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A global mental health opportunity: How can cultural concepts of distress broaden the construct of immobility?

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ABSTRACT

(Im)mobility studies often focus on people on the move, neglecting those who stay, are immobile, or are trapped. The duality of the COVID-19 pandemic and the climate crisis creates a global mental health challenge, impacting the most structurally oppressed, including immobile populations. The construct of immobility is investigated in the context of socio-political variables but lacks examination of the clinical psychological factors that impact immobility. Research is beginning to identify self-reported emotions that immobile populations experience through describing metaphors like *feeling trapped*. This article identifies links in the literature between Cultural Concepts of Distress drawn from transcultural psychiatry and immobility studies. *Feeling trapped* is described in mental health research widely. Among (im)mobile people and non-mobility contexts, populations experience various mental health conditions from depression to the cultural syndrome, nervios. The connection of *feeling trapped* to CCD research lends itself to potential utility in immobility research. The conceptualisation can support broadening and deepening the comprehension of this global mental health challenge – how immobile populations' experience *feeling trapped*. To broaden the analytical framework of immobility and incorporate CCD, evidence is needed to fill the gaps on the psychological aspects of immobility research.

1. Introduction: COVID-19 pandemic, (im)mobility, and cultural concepts of distress

The effects of the COVID-19 pandemic on mental health and well-being are far-reaching and overwhelmingly deleterious. These deleterious effects made waves across the globe, affecting (im)mobility patterns, with the greatest impacts on the most disadvantaged groups of people. Immobility is influenced by a host of factors such as gender, class, and race (Ayeb-Karlsson, 2020; Cundill et al., 2021). Drivers of human mobility are many and include livelihood opportunities, familial ties, escaping persecution, personal aspirations, or changing environmental hazards (Black et al., 2011; Cundill et al., 2021). Still, people do not often choose mobility, or if they do, relocation is not far from home (Adger et al., 2020; Cundill et al., 2021). The COVID-19 pandemic response may have pushed people further towards undesired (im) mobility, as it is a time when people attempt to protect themselves in the face of political and personal disruption and losses (Cundill et al., 2021;

Raju and Ayeb-Karlsson, 2020).

Certain population groups, such as people living in Coastal Bangladesh or Small Island Developing States, are at a heightened risk of effects from the double-edged crisis of the COVID-19 pandemic and recurrent obtuse natural hazards (Akter and Khanal, 2020; Raju, 2020). Given the precarity of such regions, livelihoods and wellbeing have been severely impacted through changes in cultural and social practices, land changes, and a lack of access to government assistance (Ahmed et al., 2021; Kelman et al., 2021). People confronted with undesired (im) mobility due to the COVID-19 pandemic may also simultaneously face climatic stress that already negatively affected their mental health, compounding environmental psychological stressors (Marazziti et al., 2021). The implication for (im)mobility under climate change and the COVID-19 pandemic is a global mental health concern.

The global mental health agenda is advocated to be equitable and holistic, employing pluralistic methods that support the comprehension of mental health across the globe – from distress to severe pathology

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(Das and Rao, 2012; White et al., 2017). One method to support this holistic understanding could be Cultural Concepts of Distress (CCD). CCD may pave the way to recognize the links between immobility and mental health. CCD "refers to ways that cultural groups experience, understand, and communicate suffering, behavioral problems, or troubling thoughts and emotions" (Kohrt et al., 2014: 13).

CCD is a concept that encompasses multiple constructs such as: idioms of distress, cultural syndromes, and explanatory models (Kohrt et al., 2014). This article draws attention to how CCD may broaden immobility research and policy recommendations through expanding the knowledge base by investigating these connections. The article explores the conceptual links between *feeling trapped* among immobile populations with the concept of CCD to augment the comprehension of the affective and cognitive processes within immobile populations.

2. Grounded in the present day: the COVID-19 pandemic

Before linking the two constructs of CCD and (im)mobility, it is beneficial to contextualize the subject matter within the current sociopolitical context of the COVID-19 pandemic. The COVID-19 pandemic exposed and exacerbated structural oppression and individual vulnerabilities around the world, sometimes described as a perfect storm (Espinosa, 2020). Some scholars argue that it is in fact not a perfect storm since a perfect storm constitutes randomness and a lack of predictability that devalue the ability to prepare for such crises (Brandt and Botelho, 2020). A perfect storm or not, structurally oppressed people are among the most vulnerable to the COVID-19 pandemic's outcomes, to the virus, and the response strategies (Lau et al., 2020; Shim and Starks, 2021). With viral contagion, often the most structurally oppressed people live in densely populated settings where transmission is more likely, with poor sanitation, and scarce access to clean water (The Lancet, 2020). This raised the alarm for the safety and security of people living in informal settlements and refugee camps (Alemi et al., 2020; Raju and Ayeb-Karlsson, 2020). Pandemic response strategies including physical distancing and frequent handwashing are simply unrealistic for much of the world, where people live in highly crowded places and cannot work from home but rather depend on daily earnings to make ends meet (Raju et al., 2021).

Identifying and understanding the relevance of structural inequalities is key when responding to the COVID-19 pandemic. Structural inequalities that can lead to oppression are contextualized within intrapersonal, interpersonal, institutional, and systemic drivers that cement identities (Weinstein et al., 2017). The risk and impact of the pandemic intersected with gender, race, and class, leading to devastating outcomes (Bowleg, 2020). Gender, race, and class are combined as per bell hooks' feminist approach to oppression. The idea is further developed and coined 'intersectionality' by Kimberlé Crenshaw which this article is framed within (Hooks, 2000; Crenshaw, 2011). Over the course of the pandemic, the essential work category led people part of the proletariat to endure serious or lethal consequences as seen with COVID-19 outbreaks in super-spreader settings such as meatpacking plants, seafood plants, and baked good manufacturing plants (Asher et al., 2021; Leclerc et al., 2020; Mallet et al., 2021; Middleton et al., 2020). Safe or essential work often implicated people's (im)mobility, affecting the most marginalized across the globe, from Indigenous People in Ecuador to Roma in Hungary (Hummel et al., 2021; Mena et al., 2021).

Taking the COVID-19 pandemic and linking it to another global crisis, the climate crisis – again the most structurally oppressed often bear the brunt of the effects (Raju et al., 2022). The double crisis will inevitably create (im)mobility challenges impacting peoples' wellbeing (Chaplin et al., 2019; Sultana, 2021). Looking at the big picture, the COVID-19 pandemic and the changing climate have similar processes and outcomes such as "extractive ecological exploitation of capitalism, systemic discounting of human and more-than-human natures, and the creation of sacrifice zones where profit was prioritized over people and planetary

wellbeing" (Sultana, 2021: 448). Anthropogenic climate change impacts weather patterns, land degradation, and may trigger a decline in plant and animal species, that can have far-reaching consequences on mental health (Cunsolo et al., 2020; Florido Ngu et al., 2021). Moreover, focusing our gaze on gender, the COVID-19 pandemic highlighted and increased unsafe working conditions, domestic violence and abuse, financial precarity, and deteriorated mental health for women and gender minorities (Kaur-Gill et al., 2021; Sultana, 2021).

