

Mental health in and psychosocial support for humanitarian field workers

A literature review

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Master Thesis
Psychosocial work: suicide,
substance abuse, violence and traumas
Faculty of Medicine
Institute of Clinical Medicine

UNIVERSITY OF OSLO

April 2016

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Print: Reprosentralen, University of Oslo

Abstract

Objective: To describe the current research literature on mental health and psychosocial support (MHPSS) concerning humanitarian field workers.

Method: Using a scoping review method, a search was conducted in eight electronic bibliographic databases, yielding 5185 references. Grey literature was identified by snowballing relevant websites and hand searching key journals, adding another two records. Ancestry search of key references added twelve. After removing duplicates and screening by selection criteria, a final 73 records were selected for the review.

Results: The knowledge base is modest, but has seen rapid growth over the last decade. Cross-sectional retrospective designs are overrepresented. Most study humanitarian workers, only a few investigate organizations. The majority is interested in stressors, risk factors and adverse health, and fewer studies look for health benefits. Western expatriate staff are overrepresented, as are workers with professional health backgrounds. Humanitarians experience elevated rates of exposure to traumatic and chronic stressors, and seeming consequences are post-traumatic stress symptoms, anxiety, depression and burnout. Key risk factors are young age, inexperience, lack of training and a spectrum of organizational factors. Protective factors are training and social support systems. Humanitarians also experience notable work related wellbeing, benefits and growth. Ethical distress, moral dilemmas and inner conflict is a major theme arising from qualitative studies.

Conclusions: Main findings adhere with the psycho-trauma literature at large, and with findings on related professions. The humanitarian work experience is characterised by complex distress and growth, which warrants further studies. There is particular need for more research on organizations as such, leadership, national staff, staff with non-health professional backgrounds, as well as the distinct and complicated ethical experiences of humanitarian workers.

Acknowledgements

I am grateful to the Norwegian Centre for Violence and Traumatic Stress Studies (NKVTS) for accepting me into its master program. The research staff have been welcoming, accessible and eager to help. When I was searching for a topic to explore, they lent me books, e-mailed articles, called me up on the phone and spent precious time in their offices discussing project ideas. Special thanks to student advisors Anne Lie Andreassen (NKVTS) and Brigit Ove Vaage (UiO) – always in a good mood and replying to e-mails within hours.

My supervisor, Per-Olof Michel, has gone above and beyond. I doubt that many master thesis supervisors insist to hop on a train and travel across national borders to meet students on their own turf. His kind of generosity is rare, but when I thank him, he just asks: “Is there another way to do this?” His professional guidance has been topnotch. He also teaches by example and demonstration, as well as by theory, the expert understanding of psychosocial support. I dare not thank him again. He is getting tired of it.

Fellow students, from all over the country, deserve mention too. I am proud to belong to this smart, fun, compassionate and dedicated group of alumni.

No matter how old I get, my parents keep investing in my future. Education and health professionals themselves, they also know the importance of wordless, practical support. When exam stress invades the brain and body, while theories on stress reduction stay put in the books and refuse to incarnate, mom and dad show up with food and technical supplies.

Finally, a special thank you to Margareth Svendsen. She was my rock during a few rough years when my interest in stress and trauma first took form.

Silja Nordahl

Oslo, April 2016

Contents

- Mental health in and psychosocial support for humanitarian field workers III
- Abstract IV
- Acknowledgements VI
- Contents..... VII
- 1. Introduction 1
 - 1.1 Background..... 1
 - 1.2 Theoretical framework 3
 - 1.3 Objective..... 4
 - 1.4 Glossary 4
- 2. Method 8
 - 2.1 Search 9
 - 2.1.1 Bibliographic electronic databases 9
 - 2.1.2 Hand searches 11
 - 2.2 Selection 13
 - 2.2.1 Quality criteria 13
 - 2.2.2 Relevance..... 13
- 3. Results 16
 - 3.1 Author..... 16
 - 3.2 Year of publication 17
 - 3.3 Methods used (how) 17
 - 3.4 Focus and objectives of included studies (what)..... 18
 - 3.5 The respondents (who) 22
 - 3.5.1 National background..... 22
 - 3.5.2 Professional background 24
 - 3.5.2 Other demographics 25
 - 3.6 Location (where)..... 26
 - 3.7 Time (when) 27
 - 3.8 Findings reported by selected studies..... 27
 - 3.8.1 Adverse health 27
 - 3.8.2 Wellbeing and growth..... 30
 - 3.8.3 Ethical experiences 31

