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Citation: Jesus, Tiago S., Kamalakannan, Sureshkumar, Bhattacharjya, Sutanuka, Bogdanova, Yelena, Arango-Lasprilla, Juan Carlos, Bentley, Jacob, Gibson, Barbara E., Papadimitriou, Christina and Refugee Empowerment Task Force, International Networking Group o, (2020) People with Disabilities and Other Forms of Vulnerability to the COVID-19 Pandemic: Study Protocol for a Scoping Review and Thematic Analysis. Archives of Rehabilitation Research and Clinical Translation, 2 (4). p. 100079. ISSN 2590-1095

Published by: Elsevier

URL: <https://doi.org/10.1016/j.arrct.2020.100079>  
<<https://doi.org/10.1016/j.arrct.2020.100079>>

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Methodology and Research Protocols

# People with Disabilities and Other Forms of Vulnerability to the COVID-19 Pandemic: Study Protocol for a Scoping Review and Thematic Analysis



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*List of abbreviations:* COVID-19, coronavirus disease 2019; PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analysis; PwD, people with disabilities; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

*Disclosures:* none.

Cite this article as: Arch Rehabil Res Clin Transl. 2020;2:100079.

<https://doi.org/10.1016/j.arrct.2020.100079>

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## KEYWORDS

Coronavirus;  
Disabled persons;  
Rehabilitation;  
Vulnerable  
populations

**Abstract Objectives:** To develop a protocol for a scoping review mapping as well as thematically analyzing the literature on the effect of, and responses to, the coronavirus disease 2019 (COVID-19) pandemic, focused on people with disabilities with other layers of individual vulnerability or social disadvantage.

**Methods:** We will search scientific databases (Medline/PubMed, Web of Science, Scopus, AgeLine, PsycINFO, CINAHL, ERIC) and preprint servers (MedRxiv, SocArXiv, PsyArXiv). Google searches, snowballing, and key-informant strategies were also used, including a focus on the gray literature (eg, official reports). Peer-reviewed and preprint publications will be covered in 6 languages, and the gray literature in English. Publications will be included if they address individuals with disabilities; the COVID-19 pandemic or subsequent socioeconomic or occupational effects; and individual or social vulnerabilities, including any form of discrimination, marginalization, or social disadvantage. Two independent reviewers will perform eligibility decisions and key data extractions. Beyond mapping the literature, the results will thematically analyze any disproportionate risks people with disabilities and other forms of vulnerability experience in terms of being infected by COVID-19, having severe health consequences, and facing negative socioeconomic effects. Actions taken or recommended to reduce identified inequalities will also be synthesized. Our entire research team, with diverse backgrounds, will be involved in the synthesis.

**Conclusions:** This review, which we plan to expedite, aims to inform policy makers, health authorities, disability advocates, and other stakeholders regarding the needs and ways to promote equity and disability-inclusive responses to the COVID-19 pandemic and the resultant socioeconomic shockwaves.

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the strain of coronavirus disease 2019 (COVID-19) that caused a recent global public health and economic crisis of rare proportions. However, the effect of the COVID-19 pandemic has not been equal across populations.<sup>1,2</sup> Many populations have been vulnerable, including but not limited to older individuals and people with chronic health conditions and disabilities.<sup>1,3-6</sup> For instance, minorities or socially disadvantaged populations can also be disproportionately affected by COVID-19, such as African Americans; Hispanics; refugees; migrants; indigenous people; uninsured individuals; prisoners; and those who are institutionalized, homeless, resource-poor, living in densely populated communities or households, frontline essential workers (ie, unable to telework), and who have no access to soap or clean water.<sup>1,2,5,7-15</sup> These are just a few examples of social disadvantages or vulnerabilities, entrenched as societal injustices, which add to individual vulnerabilities to the COVID-19 pandemic.<sup>2,14</sup> Vulnerability to the COVID-19 pandemic can be reflected in terms of greater exposure to or risk of being infected, not having timely access to COVID-19 diagnostic tests, not being able to access health care once infected, or experiencing more

frequent or severe health and socioeconomic consequences, even without being infected.<sup>8,16-18</sup>

