Self-Reliance in Disaster Recovery: A Systematic Literature Review 1990-2019

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Community and governmental agencies often address disaster recovery and resilience. However, few studies focus on how to achieve self-reliance and use the psychological resources within to be adaptive and resilient in disaster recovery. This systematic literature review explores models of self-reliance in disaster recovery and resilience in order to (1) identify the range of publications on the topic in the literature, and (2) to identify the range of constituent elements that have been proposed as contributing to the idea of self-reliance and self-help as a subset of individual psychological and trait resilience in disaster recovery contexts. The systematic literature review found three elements of individual resilience in the study: faith, religious practices, and psychological capital, all of which may contribute to self-reliance and self-help as a subset of individual psychological and trait resilience in disaster recovery. The findings of this study may assist with utilizing strengths that can improve the activation of individual response and resilience in disaster recovery contexts.

Keywords: Resilience, disaster recovery, pandemic, faith, self-reliance.

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Millions of people are affected by disasters that cause death and injury and loss of possessions and community each year (González, Santos, and London 2021; Kosugi, Baba, and Tanaka 2020). The scale, frequency, and complexity of damage caused by disasters often slow down the process of recovery. Disaster recovery reflects the differential process of restoring, rebuilding, and reshaping the physical, social, economic, and natural environment—through pre-event planning, and post-event actions (Smith and Wenger 2007; Southwick and Charney 2018). Disaster recovery is often a stated mission of government and public disaster management agencies, along with prevention, protection, mitigation, and response (COAG 2011).

An often-stated goal of the disaster recovery process is for all disaster stakeholders—such as public agencies, nongovernmental organizations (NGOs), and other community-based groups—to work together to revitalize and restore devastated communities (Fleming et al. 2020; Oloruntoba, Sridharan, and Davison 2018; Smith, Martin, and Wenger 2018; Smith and Birkland 2012). Another aim of a united community approach to recovery is to help develop individual and community resilience, as well as develop adaptive capacities required to better withstand future disasters through the development of inbuilt capacities to adapt to hazards (Manyena 2006a; 2006b; Mortreux and Barnett 2017; Norris et al. 2008). As a result, it may be argued that a pre-disaster resilient individual or community can shorten or end the recovery process more quickly than a non-resilient individual or community. Additionally, this may be further supported if they have built community and social capital, and possess enhanced social connectedness; all of which can speed up and enhance the recovery process (Landau and Saul 2004; Patel et al. 2017).

Overall, individual and community disaster recovery is a complex nonlinear process. It involves material and physical dimensions, as well as individual, social, economic, and institutional dimensions that are often rooted in systems and decision theory (Abramson et al. 2010; Johnson and Hayashi 2012). These dimensions are therefore applicable for developing management approaches for the disaster recovery process (Abramson et al. 2010; Johnson and Hayashi 2012; Liu and Ni 2021). In addition, disaster recovery, whether at the individual or community level, could have an ill-defined endpoint and no agreed-upon measure of success (Rubin, Saperstein, and Barbee 1985).

As a result, self-reliance seems to have become a point of great interest among disaster stakeholders in the pursuit of resilience. Similarly, attention has shifted to how best to help individuals and communities to help themselves because of the challenges of inadequate resources in disaster management. Hence, attention has shifted to understanding the factors that contribute to making an individual self-reliant and self-resilient in disasters, and how to encourage individuals to look inwards to self.

In addition, to speed up the recovery process and address long-term displacement, some advocate for novel, integrated solutions that empower individuals to look inwards to self

rather than relying on, or waiting for government (e.g., COAG 2011). In fact, as the ability of the government to assist those in need becomes thinly stretched, the inadequacy of government resources raises significant challenges for disaster management authorities regarding hazard preparation and recovery, sheltering in place, and evacuation procedures. For example, Australian disaster management policy and practice emphasizes individual self-reliance when preparing for or recovering from a natural hazard (COAG 2011). Similarly, in Canada, the official emergency preparedness guide urges families to "be prepared to take care of yourself and your family for a minimum of 72 hours" if an emergency happens in their community because "it may take emergency workers some time to reach you" (Public Safety Canada 2012:3). Thus, attention has shifted to understanding the factors that contribute to making an individual self-reliant and self-resilient in disaster and how individuals can be made to look inwards to self. This is why this systematic literature review explores models of self-reliance in disaster recovery and resilience to identify publications on the topic, and the constituent elements that contribute to self-reliance and self-help as a subset of individual psychological and trait resilience in disaster contexts.

Another justification for this systematic literature review is that, in 2014, the then top United Nations (UN) bureaucrat responsible for the coordination of international humanitarian affairs and emergency relief noted that "the world's collective response capacity and resources are being stretched to the limit" by the sheer number of disasters that had occurred in 2013. Therefore, attention is being focused on how to help communities to help themselves (UN 2014). This focus is echoed by governments, industry, NGOs, and charitable organizations as the discourse has been changed from *disaster vulnerability* to *disaster resilience* (Cutter et al. 2008). At this point, it is important to clarify the key terms used in the paper before exploring the models of self-reliance in disaster recovery and resilience, and identifying constituent elements proposed as contributing to self-reliance and self-help in the context of individual psychological and trait resilience in disasters.

KEY TERMS OF THE REVIEW

Resilience

In general, resilience refers to the capacity of an individual or a community to absorb the impact of a disturbance, return to the state that existed before the disturbance, and advance to a more capable position through learning and adaption (Cutter et al. 2008; Oloruntoba 2015). Such returning to the *state that existed before the disturbance* may be accomplished through an adaptation (i.e., a changed nature), or a return to what it was before the disturbance, which can be described as a *rubber band effect* (Ellis et al. 2017; Patel et al. 2017). This suggests that resilience facilitates a quicker recovery.

Psychological Resilience

Psychological resilience at the individual level has been defined as effective coping, and adaptation in the face of adversity (Ogińska-Bulik and Michalska 2020). It is the ability to *bounce back* or recover from stress. Individual psychological resilience is manifested as persistence and flexible adaptation to the demands of life, and ability to take remedial actions in difficult situations, and a tolerance of negative emotions and failures (Ogińska-Bulik and Michalska 2020). It is also the ability to successfully respond to risks, major changes, or adversities. Several definitions of psychological resilience have adversity, positive adaptation, and risk/uncertainty as key themes (e.g., Duchek 2018). The terms individual resilience and psychological resilience are often used interchangeably in the literature and share similar characteristics.

Trait Resilience

There is a trait perspective in studies of individual and psychological resilience (Hu, Zhang, and Wang 2015). Trait resilience is a commonly used term in the psychology and mental health literature (Bensimon 2012; Hu et al. 2015; Waugh, Thompson, and Gotlib 2011). The term often relates to psychological resilience, and individual resilience regarding mental health, and overall individual resilience (Bensimon 2012; Hu et al. 2015; Waugh et al. 2011). This trait perspective of individual and psychological resilience suggests that resilience is a personal trait that helps individuals cope with adversity and achieve good adjustment and development (Hu et al. 2015). Scholars who support this view see resilience as a personality trait that protects individuals against the impact of adversity or traumatic events such as disaster recovery contexts (e.g., Connor and Davidson 2003; Ong et al. 2006).