4.	Discussion	34
4.1	Main findings.....	34
4.1.1	Author, year and methods used.....	35
4.1.2	Focus and objectives	38
4.1.3	Respondents and location	40
4.1.4	Adverse health	44
4.1.5	Wellbeing and growth.....	45
4.1.6	Ethical experiences	48
4.2	Strengths and limitations	51
4.2.1	The field in general	51
4.2.2	This review in particular	51
4.3	Implications	53
4.3.1	Further research	53
4.3.2	Organizations and policy makers.....	53
4.3.2	Humanitarian workers.....	54
5.	Conclusions	55
	References	57
	Appendixes.....	68

1. Introduction

1.1 Background

Humanitarian field work can be stressful and dangerous. According to the Aid Worker Security Database, “the year 2013 set a new record for violence” against humanitarians. Four hundred and sixty workers were victims of assault. Of these, 155 were killed, 171 wounded and 134 kidnapped. Numbers have tripled over the last decade, along with an increasing number of people employed in humanitarian organisations (Stoddard, Harmer, & Ryou, 2014). Deaths among humanitarian workers are more often caused by violence than by accidents or diseases (Rowley, Crape, & Burnham, 2007).

There is a need for systematic knowledge about psychosocial health and work related stress in the humanitarian industry. According to humanitarian researcher Silke Roth (2015, p. 140), humanitarian workers have been neglected by academic scholarship for a long time, and only recently gained the attention of anthropologists and sociologists. Other studies and field reports find that organisations give patchy priority to staff wellness. An illustrating 17 of 100 contacted non-governmental organisations responded to a study on preparation and support (Ehrenreich & Elliott, 2004). Some organisations, like the United Nations High Commissioner for Refugees (UNHCR), have hired researchers to investigate internal affairs (Welton-Mitchell, 2013). There are niche organisations offering psychosocial resources aimed at humanitarian workers, of which the most established are Antares Foundation ([www. antaresfoundation.org](http://www.antaresfoundation.org)) and Headington Institute (www.headington-institute.org).

Recently the subject has received growing attention in news and social media. In 2015, a former employee of the Norwegian Refugee Council (NRC) sued the organisation after he was abducted during a stay in Kenya in 2012. Following the incident, he was diagnosed with post-traumatic stress disorder (PTSD). His complaints against his former employer included failing support, humanly and financially. Although the NRC disputed the verdict (Bogsnes, 2015, November 25), the reputable organization was found guilty of gross negligence and sentenced to pay 4.4 million NOK in damages (Nguyen, Pearce, & D'Urso, 2015, November 25). The verdict also states that the NRC was insufficiently insured for psychological injury (Oslo District Court, 2015, p. 44).

In July 2015, 170 participants from 82 different countries participated in an online multimedia conference titled *Humanitarian Effectiveness and Staff Wellness*. The conference was organised following a blog article and later a petition calling for the United Nations general secretary to put staff wellness on the key agenda for the upcoming World Humanitarian Summit in May 2016 (B. McDonald, 2015, July 21a, 2015, July 21b).

Based on these preliminary findings and anecdotal reports, the work hypothesis for this study is that mental health and psychosocial support for humanitarian staff has not received much priority in organisational policy or academic research. Yet, relevant knowledge can be drawn from neighbouring areas of study, such as work stress in military veterans or emergency personnel (paramedics, police and firefighters). Crisis support in these occupations are more thoroughly researched and offer insight into mental and emotional health issues, stressors and reactions, vulnerability- and protective factors, as well as conditions for healthy work environments and recovery following critical incidents. Some literature includes international missions, which makes results and conclusions particularly relevant for humanitarians. A recent review of 133 sources found that between 6 and 32 percent of personnel experience mental health issues following missions, and employer organisations should develop better systems to prevent this (Michel, 2014). Humanitarian workers are exposed to similar work related stressors and potential traumatic events (PTE) such as dramatic loss, chronic stress and impossible moral dilemmas. These are risk factors for reactions such as traumatic stress, complicated grief, burnout and moral distress. Even though to date there is no evidence-based method for crisis support, there are evidence-informed principles to guide the professionalization of staff wellness: Organisations should offer thorough briefing and preparation ahead of missions, because selection, preparedness and training seem to protect against prolonged stress. So does sound and respected leadership, peer support, team work and sense of community between colleagues, as well as family contact during service. At repatriation, there should be routines for support and evaluation, and systems in place for those who need follow-up or intervention (Michel, 2015).