Overall, the COVID-19 pandemic can have a greater negative effect on the socially disadvantaged as well as directly or indirectly exacerbate health and other inequalities among populations within and across countries, if no protective action is taken.<sup>1,16,19-21</sup>

People with disabilities (PwD) may also be especially vulnerable to the effects of the COVID-19 pandemic. In this article, we use person first language to convey that disability does not define people. We have abbreviated “people with disability” to “PwD” simply for brevity. The term PwD refers to a minority group that is vulnerable to discrimination and marginalization, even in nonpandemic times. For instance, it has been vastly documented that PwD experience disparities in health and health care access, as well as health care quality and outcomes.<sup>22-26</sup> Moreover, PwD typically experience additional health care and living costs, lower employment rates, and less disposable income than their nondisabled counterparts,<sup>27-35</sup> which adds to a continuous cycle between poverty and disability that remains unresolved by societies.<sup>24,32</sup>

In the current pandemic, PwD are more likely to be disproportionately affected by the COVID-19 pandemic in a myriad of ways.<sup>36-38</sup> People with intellectual, developmental, mobility, or multiple impairments may have greater odds of being infected owing to difficulties in understanding or otherwise complying with preventive measures such as physical distancing, effective handwashing, or wearing masks.<sup>36,37</sup> Furthermore, people with intellectual, visual, or hearing impairments may not be able to comply with public health recommendations when these are provided in inaccessible forms (eg, verbally through opaque masks).<sup>37</sup> In many societies, PwD are institutionalized and hence greatly exposed to physical contacting risks.<sup>5,39,40</sup> PwD can also disproportionately experience the consequences of a COVID-19 infection, as they often have greater rates of chronic or secondary health conditions,<sup>31,41-43</sup> including those related to respiratory and immune system function, heart diseases, or diabetes.<sup>36</sup> Moreover, PwD living in the community often need assistance for their daily activities, accessing basic goods, or seeking health care, but such assistance may be restricted under lockdowns.<sup>36</sup> Finally, in-person access to general health and rehabilitation services may be restricted owing to lockdown measures or because routinely available health or rehabilitation services, beds, and providers have been diverted to the emergency response to the COVID-19 pandemic.<sup>44-47</sup>

All accounted, most PwD experience additional disadvantages that make them especially vulnerable to the COVID-19 pandemic (ie, at a greater risk of being disproportionately as well as negatively affected).<sup>23,24,32,48</sup> As such, they may need timely, purposive action from key stakeholders (eg, policy makers, public health authorities, civil society) for the health and social inequalities not to be further widened (but rather reduced) during and after the COVID-19 pandemic.

The purpose of the study to which this protocol refers is to review and synthesize the global literature reporting on PwD who experience at least 1 additional layer of individual or social vulnerabilities owing to the COVID-19 pandemic. Specifically, we aim to synthesize any (1) disproportionate or negative effects reported by the literature, in terms of greater risks of being infected; more frequent or severe health consequences from infection; and the greater risks of a negative social, occupational or economic effect arising from the COVID-19 pandemic, including any resultant social and economic shockwaves; and (2) action either taken or recommended, from or for any stakeholders, with the aim of preventing or mitigating the resultant health, social, or economic inequalities.

## Methods

### Design

A scoping review method will be applied.<sup>49,50</sup> Scoping reviews typically address an exploratory research question toward mapping key concepts, types of evidence, and gaps in research related to a given area, and often include an examination of the extent, range, and nature of research activity in a broad or complex topic, and may be coupled with a synthesis of the main content or themes covered to

inform further policy, practice, and research.<sup>50-52</sup> This scoping review will be based on the Arksey and O'Malley's framework<sup>49</sup> and subsequent refinements of that framework,<sup>51,52</sup> the Joanna Briggs Institute's methodological guidance,<sup>53</sup> and the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA)—Extensions for Scoping Reviews reporting guidelines<sup>50</sup> in combination with applicable items from the PRISMA Statement to Equity-Focused Systematic Reviews (2012).<sup>54</sup> For this study protocol, we follow the applicable items of the PRISMA Protocols.<sup>55</sup> This study protocol has not been registered in the PROSPERO database (ie, a common database for the register of systematic reviews)<sup>56,57</sup> and the register in other repositories, such as the Open Science Framework, is essentially an alternative to the publication of a study protocol.<sup>53</sup>