There is also an outcome-oriented view of individual and psychological resilience, which regards individual and psychological resilience as a behavioral outcome or functioning of the individual that helps them conquer and recover from adversity (e.g., Harvey and Delfabbro 2004; Masten 2001). Lastly, there is the process-oriented view that sees individual and psychological resilience as a dynamic process in which individuals adapt actively and dynamically, and rapidly recover from trauma and adversities (e.g., Fergus and Zimmerman 2005; Luthar, Cicchetti, and Becker 2000).

It seems that because of the close similarity in meaning, the terms of psychological resilience, individual resilience, and trait resilience are used interchangeably, and often treated as one in the literature (Taormina 2015). Individual psychological and trait resilience may have some similarities with the psychological resilience features of the self-help and self-reliance concepts. The definition and concept of trait resilience, in particular, seems closely related to the concepts of self-help and self-reliance in which individual, trait, and psychological resilience is a behavioral outcome or functioning of the individual that helps them conquer and recover from adversity.

Self-Help

The self-help literature in cultural and psychological studies argues that individuals can exercise control and mastery of themselves and their lives, another personality trait that helps individuals against the impact of adversity or traumatic events such as disasters (Rimke 2000). Under the self-help concept, individuals are fully responsible for their failures as well as their successes, their despair as well as their happiness (Rimke 2000). Proponents of self-help argue that individuals should understand themselves in terms of psychological adjustment, fulfillment, good relationships, self-actualization, personal growth, agency, self-esteem, and empowerment (Ward 1996). Personal power is generally perceived as inherent in every individual and is assumed to constitute the site of all self-control, progress, and advancement (Beattie 1987; Covey 1989; Jeffers 1996). The self-help literature describes the *self* as a united center of the personal agency that can act upon itself, others, and the world. It sees the individual as an inner reservoir of power that can be accessed. Discourses such as these assume that *power* is an independent *thing*, internally located and available for possession (Moore 1992). Conversely, to compromise one's personal power or agency is to lose one's force, to become weak, and to permit others to have power over one's self. The self-help literature spur individuals on to how to operate the power in their everyday lives, and the governance of self (Prochaska, Norcross, and DiClemente 1994).

Self-helpers must be experts in their own subjection, in organizing and sustaining a stable operating unity among the many divergent effects of selfhood. Self-help is thus an individualized voluntary enterprise, an undertaking to improve, alter, reform, or transform the self, or some *intrinsic* aspect of the self (Prochaska et al. 1994). The self-help literature presents individual agency as a free moral and ethical decision (Beattie 1987). It is presumed as individualistic and voluntary, based upon notions such as choice, autonomy, freedom, and individuality while entailing self-modification, self-empowerment, and self-improvement (Prochaska et al. 1994).

Self-help techniques do not operate passively but by positive, proactive, and productive application. This suggests intense accountability, responsibility, and sense of obligation that each individual must deploy for daily choices and decisions (Jeffers 1996). This may include drawing upon others or other resources external to the individual (Jeffers 1996).

While the concept of self-help in psychological and cultural studies teaches an individual to rely almost exclusively on themselves, it simultaneously teaches the individual to improve and demonstrate agency when necessary by relying on an expert other (such as a psychologist or psychotherapist) to become more of an expert in some aspect of their selfhood or to draw upon externally located resources (Rose and Miller 1992). The self-help literature seems to exalt the individual over the social or the group (Rimke and Brock 2012). Although, this does not preclude an individual from drawing from externally held resources. While some view individuals and individualism as the product of historical, evolutionary, cultural, and intersecting social processes, advocates of the concept of self-help (and accompanying

individuality) assume the social world to be the sum aggregation of atomized, autonomous, and self-governing individual persons (Rimke 2000). Thus, this systematic literature review explores models of self-reliance and resilience in disaster recovery, identifies the range of publications in the area, and the range of constituent elements proposed as contributing to self-reliance and self-help in the subset of individual psychological/trait resilience.

Disaster Resilience

Disaster resilience is the ability to manage change, by maintaining, or transforming living standards in the face of shocks or stresses—such as earthquakes, drought, or violent conflict—without compromising long-term prospects (Houston and Buzzanell 2018; DFID 2011). It is about living standards bouncing back and being sustained after a disruption or disaster, with various disciplines attending to various facets of the phenomenon.

Community Resilience

Community resilience describes the collective ability of a neighborhood, or geographically defined area to deal with stressors, and efficiently resume the rhythms of daily life through cooperation following shocks (Frounfelker et al. 2020). It is focused on the ability of groups of people to access resources at many levels to function well despite facing adversities. It is a process by which groups of individuals collectively access and exhibit resources that allow them to attain positive outcomes in the face of volatility and stress (Aldrich and Meyer 2015).

Disaster or community resilience is often perceived as a more positive and proactive expression of individual and community engagement with natural hazard reduction (Cutter et al 2008:598). The term *disaster* is defined by the UNDRR (2009) as a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. Hence, self-reliance seems to have become a point of interest among disaster stakeholders in the pursuit of resilience. Attention has shifted to how best to help individuals and communities to help themselves because of inadequate resources in disaster management. Attention has also shifted to understanding what factors contribute to making an individual self-reliant and self-resilient in disaster and how individuals can be made to look inwards to self. This is the rationale for this systematic literature review of models of self-reliance and resilience that identifies the constituent elements of self-reliance and self-help in disaster contexts.

Self-Reliance

Self-reliance is defined as "relying on one's own abilities, decisions, and resources rather than depending on assistance from others" (Astill and Miller 2018:7). There are

several variations of the concept in disaster recovery and resilience building, and individual models of self-reliance in recovery have been variously referred to as: *self-labor*, *self-employment*, *self-work*, *self-dependence*, *self-management self-transformation*, *self-practices*, *self-provisioning*, *self-confidence*, *self-therapy*, *self-improvement*, *self-support*, *self-reinforced*, *self-employment*, *self-optimization*, and *micro-human efforts*.

The focus on self-reliance has also been referred to as the *self-help* approach to disaster and emergency management (Abramson et al. 2010). This view originates from the thinking that a disaster-resilient community is one in which individuals and communities should be self-reliant and prepared to adapt or respond to the risks and hazards they live with (Astill and Miller 2018; COAG 2011). However, people who suffer the most severe consequences of disasters often have very little social, economic, or political control, and are often born at the bottom of an unequal world (Bergstrand et al. 2015). They may not be able to help or rely on themselves without external help (Bergstrand et al. 2015).

Themes of self-reliance and individualism involve the freedom to commit as well as freedom from commitment, all of which rest on a sense of agency. Agency is the idea that individuals have control throughout their lives, although this may not be true in all traumatic or disaster situations. To be self-reliant is to speak of the potential for an individual to have it in themselves to fulfill whatever needs to be done. For instance, the concept of self-reliance entails the unfailing sanctity of the inward initiative and involvement of the individual in the decisions, activities, and outcomes of their life. Self-reliance emphasizes the essential uniqueness which resides in each individual and asserts that true fulfillment transcends rationality, science, and societal customs. UNHCR (2006:1) defines self-reliance as "the social and economic ability of an individual, a household or a community to meet essential needs in a sustainable manner." The definition is based on the view that refugees, for instance, have the skills, capacity, and agency to stand on their own and sustain themselves without depending on external humanitarian aid (Easton-Calabria and Omata 2018; Omata 2017). For instance, the UNHCR Handbook for Self-Reliance states that self-reliance is an integral and underpinning part of any durable solution to caring for refugees (UNHCR 2006), and self-reliance should be promoted in all phases of refugee assistance. However, in practice, those who are often affected by disasters are often the most vulnerable in our unequal world.

