BRIEF REPORT

Action at a Distance: Geriatric Research during a Pandemic

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BACKGROUND: "Action at a distance" may be the new norm for clinical researchers in the context of the COVID-19 pandemic that may require social distancing for the next 18 months. We must minimize face-to-face contact with vulnerable populations. But we must also persist, adapt, and help our older patients and study participants during the pandemic.

METHODS: Clinical researchers have an obligation to help, and we can. Recommendations for clinical researchers working with older adults during the COVID-19 pandemic are discussed.

RESULTS: *Implement technology now*: Minimize face-to-face contact with participants by utilizing digital tools, such as shifting to electronic informed consent and digital HIPAA-compliant tools such as e-mailed surveys or telehealth assessments.

Assess the psychological and social impact of COVID-19: How are participants coping? What health or social behaviors have changed? How are they keeping up with current events? What are they doing to stay connected to their families, friends, and communities? Are their healthcare needs being met? Current studies should be adapted immediately to these ends.

Mobilize research platforms for patient needs: Leverage our relationships with participants and rapidly deploy novel clinical engagement techniques such as digital tools to intervene remotely and reduce the negative effects of social isolation on our participants. Equip research staff with tangible resources, and provide timely population-specific health information to support patients and healthcare providers.

CONCLUSIONS: We have an opportunity to make an impact on our older adult patients now as this pandemic continues to unfold. Above all, clinical researchers need to continue working, to help as many people as possible through the crisis. **J Am Geriatr Soc 00:1-4, 2020.**

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WHAT IS PAST IS PROLOGUE: CLINICAL RESEARCH DURING A PUBLIC HEALTH CRISIS

In 2003, Toronto was struck by an outbreak of severe acute respiratory syndrome.[1] As the virus emerged and then reemerged in local hospitals, the city shut down. University-affiliated clinical research was deemed "nonessential." Research staff went home for months. Clinical research studies were essentially abandoned, with data uncollected on ongoing studies and recruitment suspended for new studies.

Now, with the onset of the COVID-19 pandemic,[2] we are all participants in an unwanted natural experiment on the effects of loneliness and isolation. Older adults with physical, cognitive, or psychiatric comorbidities are an important part of clinical research. However, their vulnerability is particularly acute presently as we are facing a critical turning point in the US response to the COVID-19 pandemic. Extreme social distancing ("social suppression") is likely to be the most effective tool in preventing the United States from following the recent trajectories documented in Italy and Spain,[3,4] but it will have a disproportionately negative impact on older adults. On one hand, if we are unable to decrease the rate of progression of the pandemic ("flatten the curve"), our healthcare system will become overwhelmed, and older adults are those at greatest risk for death from the direct effects of infection.[4,5] On the other hand, social suppression puts older adults at risk for mental and physical adverse effects from social isolation.[6] All of this is occurring alongside a reduction in access to physical and mental care, and with a sustained exposure to uncertainty and fear.

Simulations suggest that social suppression will be needed for several months, with intermittent relaxing of social distancing (eg, 2-3 months on, 1-2 months off) for the next 18 months until either most of the population is already infected or a vaccine becomes widely available.[4]

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Clinical researchers are focused on improving physical, cognitive, and mental health by targeting illnesses ranging from cardiac diseases to psychiatric disorders. Today, these researchers have to make decisions on how to keep research participants and staff safe, and not contribute to the spread of the virus. At the same time, university and hospitals are enacting new policies regarding clinical research every day. These policies are becoming increasingly restrictive, evolving in a matter of days from "business as usual: wash your hands and screen for symptoms" to "research not essential for participants' health should be postponed indefinitely." One bright spot in the otherwise bleak landscape of social distancing has been the relatively rapid approval of telehealth platforms for clinical care.[7,8] The same technology could be used to continue or initiate new research studies focused on cognitive and mental aspects of health. However, it remains to be seen how institutional review boards (IRBs) will be able to handle this new development. Our conversations with clinical research colleagues across the country suggest that most of us have been caught off-guard by this rapidly evolving situation. What principles should we follow?

PATIENTS (FIRST), PROACTIVITY, AND PRAGMATISM: CLINICAL GERIATRICS RESEARCH PRINCIPLES DURING COVID-19 AND BEYOND

We cannot put all clinical research studies on hold for 18 months. Volunteers have invested countless effort to participate; one of their main motivations was to help researchers learn how we can better help the patients of tomorrow. The public has funded these studies through our national agencies or philanthropy for the same reasons. At the same time, we cannot put our research participants and staff at risk. In 2020, we can use digital and telemedicine tools to screen, consent, and assess participants remotely; in many cases we can also intervene remotely,[8-10] minimizing face-to-face contact without compromising care or methodological rigor.[11] Mobilizing these digital strategies quickly could help clinical studies to continue and even expand to meet participants' personal needs during this crisis.

Guidance for Enhancing Safety for Older Adults Engaged in Clinical Research

Implement Physical, Not Social Distancing

Many clinical research studies need to stop face-to-face contact with participants, unless it can be accomplished using social distancing (ie, with separation of at least 6 feet), away from high-risk areas such as hospital grounds and without the use of public transportation. Older adults and those with physical illnesses (eg, diabetes) are at particularly high risk of becoming infected and dying from COVID-19.[12,13] However, research teams can capitalize on their established partnership with participants. They should have frequent remote contact by phone or e-mail to keep participants engaged and informed.