### Identifying the research question

In scoping reviews, the research question is a critical first step that provides the overall rationale for decision-making about the study design, conduct, and reporting of the review.<sup>49,51,52</sup> After initial engagement with the literature and gaining familiarity with the growing body of knowledge on the topic area, we developed the following research questions: (1) What are the amount and characteristics (eg, publication type, settings addressed) of the global, peer-reviewed, preprint, and gray literature (eg, official reports) addressing whether or how PwD, who also experience additional forms or layers of individual or social vulnerability, encounter disproportionate health risks, as well as health and social consequences of the COVID-19 pandemic? (2) What does that literature say regarding disproportional risks and possible actions, either recommended or taken, to prevent or mitigate identified layers of vulnerability that PwD may experience as a result of the COVID-19 pandemic?

The map and synthesis of these disproportionate risks and respective actions taken or recommended, as reported in the reviewed literature, may inform policy makers, public health authorities, disability advocates, and other health and rehabilitation stakeholders, regarding needs or actions aimed at promoting health equity, avoiding discrimination, fostering social protection, and promoting the fulfillment of the human rights of PwD, especially those facing multiple layers of vulnerability owing to the COVID-19 pandemic.

### Identifying relevant studies

The next step is to develop the search. For this study, 7 databases have been identified for the scientific, peer-reviewed literature (ie, Medline/PubMed, Web of Science—Core Collection, Scopus, AgeLine, PsycINFO, CINAHL, and ERIC). We did not include EMBASE, for example, because it adds to Medline/PubMed essentially at the biomedical and biochemistry or pharmaceutical levels, whereas the scope of this study is at a broader level of health and social effects. Databases searches were conducted in mid-July and will be repeated when the initial synthesis has been completed, estimated to be 1 or 2 months later. Given the pace of current publications on COVID-19,<sup>58</sup> this update is likely key.

Publications regarding COVID-19 are currently more recent and more common on preprint servers than in

peer-reviewed publications.<sup>58</sup> Accordingly, we will also search 3 databases for preprint literature (ie, MedRxiv, SocArXiv, and PsyArXiv), and this search will be updated under the same terms. [Supplemental appendix S1](#) (available online only at <http://www.archives-pmr.org/>) details the search strategy for each of the preprint servers. Records arising from scientific databases and preprint servers will be exported using a commercial references manager software (EndNote<sup>®</sup>), where duplicates will be removed.

Google<sup>®</sup> searches also will be performed with combinations of main keywords, as detailed in [supplemental appendix S1](#). This is aimed at finding key elements of the gray literature, with a focus on official reports, guidelines, advice, or recommendations (eg, from national or international agencies, non-governmental organizations, or public health authorities). For consistency, the first 40 references from each Google search will be screened, including those from any social media source. Although not necessarily exhaustive of the worldwide gray literature, these searches can provide an indicator of the amount, scope, and content addressed by that literature. These searches will also be updated. Moreover, a snowballing search process (eg, author tracking, referenced sources), will be conducted for any included reference to identify any additional records.

Finally, supplied with a preliminary list of inclusions, members of the American Congress of Rehabilitation Medicine's International Networking Group and Refugee Empowerment Task Force will be consulted as key informants as to any additional references we may have missed.

## Study selection

To be included, any publication must (1) explicitly relate to the COVID-19 disease or pandemic, which is inclusive of any direct or indirect health or socioeconomic risks or effects; (2) explicitly address PwD as a group, related to a subgroup (eg, based on impairment type or underlying diagnostic condition), or related to individual cases or circumstances; and (3) explicitly expose another level of individual or social vulnerability to the COVID-19 pandemic (ie, beyond the experience of a disability) or resulting health or socioeconomic consequences.