The self-reliance perspective moves disaster management responsibility from the government and places it firmly with the individual. Hence, the term *self-help* assumes that individuals have the required material and psychological resources within them to be adaptive and resilient. Micro-human efforts, including self-help or self-reliance approaches to recovery, have been said to be based on the physical and psychological resources of individuals in communities impacted by disasters (Astill and Miller 2018; Wild, Wiles, and Allen 2013). Such models of self-help and self-reliance have described personal tacit inner psychological, trait, motivational, as well as material resources as essential criteria for individual recovery. Thus, individual self-help and self-reliance recovery efforts

collectively become an integral and holistic mechanism for communities to adapt in order to achieve a post-disaster *new normal* and beyond.

Furthermore, personal-psychological resources are assumed to provide strength, motivation, and encouragement to the disaster impacted and displaced to explore inner psychological reserves that are not often deployed. Leveraging such micro-human efforts, inner motivations, and resources is assumed to enable impacted and displaced individuals to proactively take responsibility and find urgent solutions and resources to facilitate quicker personal recovery, and ultimately, collective or community recovery and allied processes (Fast 2019). These expectations assume that each individual is adaptive, resourceful, and capable of being responsible for themselves during the three consecutive but overlapping stages of a disaster, i.e. the pre-, trans-, and post-disaster stages. This is another reason why in this systematic literature review we explore models of self-reliance and resilience, identify available publications on the topic, and constituent elements contributing to self-reliance and self-help in disaster contexts.

In addition, while the self-help approach has been criticized by some as an individualistic interpretation of resilience that removes state responsibility for risk and hazard management (Wild et al. 2018), relatively few scholars have researched the concept. Indeed, the self-help and self-reliance perspective of disaster recovery and resilience has never been explored through a systematic literature review, or from a multidisciplinary, cross-disciplinary, or inter-disciplinary perspective (i.e., psychology, medical, disaster studies, public health, and natural hazards). We think it is important and timely to seek to understand the constituent elements that contribute to making an individual self-reliant and self-resilient to help themself in disaster recovery contexts. We also think it is important to deepen understanding of how individuals can be made to look inwards to self.

We believe that attainment of psychological, individual, and trait resilience together contributes toward the attainment of community and disaster resilience. Although, some view individuals and individualism as the product of historical, evolutionary, cultural, and intersecting social processes; advocates of self-help and self-reliance, and accompanying individuality assume the social world to be the sum aggregation of atomized, autonomous, and self-governing individual persons (Rimke 2000). Hence, if individuals possess and/or access required self-help and self-reliant resources, and they exhibit self-help and self-reliance, they would be demonstrating individual resilience. Thus, when they collectively exhibit self-help and self-reliance, they would be demonstrating community resilience based on the concept of self-help (Rimke 2000).

This systematic literature review explores self-reliance models in disaster recovery and resilience. It identifies publications on the subject and identifies constituent elements proposed as contributing to self-reliance and self-help as a subset of individual psychological and trait resilience in disaster recovery contexts. In other words, the paper explores what is currently known/published about the concept of self-reliance/self-help as a subset of individual psychological and trait resilience to identify their constituent elements, and its wider resilience and quicker recovery potential.

AIMS

This systematic literature review explores models of self-reliance in disaster recovery and resilience in order to identify the range of publications on the topic in the literature and to identify the range of constituent elements that have been proposed as contributing to the idea of self-reliance and self-help as a subset of individual psychological and trait resilience in disaster contexts. We conducted a systematic literature review relating to self-reliance models of disaster recovery and their constituents. Specifically, the review is focused on the idea of self-help and self-reliance as a subcategory of individual, psychological, and trait resilience in disaster contexts. This allows for us to identify the range of publications on the topic present in the literature and to identify the range of constituent elements proposed as contributing to *self-help* and *self-reliance* in disaster contexts, which in turn may contribute to individual resilience and quicker disaster recovery. Hence, the research questions ask: (1) What are the models of self-reliance in disaster recovery and resilience emerging from research published in English? (2) What is the range of publications associated with the topic in this research? (3) What are the constituent elements that have been proposed as contributing to self-reliance and self-help as a subset of psychological and trait resilience in disaster recovery contexts?

METHODS

The study began a comprehensive systematic literature search in January 2020 and completed it in May 2020. The authors choose a comprehensive review that includes all study types in order not to miss out on any relevant scholarly publication. Scientific peer-reviewed articles, theses, conference papers, and grey literature in social science, business, and psychology databases up until April 2020 are included in this review.

Literature Search and Data Collection

Inclusion and Exclusion Criteria

We included all study types in the literature search (rather than only peer-reviewed journal articles) as a quality criterion to be comprehensive. We included any relevant study that examined post-disaster *self-reliance* in recovery and/or *self-resilient*, or *self-resilience*, and the search terms listed in the next section. We used a language criterion, with a language limiter applied in the search engine, and included studies written in or translated to English between 1990 and April 2020. These articles were all considered for inclusion in this review in all the databases used.

The following exclusion criteria were applied to address: (1) studies on groups/group resilience such as community resilience in post-disaster recovery; (2) studies on countries and national resilience in post-disaster recovery; and, (3) any study not examining individual or trait resilience in post-disaster recovery. Hence, irrelevant and peripheral articles where the main focus was on secondary or other areas were excluded.

Literature Search: Databases and Keywords

This article reports a systematic review based on the published conventions of the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) statement (Moher et al. 2009). Based on the eligibility criteria, the second author searched the databases. The literature was searched in several major academic databases between January and April of 2020. Databases searched included PsycINFO, PsycEXTRA, PubMed, ProQuest, Academic Search Complete, ABI/INFORM, ERIC, EBSCO, MEDLINE, and Google Scholar.

Google Scholar and additional records were identified from manually searching the reference lists of included studies. Google Scholar (http://scholar.google.com) provided an efficient way of finding end references of papers included in the review. It helped us quickly identify subsequent articles that cite a previously published article on the same topic and focus of our systematic literature review so we can check the content and make a decision as to whether to include or not.

An in-depth, extensive, and comprehensive literature search was conducted by the second author using a search strategy that included keywords related to the context of individual post-disaster recovery. We also selected keywords that reflect psychological, trait, and motivational resources in addition to physical and material resources that help the individual respond positively to displacement, trauma, or other adversity in disaster recovery. The literature search process consisted of repeatedly entering a set of keywords developed based on (1) resilience-related terms (i.e., self-reliance, self-resilient, self-resilience, and self-sufficient) and (2) impact-related terms (i.e., psycho-physiological, self-labor, self-work, self-dependence, spirituality, religiosity, faith, self-management, self-transformation, self-practices, self-provisioning, self-confidence, self-therapy, self-improvement, self-support, self-governance, micro-human efforts, self-reinforce, self-employment, and self-optimisation) together with another keyword of either (a) post-disaster recovery or (b) post-disaster.

