Contact Tracing for COVID-19: The Use of Motivational Interviewing and the Role of Social Work

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Abstract
One method in mitigating the impact of COVID-19 is that of contact tracing. It is estimated that in the US, 35,000–100,000 contact tracers will be hired (and trained) to talk to recently-infected individuals, understand who they have exposed to the virus, and encourage those exposed to self-quarantine. The Center for Disease Control recommends the use of motivational interviewing (MI) by contact tracers to encourage compliance with contact tracing/quarantine. Contact tracers need to sensitively communicate with COVID-19-exposed individuals who may also be experiencing other issues caused by the pandemic, such as anxiety, depression, grief, anger, intimate partner violence, health problems, food insecurity, and/or unemployment. Social workers are particularly prepared to address the mental health and other psychosocial problems that may be encountered in the tracing process. This article describes contact tracing, its use in other diseases, the role of MI, psychosocial issues that contact tracers may encounter, and how social work can respond to these needs. A sample dialogue of contact tracing using MI is presented with a discussion of the content and skills used in the process.

Keywords COVID-19 · Contact tracing · Motivational interviewing

The coronavirus disease 2019 (COVID-19) pandemic is likely the most serious public health threat in the last 100 years, due to both direct effects of the disease and also because of the indirect impact of lockdown measures on help-seeking behaviors, routine screenings, and mental health. SARS-CoV-2 is a novel coronavirus not previously seen in humans that primarily causes the disease COVID-19, a contagious respiratory illness ranging from mild (or no) symptoms to serious symptoms that may result in death. Although everyone is vulnerable to COVID-19, the most severe illness has occurred in adults 65 years and older, and in people with serious underlying medical problems. The virus has disproportionately affected those who are People of Color probably due to both social and biomedical factors (Tai, Shah, Doubeni, Sia, & Wieland, 2020). While the numbers are continually changing, as of March 19, 2021 January 5, 2021, there were 122 million 86,230,870 COVID-19 cases globally, with 2.69 million 1,865,267 deaths (Johns Hopkins University Coronavirus Resource Center [JHUCRC], 2021). In the U.S., there have been 29.7 million 21,007,694 cases, with 540,000 356,540 deaths (JHUCRC, 2021). All 50 U.S states have reported cases of COVID-19 to the Centers for Disease Control (CDC) and Prevention. Densely populated geographic areas and those areas with a large proportion of poor and minority populations are among the hardest hit by COVID-19 although it is now spreading to rural areas (Citylab, 2020; Lakhani et al., 2020).

According to the Centers for Disease Control and Prevention, COVID-19 primarily is spread person to person through droplets of saliva or discharge from the nose (CDC, 2020a), although there is accumulating evidence of the role of airborne aerosols, that is, smaller particles in exhaled air (Wilson et al., 2020). There are now three two vaccines being offered but to limited groups; therefore non-pharmaceutical public health measures aimed at reducing disease transmission remain critical (e.g., restricting public

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gatherings, social distancing, stay-at-home policies, closure of schools and nonessential businesses, face mask requirements, and self-quarantine practices (World Health Organization [WHO], 2020). One other potentially effective strategy to slow the spread and reduce the impact of COVID-19 is contact tracing (CT).

CT involves the identification of relevant contacts of infectious COVID-19 cases, the testing of those contacts, and the treatment (e.g., self-quarantine) of those contacts, if necessary. As has been done in other infectious disease CT, the identity of the person who tested positive (referred to as the case) is kept confidential and not disclosed to those who have been exposed (the contact), whose information is also kept confidential (CDC, 2020b). While there may be variations locally, in general the contact is asked specifically:

1. to self-quarantine at home for 7–10 days, preferably away from other family members,
2. to take their temperature twice daily, and
3. to monitor themselves for symptoms of COVID-19.

The contact tracer can provide guidance on this process and ask about needs regarding food, an excuse for missing work, or filing for unemployment. They can also ask about other psychosocial needs and make appropriate referrals (CDC, 2020b). The contact tracer may also check in daily with both the person who has tested positive and the known contacts regarding their symptoms (Wiggins, 2020).