Across the globe, the impact of the COVID-19 pandemic on people's mental health is documented (Gloster et al., 2020; Kaur-Gill et al., 2021). When stratifying dimensions of the pandemic, effects of quarantine and self-isolation have been studied, where feelings of anger and stress, risk behaviours such as gambling, and drug and alcohol misuse were reported (Li et al., 2020; Mukhtar, 2020). A review of mental health impacts and responses in Low- and Middle-Income Countries (LMICs) also found high rates of psychological distress and warning signs for an increase in mental health conditions (Kola et al., 2021). Given the global nature of the COVID-19 pandemic crisis, scholars are advocating to identify idioms of distress that emerged during the pandemic (Alshekaili et al., 2020). The stressors of everyday life compounded with the inequities perpetuated by the COVID-19 pandemic, affecting those most marginalized in society, including immobile populations. There is therefore a need to better comprehend the language, and the CCD, among immobile populations.

3. Understanding immobile populations

Migration scholars and policymakers have long argued whether human mobility should be understood as an adaptive response to environmental stress or as a failure to adapt (Ayeb-Karlsson et al., 2018; Black et al., 2011; Lama et al., 2020). Mobility as an adaptative response is seen as a positive method to reduce livelihood risks while a failure to adapt is seen as a securitization issue among origin and destination countries and regions (Lama et al., 2020).

Those most affected by environmental stress have been understood to inevitably choose mobility, thus mobility studies historically focused on those who are on the move rather than those who are immobile (Hauer et al., 2020; Schewel, 2019). Nonetheless, climate change as the primary factor for migration is far and few between (Boas et al., 2019; Cundill et al., 2021). Moreover, migration theories centralizing around push-pull factors or individual income maximizing are now viewed as simplistic and less than applicable to current-day migratory processes (Ayeb-Karlsson et al., 2018, 2020; de Haas, 2021). Prevalent in migration research is the aspirations and abilities framework, where migrant trajectories are a result of some combination of the two factors as well as a host of other variables such as gender, natural hazards, environmental changes, and political contexts (Cundill et al., 2021; Zickgraf, 2019). A major work highlighting migration processes was the UK Government's Foresight: Migration and Global Environmental Change (MGEC) Report, which cemented the concept of trapped and immobile populations. The report brought to the forefront population groups who face high-risk settings but who do not or cannot move away despite being vulnerable to the impact of these risks (Ayeb-Karlsson et al., 2018, 2022; Foresight, 2011). Often language around environmentally induced migration neglect those who stay behind - those who are voluntarily immobile or involuntarily trapped - in their challenging environmental circumstances (Foresight, 2011).

While the Foresight Report was an influential political piece, research regarding the concept of trapped populations has been studied previously through similar concepts such as (in)voluntary immobility or stranded migrants (Hemerijck and Visser, 2000; John and Griffin, 1990). Moreover, immobile, non-migrant, and staying populations are increasingly the subject of research today (Blondin, 2021; Cundill et al., 2021; Schewel, 2019). 'Trapped Populations' is a term that encompasses population groups who cannot move away from highly complex scenarios, in low-income settings, and who are of serious concern (Ayeb-

Karlsson et al., 2018, 2022; Black et al., 2011; Foresight, 2011). In the last decades, the majority of migration research underscores the economic, technical, and political aspects regarding immobile populations in high-risk areas, concentrates less on the social factors, and least of all on the mental health and psychological variables (Ayeb-Karlsson et al., 2018, 2020, 2022; Zickgraf, 2019). Nonetheless, researchers are building a robust literature base concerning trapped populations including the characteristics of the geographical spaces that may trap and immobilize people, the economic resource factors, and the socio-psychological variables (Ayeb-Karlsson et al., 2018, 2022).

Sociological processes around immobility include intersectional perspectives of identity and access to resources to comprehend why some people move and others stay put (Elliott and Pais, 2006). After Hurricane Katrina in the United States, scholars found that people responded in various ways, depending on the social and economic resources at their disposal, and also that societies are heterogeneous – individuals and families behave differently in the face of environmental threats (Elliott and Pais, 2006; Rhodes et al., 2010). Another sociopsychological factor, place attachment, which is an intimate bond with a place has been analyzed in relation to immobile populations (Barcus and Shugatai, 2018; Blondin, 2021; Zickgraf, 2019).

Place attachment in Tajikistan's Pamir Mountains was a factor for voluntary immobility, where in this context, it is defined as a strong connection to their land and environment (Blondin, 2021). Place attachment can also be related more to the kinship and traditional familial structure within a space rather than to the land itself (Barcus and Shugatai, 2018). Traditionally, place attachment is understood as a function of time, but more recent research shows that it can develop independently of time and can be related to dependence on physical characteristics for survival and security (Szaboova et al., 2022). From place attachment and dependence to migration length, sociological factors contribute to subjective wellbeing.

A framework of wellbeing used among migration scholars is that of White (2010) where it encompasses social processes of material, relational and subjective dimensions (Szaboova et al., 2022; White, 2010). The framework sits along individual and collective lines, where the concept is applied to both - individual and groups (White, 2010). Within this framework, one type of wellbeing can influence another, such as subjective impacting material wellbeing (Adger et al., 2020). In various settings in Ghana, India and Bangladesh, research showed how over time, material wellbeing and subjective wellbeing diverged in the arrival setting depending on environmental and social variables (Szaboova et al., 2022). Migrants in Chattogram, Bangladesh reported lower levels of wellbeing in the context of longer-term migration as opposed to shortterm migration, illustrating little space for upward social mobility in urban informal settlements (Adger et al., 2020). Sometimes despite deciding to migrate, people expressed the feeling of loss - the loss of belonging, identity, honour, physical or mental health, and emotional wellbeing was reported in Dhaka, Bangladesh (Ayeb-Karlsson, 2021; Ayeb-Karlsson et al., 2020). Despite deciding to migrate, wellbeing may not flourish, and provide a lack of positive social and environmental factors that support the migratory process at the onset and throughout the duration in the arrival setting (Szaboova et al., 2022). Negative social and environmental contexts will undoubtedly increase the likelihood of psychopathology and poor mental health. These aspects are also discussed in the literature on loss and damage, and particularly within the research on non-economic loss (and damage), from climate change (Boyd et al., 2021; Tschakert et al., 2019; Tschakert and Neef, 2022). For example, people described decisions to move based on finances, but they also described how wellbeing loss kept them feeling trapped (Ayeb-Karlsson, 2021). These novel publications connecting the sociopsychological processes to immobile populations have been called for and are increasingly prioritized (Ayeb-Karlsson, 2021; Ayeb-Karlsson et al., 2020).

While the literature has drawn on the socio-psychological factors related to immobility, research has yet to link feeling trapped among

immobile populations to psychological factors beyond sociological variables. The study of *feeling trapped* while immobile is an area largely unexplored globally but is commonly found within counselling and clinical psychology research in the Global North (Beck, 2020; Wai-Chi Chan et al., 2002). Given that many people affected by (im)mobility live in LMICs across the globe, worthy of investigation is how *feeling trapped* may be understood through metaphors and CCD in LMICs. Furthermore, this global mental health challenge is crucial given that approximately-one billion people in the world live with a mental health condition (The Lancet Global Health, 2020).