Medical Subject Headings (MeSH) terms were included in the database searches. We subsequently updated the search for papers using the same strategy for papers published up to May 2020. We further supplemented our search in September 2020 with Akbar and Aldrich (2018), Bergstrand et al. (2015), and Bonanno et al. (2010).

Study Screening

After identifying records through database searching, all articles precipitated were exported to *Endnote,* with all duplicates and overlaps removed. The remaining articles were then uploaded to *Covidence*, a software tool for screening and extraction of data from articles, which was purposely developed for systematic reviews (Cochrane Central 2016; Covidence n.d.). Afterward, we read the abstracts, keywords, and titles of each article to establish whether a paper reported on the key variables of interest in the study.

Articles with sufficient information on the key variables were moved to a separate part of *Covidence* for full-text screening. After further review and evaluation of the full text of each article, articles that did not meet our eligibility criteria were excluded. At this point in the screening process, the reference lists of relevant/selected articles were examined to find out if there were other relevant and eligible articles that could be added to our inclusion list if our keywords were mentioned. We also read the relevant section to see if any of our keywords were discussed in relation to disaster recovery. Potentially relevant publications were all read in full. The first/lead author resolved any conflicts or differences in opinion as to which article to include or exclude through negotiation and consensus-building based on superior argument in the context of the goals of our paper.

Data Extraction: Selection and Coding

A data extraction table was designed, and the first author extracted data from the included studies using an Excel spreadsheet. Extracted data about each article included: author names; article aims and objectives; study design/approach; study population; type of data collection; and study findings. Both authors reviewed the extracted information to decide which papers meet the inclusion criteria. In addition, each study was assessed for quality using the STROBE statement (Von Elm et al. 2008), which means strengthening the reporting of observational studies in epidemiology (See Table 1).

Quality Assessment

We assessed all studies published in academic journals for quality using the JBI Critical Appraisal Tools. These tools have been developed by JBI and collaborators and approved by the JBI Scientific Committee following extensive peer review (JBI 2017). All included studies met the quality criteria. We excluded other forms of publication such as theses, reports, books, or book chapters from the quality assessment. The quality assessment ranged from one star to three stars: three stars indicating high quality.

Descriptions of the Pool

This systematic review identified 1,346 records in the search process described in the previous section, of which 466 were duplicates and only 252 articles were retrieved for a detailed, full-text assessment. Of these, 23 studies fulfilled the inclusion criteria, with 229 studies failing to do so. The most common reasons for the exclusion of articles were: (1) a focus exclusively on community resilience in post-disaster recovery; (2) not focusing on individual resilience; and, (3) not focusing on disaster contexts (or similar trauma) or adversity. The details and outcomes of the search process we undertook are presented in the PRISMA diagram in Figure 1.

Table 1. Descriptive Information for the Included Studies

Author	Quality appraisal	Study objective	Study design	Population and sample	Study findings
1. Abbott (2019)	***	To explore a middle ground, involving a nuanced methodological approach to theodicy.	Qualitative	100 participants	Faith being a helpful resource in recovering from their earthquake experience.
2. Ager, Fiddian-Qasmiyeh, and Ager (2015)	***	To examine the potential role of local faith communities in promoting resilience in contexts of humanitarian crisis.	Qualitative	313 publications; 10 stakeholders	Faith in God and prayers helped develop resilience after Hurricane Katrina.
3. Alawiyah et al. (2011)	***	To explore ways in which African American survivors of Hurricane Katrina talked about how spirituality and religion assisted them in adjusting in the aftermath.	Qualitative	73 African Americans	Religious practices such as praying, meditating, and reading the Bible were positive part of their recovery. Survivors also demonstrated resilience in their ability to maintain hope and optimism.
4. Aten et al. (2019)	**	To synthesize the existing empirical psychology of religion/spirituality and disaster research and offer a prospectus for future research.	Systematic review	51 publications	Faith in God and positive views of God had positive outcomes.
5. Augustine (2009)	**	To examine the various factors at the individual, family, and community level that helped the adult individuals survive the trans-oceanic tsunami which hit the coastal areas of India on December 26, 2004.	Qualitative	301 participants (quantitative); 8 participants (qualitative)	Believing in God and finding meaning in the loss helped develop resilience.
6. Chamberlain (2010)	**	To investigate religiosity, positive and negative religious social support, and positive and negative religious coping techniques resulting from exposure to Hurricane Katrina.	Quantitative	136 participants	Religiosity and positive religious coping were identified.
7. Chan, Rhodes, and Pérez (2012)	***	The study examined the pathways by which religious involvement affected the post-disaster psychological functioning of women who survived Hurricanes Katrina and Rita.	Quantitative	386 women	Religiousness provided a sense of optimism and purpose that might have helped the survivors.
8. Cherry, et al. (2018)	***	To summarize the extent of resilience among adults exposed to natural and technological disaster, and examine spiritual support and humor as coping resources that may be positively predictive of post-disaster resilience.	Quantitative	219 participants	Spirituality and humor, were all independently associated with resilience in the years after consecutive disasters.
9. Davis et al. (2019)	***	Explore the impact of natural disasters on religious attachment (perceived relationship with God) and religion-as-attachment model in a post-disaster context.	Qualitative	36 adult survivors	Actively putting trust/faith in God helped in coping post disaster.
10. Fernando and Hebert (2011)	***	To describe these coping mechanisms and resiliency factors and draws parallels between them to identify and illustrate core ideas of resiliency and coping.	Qualitative	14 participants	Faith in God, religious practice, sense of hope for the future were described as the most significant resources.
11. Fernando (2012)	***	The construct of resilience was examined in a South Asian community impacted by natural and human-made disasters.	Qualitative	43 participants	Strong will relating either to religious faith or to karma and psychosocial gratitude.
12. Iacoviello and Charney (2020)	***	Review the psychosocial factors most strongly associated with resilience.	Book chapter	N/A	Cognitive and behavioral components of psychosocial factors associated with resilience include optimism, physical health, cognitive flexibility, and active coping skills.