Shift to Digital Tools Enabling Studies to Be Conducted Remotely

Distance interventions and measures such as electronic informed consent, digital assessment tools, and virtual study visits provide all of the components of human research protection and reduce viral transmission risk from in-person contacts or passing paper back and forth.[10,14] IRBs can support clinical researchers by adopting agile processes for rapid review and approval of digital recruitment, consent, and assessments as they reduce the risk to participants and may for the foreseeable future be the only way to carry out most clinical research.

Anticipate Protocol Disruptions and Model Flexibility

Minor protocol deviations (eg, additional contact with participants, delayed assessments, and use of alternative tools and scales that can be administered by phone and used as proxy measures) should be expected and allowed. Funding agencies, sponsors, IRBs, and individual investigators need to overcome aversion to minor protocol deviations; otherwise, assessments will be missed, study results will be uninterpretable, and studies will have to be abandoned. Clinical researchers should lead these changes and partner with funders and IRBs to assist in developing language for necessary reports (eg, "During the COVID-19 outbreak, we switched all contact to telephone and e-mail, for participant safety"). At the time of this article's publication, we are aware of several university IRBs (including the IRB of Washington University in St. Louis) that have already taken this stance. Thus e-consent, remote assessment, and telephone or videoconference visits are allowed during the pandemic and will only need to be reported as minor deviations during IRB renewals.

SOCIAL DISTANCING VS SOCIAL ISOLATION: CONNECTION AS A BIOLOGICAL CONSTRUCT AND ANTIDOTE FOR LONELINESS

One of the most important contributors to all-cause mortality in older adults is social isolation.[15] Similarly, prolonged exposure to an environment of uncertainty and fear has lasting negative effects on mental and physical health across the life span.[16] In all cases, but in particular for older adults, human connection is the antidote.[17] When working with patients, terminology matters. The promotion of social distancing leads to wariness and mistrust, and it amplifies negative emotional states associated with these feelings. Isolation in this context has a measurable impact not only on quality of life but also on medical outcomes.[18,19]

Human beings have evolved to crave and seek connection throughout their life, starting at birth.[20] In childhood, lack of connection impacts brain development permanently, and it can lead to life-threatening failure to thrive. Touch is the most effective intervention for activating positive biological markers of connection.[21] However, brief bouts of undivided, direct, and reciprocal eye contact,[22,23] even done remotely,[24] can be as effective at mobilizing biological connection responses in the brain. This research has important implications not only for how we raise children but how we support and provide care to older adults.

Clinical research teams develop close bonds with their participants that can be leveraged to provide connection when isolation is not only likely, but deadly. Harnessing digital technologies for connecting to older patients and research participants is a critical way to mitigate isolation[25] and loneliness, thus preventing morbidity in these at-risk individuals during the COVID-19 pandemic.

Guidance for Reduce Effects of Social Isolation on Older Adults Engaged in Clinical Research

Use Clinical Research Platforms to Connect with Older Adults

We should expedite application of innovative or novel care delivery approaches into practice, such as telephone-based depression care management.[10,26] Electronic health records can be used to identify patients who are eligible for clinical research, offering them access to care that they would otherwise not receive. Digital tools can also be used to provide e-consultation or advice to health providers who care for vulnerable older patients and who have limited access to specialty care.[8]

Create a Call to Action in Our Communities

Clinical researchers can play a special role during this pandemic. They can become a source of reliable and accurate information, using social media or other digital platforms to communicate accurate and clear information, at a time when older adults and their families are bombarded with contradictory and confusing messages. Clinical researchers are experts in the interpretation and reporting of new evidence; they are pioneers in the design and implementation of novel ways to deliver care. So they can be a resource to help institutional and regulatory bodies to act rapidly. They can advocate with IRBs for rapid ("expedited") approval of the use of telehealth or other video link platforms to connect with research participants, especially older adults. They need to make the case for compassionate use, with appropriate references to current guidance from the National Institutes of Health, Food and Drug Administration, and others. Finally, they need to communicate and share with other researchers and clinicians, near and far, what works and what does not.

Chronicle the Evolution of This Unprecedented Public Health Event

Clinical researchers also have an obligation to chronicle this pandemic and its effects on older adults. Supporting research participants and their health providers is the right thing to do. It will strengthen the natural partnership between researchers and clinicians to the benefit of future research efforts. Collecting quantitative and qualitative data will allow us to tell participants' stories authentically in a way that honors their contributions to science while tangibly easing public health impact.

THE PRESENT IS ALSO PROLOGUE: EVOLVING FROM NEUTRAL OBSERVERS TO AGENTS OF CHANGE

COVID-19 is disruptive. It will not be the last regional, national, or international disruption that affects day-to-day life, and we need to learn to be better prepared.[27] Clinical research needs to be pragmatic and resilient, and it needs to be flexible. Clinical research studies should have the ability to adapt to such disruptions. Clinical researchers have an obligation to implement and measure the feasibility and scalability of new approaches, as well as the impact of these new approaches on participants and communities. These data will provide the basis for new guidelines on how to conduct research during time of crises. Disaster plans and contingencies should be included in future grant applications and prespecified in research protocols, trial registrations, and standard operating procedures.

CONCLUSION: CLINICAL RESEARCH GOES ON, WITH YOUR HELP

We arrived at these ideas not in isolation, but from a rapid sharing of information and ideas with multiple colleagues around the United States and Canada. Researchers need a forum to address and overcome nimbly and creatively the disruptions that ensue from natural disasters like global pandemics. We do not believe we have all the answers; we predict that some of our recommendations will change as this situation continues to unfold rapidly. To that end, we offer one of our websites (mhealth.wustl.edu) as a digital forum for the sharing of approaches and ideas. We invite other researchers to share their best practices for continuing clinical research with older adults in these disruptive times.

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