As stay-at-home orders and restrictions on businesses and public places are being eased across the country, CT may be a key strategy to prevent further spread of COVID-19. CT has been a cornerstone of the public health response to infectious disease outbreaks for decades. For example, it has been used in various countries for tuberculosis (Begun et al., 2013; Glasauer et al., 2020), HIV (van Aar et al., 2015), Ebola (Swanson et al., 2018), and Hepatitis C (Katzman et al., 2019) outbreaks. Social workers have been involved in CT for the past 60 years, with the focus usually being working with patients with sexually transmitted infections (STIs) to identify sexual contacts (Burgess, 1963; Thelin et al., 1980; Tyden & Ramstedt, 2000). Often the social workers who were performing CT encountered cases who were reluctant to disclose sexual contacts or did not know their contact details, and there has long been a tension between individual freedom and the desire to protect the public (McCarthy et al., 2007).

COVID-19 poses similar significant challenges to tracing programs in the U.S. CT will need to be sufficiently rapid and must reach a significant portion of cases and contacts to meaningfully contain new cases of COVID-19 (Hellewell et al., 2020). Most of the CT will likely be via traditional technology, e.g., the telephone. Sophisticated apps such as those that use smartphone GPS technology may be used eventually, but concerns about privacy remain (Martinez-Martin et al., 2020; Baraniuk et al., 2020). Successful CT will require that cases and contacts accept telephone calls and take advice from strangers. However, many individuals may not routinely answer calls from numbers they do not recognize. Furthermore, government interventions regarding the virus have become increasingly politicized, with some Americans not agreeing with restrictions on their behavior. Privacy is another issue with many Americans, and some positive cases may not agree to share the names and numbers of their close contacts. Contacts may not comply with self-quarantine recommendations when given (Pfefferbaum & North, 2020). In addition to these challenges, contact tracers need to sensitively communicate with COVID-19-exposed individuals who may also be experiencing other issues, caused by the pandemic or pre-existing, such as anxiety, depression, grief, anger, intimate partner violence, substance abuse, co-morbid health problems, food insecurity, and/or unemployment (e.g., Panchal et al., 2020).

Clearly, effective communication skills are needed by contact tracers to overcome many of the barriers and concerns that are identified above. The CDC mentions the use of Motivational Interviewing (MI) to encourage compliance with contact tracing and quarantine/isolation recommendations (CDC, 2020c). MI is a brief, nonconfrontational communication method to strengthen an individual’s motivation and commitment to meet health-related challenges (Miller & Rollnick, 2013). It provides a way of working with individuals who may seem ambivalent or unable to make the changes that are considered necessary to reduce their risk, or the risk of their contacts. While there are few studies in this area, MI has been found to be effective in CT in the area of partner notification of patients with STIs or HIV (Kuyper et al., 2009; Op de Coul et al., 2013; Theunissen et al., 2014).

Social workers are particularly prepared to address the biopsychosocial, mental health, and other problems that may be encountered in the tracing process. Social workers are also likely to have been educated in MI, either in graduate school or their practice settings (Hohman, 2021), thus making them ideal candidates for contact tracers and team trainers. This article describes how MI may be used in CT and the unique role of social work can play in CT for COVID-19. A sample dialogue of telephone-based CT using MI is presented, along with a discussion of the content and skills used in the process.

Social Work and Contact Tracing

Social workers are typically educated in the person-in-environment approach which equips them to identify and address problems across the micro, mezzo, and macro systems (Hepworth et al., 2017). Individuals, families, and communities
are all affected by COVID-19. At the micro or individual level, for those who are cases or contacts, being asked to self-quarantine after exposure and isolate from others may push some to refuse to comply or increase mental health problems (DiGiovanni et al., 2004). Studies of previous epidemics and of COVID-19 show that self-isolating can exacerbate many of the mental health problems that people are already struggling with or cause problems in healthy people, such as depression, anxiety, suicidal thoughts, or substance use (Kousoulis et al., 2020; Ornell et al., 2020; Pfefferbaum & North, 2020; Van Bortel et al., 2016; Wang et al., 2020). A recent survey of Americans found that 47% of the respondents reported mental health impacts from the stress and worry of the future with COVID-19 and the related consequences, such as loss of employment, financial worries, home schooling duties, and fear of contracting the disease for oneself or family members (Panchal et al., 2020). Children, adolescents, older adults, women juggling multiple roles, and frontline workers appear to be especially at risk (Torjesen, 2020).