4. Metaphors for distress and psychopathology

In the Global North, within clinical and counselling psychological research, feeling trapped or immobile is used as a metaphor to describe feelings and experiences often connected to depression and anxiety (Beck, 2020; Wai-Chi Chan et al., 2002). Counsellors in the United Kingdom reported clients using (im)mobility as a metaphor for their feelings of powerlessness as a way to communicate without facing headon, potentially overwhelming feelings (Bayne and Thompson, 2000). Similar to the feelings of powerlessness, research in an Inuit context described how feeling trapped is related to intergenerational trauma, magnifying a sense of powerlessness and a lack of control over past trauma (Cunsolo Willox et al., 2013). Feeling trapped was also a metaphor used by women to describe their experience with post-partum depression in the Hong-Kong and the United States (Beck, 2020; Wai-Chi Chan et al., 2002). The diversity of ways and contexts these metaphors are applied within speaks to the cross-cultural applicability of those metaphors for diverse population groups. One may argue that this highlights the universality of mental health and illness. Still, a gap in the literature is this metaphor studied in LMIC contexts. A more holistic understanding of feeling trapped, stuck, or immobile in human immobility studies may nuance the discussion and support policy and practice.

A more inclusive version of mental health is tenable and evidenced by a growing body of work that demonstrates the veracity of multiple experiences of psychopathology, beyond biomedical categories of mental illness (Kohrt and Hruschka, 2010; Rechsteiner et al., 2020). Biomedical and indigenous healing models can and should co-exist, considering that the diagnostic manuals for mental health conditions, such as the Diagnostic and Statistical Manual (DSM) or International Classification of Diseases (ICD) do not adequately capture expressions of distress and psychopathology in different cultures (Aggarwal et al., 2020; Mayston et al., 2020). Integration is documented as early as the mid-1900s by Thomas Adeoyo Lambo in Nigeria who worked with traditional healers as part of his psychiatric practice (Heaton, 2018; Lambo, 1960). The need to adapt mental health instruments advances alongside the need to integrate explanatory models of illness not rooted in biomedical sciences for collaborative treatment pathways (Heaton, 2018; Mayston et al., 2020). Examples from several Sub-Saharan African countries, describe various ways in which multiple healing pathways can work together (Mayston et al., 2020). To date, there is a plethora of research, policy, and practice aiming to integrate multiple modalities of healing, harness local concepts of mental health, and work with local trusted authorities such as religious and spiritual healers (Heaton, 2018; Kaiser et al., 2013).

Beyond the integration of different models of illness, local adaptation of mental health instruments is essential when considering that symptoms of a mental health condition are variable in different settings (Kaiser et al., 2013; Raguram et al., 2010; Tol et al., 2018). For example, the language of describing depressive symptoms as *feeling down or blue* does not translate or apply to much of the world (Aggarwal et al., 2020). Besides, locally relevant instruments are key to best support mental health research, policy, and practice (Kohrt et al., 2014; Mayston et al., 2020).

Lambo in the mid-1900s not only worked with the integration of

biomedical and indigenous healing models in his practice but also studied the variance in depressive symptoms among European and Nigerian people. Lambo described European psychiatric symptoms of depression to be principally affective including sadness, shame, or guilt while Nigerians presented with more somatic symptoms, such as pressure in the chest or burning and tingling (Heaton, 2018; Lambo, 1960). Around the same time, Pow Meng Yap in Hong Kong studied culture-bound syndromes and idioms of distress (Kohrt et al., 2014; Yap, 1958). He delineated and classified numerous CCDs such as koro and also critiqued their nosology (Yap, 1967).

Today, in practice, the Fifth Edition of the DSM includes CCD, a step toward accounting for the cultural variability in mental health and illness (Kohrt et al., 2014). The reported symptoms and treatment of poor psychological health varies within and between societies, languages, and cultures across the globe and is well evidenced through cultural clinical psychology, transcultural psychiatry, ethnopsychology, and medical anthropology, to name a few fields. Extending experience from these fields into (im)mobility studies utilizing CCD, may create an opportunity to shift narratives and re-examine categories of mental illness. Considering that idioms of distress are a key part of CCD, the article explores what idioms of distress implicate in linking CCD and immobility research.

Idioms of distress can be defined as:

"Idioms of distress communicate experiential states that lie on a trajectory from the mildly stressful to depths of suffering... In some cases, idioms of distress are culturally and interpersonally effective ways of expressing and coping with distress, and in other cases, they are indicative of psychopathological states that undermine individual and collective states of wellbeing. When experienced along with significant pathology, idioms of distress express personal and interpersonal distress beyond that associated with universal disease processes" (Nichter, 2010: 405).

Central to idioms of distress are the socio-political contexts, as there is often a language of social suffering involved, not exclusively individual psychological processes (de Jong and Reis, 2010). De Jong and Reis also contend that often one cannot overtly describe experiences as part of socio-political contexts as it would cause a threat to the structural violence of those in power (de Jong and Reis, 2010). Additionally, alongside the development and initial refinement of transcultural psychiatry, many monumental global events occurred, including the end of World War II, de-colonizing movements in many countries including India (1947), Ghana (1957), and Uganda (1962), as well as the start of the American Civil Rights Movement (Antić, 2021; Bains, 2005). All of these historical events demonstrated the centrality of xenophobia and racism embedded in systems and structures. Idioms of distress have been part of scientific literature for about thirty years and have evolved, ensuring that culture is not studied statically, but ever-changing and heavily affected by the social and political history of colonialism (Nichter, 2010).

Despite its developments, CCD is not without critique. Transcultural psychiatry has been critically assessed since its origin (Heaton, 2018; Yap, 1967). Stemming from colonial history, the superiority complex of white researchers is evidenced in the pathologizing and dehumanizing of racialized groups (Samuel and Ortiz, 2021). Simultaneously, scholars from the Global South such as Lambo and Fanon identified and criticized such ideologies and practices (Antić, 2021; Heaton, 2018). Today, the primary criticism of transcultural psychiatry and CCD is unequivocally similar to the main critique from the 1950s but labelled as a Western Gaze (Lehti et al., 2010). With this Western Gaze witnessed today, the power dynamics are left unaddressed from over seventy years ago. Considering that mid-1900s critiques of cultural psychiatry directly address colonialism and racism (Fanon, 2008), extending today's critique from a Western Gaze to a White Gaze is tenable and appropriate. Moreover, in its application, idioms of distress have been critiqued as simplistic tools tacked onto clinical evaluation rather than supportive concepts to contextualize mental health in social and structural systems

(Abramowitz, 2010; Kent- Wilkinson, 2019). While there are efforts to work with and understand local knowledge systems, oftentimes cultural differences are seen as obstacles that can be unlearned through psychoeducation (Kidron and Kirmayer, 2019). Thus, as de Jong and Reis (2010), Kidron and Kirmayer (2019), and Lehti et al. (2010) suggest – centralizing power while working with CCD, such as idioms of distress, is central to an ethical and valuable application of the concept.