Working definitions of the key, complex terms mentioned above (ie, "people with disabilities" and "vulnerability") are provided below. For the purpose of this study, "people with disability," or PwD, are defined as those experiencing, at any point across their lifespan, long- or short-term impairments in 1 or more body structures or functions (eg, affecting mobility, sensorial, intellectual, communication, or cognitive function) arising from a health condition or natural processes (eg, aging) which, in interaction with environmental factors, affect the performance of daily activities or social participation.<sup>59-62</sup> We do not restrict the scope of the underlying health conditions or impairment types. "Vulnerability" refers to characteristics or social circumstances of individuals or groups that put persons at greater risks of being infected, experiencing more severe health consequences of COVID-19 once infected, or experiencing more frequent or more severe

health-related and social or economic consequences of the COVID-19 pandemic, with or without being infected. The latter can arise from the public health measures aimed at containing the pandemic (eg, lockdowns), from the subsequent global economic crisis, or any resultant policies or practices.

Examples of groups of people who can be vulnerable to or disproportionately affected by the COVID-19 pandemic are described in [box 1](#). The examples in [box 1](#) were constructed (ie, hypothesized) by the research team, who collectively hold expertise in disability and rehabilitation studies, global health, occupational therapy, psychology, ethics, and sociology. These examples were further informed by a recent global perspective on who faces health equity risks in the times of COVID-19,<sup>1</sup> a recent editorial in *The Lancet* on defining vulnerability or groups vulnerable to the COVID-19 pandemic,<sup>2</sup> a subsequent commentary on vulnerabilities that arise from social disadvantages entrenched in societies,<sup>14</sup> broader conceptualizations of social disadvantage<sup>63</sup> and marginalization,<sup>64</sup> and a myriad of recent publications pinpointing possible health and socioeconomic determinants or consequences of COVID-19, cited in the paper's introduction.

It is worth noting that the aforementioned list provides only possible examples of vulnerabilities to the effect of the COVID-19 pandemic. The list is illustrative and not intended to be exhaustive or deterministic. Although it aims to help guide more reliable selection decisions, it also aims not to strictly dictate them. As a recent editorial in *The Lancet* eloquently noted, "amid the COVID-19 pandemic, vulnerable groups are not only elderly people, those with ill health and comorbidities, or homeless or underhoused people, but also people from a gradient of socioeconomic groups that might struggle to cope financially, mentally, or physically with the crisis (p. 1089)."<sup>2</sup>

Overall, the publications reviewed will be deemed to address "vulnerability" if they cover any individual or group characteristics or social circumstances explicitly or implicitly linked to a disproportional effect of the COVID-19 pandemic. If the article fails to establish this connection, even if any of the listed characteristics are mentioned, it will be excluded. However, publications will be included if they address vulnerabilities and social disadvantages as an umbrella term (eg, not with a focus on specific groups) or address many of the above at the same time, not necessarily with clear boundaries. In fact, vulnerabilities and social disadvantages, such as those listed previously, are often synergistic and mutually reinforced.<sup>32,63,65,66</sup> Finally, people can become vulnerable depending on the public health approach, the policy response, or lack thereof, and, hence, the eligibility decisions need to consider vulnerability issues for the reported context.

Two independent reviewers (SK and SB) will conduct both the level 1 screening (titles and abstract) and level 2 screening (full-text review with eligibility decisions). Each of these processes will be preceded by a pilot screening in a 5% to 10% random sample of references, in which an 80% agreement, or greater, must be achieved among the reviewers for the full screening to take place. Training and further pilot screening might be required until the minimum threshold is achieved. The process will be supervised by the guarantor of the review (T.J.), who has extensive

experience leading scoping reviews. The same researcher decides on any remaining disagreements while calling for the support of any particular coauthor, as needed, according to one's expertise. Finally, depending on the number of references to be screened, additional reviewers may be engaged in the performance of the 2 independent reviewer roles, and will be subject to the same criteria.