Social workers who are providing CT for COVID-19 have a window of opportunity to identify and address concomitant biopsychosocial problems in those who have been exposed to the virus. Our review of job descriptions for CT for COVID-19 found that professionals as well as trained volunteers are being recruited, including public health social workers, community non-profit staff, community social workers, and social work students. Some of the positions include more straight-forward CT as described above while others focus on providing assessment, referral, and wraparound services for mental health, childcare, food, transportation, and other mezzo/family system needs (ASTHO, 2020; CDC Foundation, 2020; NACCHO, 2020). Pfefferbaum and North (2020) provide a potential list of concerns that those performing CT may want to inquire about:

In the context of COVID-19, psychosocial assessment and monitoring should include queries about... related stressors (such as exposure to infected sources, infected family members, loss of loved ones, and physical distancing), secondary adversities (economic loss for example), psychosocial effects (such as depression, anxiety, psychosomatic preoccupations, insomnia, increased substance use, and domestic violence), and indicators of vulnerability (such as preexisting physical or psychological conditions). (p. 2)

If CT is to provide services beyond education and recommendations regarding self-quarantine, such as the assessment and case management tasks described above, having social workers, who view client (i.e., case and contact) concerns from the biopsychosocial perspective and have the skills to intervene, will enable public health departments to be more effective. Given the prediction of the “tsunami” of mental health problems (Torjesen, 2020) as well as the long-term effects of unemployment and economic collapse on families, CT may be one of the best methods to identify and intervene with those who are at risk for concerns beyond their physical health and virus spread. Social workers are also trained to work with groups and communities and can engage in tasks also recommended by the CDC (2020c) regarding outreach to community leaders and members to build awareness and support the use of CT.

### Motivational Interviewing as the Communication Method

Social workers are used to working with clients who are reluctant: they are trained to work with clients where there may be highly stigmatized problems such as child abuse, school behaviors, intimate partner violence, mental health issues, and the like (Rooney, 2018) and as noted, are often trained in MI. Making contact, engaging, and building trust with those who have been infected and/or exposed to COVID-19 can be difficult and fraught with emotion. Some cases/clients may be ambivalent about discussing their situation with someone who is from a local government entity, identifying those who may have been in contact with them, or committing to maintaining isolation, for a variety of reasons (Van Bortel et al., 2016). MI used in CT as the communication method can help with establishing a safe relationship and overcoming ambivalence. It is also recommended that contact tracers understand the community and cultural needs of those that they contact (CDC Foundation, 2020; Tai et al., 2020). MI has been found to be particularly effective with clients who are People of Color (Hettema et al., 2005) as its approach and skills focus on engaging clients in a culturally humble manner (Hohman, 2021).

MI was created by psychologist William Miller (1983) for those with alcohol problems and later refined with co-author Stephen Rollnick (Miller & Rollnick, 2013) with a specific focus toward resolving client ambivalence. MI was later expanded to address a variety of health and behavioral health issues, including decisions regarding medication adherence, exercise, diabetes control, treatment entry, and the like (Lundahl et al., 2013; VanBuskirk & Wetherall, 2014). The widespread use of MI has been facilitated by research in support of its effectiveness, with over 1,200 randomized controlled trials. Its use is also due to the affinity of many medical and behavioral health clinicians, including social workers, to its client-centered concepts and practice (Hohman, 2021; Miller & Rollnick, 2013). There are two aspects of MI: the spirit and the skills that are used. The spirit consists of how clients or patients are approached, including an emphasis on partnership with clients (versus being the expert), acceptance of clients that involves acknowledging their absolute...
worth and autonomy, use of accurate empathy, and being affirmative of their strengths. These behaviors are all done in an atmosphere of compassion with a strong emphasis on evocation of clients’ thoughts, concerns, and beliefs. Key communication skills in MI include open-ended questions, affirmations, reflective listening statements, and summaries (OARS) (Miller & Rollnick, 2013). MI practitioners place a strong emphasis on reflective listening over questioning, to truly understand clients’ perspectives. Reflective statements can restate what the client has said (simple reflections) or go beyond the exact words to include underlying thoughts or emotions (complex reflections) (Miller & Rollnick, 2013).