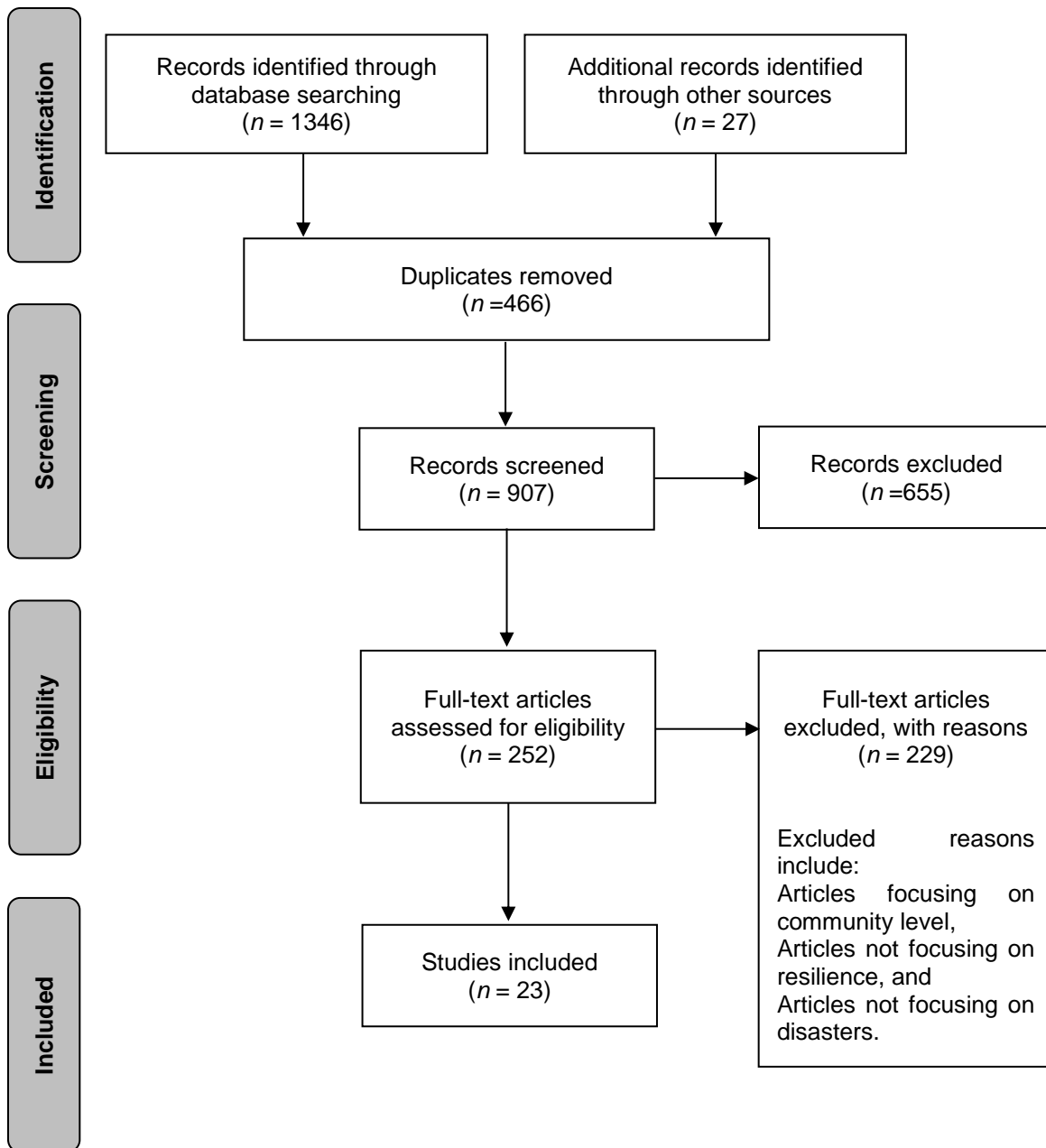| Author	Quality appraisal	Study objective	Study design	Population and sample	Study findings
13. Kono and Burton (2019)	***	This study examines the applicability of one of the leading therapeutic recreation models, the leisure and well-being model, to post-disaster life contexts.	Qualitative	25 Japanese participants	Gratification, authenticity, mindfulness, and virtuousness were pertinent to survivors' post-disaster experiences.
14. Llamas (2014)	***	To explore the role of resilience in the aftermath of a gas pipeline explosion.	Mixed-methods	146 participants	Faith and perseverance were pertinent in resilience.
15. Lovejoy (1994)	***	To investigate the psycho-spiritual phenomenon of trust in self, others, and God and its influences on adult survivors during and after Hurricane Iniki, which hit Kauai, Hawaii, on September 11, 1992.	Qualitative	32 adult survivors	Trust greatly reduced fear and helped survivors perceive positive meaning in the hurricane and experience significant growth afterwards.
16. Maltais and Gauthier (2009).	***	To identify the consequences of a flood on the physical and psychological health of senior citizens and the impact of such an event on their values and beliefs.	Mixed-methods	106 elderly survivors	Post-disaster recovery produced confidence or optimism toward the future and developed personal resources such as autonomy and resourcefulness. Belief in God and prayers were protective factors in the aftermath.
17. Mann et al. (2018)	***	This study evaluates the wellbeing of individuals living in temporary housing within Fukushima.	Qualitative	7 participants	Optimistic and future-oriented after the disaster. These resilient mind-sets were personified in action: all engaged in hobbies, critical for their emotional wellbeing.
18. Marks, Cherry, and Silva (2009)	***	Address how young, middle age, older, and oldest-old adults coped with and made meaning of Hurricanes Katrina and Rita during the storms and their aftermath.	Qualitative	72 adults	Gratitude, optimism and personal psychological strength to cope in the aftermath of a disaster.
19. Mason (2019)	***	Explored the ways in which survivors have made meaning of their lived experiences and coped with the primary and secondary stressors related to the storm.	Mixed-methods	8 children	Adaptive coping strategies, personal strengths and acceptance helped in coping.
20. McGeehan (2014)	***	Explores the religious aspects of the disaster experience among a range of faith communities across the Hawaiian Islands.	Qualitative	26 participants	Prayer, chanting or meditation were coping mechanisms in the aftermath of a disaster.
21. Niaz (2006)	**	Role of faith & resilience in recovery from traumatic events	Literature review	N/A	Faith in God, optimism, perseverance, faith, expression of emotions and self-confidence and hope was a major factor in strengthening resilience and promoting recovery from traumatic stress disorders.
22. Tausch et al. (2011)	***	To consider the intersection of religious coping and the experience of Hurricanes Katrina and Rita in a lifespan sample of adults living in south Louisiana during the 2005 storms.	Qualitative	72 participants	Bible reading and prayers to God were salient in coping.
23. Wilkinson (2015)	**	Explores the role of faith in building resilience in the context of the response to Super Typhoon Haiyan.	Mixed-methods	154 participants	Faith, spiritual (understandings of the divine in disaster), psychological (feeling strong and not losing sense of oneself), and intellectual (increasing knowledge of hazards) helped them to be resilient.

Figure 1. PRISMA Flow Diagram for the Study

Literature Types

The 23 publications we found based on our search comprise qualitative papers ($n = 13$), quantitative papers ($n = 3$), review papers ($n = 2$), mixed methods studies ($n = 4$), and book chapters ($n = 1$).

Study Areas

The studies we found and the supplementary articles we manually included were conducted in 11 countries: the USA ($n = 17$), and one each from Sri Lanka, Canada, Japan, Philippines, Pakistan, and Haiti. The publication dates were between 1990 and 2020.

Samples and Data Collection Techniques Deployed

Participants recruited in the studies ranged from 25 to 386, some including children, adults, and elderly adults. Interviews deploying semi-structured interview guides and questionnaires were the data collection techniques of choice most deployed. Questionnaires were deployed in the cross-sectional studies. The main themes we found included (a) a focus on scale development, and attempts at measuring the level of various stressors and barriers after disaster trauma, and (b) a focus on the components of motivational, psychological, material, and social capital resources that contribute towards self-help, self-reliance and individual resilience.