5. Value added: tying cultural concepts of distress and immobility together

Applying CCD requires an open epistemological approach (a decolonial epistemological approach) to best comprehend how mental health is understood and symptoms are expressed in various settings. For example, the description of tension was found with different population groups in South Asia. Women living in poverty in urban Indian and slum-dwelling young men in urban Bangladesh describe suffering as tension (Atal and Foster, 2020; Wahid et al., 2021). In Bangladesh, the English word tension ranged from mild distress to severe psychopathology including anhedonia and suicidality (Wahid et al., 2021). The tension here may be an example of CCD just like the concept of feeling trapped. Possibly the most studied idiom of distress is thinking too much which is described in numerous ways from countries in Africa, the Americas, and Asia (Atal and Foster, 2020; Kaiser et al., 2014; Wahid et al., 2021). As depression, thinking too much is dynamic and varies depending on the context and should be treated as such when developing interventions, policies, and guidelines (Backe et al., 2021). This logic should be applied to feeling trapped.

The feeling of being stuck or trapped is found among discrete population groups and environmental contexts, underscoring its relevance to (im)mobility research, and the global mental health movement. Cultural conceptions of feeling trapped and related decision-making processes have been found and tied to cultural norms and values. In Bhola Slum, Bangladesh, people expressed living in fear, emotional emptiness, loss of wellbeing, honour and health when trapped in their environment as well as in their psychological state (Ayeb-Karlsson et al., 2020; Ayeb-Karlsson, 2021). A cross-cultural comparison of metaphors for trauma between Brazil, India, Poland, and Switzerland highlighted metaphors constituting somatic and embodied characteristics (Rechsteiner et al., 2020). Event-related metaphors arose as feeling trapped or stuck in a tragedy shedding light on how cultural groups can describe a range of traumatic events but still use various similar metaphors. Among Vietnamese immigrants to Canada, participants reported explanatory models and also idioms of distress including $u''t''\dot{c}$ which was described as a strong negative emotion being trapped inside the heart, affecting the rest of the person's body, and weakening a person's energy or ch''i (Groleau and Kirmayer, 2010). People across continents describe feeling trapped, underscoring the cross-cultural relevance of this particular metaphor (Groleau and Kirmayer, 2010; Kidd, 2004; Rechsteiner et al., 2020; Wai-Chi Chan et al., 2002). Additionally, research on the links between idioms of distress and climate change is emerging (Gibson et al., 2019). In Tuvalu, the context of climatic changes and environmental impacts can give rise to manavase (worry, anxiety), f''ta or gauia (tiredness), and mafatia (sadness, depressive symptoms) (Gibson et al., 2019). Similar to thoughts and feelings of being trapped are the feelings of hopelessness and helplessness (Kidd, 2004). In Iran and the United States, defeat and entrapment were predictors of depression and suicidal ideation, as much as hopelessness and helplessness (Tarsafi et al., 2015).

The CCD, a cultural syndrome, *nervios*, is common among people with Caribbean, Mexican, and Central and South American heritage that also describes feeling hopeless, helpless, and a lack of control (England et al., 2007). With Mexican seasonal farmworkers in Canada, nervios constituted thoughts and feelings such as fear, *feeling trapped*, and giving in. *Feeling trapped* was described as "feeling set-up, caught up, ensnared, or confined in a negative environment or power situation with other people"

(England et al., 2007: 189).

Feeling trapped as an idiom of distress creates space to connect the affective states indicated by immobile populations to the bigger picture of immobility, climate change, and mental health (Ayeb-Karlsson et al., 2020). Drawing on CCD, there is a construct to analyze how people describe their feelings of being trapped and stuck within (im)mobility research. Policy and practice can move towards best caring for immobile people affected by the negative mental health outcomes associated with feeling trapped or stuck.

6. Implications for research, policy, and practice

This article conceptually connects the two concepts of CCD and immobility. Going forward research would benefit from a systematic literature review on the links between the concepts, to take this connection one step further beyond the theoretical space. Moreover, applying the connection between CCD, feeling trapped, and immobility to methodological tools, whether in qualitative, quantitative, or mixedmethod studies would be beneficial. Further research may aim to demonstrate empirical evidence of the correlation between these two areas to further strengthen their link. Another area of research may explore psychological factors connected to feeling trapped such as cognitive variables consisting of self-beliefs or thought patterns. These research implications open the door to further addressing this global mental health challenge.

(Im)mobility and migration policies must be prioritized as well, to adequately address this global mental health challenge. Currently, immigration policies are dictated by labour market needs and demographic trends (Black et al., 2011; UNDP, 2014). The lack of prioritization to mental health and wellbeing creates a larger gap with time, especially among urban and high-risk settings (Szaboova et al., 2022). One way to address the mental health challenges of immobile population groups is through accounting for CCD into mental health and migration policies.

Implications for practice with humanitarian organizations are essential, considering the number of humanitarian actors in high-risk areas within LMICs (Aebischer Perone et al., 2017). Abramowitz describes how in post-conflict Liberia, the culture-bound syndrome Open Mole, hole in the head, became an idiom of trauma and then a "gateway diagnosis of PTSD-related mental illnesses" (Abramowitz, 2010: 354). This occurred in clinical humanitarian contexts, thereby objectifying the experience of Open Mole by clinical humanitarian workers (Abramowitz, 2010). This example illustrates the fine balance of power dynamics between those trained by Western humanitarian NGOs and those experiencing poor mental health and wellbeing, however it is labelled or expressed. It also describes that while a difficult task to provide mental health care and wellbeing support within the current humanitariandevelopment nexus appropriately, it is nonetheless essential. Besides, the forces of climate change are not slowing down, rather, gaining traction, cascading, and most affecting people in the Global South and marginalized groups (Shi et al., 2016). Identifying the needs of the most affected comes to be central and the implications for practice become the criticalness of effective training that is culturally relevant to the setting (Gyawali et al., 2021).