1.2 Theoretical framework

Psychological support to prevent traumatic stress was originally developed for military personnel. Early intervention approaches such as Critical Incident Stress Debriefing (CISD) (Mitchell, 1983) or Psychological Debriefing (PS) (Dyregrov, 1989), became widely popular also in civilian settings and adopted by humanitarian agencies after the recognition of PTSD as a psychiatric disorder in 1980 (Dieljtens, Moonens, Van Praet, De Buck, & Vandekerckhove, 2014, p. 2). These brief and uniform single session interventions were later criticized for “medicalizing” normal distress, assuming uniform and predictable patterns of trauma and not taking individual needs into account. In a series of meta analyses and reviews between 1997 and 2009 they were proved to be ineffective and even harmful, and individualized “screen and treat” models were recommended to replace them (Brewin, 2005; Brewin et al., 2008; O'Donnell et al., 2012; Rose, Bisson, Churchill, & Wessely, 2002; Watson, Gibson, & Ruzek, 2007).

The idea of early psychological interventions merged with a social approach, leading to the concept of psychosocial support (Dieljtens et al., 2014). The term mental health and psychosocial support (MHPSS) was coined in *Guidelines on Mental Health and Psychosocial Support in Emergency Settings*, a joint effort by United Nation (UN) agencies, non-governmental organizations (NGOs) and universities to help “protect, support and improve people’s mental health and psychosocial wellbeing in the midst of an emergency” (Inter-Agency Standing Committee (IASC), n.d.). The work of Hobfoll et al. (2007) showed that indirect evidence from a wide range of studies on crisis support points to five key principles to guide interventions in the immediate and mid-term aftermath of mass trauma: a sense of safety, calming, a sense of self and community-efficacy, connectedness and hope. Interventions based on these principles were developed, of which is the most widely used is now psychological first aid (PFA) (Brymer et al., 2006). PFA is recommended by the World Health Organization (WHO, 2011) and described as a “humane, supportive response to a fellow human being who is suffering and who may need support”, which is not a clinical or psychiatric intervention and “different from psychological debriefing in that it does not necessarily involve a discussion of the event that caused the distress (Bisson & Lewis, 2009, p. 3). PFA is evidence *informed* (not evidence based) and includes common sense elements such as listening, comforting, helping people to connect with others and providing

information and practical support to address basic needs, which means that it can be successfully be delivered by lay people and paraprofessionals (Dieljtens et al., 2014).

In 2015 the OPSIC Project (Operationalising Psychosocial Support in Crisis) finalized *The Comprehensive Guideline on Mental Health and Psychosocial Support in Disaster Settings*. A European Union project, it was developed by ten “carefully selected” partners from seven countries, including universities, field organisations and technological innovators. They “reviewed existing guidelines and best practice studies in order to match methods and tools to all relevant target groups, types and phases of emergencies” (Juen et al., 2015, p. 8). This is the most up to date and comprehensive framework for psychosocial crisis support, and the first to include explicitly the needs of humanitarian staff and volunteers.

1.3 Objective

Given the current need for systematic knowledge about occupational stress and wellbeing for humanitarian staff specifically, a scoping review is timely and appropriate. This study aims to map and describe the knowledge base regarding mental health (generally) and psychosocial support (specifically) for humanitarian field workers within the described theoretical framework of modern crisis support.

1.4 Glossary

This study copies key concepts from the OPSIC glossary (Juen et al., 2015, pp. 249-270), and the ReliefWeb Glossary (2008), if not otherwise specifically referenced.

Burnout	Emotional exhaustion, depersonalization, and a reduced feeling of personal accomplishment. While it is also work-related, burnout develops as a result of general occupational stress; the term is not used to describe the effects of indirect trauma exposure specifically (The National Child Traumatic Stress Network (NCTSN), n.d.).
Coping	The ability of people, organisations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.
Compassion fatigue	A less stigmatizing way to describe secondary traumatic stress, has been used interchangeably with the term (NCTSN, n.d.).
Compassion satisfaction	The positive feelings derived from competent performance as a trauma professional. It is characterized by positive relationships with colleagues, and the conviction that one’s work makes a meaningful contribution to clients and society (NCTSN, n.d.).