MI can be used in brief conversations as well as longer interventions. All MI conversations ideally involve what is known as the Four Processes: Engage, Focus, Evoke, and Plan (Miller & Rollnick, 2013). In the Engaging process, the social worker works to establish trust with the client, mainly through the MI spirit and OARS skills. They listen to the client’s concerns, demonstrating that they are fully present, and are not there to tell the client what to do. The Focus of the conversation is then negotiated, and it can be either an issue raised by the client or by the social worker. Sometimes there may be two or more foci of an interview: a client may bring up a problem that has nothing to do with CT, such as fear of eviction, and of course, the social worker also needs to discuss the tasks of CT. Discussion of both topics can be negotiated. In the Evoking process, the social worker asks open-ended questions and provides many reflective statements to the client’s responses. Reflective listening is used selectively with an emphasis on the client’s change talk, that is, statements the client makes regarding their desire, abilities, reasons, and need to change (Miller & Rollnick, 2013). The target behavior or focus in CT, for instance, may be self-quarantining, and the social worker reflects the client’s ambivalence but with an emphasis on the change talk that emerges in the discussion. The social worker is guiding the discussion; however, it is always up to the client to make the decision about what to do. If the client is willing, for instance, to quarantine, then the social worker can help the client Plan next steps and how this will work.

Because the spirit of MI places an emphasis on client autonomy as well as respect for the client’s self-worth, information is provided in a very specific manner. In MI this is known as Elicit-Provide-Elicit or EPE (Miller & Rollnick, 2013; Rosengren, 2018). Information is vital in the CT process (CDC, 2020c) and the CT social worker wants to be sure it is received in the best manner by the client. In Elicit, the social worker asks the client what they already know about the topic under discussion. In this situation, it could be information about how the virus is acquired or what is involved in self-quarantining. Clients may already have most of the information they need. The CT social worker then provides information to fill in any gaps and reinforce what is correct in the client’s statement. The social worker then elicits what the client thinks of the information, with an eventual summary of the conversation. Finally, the social worker can ask the client if they are willing to move forward with a Plan.

Not all conversations go smoothly and CT social workers may encounter sustain talk from clients. In MI, sustain talk is the opposite of change talk and includes reasons why the client cannot do the target behavior under discussion, such as not being able to self-quarantine due to the need to go to work or fear of exacerbating depression due to isolation. This is different from discord in MI whereby a social worker may experience a client getting upset with them personally (Miller & Rollnick, 2013). Discord could involve statements such as feeling not understood, not wanting the government to run one’s life, or not wanting to be told what to do. Using MI, a social worker can reflect the client’s concerns and emphasize their autonomy to make their own decisions. It is not helpful to become more directive, argue, or threaten, when clients express thoughts that are either sustain talk or discord (Hohman, 2021).

Telephone outreach is the method predominantly used for COVID-19 (Baraniuk, 2020). The use of MI over the telephone has been well researched and supported. MI via telephone has been used for a variety of health-related concerns including medication adherence for diabetes, hypertension, and smoking cessation; for colorectal cancer screening promotion; for rehabilitation engagement after spine surgery; and for hazardous alcohol use, among other behaviors (Abughosh et al., 2016; Broc et al., 2015; Skolasky et al., 2018; Taylor et al., 2017; Tseng et al., 2017). Telephone-based MI can be implemented with fidelity to a manual that provides a standard, the Motivational Interviewing Treatment Integrity or MITI (Ingersoll et al., 2015; Mesters et al., 2017; Moyers et al., 2016). Feedback from clients shows high acceptability of MI by telephone (Lee et al., 2015; Ream et al., 2015; Taylor et al., 2017).

Example Dialogue

The following is an example of a dialogue between a contact tracer, who is also a social worker, with someone who has been diagnosed with COVID-19, usually referred to in CT as a “case”. This term will be changed to “client” in the narrative of the dialogue, to make it more in line with the social work tradition. MI spirit and skills are used throughout and are noted in brackets at the end of each statement or question by the contact tracer. The first part of the dialogue regards the task of CT; the second part reflects a basic mental health assessment and referral.

CT: Hello, I’m—and I am one of the contact tracers from the Lake County Health Department. I’m calling to
CT: It’s been really hard with the amount of information on the internet and with every state and even other countries doing different things. So, let me tell you first of all, for us, there’s no judgment here. We’re just trying to tell people to stay at home if they’ve been in contact with someone who tested positive for COVID. A lot of work is precaution. We’re just trying to make sure that people who have been exposed can isolate, even if they never develop the infection. We think that will help stop the virus from spreading more.