7. Conclusion

The duality of the COVID-19 pandemic and climatic stress has created a new global mental health challenge, implicating people in precarious situations of immobility. Moreover, the links between poor mental health, urban settings and high-risk situations remains poorly understood, making adequate governance a challenge (Liu et al., 2021; Szaboova et al., 2022). Worldwide, poor mental health is reported as a result of the COVID-19 pandemic (Campion et al., 2020; Khan et al., 2020) and has exposed and exacerbated structural inequalities of the most oppressed (Alemi et al., 2020; Bowleg, 2020; Shim and Starks,

2021), including immobile populations (Raju and Ayeb-Karlsson, 2020). Immobility research has primarily focused on the economic, political, and technical variables (Ayeb-Karlsson et al., 2022; Zickgraf, 2019), but slowly flourishing is a research base regarding the psychosocial wellbeing of immobile populations (Ayeb-Karlsson et al., 2020; Schewel, 2019). This research found immobile populations describing their psychosocial wellbeing as *feeling trapped*, underscoring a research gap that must be attended to (Ayeb-Karlsson, 2020, 2021; Ayeb-Karlsson et al., 2020)

This article draws upon the research of the psychosocial wellbeing of immobile populations and connects it to the concept of CCD. Stemming from transcultural psychiatry, CCD encompasses idioms of distress, cultural syndromes, and explanatory models (Kohrt et al., 2014) that may provide another mode to comprehend psychological phenomena such as *feeling trapped* among immobile populations. The article explores the uses of feeling trapped in various settings for example women experiencing post-partum depression in the United States and Hong-Kong (Beck, 2020; Wai-Chi Chan et al., 2002) and as part of the cultural syndrome, nervios, in people with Caribbean, Mexican, and Central and South American heritage (England et al., 2007). More broadly, idioms of distress are explored, including the arguably most empirically studied thinking too much across Africa, the Americas, and Asia (Atal and Foster, 2020; Kaiser et al., 2014; Tol et al., 2018; Wahid et al., 2021). Feeling trapped as a metaphor in the literature may run parallel to CCDs like thinking too much, unveiling an opportunity for investigation of this global mental health challenge. While the utility of linking the two concepts crystalizes, it is essential to acknowledge that CCD is not without critique including the history of colonialism and a White Gaze among white researchers (Heaton, 2018; Lehti et al., 2010; Yap, 1967). Attending to this critique while reflecting on pluralistic epistemologies are central to the global mental health movement (White et al., 2017). This article demonstrates CCD as a useful concept to augment immobility research.

Research that applies the concept of CCD with immobile populations who describe their psychological health with metaphors such as *feeling trapped*, can tap into the potential of these research overlays. We therefore encourage research at the intersection of CCD and the mental health of immobile populations. A robust research base supports evidence-informed policymaking and inspires evidence-informed practice for people working in LMICs. This will be crucial in areas where humanitarian organizations with international staff members work as they must provide culturally appropriate care.

Declaration of Competing Interest

The authors have no competing financial interests or personal relationships to declare that could have influenced the work reported in this journal article.

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References

- Abramowitz, S.A., 2010. Trauma and humanitarian translation in Liberia: The tale of Open Mole. Cult. Med. Psychiatry 34 (2), 353–379.
- Adger, W.N., Campos, R.S. de, Siddiqui, T., Gavonel, M.F., Szaboova, L., Rocky, M.H., Bhuiyan, M.R.A., et al., 2020. Human security of urban migrant populations affected by length of residence and environmental hazards, 58 (1), 50–66. https://doi.org/1 0.1177/0022343320973717.
- Aebischer Perone, S., Martinez, E., du Mortier, S., Rossi, R., Pahud, M., Urbaniak, V., Chappuis, F., et al., 2017. Non-communicable diseases in humanitarian settings: Ten essential questions. *Conflict and Health* 11 (1), 1–11.
- Aggarwal, P., Raval, V., Chari, U., Raman, V., Kadnur Sreenivas, K., Krishnamurthy, S., Visweswariah, A.M., 2020. Clinicians' perspectives on diagnostic markers for depression among adolescents in India: An embedded mixed-methods study. Cult. Med. Psychiatry 45 (2), 163–192.
- Ahmed, S., Simmons, W.P., Chowdhury, R., Huq, S., 2021. The sustainability–peace nexus in crisis contexts: how the Rohingya escaped the ethnic violence in Myanmar, but are trapped into environmental challenges in Bangladesh. Sustain. Sci. 16 (4), 1201–1213.
- Akter, S., Khanal, S., 2020, How perceptions of risks affect responses to climate change: implications for water resource planning, Oxford Research Encyclopedia of Global Public Health, Oxford University Press, available at: https://doi.org/10.1093/ ACREFORE/9780190632366.013.122.
- Alemi, Q., Stempel, C., Siddiq, H., Kim, E., 2020. Refugees and COVID-19: achieving a comprehensive public health response. Bull. World Health Organ. 98 (8), 510.
- Alshekaili, M., Hassan, W., al Said, N., al Sulaimani, F., Jayapal, S.K., Al-Mawali, A., Chan, M.F., et al. (2020), Factors associated with mental health outcomes across healthcare settings in Oman during COVID-19: frontline versus non-frontline healthcare workers, BMJ Open, 10 (10), e042030.
- Antić, A., 2021. Transcultural psychiatry: cultural difference, universalism and social psychiatry in the age of decolonisation. *Cult. Med. Psychiatry* 45 (3), 359.
- Asher, T., Deb, P., Gangaram, A., 2021. Nursing facilities, food manufacturing plants and COVID-19 cases and deaths. *Economics Lett.* 201, 109800.
- Atal, S., Foster, J., 2020. A woman's life is tension': A gendered analysis of women's distress in poor urban India. Transcultural Psychiatry 58 (3), 404–413. https://doi. org/10.1177/1363461520947836.
- Ayeb-Karlsson, S., Smith, C.D., Kniveton, D., 2018. A discursive review of the textual use of 'trapped' in environmental migration studies: The conceptual birth and troubled teenage years of trapped populations. Ambio 47 (5), 557–573. https://doi.org/ 10.1007/s13280-017-1007-6.
- Ayeb-Karlsson, S., Baldwin, A.W., Kniveton, D., 2022. Who is the climate-induced trapped figure? WIREs Climate Change e803, 1–24. https://doi.org/10.1002/ wcc.803.
- Ayeb-Karlsson, S., Kniveton, D., Cannon, T., 2020. Trapped in the prison of the mind: Notions of climate-induced (im)mobility decision-making and wellbeing from an urban informal settlement in Bangladesh. Palgrave Commun. 6 (1), 1–15. https:// doi.org/10.1057/s41599-020-0443-2.
- Ayeb-Karlsson, S., 2020. No Power without Knowledge: A Discursive Subjectivities Approach to Investigate Climate-Induced (Im)mobility and Wellbeing. Social Sci. 9 (6), 103. https://doi.org/10.3390/socsci9060103.
- Ayeb-Karlsson, S., 2021. When we were children we had dreams, then we came to Dhaka to survive': urban stories connecting loss of wellbeing, displacement and (im) mobility. Climate Develop 13 (4), 348–359. https://doi.org/10.1080/17565529.2020.1777078.
- Backe, E.L., Bosire, E.N., Kim, A.W., Mendenhall, E., 2021. 'Thinking too much': a systematic review of the idiom of distress in Sub-Saharan Africa. Culture, Med. Psychiatry 45 (4), 655–682.
- Bains, J., 2005. Race, culture and psychiatry: a history of transcultural psychiatry. *History Psychiatry* 16 (2), 139–154.
- Barcus, H.R., Shugatai, A., 2018. Immobile populations as anchors of rural ethnic identity: Contemporary Kazakh narratives of place and migration in Mongolia. Populat., Space Place 24 (4), e2148.
- Bayne, R., Thompson, K.L., 2000. Counsellor response to clients' metaphors: An evaluation and refinement of Strong's model. Counsell. Psychol. Quarterly 13 (1), 37–49.
- Beck, C.T., 2020. Postpartum depression: a metaphorical analysis. J. Am. Psychiatric Nurses Assoc. 28 (5), 382–390. https://doi.org/10.1177/1078390320959448.
- Black, R., Bennett, S.R.G., Thomas, S.M., Beddington, J.R., 2011. Migration as adaptation. Nature 478 (7370), 447–449.
- Blondin, S., 2021. Staying despite disaster risks: Place attachment, voluntary immobility and adaptation in Tajikistan's Pamir Mountains. *Geoforum*, Pergamon 126, 290–301.
- Boas, I., Farbotko, C., Adams, H., Sterly, H., Bush, S., van der Geest, K., Wiegel, H., Ashraf, H., Baldwin, A., Bettini, G., Blondin, S., de Bruijn, M., Durand-Delacre, D., Fröhlich, C., Gioli, G., Guaita, L., Hut, E., Jarawura, F.X., Lamers, M., Lietaer, S., Nash, S.L., Piguet, E., Rothe, D., Sakdapolrak, P., Smith, L., Tripathy Furlong, B., Turhan, E., Warner, J., Zickgraf, C., Black, R., Hulme, M., 2019. Climate migration myths. Nat. Clim. Change 9 (12), 901–903.
- Bowleg, L., 2020. We're not all in this together: on COVID-19, intersectionality, and structural inequality. Am. Public Health Associat. 7, 917–918.
- Boyd, E., Chaffin, B.C., Dorkenoo, K., Jackson, G., Harrington, L., N'Guetta, A., Johansson, E.L., Nordlander, L., Paolo De Rosa, S., Raju, E., Scown, M., Soo, J., Stuart-Smith, R., 2021. Loss and damage from climate change: A new climate justice agenda. One Earth 4 (10), 1365–1370.
- Brandt, A.M., Botelho, A., 2020. Not a perfect storm Covid-19 and the importance of language. *N. Engl. J. Med.* 382 (16), 1493–1495.