Peer-reviewed or preprint publications in 6 languages (ie, English, French, Spanish, Greek, Russian, and Portuguese) will be included in the scoping review. Publications in Mandarin or Arabic languages, for example, will be excluded owing to lack of these language skills within the research team. The review of articles in languages other than English by a reviewer not primarily assigned with independent reviewer tasks will be directly overseen by the guarantor of the review (T.J.).

For the gray literature resulting from Google searches, we will include reports, guidelines, recommendations, or position papers from official sources or representative institutions. This includes, for example, governments, national or international agencies, public health authorities, national or international nongovernmental organizations, human and disability rights observatories, representative associations of disabled persons, and associations or confederations of professionals who intervene with or advocate for the health and well-being of PwD. We will only cover the gray literature in the English language for several reasons. First, we aim to expedite the review process to provide timely, actionable results that could have an effect on the response to the current pandemic. Restricting the coverage of the gray literature, but not restricting the inclusion of key English-language or international-level gray literature, is a way to achieve this, along with the backdrop of comprehensive searches in scientific databases and preprint servers inclusive of 6 languages. Second, the search and preliminary screening of the gray literature through Google searches will be conducted by a single researcher, whereas a search and preliminary screening in 6 different languages would need to be conducted by several researchers to accommodate varying languages. In addition to being impractical, this would also lead to a greater likelihood of a large inter-rater variability.

Peer-reviewed publications or preprints based on study or publication type (ie, empirical research, peer-reviewed published abstracts and letters to the editor) will be included. There are also no time limits for the inclusion of papers.

## Charting the data

Using a data extraction form and structure constructed by the research team, formal data elements (eg, publication type, source) will be extracted by 1 of the researchers (S.K.), with a random sample of 5% verified by another (J.B.). This will follow a predetermined coding structure elaborated by the research team.

Regarding the content of the literature, 2 independent reviewers (S.K. and S.B.) will extract text quotations on any added risk for or disproportionate effect of the COVID-19 pandemic (eg, on health, socioeconomic, and occupational dimensions) on PwD who also experience other vulnerabilities or social disadvantages. Any activities, taken as well as

recommended, to prevent or mitigate the disproportionate effect and promote equity for PwD will also be extracted, for separate text boxes within the data extraction tables.

## Collating, summarizing, and reporting the results

The findings will incorporate a summative description of the amount and range of the related literature. Descriptive statistics will be used (eg, percentages) to address issues of publication type, country(or countries) addressed, the source (eg, databases of peer-reviewed literature, preprint servers, or Google searches on the gray literature), and different type of impairments (eg, mobility, cognitive function, intellectual, developmental, sensorial), or the disabling of health conditions (eg, neurologic, cardiothoracic, musculoskeletal, or specific diagnosis), when applicable.

The number and percentage of the included publications that address the disproportionate risks of COVID-19 infection, the greater health effects from COVID-19 infection, or the greater socioeconomic or occupational injustices experienced or likely experienced by people with disabilities and other vulnerabilities in the pandemic scenario will be described. The same analysis will be applied to publications describing actions taken and recommended to be taken, to address any disproportional risk or effect. Moreover, we will quantify the publications addressing individual versus social vulnerability (ie, vulnerability from one's age, health condition, or other individual circumstances vs vulnerabilities that arise from group- or society-level circumstances), including from broader policies or public health responses to the COVID-19 pandemic. At a more granular level, the number of publications according to the types of vulnerability described in [box 1](#), or any evolving adaptation from it, will be analyzed.

The analyses described in previous paragraphs will be derived from an initial, deductive coding, that is, based on a predefined coding structure built by the research team, performed independently by the 2 data extractors (S.K. and S.B.), along with any supporting qualitative notes or text quotations. These supportive notes will enable the scrutiny by the remaining elements of the research team. Final decisions on any disagreement in the ratings will be made by the guarantor of the review, who has led the design but who had no primary reviewer roles (T.J.).

