
	Importance of role and training
	New to contact tracing
	Not currently in role
	Organised by work
	Tick box exercise (CTAS)
Development of skills	Understanding of role
	Challenges of the role
	Effective communication
	MI benefits to role
	MI links to existing skills set
	Skills development
Organisational support	Supports existing training
	Impact
	Organisational benefits
	Managerial benefits
	Networking
Professional relevance	Support for members of the public
	Continuing professional development
Workplace wellbeing	Opportunities for reflection
	Being the best I can be
	Job satisfaction
	Relevant to personal life

Table 5: Themes from training feedback

Theme	Node
Benefits to job role	Grateful for opportunity to attend Informative Opportunities for reflection Personal applications Skills practice Useful and relevant Work applications
Delivery style	Accessible Atmosphere Enjoyable Facilitation Interesting <i>Issues with activities</i> Learning approaches Resources <i>Virtual versus face to face</i> Videos useful
Opportunities for working with contact tracing colleagues	Conversations Interactions with others Networking <i>Opportunities to work with more people</i>
Potential developments to training	<i>Access to face-to-face training</i> <i>Fewer people</i> <i>Less time</i> <i>More specific to contact tracing</i> <i>More theory and background to MI</i> <i>More time</i>

*Positive comments are in normal type, with improvement suggestions in italics

Brief MI informed conversation with someone who is reluctant to self-isolate following a positive COVID19 test

This may take place in a socially-distanced setting or through telephone conversation. It is important to listen carefully throughout, remain neutral in attitude and respect the person's position throughout the interview, as it will be them who has to act on your information and advice. Validate any concerns they may have, and affirm their efforts to keep themselves and others safe. They may not trust or be confused by official advice; or be anxious about their own health or finances, and this is a real dilemma for people.

Each conversation will be different, but the structure and style suggested has been useful in other settings, for example in the context of sexual health behaviours (Rutledge, 2007). Elicit-provide-elicite (EPE) is a structure used in MI for providing information. It involves asking people what they know already, before providing additional information, having asked permission to do so. Feedback is then sought on the information provided. MI skills are used to maximise engagement and to decrease resistance to change and information given.

Worker (W): Hi. I'm ... calling from contact tracing service. Am I speaking to....?
How are you today?

Client (C): OK.

W: I wonder if you have five or 10 minutes to speak to me, please [Asking permission].

C: OK.

W: That's great thanks. I'm calling because we've been made aware that you recently tested positive for coronavirus. What are your thoughts on that? [Open Question].

C: I'm not sure, I feel OK.

W: You're feeling OK and not sure what to do about it? [Reflective response].

C: I'm just not sure about what it all means.

W: OK that's fine. Would it be OK if I told you a bit about our service and what we do? [Accepting; asking permission].

C: OK, I suppose (reluctantly).

W: Thank you I have some information... but first, can I ask you what you know about COVID-19, how it spreads and what you can do about it? [Eliciting what the person knows].

C: Well, I heard it's like flu but not sure how its spreads.

W: Thanks, yes that's right. It's a virus and our service has been set up to help stop the spread, because COVID is about 10 times more dangerous than flu. It spreads through tiny particles in the air when people are breathing talking or laughing near each other [Providing additional information]. What do you make of that? [Elicit - asking for feedback].

1
2
3 C: Well, I heard it's more like a cold. I don't feel that bad. I've just got a cough.
4

5
6 W: That's good to hear, and yes it does seem to affect people differently. Scientists in the
7 NHS [National Health Service] have found it's much worse, and a life-threatening illness, for
8 people who are more vulnerable. They tend to be older and have long-term health conditions,
9 although it does affect younger people too [Providing information]. Have you anyone in your
10 network who is older or has long term illnesses? [Open question].
11

12 C: Well, there is my gran, and my dad. He has some chest problems.
13

14 W: You mention your gran and dad. Do you or anyone else close to you have regular contact
15 with them?
16

17 C: Well one or two people ... and ... and I was round last week with some shopping.
18

19 W: It sounds like they are being careful, and are still in contact with people close to you. You
20 are helping to care for them and are anxious to keep them safe [Complex reflection].
21

22 C: I suppose so, but I'm not sure what I can do.
23

24 W: Well, our advice to help stop the spread in your family and social network, is to self-
25 isolate yourself for 10 days, and also those people in your home for 14 days [Provide
26 information]. What do you make of that? [Eliciting feedback].
27

28 C: That's going to be near impossible!
29

30 W: It sounds like it might be very difficult for you; and yet at the same time you want to keep
31 the people you care about safe [Reflection; accepting difficulties].
32

33 C: I'd like to, but I just can't see how.
34

35 W: Would it be helpful if I gave you some information and some contact information about
36 how we can help you with that? [Asking permission].
37

38 C: OK
39

40 W: *Give brief info on how to self-isolate: include financial support; access to home support;*
41 *shopping, medicine; and things to do at home to minimise transmission (e.g., wearing face*
42 *coverings* [Providing information].
43

44 C: I'm still not sure I can do this.
45

46 W: Thanks for being so honest. I can see that it's very difficult, but also that you want to keep
47 members of your family and social network safe [Rolling with resistance]. Would it be OK if
48 I just asked you about the close contacts you've had with other people recently? [Asking
49 permission to consider contacts].
50

51 C: OK
52

53 *Then help to create a contact timeline, record names contact numbers.*
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4 W: We would like your permission to contact these people and to give them information and
5 support to protect their health, is this OK with you? [Asking permission].
6
7

8 **Finally summarise the conversation**
9

10 W: So, thanks for talking to me today, this is really difficult for you, and you are committed
11 to caring for those people who are important to you such as gran and dad. You are still
12 thinking about whether you can afford to self-isolate because of the financial costs. You have
13 some contact numbers for help with this, but you still need time to think it through before you
14 come to a decision [Supporting autonomy].
15
16

17 W: Have you any further questions for me?
18

19 C: No.
20

21 W: Thanks again. If you do need to talk about this further, you can ring this number. In the
22 meantime, we will contact.... to see if they can help by self-isolating.
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