- Campion, J., Javed, A., Sartorius, N., Marmot, M., 2020. Addressing the public mental health challenge of COVID-19. Lancet Psychiatry 7 (8), 657–659.
- Chaplin, D., Twigg, J., Lovell, E. (2019), Intersectional Approaches to Vulnerabilty Reduction and Resilience-Building, BRACED Resilience Intel 12, London, ODI and UKAID, available at: https://doi.org/10.13140/RG.2.2.13404.03209.
- Crenshaw, K.W., 2011. Demarginalising the intersection of race and sex: A black feminist critique of anti-discrimination doctrine, feminist theory, and anti-racist politics. Debates on a Multi-Faceted Concept in Gender Studies, Ashgate Publishing Ltd, Framing Intersectionality, pp. 25–42.
- Cundill, G., Singh, C., Adger, W.N., Safra de Campos, R., Vincent, K., Tebboth, M., Maharjan, A., 2021. Toward a climate mobilities research agenda: Intersectionality, immobility, and policy responses. *Global Environ. Change* 69, 102315.
- Cunsolo, A., Borish, D., Harper, S.L., Snook, J., Shiwak, I., Wood, M., The Herd Caribou Project Steering, C., 2020. "You can never replace the caribou": Inuit Experiences of Ecological Grief from Caribou Declines. Am. Imago 77 (1), 31–59.
- Cunsolo Willox, A., Harper, S.L., Ford, J.D., Edge, V.L., Landman, K., Houle, K., Blake, S., et al., 2013. Climate change and mental health: an exploratory case study from Rigolet, Nunatsiavut, Canada. Climatic Change 121 (2), 255–270.
- Das, A., Rao, M., 2012. Universal mental health: re-evaluating the call for global mental health, 22. Routledge, pp. 383–389. https://doi.org/10.1080/ 09581596.2012.700393
- de Haas, H., 2021. A theory of migration: the aspirations-capabilities framework. CMS 9 (8), 1–35. https://doi.org/10.1186/s40878-020-00210-4.
- de Jong, J.T., Reis, R., 2010. Kiyang-yang, a West-African Postwar idiom of distress. Culture, Med., Psychiatry 34 (2), 301–321.
- Elliott, J.R., Pais, J., 2006. Race, class, and Hurricane Katrina: social differences in human responses to disaster. Soc. Sci. Res. 35 (2), 295–321.
- England, M., Mysyk, A., Gallegos, J.A.A., 2007. An examination of nervios among Mexican seasonal farm workers. Nursing Inquiry 14 (3), 189–201.
- Espinosa, J.M., 2020. Down syndrome and COVID-19: a perfect storm? *Cell Reports Medicine* 1 (2), 100019.
- Fanon, F., 2008. Black Skin, White Masks. Pluto Press, UK.
- Florido Ngu, F., Kelman, I., Chambers, J., Ayeb-Karlsson, S., 2021. Correlating heatwaves and relative humidity with suicide (fatal intentional self-harm). Sci. Reports 11 (1), 1-9.
- Foresight, 2011. Migration and Global Environmental Change: Future Challenges and Opportunities. GOV: The Government Office of Science, London, UK.
- Gibson, K., Haslam, N., Kaplan, I., 2019. Distressing encounters in the context of climate change: Idioms of distress, determinants, and responses to distress in Tuvalu. *Trans. Psychiatry* 56 (4), 667–696.
- Gloster, A.T., Lamnisos, D., Lubenko, J., Presti, G., Squatrito, V., Constantinou, M., Nicolaou, C., et al., 2020. Impact of COVID-19 pandemic on mental health: An international study. PLoS ONE 15 (12), e0244809. https://doi.org/10.1371/journal. pone.0244809.
- Groleau, D., Kirmayer, L.J., 2010. Sociosomatic theory in Vietnamese immigrants' narratives of distress, 11. Taylor and Francis Ltd, pp. 117–133. https://doi.org/ 10.1080/13648470410001678631.
- Gyawali, B., Harasym, M.C., Hassan, S., Cooper, K., Boschma, A., Bird, M., Konradsen, F., Raju, E., Tellier, S., 2021. "Not an 'either/or': Integrating mental health and psychosocial support within non-communicable disease prevention and care in humanitarian response. J. Global Health 11.
- Hauer, M.E., Fussell, E., Mueller, V., Burkett, M., Call, M., Abel, K., McLeman, R., Wrathall, D., 2020. Sea-level rise and human migration. Nat. Rev. Earth Environ. 1 (1), 28–39.
- Heaton, M.M., 2018. The politics and practice of Thomas Adeoye Lambo: towards a postcolonial history of transcultural psychiatry. *Hist. Psychiatry* 29 (3), 315–330.
- Hemerijck, A., Visser, J., 2000. Change and immobility: three decades of policy adjustment in the Netherlands and Belgium. West Eur. Politics 23 (2), 229–256.
- Hooks, B., 2000. Feminist Theory: From Margin to Centre, second ed. Pluto Press, London. Hummel, C., Knaul, F.M., Touchton, M., Guachalla, V.X.V., Nelson-Nunez, J.,
 - Immel, C., Knaul, F.M., Touchton, M., Guachalla, V.X.V., Nelson-Nunez, J., Boulding, C., 2021. Poverty, precarious work, and the COVID-19 pandemic: lessons from Bolivia. *Lancet Global Health* 9 (5), e579–e581.
- John, B., Griffin, J., 1990. "Loss of Control", in Walker, H., Hall, W. and Hurst, J. (Eds.), Clinical Methods: The History, Physical, and Laboratory Examinations., Butterworths, Boston, available at: https://pubmed.ncbi.nlm.nih.gov/21250159/ (accessed 11 January 2022).
- Kaiser, B.N., Kohrt, B.A., Keys, H.M., Khoury, N.M., Brewster, A.-R., 2013. Strategies for assessing mental health in Haiti: Local instrument development and transcultural translation. Transcult. Psychiatry 50 (4), 532–558.
- Kaiser, B.N., McLean, K.E., Kohrt, B.A., Hagaman, A.K., Wagenaar, B.H., Khoury, N.M., Keys, H.M., 2014. Reflechi twop—thinking too much: description of a cultural syndrome in Haiti's Central Plateau. Culture, Med., Psychiatry 38 (3), 448–472.
- Kaur-Gill, S., Qin-Liang, Y., Hassan, S., 2021. Negotiating mental health during the COVID-19 pandemic: performing migrant domestic work in contentious conditions. SAGE Publicat. Sage 65 (10), 1406–1425.
- Kelman, I., Ayeb-Karlsson, S., Rose-Clarke, K., Prost, A., Ronneberg, E., Wheeler, N., Watts, N., 2021. A review of mental health and wellbeing under climate change in small Island developing states (SIDS). *Environ. Res. Lett.* 16 (3), 033007.
- Kent- Wilkinson, A., 2019. The context of mental health care: cultural, socioeconomic, and legal. In: Austin, W., Kunyk, D., Peternelj-Taylor, C.A., Boyd, M.A. (Eds.), Psychiatric and Mental Health Nursing for Canadian Practice, 4th ed. Wolters Kluwer, pp. 26–35.
- Khan, A.H., Sultana, M.S., Hossain, S., Hasan, M.T., Ahmed, H.U., Sikder, M.T., 2020. The impact of COVID-19 pandemic on mental health & wellbeing among homequarantined Bangladeshi students: A cross-sectional pilot study. *J. Affect. Disord*. 277, 121–128.