Finally, a qualitative thematic analysis<sup>67</sup> will be conducted from the content (ie, text quotations) extracted from the literature, on the disproportionate risks of COVID-19 infection; health effects from COVID-19 infection; social, economic or occupational injustices or inequalities widened or possibly widened as a result of the public health and economic crisis, or the policy and practices in response to that; and the actions taken and actions recommended to be taken to protect PwD and those with other vulnerabilities during the pandemic.

Although a table with a synthesis of findings, per study or category above, can be provided (eg, as [supplementary material](#)), the main results will be reported in the form of new, aggregative themes that highlight emergent knowledge and possibly novel patterns and configurations of that knowledge after juxtaposition of the raw findings from the 5 categories. Beyond coding, this analytical approach involves interpretation, finding overarching themes, new

**Box 1.** Examples of groups of people who may be vulnerable to the COVID-19 pandemic, apart from people experiencing a disability, organized by type of vulnerability

#### **Health- and age-related characteristics**

People with comorbid, chronic, or secondary health conditions, including those with an effect on the respiratory, cardiovascular, or immune function. These persons can be more severely affected by the COVID-19 disease.

People at an older age or with frail health conditions, including people with a history of debilitating health conditions (eg, dementia) and people with history of substance abuse. These persons can also be more severely affected by the direct health consequences of the COVID-19 disease, or can be subject to relapses or aggravation of their health status or functional limitations by the lack of support or assistance that may arise from the pandemic or resultant lockdowns.

People facing social isolation and lack of social support from lockdown or other preventive measures, especially older populations who can be subject to tighter or longer physical proximity restrictions. These persons can be vulnerable to negative psychosocial effects of the COVID-19 pandemic, including in terms of mental health, disfranchisement, occupational injustice, and social isolation.

People with depression or other mental health conditions (or who are at risk of having mental health conditions) can have their mental health status aggravated by the health or socioeconomic effects of COVID-19. These include any suicidal ideation or behaviors arising from the unemployment, financial, and other stresses coming from the public health and economic crisis.

Children with sensory processing difficulties who have unusual responses to sensory input can have difficulty coping with activities of hand washing and wearing masks.

#### **Access to health services and equipment**

People who are uninsured, underinsured, or who have no universal access to health care, including care directly related to COVID-19. This includes capacity to get (timely) diagnostic tests for COVID-19 or for accessing adequate treatment, including access to ventilators.

People living in medically underserved or undersupplied areas (eg, rural or remote locations with limited access to diagnostic and treatment facilities, face masks, or other personal protective equipment).

People with no or reduced access to transportation facilities or personal assistance services as a means to satisfy health and functional needs or access to health care.

People whose need for timely access to assistive devices has been affected by disruptions in the supply chain or distribution of these products as a result of the COVID-19 pandemic and labor restrictions.

#### **Living and housing conditions**

People who are homeless, homebound, underhoused, and who thereby may struggle to ensure physical distancing and adequate hygiene measures.

People living in densely populated communities or households, who may struggle to ensure physical distancing, including during mandatory or self-imposed quarantine measures.

People institutionalized, including the hospitalized and those living in nursing homes or residential facilities, who are subject to infection spread within the institutional environment.

Prisoners or those who are incarcerated and in detention or correctional facilities, where maintaining physical distancing and containing the spread of the disease can be complex or unattainable.

People without (reliable) access to clean water and soap for the recommended hygiene measures.

People living in locations whose living conditions or social order have been threatened by military conflict, natural disasters, or other humanitarian crises.

#### **Income-related**

Populations identified as pertaining to low- or middle-income countries, regions, or areas, who may struggle to financially access health care beyond any universally assured, afford a living with the loss of income associated to preventive measures (eg, periods of lockdown), or in which lockdown measures for containing the pandemic have not been taken, at the population level, for economic reasons.