Overview of the Principal Findings

This systematic literature review explores models of self-reliance in disaster recovery to identify publications on the topic and identify the constituent elements that have been proposed as contributing to self-reliance and self-help as a subset of individual traits and psychological resilience in disaster recovery contexts. First, we discuss the traumatic events that call for and trigger the need for demonstration of *self-reliance and self-help* as a subset of individual psychological and trait resilience in disaster recovery, and publications on the topic. Second, we discuss the facilitators and constituent elements of self-help, self-reliance, and individual resilience and publications on the topic.

Some studies highlight *resource loss* as a key contributor to stress, with *stress* also as a key barrier to self-help, self-reliance, and individual resilience, which further slows down recovery. Indeed, some studies we found also developed scales and tried to measure resource loss and the level of stress that individuals face after a traumatic event or disaster. Nonetheless, such *stress* and *resource loss* barriers are also the triggers that bring the inner motivational and psychological resources of the individual to the surface. It is the stress and loss arising from disasters that trigger the demonstration of self-reliance and self-help activities. There would be no need for self-reliance and self-help without resource loss and stress arising from the aftermath of a disaster. The demonstration of such activities is evidence of tacit individual psychological and trait resilience as disasters are stressful and traumatic resource loss events for individuals.

RESULTS

Individual Stressors and Barriers to Recovery

Resource Loss, Stress, and Associated Scales

Resource loss has been identified as a key catalyst for stress and a key barrier to self-help, self-reliance, and individual resilience, which further slows down individual recovery after a traumatic or disaster event (Chamberlain 2010; Chan et al. 2012). Resource loss during, and in the aftermath of disasters, is found to lead to stress among individuals impacted by traumatic events, especially in disaster contexts. Studies have found that when

individuals experience disasters they report a greater amount of psychological stress. Such stress inhibits the ability to self-help and to be self-reliant. Sattler (2006) found that among participants that experienced earthquakes, there were huge resource losses such as energy (e.g., money, insurance), and personal characteristic loss (i.e., loss of dignity and personal identity). Four types of resources are often lost in disasters: object resources (e.g., furniture, home, car,); condition resources (e.g., social roles, marriage, employment); personal characteristic resources (e.g., age, locus of control, self-esteem, knowledge, skills); and energy resources (e.g., money, insurance). Resource loss can lead to loss or weakened optimism, disruptions in accomplishing goals, and a sense of loss of control (Chamberlain 2010), all of which inhibit the ability to self-help and be self-reliant.

There have also been attempts to measure individual stress after a traumatic or disaster event as well as to find factors that contribute to stress. For example, the abbreviated Perceived Stress Scale (Chan et al. 2012), the Brief RCOPE, the Post Traumatic Stress Disorder (PTSD) Checklist (Chamberlain 2010). The Brief RCOPE, for instance, is a 14-item measure of religious coping with major life stressors. Another scale, the K6 scale for example, is a six-item measure of nonspecific psychological distress (Kessler et al. 2003). It is a self-report measure of psychological distress intended to be used as a quick tool to assess risk for serious mental illness in the general population. It includes items such as "During the past 30 days, about how often did you feel so depressed that nothing could cheer you up?" Respondents were asked to rate by using a five-point Likert scale (Chan et al. 2012).

On the other hand, the Connor-Davidson Resilience Scale (CD-RISC) is a test that measures individual resilience or how well one is equipped to bounce back after stressful events, tragedy, or trauma (Connor and Davidson 2003). It has 25 items such as "Even when things look hopeless, I don't give up"; "I am not easily discouraged by failure"; and "I like challenges," each rated on a 5-point scale from 0 = not true at all to 4 = true nearly all of the time. Scores range from 0 to 100, with higher scores indicating greater perceived resilience. (Cherry et al. 2018).

We also found papers that investigate and measure factors that reduce stress after a traumatic event such as a disaster, in other words, factors that enhance individual resilience after disasters and contribute to one's ability to undertake self-help and self-reliance. For instance, the Life Orientation Test-Revised (LOT-R) is a standard psychological tool for measuring optimism for the future where optimism is one indicator of resilience (Scheier, Carver, and Bridges 1994). The LOT-R is a shorter version of the LOT but is more objective and specialized than the original test with only 6 items. Each item is rated on a 4-point Likert scale that ranges from strongly disagree to strongly agree. Three of the six items were framed positively (e.g., "I am always optimistic about my future"), and the remaining three were framed negatively (e.g., "If something can go wrong for me, it will"; Chan et al. 2012).

We also found the Life Engagement Test (LET), which is a six-item self-report measure of *purpose in life* (Scheier et al. 2006). Each item is rated on a 4-point Likert scale that ranges from strongly disagree to strongly agree. Three of the six items were framed

positively (e.g., "I have lots of reasons for living"), and the remaining three were framed negatively (e.g., "There is not enough purpose in my life"; Chan et al. 2012). Having a purpose in life is an indicator of a will to survive and thrive despite the stresses and losses arising out of a disaster. It seems also to be an indicator of positive mental health and individual resilience despite the trauma of a disaster.

Furthermore, we found that the impact of resource loss and the resulting stress reactions of affected individuals may be significantly mitigated by the impact of several personal psychological factors which can concurrently trigger and facilitate individual self-help, self-reliance, and individual resilience. These are now discussed in the following section.

Facilitators and Constituent Elements of Self-Help, Self-Reliance, and Individual Resilience

Faith, Religion, and Associated Scale

We found constituent elements that may facilitate individual self-help, self-reliance, and individual resilience. These include religiosity, availability of religious social support, and other social support available to the affected individual such as social capital and networks (Chamberlain 2010; Chan et al. 2012).

Pre-disaster religiosity was found to predict higher levels of post-disaster social resources, optimism, and sense of purpose (Chan et al. 2012). It seems to have a religion or faith, and having access to religion-based social support (e.g., helpers from churches, temples, or mosques) helps affected individuals to cope better with disaster-induced stress. Also, it seems religious social support (e.g., Salvation Army, World Vision) and greater religiosity within the individual would mitigate the strength of the relationship between individual loss of resource and stress symptoms. Thus, resulting in less stress and an ability to recover quicker, higher individual resilience, and/or an ability to demonstrate self-help and self-reliant behavior, which together may help the community to be more resilient and thus facilitate a faster recovery.

Seven papers identified faith and religion as an individual resilience factor in disasters (Abbott 2019; Ager et al. 2015; Aten et al. 2019; Davis et al. 2019; Llamas 2014; Niaz 2006; Wilkinson 2015). Such an individual resilience factor mitigates against stress and depression and facilitates quicker recovery through the ability to undertake self-help activities and be more self-reliant. For example, praying to God was described as a resource in the aftermath of a disaster. We also found several scales developed to measure religiosity, for instance, the Duke Religion Index (Chamberlain 2010); and to measure how much religious social support is available to an individual after a traumatic or disaster event. For instance, the Spiritual Support Scale (Cherry et al. 2018), and the Religious Support-Short Form (Chamberlain 2010).

In relation to faith and religion, two studies described *hope* as a personal resilient factor in coping (Alawiyah et al. 2011; Niaz 2006). Seven other studies described

optimism as a resource in being resilient (Alawiyah et al. 2011; Chan et al. 2012; Iacoviello and Charney 2020; Maltais and Gauthier 2009; Mann et al. 2018; Marks et al. 2009; Niaz 2006). Yet still believing in God and meaning-making in the loss was considered contributory to individual resilience (Augustine 2009), all of which may individually and collectively contribute to self-reliance through self-help activities. Hence, a quicker recovery after disasters.