Case: Yes, that’s me. My birthday is 2/1/72.

CT: Thank you. I’m calling to talk about whom you had contact with during the period that you may have been infectious. The conversation probably won’t take longer than 30 min. Is now a good time to talk?

Case: Yeah, I’m not doing anything else. I’m not very well and it isn’t as if I can go out anywhere.

CT: You’re feeling pretty sick at the moment. [Simple reflection to engage, build rapport]

Case: Yeah. It’s the fever and the fatigue that are the worst.

CT: It’s hard to be away from the people you love most, especially when you’re so sick. I’m sorry to hear you’ve been hit so hard with this. It has been a shock, this whole epidemic! [Complex reflection]

Case: It really has. I guess I thought I might get COVID. I had to keep working, and I wasn’t totally sure how to keep myself safe. I’m not as slim as I used to be, and I heard that it’s worse if you are carrying a few extra pounds…but I’m under 50, so that might get me through.

CT: You’ve been keeping up-to-date with lots of the information that is out there. What have you heard about what is going to happen next in our phone call? [Complex reflection of some of the content; Open question/first part of E-P-E]

Case: Well, the nurse told me that someone would call me to find out everyone I’ve been in touch with recently. Is that what you mean? I’ve not been feeling very well and was feeling really bad when I got tested, so I could be pretty confused.

CT: Yes, that’s absolutely it. Even though you were sick when they told you, you’ve remembered perfectly. I’m calling to try to try to figure out who you were in touch with when we think you might have been contagious. [Affirmation; Providing information]

Case: You mean I might have passed it on to other people? I’d feel so terrible if I got anyone else sick. I’ve been wearing a mask most of the time.

CT: It sounds like you’ve been really careful, and doing your best to follow the advice that’s been out there. [Simple reflection]

Case: Yeah I have but, you know, some of it was a little unclear. I talked to my sister who lives in another state and some aren’t wearing masks at all.

CT: It’s been really hard with the amount of information on the internet and with every state and even other countries doing different things. [Complex reflection]
The dialogue opens with the contact tracer introducing themselves, confirming that they had the right person, and giving some information about the process. This most likely is from a script provided to contact tracers from their county employer (CDC, 2020d). The social worker uses simple and complex reflections as well as affirmations to demonstrate that they are listening to the client, as well as to engage them in the conversation. The reflections from the tracer allow the client to open up a little more, revealing what they know and some of their concerns. This also helps the conversation to feel more like a partnership than an interrogation, and improves the chance of accurate reporting (Schneider & Pollack, 2020).

The social worker also uses the Elicit-Provide-Elicit format (Miller & Rollnick, 2013) with an open question to ask what the client already knows about the process, which can move the conversation along if less explanation is necessary. This also is respectful of the client’s knowledge by not assuming that they need to be told everything but also can help the social worker to determine where to fill in gaps in knowledge. The client’s autonomy is supported as well, by being asked what they already know as well as by offered a choice to address other areas of concern, if desired (Miller & Rollnick, 2013).

The client raises concerns regarding the role of the contact tracer and worry about infecting others. They were reassured that all information regarding who may have been exposed is confidential, that other contacts do not know who the case is. This can help reduce anxiety as well as increase engagement in the process (Schneider & Pollack, 2020). The reaction to information about the social worker’s role may not always be as positive as in this situation, and when this occurs, reflecting and moving on can be helpful. For example, a negative reaction to the information that the contact tracer is a social worker could elicit a reflection such as, “You’ve had some experiences that haven’t been great in the past.” Coming alongside a negative reaction tends to be more helpful (and MI-consistent) than being defensive.

The social worker then continues with asking the case/client to look at a calendar and list whom they were in contact with during the designated time period. It is useful to double check the onset of symptoms as sometimes they can be dismissed and attributed to other things (CDC, 2020d). At this point, the social worker asks many closed-ended questions to get specific dates, places, and names. Closed questions aren’t part of MI, but in CT, their use can be a key in clarifying very specific parts of information.

As the major task of the interview is completed, the social worker/contact tracer returns to the other concerns that the client raised such as the suggestion of low mood, isolation, potential intimate partner violence, and other health and financial concerns:

CT: That’s a lot to be thinking about at any time and with the current situation, it sounds overwhelming. [Complex reflection]

Case: That and now guilt that I may have passed this on to other people.