People otherwise facing poverty or with no stable or sufficient income, economically exploited, underpaid, working in the informal economy, without access to a paid sick (or quarantine) leave, or the so-called working poor, who may have limited to no capacity to afford lockdowns and may have higher exposure to the socioeconomic shockwaves of the COVID-19 pandemic, without sizeable social protection.

#### **Access to developmental-related services**

Children and youths with special education needs may have important restrictions in the in-person participation in school and other (eg, therapeutic) activities, restricted by lockdown measures. Virtual schooling or therapy may be demanding, unpractical, or less effective for many (eg, requiring caregiving assistance, skills in communication and information technologies from the caregivers or the children, digital devices and internet access, performed without tactile or bodily sensation such as that provided by a hands-on therapeutic input at the backdrop of children with sensory processing issues).

Children and youths with developmental disabilities as well as their informal caregivers may have restricted access to health, social, or child protection services they may need to rely on, because of lockdowns or because these services and resources have been prioritized for addressing acute needs arising from the COVID-19 pandemic.

*(continued on next page)*

**Box 1. (continued)**

Children and youths with developmental disabilities may be exposed to increased adverse childhood experiences such as abuse and neglect, exacerbated by COVID-19 related stress and the effect on caregivers and family.

Children and youths with developmental disabilities may have restricted opportunities to develop social abilities, interpersonal relationships, and other key developments as a result of the restricted social and physical contact, or may have difficulty adjusting to a suddenly altered routine.

**Working roles and conditions**

People with frontline, essential jobs (eg, in health care, pharmacy, grocery stores, transports), which need to be carried out even during lockdown periods.

People otherwise not able to telework, either by the nature of their job, lack of skills in using information and communication technologies, or lack of reasonable accommodations.

People who are unemployed, underemployed, laid-off, pressured to anticipate retirement, or pressured to take over frontline essential jobs without enough preparation, may face economic or health risks, including mental health risks.

**Minority or socially disadvantaged populations**

Refugees or asylum seekers as well as migrants, including those who are undocumented, may face cultural or language barriers to understand or comply with public health measures, poor living or preventive isolation conditions, poor to no access to health care, and poor economic resources, among other drivers of vulnerability and social disadvantage, likely exacerbated during a pandemic scenario.

People from minorities or socially disadvantaged races (eg, African Americans), ethnicities, minority religions within an area, or indigenous populations, who may lower working and livelihood conditions, lower access to health care, and cultural differences not accounted for in public health measures designed with the majorities or better-off in mind.

People who are victims of interpersonal or domestic violence, coercion, or sex-based prejudice may face health care access restrictions, may be unwillingly exposed to physical contact, or may be vulnerable to violence during lockdown periods.

meanings, and looking for co-occurring patterns in the data not only semantically present but also latent.

Although 3 authors (S.K., S.B., and T.J.) will build the initial thematic categories and synthesis, all will iteratively review the themes according to the data extracted and their own interpretative lens. The diversity of the backgrounds of the research authors, previously noted, will enrich this iteration, and help produce a more refined, transdisciplinary synthesis. Yet, to promote a theoretical integration and avoid a miscellaneous of unconnected perspectives, an overarching standpoint or theoretical cement is defined a priori. Within this regard, the thematic synthesis can be informed, among others, by an equity-oriented perspective,<sup>1,24,68,69</sup> systems-based thinking,<sup>70-76</sup> complex science principles,<sup>77-81</sup> human-rights based perspectives,<sup>82,83</sup> social and occupational justice lenses,<sup>84-86</sup> and disability-inclusive and universal design thinking,<sup>37,87-90</sup> all applied to an integrative development of health and social policies<sup>1,8,14,24</sup> that is needed now more than ever.<sup>91,92</sup>

**Experts' consultation**

The consultation of experts is an optional yet recommended step in scoping a review.<sup>51</sup> The goals can include helping to find relevant publications and reinterpreting the review results and their implications. Experts for both steps will be consulted.