- Kidd, S.A., 2004. 'The walls were closing in and we were trapped' a qualitative analysis of street youth suicide. Youth Soc. 36 (1), 30–55.
- Kidron, C.A., Kirmayer, L.J., 2019. Global mental health and idioms of distress: the paradox of culture-sensitive pathologization of distress in Cambodia. *Cult. Med. Psychiatry* 43 (2), 211–235.
- Kohrt, B., Hruschka, D., 2010. Nepali concepts of psychological trauma: the role of idioms of distress, ethnopsychology and ethnophysiology in alleviating suffering and preventing stigma. Cult. Med. Psychiatry 34 (2), 322–352.
- Kohrt, B.A., Rasmussen, A., Kaiser, B.N., Haroz, E.E., Maharjan, S.M., Mutamba, B.B., de Jong, J.T., Hinton, D.E., 2014. Cultural concepts of distress and psychiatric disorders: literature review and research recommendations for global mental health epidemiology. *Int. J. Epidemiol.* 43 (2), 365–406.
- Kola, L., Kohrt, B.A., Hanlon, C., Naslund, J.A., Sikander, S., Balaji, M., Benjet, C., Cheung, E.Y.L., Eaton, J., Gonsalves, P., Hailemariam, M., Luitel, N.P., Machado, D. B., Misganaw, E., Omigbodun, O., Roberts, T., Salisbury, T.T., Shidhaye, R., Sunkel, C., Ugo, V., van Rensburg, A.J., Gureje, O., Pathare, S., Saxena, S., Thornicroft, G., Patel, V., 2021. COVID-19 mental health impact and responses in low-income and middle-income countries: reimagining global mental health. *Lancet Psychiatry* 8 (6), 535–550.
- Lama, P., Hamza, M., Wester, M., 2020. Gendered dimensions of migration in relation to climate change, *Https://Doi.Org/10.1080/17565529.2020.1772708*, Taylor & Francis, Vol. 13 No. 4, pp. 326–336.
- Lambo, T.A., 1960. Further neuropsychiatric observations in Nigeria, with comments on the need for epidemiological study in Africa. Br. Med. J. 2 (5214), 1696–1704.
- Lau, L.S., Samari, G., Moresky, R.T., Casey, S.E., Kachur, S.P., Roberts, L.F., Zard, M., 2020. COVID-19 in humanitarian settings and lessons learned from past epidemics. Nat. Med. 26 (5), 647–648.
- Leclerc, Q.J., Fuller, N.M., Knight, L.E., Group, C.C.-19 W., Funk, S., Knight, G.M., 2020.
 What settings have been linked to SARS-CoV-2 transmission clusters?, Wellcome Open Res. 2020 5:83, F1000 Research Limited, Vol. 5, p. 83.
- Lehti, A.H., Johansson, E.E., Bengs, C., Danielsson, U., Hammarström, A., 2010. "The Western Gaze"—an analysis of medical research publications concerning the expressions of depression, focusing on ethnicity and gender. Health Care Women Int. 31 (2), 100–112.
- Li, J., Yang, Z., Qiu, H., Wang, Y., Jian, L., Ji, J., Li, K., 2020. Anxiety and depression among general population in China at the peak of the COVID-19 epidemic. World Psychiatry 19 (2), 249.
- Liu, Y., Liu, Y., Lin, Y., 2021. Upward or downward comparison? Migrants' socioeconomic status and subjective wellbeing in Chinese cities. Urban Stud. J. Limited 58 (12), 2490–2513.
- Mallet, Y., Pivette, M., Revest, M., Angot, E., Valence, M., Dupin, C., Picard, N., Brelivet, G., Seyler, T., Ballet, S., Le Tertre, A., Guillois, Y., 2021. Identification of workers at increased risk of infection during a COVID-19 outbreak in a meat processing plant, France, May 2020. Food Environ. Virol. 13 (4), 535–543.
- Marazziti, D., Cianconi, P., Mucci, F., Foresi, L., Chiarantini, I., della Vecchia, A., 2021.
 Climate change, environment pollution, COVID-19 pandemic and mental health. Sci.
 Total Environ. 773, 145182.
- Mayston, R., Frissa, S., Tekola, B., Hanlon, C., Prince, M., Fekadu, A., 2020. Explanatory models of depression in sub-Saharan Africa: synthesis of qualitative evidence. Soc. Sci. Med., Pergamon 246, 112760.
- Mena, G., Martinez, P., Mahmud, A., Marquet, P., Buckee, C., Santillana, M., 2021, Socioeconomic status determines COVID-19 incidence and related mortality in Santiago, Chile, Science (New York, N.Y.), Science, Vol. 372 No. 6545, available at: https://doi.org/10.1126/SCIENCE.ABG5298.
- Middleton, J., Reintjes, R., Lopes, H., 2020. Meat plants—a new front line in the covid-19 pandemic, BMJ, Br. Med. J. Publishing Group, Vol. 370, available at: https://doi.org/10.1136/BMJ.M2716.
- Mukhtar, S., 2020. Pakistanis' mental health during the COVID-19. *Asian J. Psychiatry* 51, 102127.
- Nichter, M., 2010. Idioms of distress revisited. Culture, Med., Psychiatry 34 (2), 401–416
- Raguram, R., Weiss, M.G., Keval, H., Channabasavanna, S.M., 2010. Cultural dimensions of clinical depression in Bangalore, India, *Http://Dx.Doi.Org/10.1080/* 13648470120063889, Taylor & Francis Group, Vol. 8 No. 1, pp. 31–46.
- Raju, E., 2020. Five years post-Sendai: where is the Sendai Framework for Disaster Risk reduction in the COVID-19 response? *Disaster Prevent. Manage.: Int. J.* 29 (4), 421–423.
- Raju, E., Ayeb-Karlsson, S., 2020. COVID-19: How do you self-isolate in a refugee camp? Int. J. Public Health 65 (5), 515–517.