Crisis	Undesirable circumstances which are perceived to be characterized by substantial uncertainty, time pressure and threat to core values (variable, but for example health, safety, and in more severe circumstances death, etc.) A Crisis can come out of any type of emergencies and disasters and affords a substantial amount of discourse between crisis managers and community members as well as stakeholders.
Cultural competence/ cultural sensitivity	Ability to think, plan and act in ways that respect and include the cultural background of the persons concerned. Cultural sensitivity is the adequate use of cultural competence in a specific situation.
Disaster	“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” (UNISDIR, 2009, p. 9).
Emergency	A sudden and usually unforeseen event that calls for immediate measures to minimize its adverse consequences.
Helper	Umbrella term for all personnel in a crisis situation, helping and supporting affected people; includes volunteers and professionals.
Humanitarian assistance	Aid that seeks to save lives and alleviate suffering of a crisis-affected population. Humanitarian assistance must be provided in accordance with the basic humanitarian principles of humanity, impartiality and neutrality, as stated in General Assembly Resolution 46/182. In addition, the UN seeks to provide humanitarian assistance with full respect for the sovereignty of States. Assistance may be divided into three categories - direct assistance, indirect assistance and infrastructure support - which have diminishing degrees of contact with the affected population.
Humanitarian worker	Includes all workers engaged by humanitarian agencies, whether internationally or nationally recruited, or formally or informally retained from the beneficiary community, to conduct the activities of that agency.
Mental health and psychosocial support (MHPSS)	Mental health and psychosocial support are “any type of local or outside support that aims to protect or promote psychosocial well-being and/or prevent or treat mental disorder” (IASC, 2007, p. 1).
Moral injury	“Potentially morally injurious events, such as perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations may be deleterious in the long-term, emotionally, psychologically, behaviorally, spiritually, and socially (what we label as moral injury)” (Litz et al., 2009, p. 1)
Post-traumatic growth (PTG)	Positive or beneficial trauma-related changes in five general domains: personal strength, new possibilities, relating to others, appreciation of life, and spiritual change (Calhoun & Tedeschi, 2006, p. 5).
Preparedness	The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.
Psychological First Aid (PFA)	An element of psychosocial support that can be effectively applied by trained lay-people including volunteers but is also used by professionals. PFA describes a humane, supportive response to a fellow human being who is suffering and who may need psychosocial support. It is an established intervention format that generally contains the following elements: <ul style="list-style-type: none"> • Providing practical care and support, which does not intrude

	<ul style="list-style-type: none"> • Assessing needs and concerns • Helping people to address basic needs (for example, food and water, information) • Listening to people, but not pressuring them to talk • Comforting people and helping them to feel calm • Helping people connect to information, services and social supports • Protecting people from further harm <p>(IASC, 2007; World Health Organization (WHO), 2011)</p>
Psychosocial	The two-way relation between psychological factors (the way an individual feels, thinks and acts) and social factors (related to the environment or context in which the person lives: the family the community, the state, religion, culture) (Psychosocial Working Group (PWG), 2003)
Psychosocial support (PSS)	An umbrella approach, following the intervention principles named by Hobfoll et al. (2007) with the aim of promoting resilience of individuals, groups and communities in crisis. Psychosocial support includes a broad variety of interventions promoting the resources of individuals, families or groups as well as the community as a whole. It can prevent distress and suffering from developing into something more severe as it aims to help overcome adversities, stimulate recovery processes and restore (a new form of) normality after crisis.
Posttraumatic stress disorder (PTSD)	“A psychiatric disorder that can occur in people who have experienced or witnessed a traumatic event” (Parekh, 2015). See also “Reactions to traumatic events”.
Reactions to traumatic events	<p>In the wake of traumatic events it is expected that we may experience stress as part of a normal reaction to that trauma. Normal reactions to traumatic events can include:</p> <ul style="list-style-type: none"> • Recurring thoughts or nightmares about the event • Having trouble sleeping or changes in appetite • Feeling anxiety when exposed to situations reminiscent of the trauma • Being on edge, being easily startled or becoming overly alert • Feeling depressed, sad and having low energy • Seeking relief through alcohol, drugs and/or tobacco • Feeling “scattered” and unable to focus on school or daily activities • Feeling irritable, easily agitated, or angry and resentful • Feeling emotionally “numb”, withdrawn, disconnected or different from others • Spontaneously crying, feeling a sense of despair and hopelessness • Feeling extremely protective of, or fearful for, safety of self and others • Avoiding activities or places that remind you of the event
Refugee	A person, who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, or for reasons owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country of origin