CT: You have a lot on your plate. How about we do the formal part of this interview, and then, if you want, we can talk about some of the other things that seem to be worrying you at the moment. [Simple reflection; Providing information/choice; Partnering]

Well, I think we’ve just about covered all those days between when we think you may have been infected and everyone you have been in touch with. [Summary]

Case: It wasn’t as many as I thought. I guess I was being more careful than I thought. I do miss talking to people.

CT: You’ve had a lot of changes with this virus. You talked about missing family and worrying about your job, and you also mentioned the breakup of a relationship that hadn’t been so great. Is there one of those that feels more important than the others right now? We can talk through as many as you want. [Complex reflection; Summary of a prior statement. Closed question to offer a choice and a new focus]

Case: At the moment, the one that’s stressing me out more than anything is the relationship stuff. Could we talk about that first?

CT: Certainly. Tell me what’s been on your mind about it. [Open question]

Case: I get to feeling so lonely and isolated. That makes me question myself about being in this situation. Maybe I made a mistake leaving my partner. Maybe he wasn’t as bad as I thought when I left. He used to yell at me a lot and make me afraid, though he never laid a hand on me. Maybe that’s just being in a relationship. My ex-husband had hit me and we got a divorce. I was lonely after that and thought this new person might be good for me. But he’d say really awful things and like I said, scare me with his temper. I didn’t want to go back to what I had before. But now I am not sure I made the right decision.

CT: You had a difficult relationship with your ex-husband and found that your new partner frightened you as well, although he didn’t get physical. The COVID makes the isolation really hard and now you are questioning yourself and your decision. [Simple reflection]

Case: Yes and I’m really overwhelmed right now with being sick. It would be so nice to have someone here to take care of me. But I can’t ask him or anyone
else to do that, so they don’t get sick. I feel so alone right now.

CT: You’re going through many changes right now, all of them difficult, and they have really piled on. Besides getting back with him, what else have you thought about regarding having some help? [Complex reflection; Open ended question]

Case: I haven’t really thought of anything else. But just talking to you right now seems to help. I wonder if there are social workers who do counseling over the phone? Maybe that might be good?

CT: Talking to someone like me is one idea that you thinking of now. What else? [Simple reflection; Open ended question]

Case: Maybe when I feel better I could do a zoom call with my best friend, over coffee. She mentioned that right before I got sick. It’s not the same as being together but it might help.

CT: So reaching out to a friend who really knows you well might be helpful, along with talking to a social worker. If you are interested, I could give you some information on different programs that do telephone counseling. [Complex reflection; Offering choice]

Case: Yes, I’d like to have those.

CT: Here are the names of three different programs that do telephone counseling. Some are more for those who have had relationship problems and one is more about general counseling regarding feeling sad and alone. [Providing information]

Case: Thanks. Let me write these down. I might call one of them tomorrow, just check them out. And schedule that zoom call with my friend. I appreciate all of your help.

The contact tracer/social worker identified other concerns that the client brought up or hinted at and used simple and complex reflections as well as a summary to continue the conversation. This changes the focus of the conversation from complying with self-isolation and providing contacts to addressing the loneliness described by the client. A second summary pulled together some of the issues that the client had raised (previous intimate partner violence, isolation, and questioning their judgment). While not a formal clinical assessment per se, the summary raised the issues, and the client agreed, stating they felt overwhelmed and alone. The social worker next evoked from the client their ideas regarding how to address this. The client came up with their own ideas of what to do and asked for referral information. The social worker provided several choices which is another way of supporting the client’s autonomy. When clients come up with their own solutions, they are more likely to follow through (Miller & Rollnick, 2013).

Discussion

CT is a sensitive experience for those who have COVID or have been exposed to it. Fraught with emotion and worry, often cases/clients are also entangled in many other kinds of psychosocial concerns (Pfefferbaum & North, 2020). Besides the physical illness, the isolation of quarantine can exacerbate mental health problems (Kousoulis et al., 2020). Contact tracers are likely to also identify many cases/contacts who are in need of case management services, such as securing help to obtain housing, employment, and/or food. This also is where social work skills are helpful. The focus of a CT interview can change from the specific task of identifying contacts to motivating and assisting clients to self-isolate to start to access the services they might need. While MI can be used by both social workers and public health professionals, social workers also bring the ability to sensitively and knowledgeably explore and assess mental health needs and to assist with accessing services. Social workers’ knowledge of local agencies and ability to link clients to services can be an asset in CT.