Humor, Mindfulness, and Positive Outlook

We found other individual-related characteristics that can contribute towards self-help and self-reliance, and thus individual resilience in disasters. The adaptive coping strategies and emotion-focused coping resources found in post-disaster individual resilience include *humor* and a humorous outlook on life and what has just been experienced (Cherry et al. 2018). In such disaster contexts, humor entails cognitive flexibility which is a process of reappraising and reframing stress or trauma for growth (Iacoviello and Charney 2020). Other personal characteristics and dispositions that contribute to self-help, self-reliance, and individual resilience include: *mindfulness* (Kono and Burton 2019); *gratification/gratitude* (Kono and Burton 2019; Marks et al. 2009); *authenticity* (Kono and Burton 2019); *virtuousness* (Kono and Burton 2019); *perseverance* (Llamas 2014; Niaz 2006); *acceptance* (Mason 2019); *meditation* (McGeehan 2014); and *intellectual resources* (Niaz 2006). Each of these elements was drawn out of the literature on positive psychology or psychology of optimal functioning, the Leisure and Wellbeing Model [LWM (Carruthers and Hood 2007; Hood and Carruthers 2007; 2016)]. The LWM model includes five leisure enhancement mechanisms: *savoring an experience, gratification, authenticity, mindfulness, and virtuousness.* These were adapted and tested in the disaster aftermath context and found to enhance coping and individual resilience (Carruthers and Hood 2007; Hood and Carruthers 2007; 2016).

Mindfulness means taking more leisure or unoccupied time for calmness and emotional healing and intermittently taking the mind of disaster-related issues, such as house reconstruction or relocation plans (Kono and Burton 2019). Gratification is the feeling of the joy of connection to other people characterized by harmony, sharing, and a sense of belonging (Hood and Carruthers 2007, 2016; Kono and Burton 2019). It allows individuals to re-energize and re-motivate themselves by connecting with something larger than the current version of self and to grow to be a better version of self like the concept of self-help (Hood and Carruthers 2007). Savoring is said to trigger positive emotions through recreational activities after disasters, which can evoke positive affect. A sense of gratitude and a sense of appreciation towards ordinary activities brings affected individuals back to their normal life disrupted by disaster (Thorpe 2015). The overall aim is to trigger positive emotions. Authenticity is said to be therapeutic for individuals affected by disasters because the disasters severely challenged their sense of self. Individuals affected by disasters can thus regain a sense of their identity and who

they were pre-disaster through play and recreational activities, and through jokes and laughter (Kono and Burton 2019).

Physical and Material Resources

Studies have found significant correlations between the availability of, and exposure to social resources, and a sense of optimism and sense of purpose, and exposure to stress, depression, and feeling of hopelessness and helplessness (Foa and Foa 2012). Likewise, physical and material resources such as property and funds. Physical and material resources are tangible resources such as money, information, goods, and services. Availability of these resources helps to manage psychological distress. They also can contribute towards self-help and self-reliance if available on a timely basis, thus enhancing individual resilience and faster recovery in disasters. Scales such as the Social Provisions Scale (Chan et al. 2012) are tools designed to measure how much social resources are available to individuals to help them recover in the aftermath of a disaster.

Strength of Social Network and Social Capital

An individual's social network is indeed an important protective factor that buffers from experiencing significant symptoms of distress and helplessness in recovery (Aldrich 2011a; 2012; Patel et al. 2017). Such social networks may be termed *social capital* and may include instrumental support such as money and offering and acceptance of emotional support. An absence of a social network potentially can be a significant risk factor for post-traumatic stress symptoms in response to disasters (Bokszczanin 2012). A lack of social connectedness may deny an individual the external resources they may need to unleash their internal resources needed for undertaking and demonstrating self-help and self-reliance in a post-disaster context. A strong and positive social support, social capital, and social embeddedness enhances individual resilience to stress and the ability to recover quicker. It can also facilitate self-help and self-reliance after a traumatic experience such as disasters (Aldrich 2010; 2011b). Similarly, Patel et al (2017) argue that the connectedness of an individual to a social network based on social relationships might be relevant to enhance overall community resilience (Ozbay et al. 2007; Patel et al. 2017).

Narrative Synthesis and Discussion

Narrative synthesis refers to an approach to the systematic review and synthesis of findings from multiple studies that rely primarily on the use of words and text to summarize and explain the findings of the synthesis. Weaknesses of narrative synthesis have been noted in the literature (Dixon-Woods et al. 2005; Mays, Pope, and Popay 2005). However, formal guidance on how to conduct narrative synthesis in a more rigorous, systematic, and transparent way focusing on the synthesis of evidence has been provided by Popay et al. (2006), whose guidance we follow. Our rationale for adopting narrative synthesis is that a statistical meta-analysis or other specialist forms of synthesis such as meta-ethnography

for qualitative studies is not feasible for this study (Popay et al. 2005). We summarize the process of narrative synthesis undertaken as follows: We first made ourselves familiar with the results of the included studies by systematically and comprehensively assessing the results and findings of each study, and highlighting important characteristics of the studies where relevant, such as important similarities or differences.

Secondly, we described the included studies and discussed the methodological quality and risk of bias of each study (Popay et al 2006; Thomas, Harden, and Newman 2012). We then grouped the studies by making comparisons of components that contribute to self-help/self-reliance, which help address our research goals and the goals of the systematic literature review. We also compared study design and contextual setting to ensure consistency. Thirdly, we tabulated our results to be able to identify patterns across the studies included. We focused on and identified patterns such as information on the factors and components that contribute to self-help/self-reliance after a traumatic experience such as disasters. Fourthly, we transformed the data into a textual descriptive format and again assessed the data in the light of our research goals and aims of the systematic review. Lastly, we translated the data by using content and thematic analysis to identify areas in common between studies and grouping the identified themes and contents together.

We derived four dimensions/elements that may contribute to the ability and capacity of individuals in disaster contexts to demonstrate self-help, and self-reliance after disaster-induced stress and resource loss. These four were derived from the process of narrative synthesis of included publications, and the supplementary articles manually added to the systematic review: faith, religious practices, psychological capital, and social capital and social embeddedness.

Faith

Faith is complete trust or confidence in something, someone, or a strong belief in a deity. It is an important component for many, and it is personal and individualized. The studies showed that faith is a major factor in promoting resilience and helping to overcome adversities and existential crises (Davis et al. 2019; Niaz 2006). Spirituality is an essential source of resiliency, especially in a disaster. Faith in God was a critical resource in helping survivors cope with the aftermath of the disaster, while also making meaning of events (Augustine 2009; McGeehan 2014; Wilkinson 2015). It was considered important for personal strength facilitating recovery and resilience. Faith in prayers offered to God and reading of the Bible were vital to survival and help individuals bounce back (Niaz 2006). For others, acceptance of one's fate (karma) was considered an element of resilience (Fernando 2012). Faith in God and spiritual beliefs were found to be a coping mechanism for survivors of Hurricane Katrina in the U.S. in developing resilience and supporting recovery (Henderson, Roberto, and Kamo 2010). An individual's religious beliefs play an important role in their psycho-social recovery. Although it might appear intangible, faith and religious beliefs provide comfort and help reduce anxiety (Baidhawy 2015).