	or nationality, is compelled to leave his place of habitual residence in order to seek refuge outside his country of origin or nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of his country of origin or nationality.
Resilience	Resilience is the capacity of an individual or group to buffer from and recuperate after adverse events within reasonable time psychologically, socially and physically and without lasting detriment to self, relationships or personal development with adequate use of available resources (Bonanno, 2004; Bonanno & Diminich, 2013). Resilience includes “a stable trajectory of healthy functioning after a highly adverse event; a conscious effort to move forward in an insightful and integrated positive manner as a result of lessons learned from an adverse experience; the capacity of a dynamic system to adapt successfully to disturbances that threaten the viability, function, and development of that system; and a process to harness resources in order to sustain well-being” (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014, p. 11).
Salutogenesis	A term by medical sociologist Aaron Antonovsky, originating from Latin (salus = health) and Greek (genesis = origin). Term and theory developed from studies of "how people manage stress and stay well" (Antonovsky, 1987).
Secondary traumatic stress	The presence of PTSD symptoms caused by at least one indirect exposure to traumatic material (NCTSN, n.d.).
Self (and community) efficacy	The sense or beliefs that one’s actions are likely to lead to generally positive outcomes, principally through self-regulation of thoughts, emotions, and behaviour. This can be extended to collective efficacy, which is the sense that one belongs to a group that is likely to experience positive outcomes (Hobfoll et al., 2007, p. 293).
Skills for Psychological Recovery	Skills for Psychological Recovery (SPR) is an evidence-informed modular intervention that aims to help survivors gain skills to manage distress and cope with post-disaster stress and adversity. SPR is appropriate to use in the recovery phase by mental health professionals and other disaster recovery workers (Berkowitz et al., 2010).
Potentially traumatic events (PTE)	As listed by National Child Traumatic Stress Network: 1. Sexual abuse or assault 2. Physical abuse or assault 3. Emotional abuse/psychological maltreatment 4. Neglect 5. Serious accident or illness/medical procedure 6. Witness to domestic violence 7. Victim/witness to community violence 8. School violence 9. Natural or manmade disasters 10. Forced displacement 11. War/terrorism/political violence 12. Victim/witness to extreme personal/interpersonal violence 13. Traumatic grief/separation 14. System-induced trauma (NCTSN, 2008)
Vicarious trauma	Refers to changes in the inner experience of the therapist resulting from empathic engagement with a traumatized client. A theoretical term that focuses less on trauma symptoms and more on the covert cognitive changes that occur following cumulative exposure to another person’s traumatic material. The primary symptoms of vicarious trauma are disturbances in the professional’s cognitive frame of reference in the areas of trust, safety, control, esteem, and intimacy (NCTSN, n.d.; Pearlman & Saakvitne, 1995)

2. Method

The “scoping” or “mapping review” is “a relatively new but increasingly common approach for mapping broad topics” (Pham et al., 2014, p. 1). It provides an assessment of the size and range of a research area, and identifies the nature and extent of the evidence. It shares some characteristics of the better known systematic review in that it attempts to be “systematic, transparent and replicable” Grant and Booth (2009, p. 101), but is distinct in that its scope is broader, bringing together evidence from disparate or heterogeneous sources. The objective being to “map the field” rather than to decide whether a particular intervention is effective or not, it includes studies of medium to lower quality and sometimes even summaries and commentaries. Where systematic reviews conduct rigorous quality assessments to find the best available evidence, scoping studies generally do not. The benefit is a rather comprehensive understanding of what the conversation in the field has been to date. A larger circle of participants is included in the debate, like studies reported in non-peer reviewed journals and on organisations’ websites, unpublished research and grey literature such as students’ dissertations. The cost is weaker reliability of evidence (ref. chapter 4.2). Hence, scoping studies are often undertaken to determine whether a full systematic review is needed. When conducted independently, their main value is to clarify key concepts, report on the different types of evidence that inform policies and practice, and to identify gaps in the research knowledge base. Arksey and O’Malley (2005) published the first methodological framework for conducting scoping reviews. It was further developed by Levac, Colquhoun, and O’Brien (2010) and the Joanna Briggs Institute (Micha, 2015):

- 1) The background. Identifying the research question.
- 2) The search. Identifying relevant studies.
- 3) The selection. Screening based on inclusion and exclusion criteria.
- 4) The results. Charting the data. Incorporating a numerical summary and qualitative thematic analysis.
- 5) The discussion. Collating, analyzing, summarizing and reporting the results, identifying the implications of findings for policy, practice or research.