- Raju, E., Dutta, A., Ayeb-Karlsson, S., 2021. COVID-19 in India: who are we leaving behind? Progr. Disaster Sci. 10, 100163.
- Raju, E., Boyd, E., Otto, F., 2022. Stop blaming the climate for disasters. Commun. Earth Environ. 3 (1), 1-2.
- Rechsteiner, K., Maercker, A., Heim, E., Meili, I., 2020. Metaphors for trauma: a cross-cultural qualitative comparison in Brazil, India, Poland, and Switzerland. J. Traumatic Stress 33 (5), 643–653.
- Rhodes, J., Chan, C., Paxson, C., Rouse, C.E., Waters, M., Fussell, E., 2010. The impact of hurricane Katrina on the mental and physical health of low-income parents in New Orleans. Am. J. Orthopsychiatry 80 (2), 237–247.
- Samuel, C.A., Ortiz, D.L., 2021. 'Method and meaning': storytelling as decolonial praxis in the psychology of racialized peoples. *New Ideas Psychol.* 62, 100868.
- Schewel, K., 2019. Understanding Immobility: Moving Beyond the Mobility Bias in Migration Studies, 54. SAGE PublicationsSage, CA: Los Angeles, CA, pp. 328–355. https://doi.org/10.1177/0197918319831952.
- Shi, L., Chu, E., Anguelovski, I., Aylett, A., Debats, J., Goh, K., Schenk, T., Seto, K.C., Dodman, D., Roberts, D., Roberts, J.T., VanDeveer, S.D., 2016. Roadmap towards justice in urban climate adaptation research. Nat. Clim. Change 6 (2), 131–137.
- Shim, R.S., Starks, S.M., 2021. COVID-19, structural racism, and mental health inequities: policy implications for an Emerging Syndemic. PS 72 (10), 1193–1198.
- Sultana, F., 2021. Climate change, COVID-19, and the co-production of injustices: a feminist reading of overlapping crises, 22. Routledge, pp. 447–460. https://doi.org/ 10.1080/14649365.2021.1910994.
- Szaboova, L., Safra de Campos, R., Adger, W.N., Abu, M., Codjoe, S.N.A., Franco Gavonel, M., Das, S., Siddiqui, T., Rocky, M.H., Hazra, S., 2022. Urban sustainability and the subjective well-being of migrants: the role of risks, place attachment, and aspirations. Populat. Space Place 28 (1).
- Tarsafi, M., Kalantarkousheh, S.M., Lester, D., 2015. The defeat-entrapment theory versus Beck's hopelessness theory of depression and suicidality: a cross-national analysis in Iran and the United States. *Int. J. Soc. Psychiatry* 61 (8), 777–780.
- The Lancet, 2020. Redefining vulnerability in the era of COVID-19. The Lancet 395 (10230), 1089.
- The Lancet Global Health, 2020. Mental health matters. The Lancet Global Health 8 (11), e1352. https://doi.org/10.1016/S2214-109X(20)30432-0.
- Tol, W.A., Ebrecht, B., Aiyo, R., Murray, S.M., Nguyen, A.J., Kohrt, B.A., Ndyanabangi, S., Alderman, S., Musisi, S., Nakku, J., 2018. Maternal mental health priorities, help-seeking behaviors, and resources in post-conflict settings: a qualitative study in eastern Uganda. BMC Psychiatry 18 (1).
- Tschakert, P., Ellis, N.R., Anderson, C., Kelly, A., Obeng, J., 2019. One thousand ways to experience loss: a systematic analysis of climate-related intangible harm from around the world. *Global Environ. Change* 55, 58–72.
- Tschakert, P., Neef, A., 2022. Tracking local and regional climate im/mobilities through a multidimensional lens. Reg. Environ. Change 22, 95. https://doi.org/10.1007/ s10113-022-01948-6.
- Wahid, S.S., Sarker, M., Arafat, A.S.M.E., Apu, A.R., Kohrt, B.A., 2021. Tension and other idioms of distress among slum dwelling young men: a qualitative study of depression in Urban Bangladesh. Culture, Med., Psychiatry 1–33.
- Wai-Chi Chan, S., Levy, V., Chung, T.K., Lee, D., 2002. A qualitative study of the experiences of a group of Hong Kong Chinese women diagnosed with postnatal depression. J. Adv. Nurs. 39 (6), 571–579.
- UNDP, 2014. International Migration Policies: Government Views and Priorities 30
 United Nations Department of Economic and Social Affairs | Population Division, available at: http://esa.un.org/poppolicy/about_database.aspx/. (accessed 23 November 2021).Â.
- Weinstein, J.N., Geller, A., Negussie, Y., Baciu, A., 2017. Communities in Action: Pathways to Health Equity, Communities in Action: Pathways to Health Equity, National Academies Press, available at: https://doi.org/10.17226/24624.
- White, S.C., 2010. Analysing wellbeing: a framework for development practice. Development in Practice 20 (2), 158–172. https://doi.org/10.1080/ 09614520903564199.
- White, R.G., Orr, D.M.R., Read, U.M., Jain, S., 2017. Situating global mental health: sociocultural perspectives. In: White, R.G., Jain, S., Orr, D.M.R., Read, U.M. (Eds.), The Palgrave Handbook of Sociocultural Perspectives on Global Mental Health. Palgrave Macmillan UK, London, pp. 1–27.
- Yap, P.M., 1958. Suicide in Hong Kong. J. Mental Sci. 104 (435), 266–301.
- Yap, P.M., 1967. Classification of the culture-bound reactive syndromes. Aust. N. Z. J. Psychiatry 1 (4), 172–179.
- Zickgraf, C., 2019. Keeping people in place: political factors of (im)mobility and climate change. Social Sci. 8 (8), 228. https://doi.org/10.3390/socsci8080228.