The presented dialogue was an example of how MI skills and spirit can be used in a contact tracing interview, with someone who had a positive case of COVID-19. It is somewhat different from a usual MI interview in that often clients in other types of MI interactions receive some sort of benefit from discussing the considered change, such as improved physical or mental health. In a CT interview, the focus is on altruism, that is, that the person (case or contact) is willing to disclose contacts or self-quarantine for the benefit of others, although there may be gains in physical health. The second part of the dialogue demonstrated a more traditional version of MI, with the client asking for some help around a specific problem. The dialogue may be somewhat idealistic as it was kept short for demonstration purposes of MI skills in CT and how to segue into assessment and referral of other concerns. For instance, the conversation could have gone in a different direction had the client brought up suicide ideation. MI skills can be used in that area as well (Britton et al., 2020).

MI is not a panacea (Miller & Rollnick, 2013) but can be helpful with contacts/cases who do not want to engage in the CT process. Not everyone will be as willing to talk to a contact tracer as in the example or be compliant with the request to self-quarantine. MI skills regarding sustain talk can also be of benefit in working with such clients; if rapport has been built, and an understanding that the majority of the conversation is confidential, the social worker can explore with the client why self-isolating might be difficult and ways to try to improve the likelihood of compliance (CDC, 2020d). The contact tracer does not
want to argue with or threaten clients however they may need to raise awareness of the local laws around non-compliance (which vary by county). The contact tracer can non-judgmentally share that information with the client and indicate how they want to handle it is up to them.

**Conclusion**

Testing and tracing are fundamental pillars of the global and local fight against new waves of COVID-19, but as the pandemic looks set to continue, there is increased global attention on the parallel consequences including the serious impact on mental health. Using the spirit and skills of MI in CT conversations, there is an opportunity to increase the utility of these conversations for tracing and the overall biopsychosocial health of those who have or who have been exposed to COVID-19. Social work has been connected to Public Health profession since 1926 through its focus on the social aspects of health (Ruth & Marshall, 2017). Social workers are well positioned to work as contact tracers, if the process of CT is used to address concomitant social needs and mental health.

**Declarations**

**Conflict of interest** The authors declare that they have no conflict of interest.

**References**

Abughosh, S. M., Wang, X., Serna, O., Henges, C., Masilamani, S., Essien, K. J., Chung, N., & Fleming, M. (2016). A pharmacist telephone interview to identify adherence barriers and improve adherence among nonadherent patients with comorbid hypertension and diabetes in a medicare advantage plan. *Journal of Managed Care & Specialty Pharmacy, 22*(1), 63–73.

Association of State and Territorial Health Officials (ASTHO). (2020). A coordinated, national approach to scaling public health capacity for contact tracing and disease investigation. Retrieved May 18, 2020 from https://www.astho.org/COVID-19/A-National-Approach-for-Contact-Tracking/.

Baraniuk, C. (2020). Covid-19 contact tracing: a briefing. *British medical journal*. Retrieved March 19, 2021 from https://www.bmj.com/content/bmj/m1859.full.pdf.

Begun, M., Newall, A. T., Marks, G. B., & Wood, J. G. (2013). Contact tracing of tuberculosis: A systematic review of transmission modelling studies. *PLoS ONE, 8*(9), e72470.

Britton, P. C., Conner, K. R., Chapman, B. J., & Maisto, S. A. (2020). Motivational interviewing to address suicidal ideation: A randomized controlled trial in veterans. *Suicide and Life-Threatening Behavior, 50*(5), 10251040.

Broc, G., Denis, B., Gana, K., Gendre, J., Perrin, P., & Pascual, A. (2015). Impact of the telephone motivational interviewing on the colorectal cancer screening participation: A randomized controlled study. *European Review of Applied Psychology, 65*(3), 133–142.

Burgess, J. A. (1963). A contact-tracing procedure. *British Journal of Venereal Diseases, 39, 113–115.*

Centers for Disease Control (CDC) Foundation. (2020). Current openings. Retrieved May 18, 2020, from https://tinyurl.com/y9zv5wq4

Centers for Disease Control and Prevention (CDC). (2020a). *How to protect yourself & others.* Retrieved May 14, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html.