Regarding the finding of relevant publications, as mentioned previously, members of the American Congress of Rehabilitation Medicine's International Networking Group and Refugee Empowerment Task Force, a diverse group in terms of background and expertise, will be supplied with a preliminary list of inclusions and consulted as key informants on any additional reference potentially fitting the inclusion criteria we may have missed. Only the members of that group who are not authors of the paper

will be consulted. Recommendations can address the gray literature, including for any group of people, world location, culture, or other variable potentially underrepresented. Although this process might not ensure exhaustive coverage of the gray literature, it may contribute to closing gaps in the representativeness of the reviewed information. Finally, the same group of experts will be afforded with the opportunity to comment or suggest amendments on the first complete draft of the results and discussion, which will be considered by the research team as a source of improvements in the final manuscript.

**Strengths, weaknesses, and dissemination**

This scoping review examines a complex topic and is grounded in a carefully designed, published scoping review protocol, which adds to the strength and transparency of the methodology. Two independent reviewers will be used across the screening decisions and key data extractions. The thematic analysis will integrate a diversity of theoretical and disciplinary perspectives, facilitated by the heterogenic background and expertise of the research authors. Last but not least, the topic is timely and can likely inform policy makers, public health authorities, and other stakeholders on any action needed to promote equity and disability-inclusive responses to the pandemic and the resultant socioeconomic shockwaves. With an expedited yet comprehensive review process, one can expect that the results of this review will be instrumental for the global public health and economic crisis situation arising currently as a result of the COVID-19 pandemic, as well as informing the preparedness for any future global public health crises.

A limitation of this work is that a quality appraisal of the included studies, which is typical in scoping reviews, will not be performed. On one hand, as this is a very recent topic, we



do not expect to review many planned or higher-level scientific evidence (eg, from protocol-based systematic reviews, longitudinal, or experimental studies). However, we expect to include a greater number of case studies or reports, analyses of public domain or existing research data, practice-based cross-sectional research, and even perspective papers. Indeed, commentaries, letters, and editorials have been prevalent in the peer-reviewed literature related to COVID-19.<sup>58</sup> On the other hand, we aim to address exploratory research questions and map the breadth of the existing literature on a topic, not to review the efficacy or effectiveness of interventions (or diagnostic tests) or test a pre-specified hypothesis, for which a quality assessment, grading, and related eligibility decisions would be key. Also, there is a risk of not being exhaustive or representative of the world's different cultures, responses, or perspectives in the review of gray literature, in part owing to the restriction of English-language material. This decision was made to ensure the feasibility and timeliness of the execution of this review, as the issue of timeliness is key for the results to be actionable right now, in the context of the COVID-19 pandemic.<sup>93,94</sup> This is, however, a restricted compromise, compared with rapid review methods addressing COVID-19 issues,<sup>93</sup> and what is typical in rapid review approaches for pressing health policy issues, even apart from a pandemic scenario.<sup>95</sup> For example, 2 independent reviewers are involved across both stages of the scoping review, and a study protocol will be published, which is still uncommon in scoping reviews, especially in the rehabilitation field, even without a "rapid" label.<sup>96</sup> Although the process is expedited and does not include the gray literature in languages other than English, in essence we will conduct a full-fledged scoping review, including 6 languages for the peer-reviewed and preprint literature. As a major limitation, PwD have not been consulted as experts. Consulting experts is an optional step. For feasibility and timeliness, only experts from an existing group will be consulted. This current restriction does not prevent that any missing perspectives (eg, from PwD or their representatives) could, and probably will, be collected and integrated later, over the scoping review results.

The dissemination of the study results will be made through a peer-reviewed publication and through newsletter or policy briefs expanding from the action of the American Congress of Rehabilitation Medicine's Refugee Empowerment Task Force, and its broader International Networking Group.

## Suppliers

- a. EndNote; Clarivate Analytics.
- b. Google Search; Google LLC.

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## Acknowledgments

We thank Fofi Constantinidou, PhD, Chair of the American Congress of Rehabilitation Medicine's International Networking Group, and Erkut Kucukboyac, PhD, Co-Chair of the Refugees Empowerment Task Force, for the initial review and continuous support provided to this project.

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