Religious Practices

This theme refers to rituals practiced to help in post-disaster recovery. Religious coping is the most effective and consistent coping strategy among natural disaster survivors (Mesidor and Sly 2019). The studies reported religious or spiritual practices such as prayer, meditation, and reading the Bible (Alawiyah et al. 2011; Maltais and Gauthier 2009; McGeehan 2014). These practices provide comfort and serve as an active way of coping. Prayer was not only frequently mentioned and the most salient religious practice in most studies, but it was also reported as powerful and pervasive (Alawiyah et al. 2011; Fernando and Hebert 2011; Tausch et al. 2011). Prayer was also an effective coping mechanism practiced survivors of all ages, contributing to resilience. Many of the studies reported reading the Bible and quoting verses of scripture that were considered encouraging (Tausch et al. 2011). The effect of these practices and spiritual activities were a positive part of recovery, which helped people to adjust in the aftermath of the disasters. For example, a study in Nepal found that participants that engaged in religious practices such as prayer in the aftermath of an earthquake expressed more resilience than those who did not (Jang, Ko, and Kim 2018).

Psychological Capital

Psychological capital describes factors within a person including self-efficacy, hope, and optimism (Luthans, Youssef, and Avolio 2007). Positive psychology emphasizes developing inner strengths, such as hope, optimism, and courage (Seligman 2004). These personal-psychological traits were coping resources in achieving resilience. They are subjective attributes that are often associated with resilience (Hobfoll et al. 2003). Survivors demonstrated resilience by maintaining optimism and hope. Hope was sustained by not dwelling on negative thoughts that emerged as a facet of resilience (Fernando 2012). Optimism was negatively associated with post-disaster distress, thus the more optimistic survivors were, the more resilient they became (Chan et al. 2012; Maltais and Gauthier 2009). Optimism is an adaptive way of coping in uncertainty hoping for situations to improve (Maltais and Gauthier 2009). Engaging in activities and hobbies was reported in some studies as helping to maintain hope and well-being (Mann et al. 2018). In addition to optimism, gratitude, perseverance was also mentioned as enhancing resilience (Fernando 2012; Niaz 2006). Cognitive flexibility—the ability to reappraise traumatic experiences—can reframe thoughts about an event leading to acceptance and resilience (Iacoviello and Charney 2020). According to Iacoviello and Charney (2020), optimism and cognitive flexibility can enable an individual to develop resilience.

Social Capital and Social Embeddedness

Social capital and social embeddedness have to do with whether an individual has access to external resources that they can access if and when needed to help temporarily bolster their ability to cope, adapt, and be resilient to disaster trauma and stress (Akbar and Aldrich 2018). Such external resources could enable the demonstration of self-help and

self-reliance initiatives and facilitate the demonstration of individual resilience. Collectively, the sum aggregation of such atomized, autonomous, and self-governing individual personal resilience(s) (which may draw from outside resources) may together contribute towards community resilience and quicker individual and community recovery; drawing upon Rimke (2000) and Patel et al. (2017).

The Link between Aims, Methods, Findings, and Implications

This systematic literature review explored models of self-reliance and self-help as a subset of individual psychological and trait resilience in disaster recovery contexts. It identified the range of publications on the topic in the literature and identified the constituent elements that have been proposed as contributing to the idea of self-reliance and self-help as a subset of individual psychological and trait resilience in disaster recovery contexts.

The methodological process through which the goals of this systematic literature review were achieved was to rigorously and systematically identify studies that focus on self-reliance and self-help that contributes to individual resilience in disaster recovery using the PRISMA guidelines as earlier described. With limited studies in this field, it was found that faith, religious practices, and psychological and social capital could be harnessed in the aftermath of a disaster. These individual psychological/trait resources are critical in building and maintaining self-resilience in adverse, traumatic, stressful, and resource loss events.

Of all our findings, having some form of an optimistic outlook, faith, and belief in a higher purpose in life can be influenced by the individual. Government policy is however constrained in what it can achieve in this area as it is constrained in making individuals undertake religious practices (unless in theocratic countries such as Saudi Arabia, Afghanistan, Iran, Mauritania, Yemen, or Sudan). Government policy is similarly constrained in making individuals possess, practice, and demonstrate mindfulness and an optimistic humorous outlook to the adversities of life. These are individual psychological traits arising from the physiological and genealogical composition of an individual, and each individual differs from the next.

Nevertheless, individuals can choose to take on faith such as Christianity, Islam, Buddhism, or the like to build resilience. Individuals may also take on the ability to be humorous and not take the adversities of life too seriously or negatively. However, this area of having a lighthearted humorous approach to adverse life experiences may also be traced back partly to trait/psychology and genetic constitution as well as the environment in which an individual is raised and socialized. Hence, governments may not be able to formulate completely effective disaster recovery and individual resilience policies in this regard. Lastly, individuals may consider better embedding themselves in social networks to acquire social capital. For instance, timely words of encouragement and motivation can arise from members of an individual's social networks that stir hope and spur on or fuel self-reliance and self-help initiatives by an individual.

SUMMARY AND CONCLUSION

To summarize our overall findings on individualized resilient factors, the studies included in this review show that faith, religious practices, and psychological and social capital are important in developing resilience. Rather, faith-induced hope and optimism post-disaster facilitate recovery. Religious practices such as praying and reading the bible seem to enhance the relationship with God and might have helped to overcome the trauma associated with the disaster, and spurred self-help and self-reliance initiatives in achieving a relatively faster recovery.

Similarly, other psychological factors also contributed to resilience. Many previous studies focus on community resilience with less emphasis on individual factors that aid recovery and build resilience. The studies identified in this systematic literature review show that faith, religious practices, and psychological capital, as well as social capital and social connectedness from which external resources may be drawn, all play a positive role in building resilience. The sum of such individual self-help and self-reliance/personal resilience may collectively contribute towards aggregate community resilience and thus quicker individual and community recovery.

Beyond the individual, like Manyena (2006a; 2006b) suggested, the capacity of disaster-affected communities to bounce back or to recover with minimal external resources following a disaster puts a stronger emphasis on resilience rather than vulnerability or need. We must consider the exposure of the community to disasters (e.g., the frequency, scale, and intensity of the disaster). We must also consider inherent social weaknesses and the level of resilience of individuals in the community as well as available community infrastructure, assets, and resources. While resilience has been generally defined in two broad ways—as a desired outcome(s) or as a process leading to the desired outcome(s)—it seems to have evolved from being outcome-oriented to being process-oriented. Hence, resilience is beyond people's minimum or basic capacity to cope but a process of continuous efforts to build and improve. Individuals and communities must therefore take responsibility for action. They must, for instance, have a disaster plan, and construct capabilities to execute their plan through self-help, self-reliance, and through resources from others if need be (e.g., by purchasing insurance, or accessing external resources), all of which can enhance the resilience and the ability of an individual or community to deal with disasters. Overall, we must also leverage the pre-existing motivational and psychological strengths and resources of individuals such as their abilities, faith, capacities, knowledge, and social capital.

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