Centers for Disease Control and Prevention (CDC). (2020b). *COVID-19 contact tracing training: Guidance, resources, and sample training plan.* Retrieved May 20, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/contact-tracer-sample-training-plan.pdf.

Centers for Disease Control and Prevention (CDC). (2020c). *COVID-19 contact tracing training: Guidance, resources, and sample training plan.* Retrieved May 20, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/contact-tracer-sample-training-plan.pdf.

Centers for Disease Control and Prevention (CDC). (2020d). *Ensuring high quality and continuous improvement of COVID-19 case investigators’ interviewing skills.* Retrieved September 26, 2020, from https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/open-america/Training-Evaluation-and-Monitoring-Guidance-for-Health-Departments.pdf.

Citylab. (2020, April 3). *The geography of coronavirus.* Retrieved May 14, 2020, from https://www.citylab.com/equity/2020/04/coronavirus-spread-map-city-urban-density-suburbs-rural-data/609394/.

DiGiovanni, C., Conley, J., Chiu, D., & Zaborski, J. (2004). Factors influencing compliance with quarantine in Toronto during the 2003 SARS outbreak. *Biosecurity & Bioterrorism, 2*, 265–272.

Glasauer, S., Kroger, S., Haas, W., & Perumal, N. (2020). International tuberculosis contact-tracing notifications in Germany: Analysis of national data from 2010 to 2018 and implication for efficiency. *BMJ Infectious Diseases, 20*, 267.

Hellewell, J., Abbott, S., Gimma, A., Bosse, N.I., Jarvis, C.I. Russell, T. W., Munday, J. D., Kucharski, A. J., Edmunds, W. J., Centre for the Mathematical Modelling of Infectious Diseases COVID-19 Working Group, Funk, S., & Eggo, R. M. (2020). Feasibility of controlling COVID-19 outbreaks by isolation of cases and contacts. *Lancet Global Health, 8*, e488–e496.

Heppworth, D. H., Rooney, R. H., Rooney, G. D., & Strom-Gottfried, K. (2017). *Direct social work practice: Theory and skills* (10th ed.). Cengage Learning.

Hetta, M., Steele, J., & Miller, W. R. (2005). Motivational interviewing. *Annual Review of Clinical Psychology, 1*, 91–111.

Hohman, M. (2021). *Motivational interviewing in social work practice* (2nd ed.). Guilford Press.

Ingersoll, K. S., Banton, T., Gorlin, E., Vajda, K., Singh, H., Peterson, N., Gonder-Freerick, L., & Cox, D. J. (2015). Motivational interviewing support for behavioral health internet intervention for drivers with type 1 diabetes. *Internet Interventions, 2*(2), 103–109.

Johns Hopkins University Coronavirus Resource Center (JHU/CRC). (2021). *COVID-19 dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University.* Retrieved October 5, 2021, from https://coronavirus.jhu.edu/map.html.

Katzman, C., Mates-Gelabert, P., Kapadia, S. N., & Eckhardt, B. J. (2019). Contact tracing for hepatitis C: The case for novel screening strategies as we strive for viral elimination. *International Journal of Drug Policy, 72*, 33–39.

Kousoulis, A. A., Van Bortel, T., Hernandez, P., & John, A. (2020). The long term mental health impact of covid-19 must not be ignored. *BMJ Blogs*. Retrieved May 18, 2020, from https://blogs.bmj.com/bmj/20200505/the-long-term-mental-health-impact-of-covid-19-must-not-be-ignored/.
(COVID-19) epidemic among the general population in China. International Journal of Environmental Research and Public Health, 17(5), 1729–1754.

Wiggins, O. (2020, May 21). Before the state acted, this Maryland county launched a contact tracing army. The Washington Post. Retrieved May 22, 2020, from https://www.washingtonpost.com/local/maryland-contact-tracing-anne-arundel/2020/05/21/0f99b4f6-900e-11ea-9e23-6914ee410a5f_story.html.

Wilson, N. M., Norton, A., Young, F. P., & Collins, D. W. (2020). Airborne transmission of severe acute respiratory syndrome coronavirus-2 to healthcare workers: A narrative review. Anaesthesia, 75(8), 1086–1095.

World Health Organization (WHO). (2020). Coronavirus disease (COVID-19) advice for the public. Retrieved May 15, 2020, from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public.

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