The four latter stages of the framework are outlined below.

2.1 Search

The following sources and strategies were applied: systematic search of bibliographic electronic databases, hand searching key journals on the Internet, snowballing websites of relevant organisations, and ancestry searching the reference lists of key results. Source selection was based on relevance criteria only (ref. chapter 2.2) in order to achieve a more complete overview and benefit from background material. Databases included peer reviewed and non-peer reviewed journals, dissertations and theses, book chapters and other grey literature. Later, limited selection criteria were applied to screen the search results.

2.1.1 Bibliographic electronic databases

Initial test searches

Initial test searches were performed in the key databases PubMed and PsycNET on April 27th 2015. The results were screened by title, spanning a variety of objectives, methodologies and populations. One was a literature review. This suggests that the topic is dispersedly mapped, supporting the need for a scoping review (Table 1).

Table 1: Initial test searches

Humanitarian	(Worker)	Stress	165	21
First searches		Support	879	4
		Self-care	68	3
		Knowledge	198	2
		Experience	350	4
		Attitude	171	4
Additional searches – duplicates with first searches not included		Burnout	10	1
		Trauma	289	0
		Resilience	37	2
		Worker	29	1
		Psychosocial	74	8
		TOTAL:	2270	50

Selecting sources for the main searches

Of the fifty test results, abstracts and some full texts were studied to decide on recurring themes and terminology for the main searches. On the University of Oslo's library website (<http://www.ub.uio.no/>) under "databases and sources", the following categories were decided relevant: Psychology, Anthropology, Sociology and Political Science. Databases under these headings were tested by entering combinations of the simplest key terms such as "trauma",

“stress”, “mental health”, “humanitarian” and “aid” to see if any hits were relevant. Out of this simple search a number of databases were selected for the main search.

Included databases:

- PubMed (all sources), searched on November 18-19, 2015
- ScienceDirect (three categories: Nursing and Health Professions, Psychology, Social Sciences), searched on November 20, 2015
- ProQuest (seven resources: International Bibliography of the Social Sciences (IBSS), PILOTS: Published International Literature On Traumatic Stress, ProQuest Dissertations & Theses A&I, ProQuest Health & Medical Complete, ProQuest Psychology Journals, Social Services Abstracts, Sociological Abstracts) searched on November 21, 2015
- Web of Science (all databases), searched on November 21, 2015
- PubPsych (all sources), searched on November 21, 2015
- Ovid (including nine resources: Books@Ovid October 26, 2015, Journals@Ovid Full Text November 19, 2015, UiO's Journals@Ovid, ERIC 1965 to September 2015, Global Health 1973 to 2015 Week 45, Health and Psychosocial Instruments 1985 to October 2015, International Political Science Abstract 1989 to October 2015, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present, PsycINFO 1806 to November Week 3) searched on November 25, 2015
- Cochrane Reviews, searched on November 25, 2015
- Google scholar, searched on November 25, 2015 and January 12, 2016

Excluded databases:

Some databases were excluded after test searches because the results were irrelevant or lacking. These were Scopus (two categories: Health Sciences, Social Sciences and Humanities), IPSA, JSTOR, Anthropology Plus, Blackwell Encyclopedia of Sociology, Social Theory and Cochrane Occupational Health, Evidence Aid and PROSPERO.

Search strategies:

Search strategies varied according to the level of detail and sophistication of the different search engines. Where possible, “advanced search” was used, with different combinations of the elements: humanitarian, aid, relief, disaster, emergenc*, work*, staff, personnel, volunteer*, mental health, stress, distress, depression, trauma*, suicide, compassion fatigue,

moral injury, support, preparedness, motivation, resilience, cope, coping, self-care, well-being, satisfaction. The strategies focused on three categories of elements 1) humanitarian settings, organizations and staff, 2) pathological effects and 3) salutogenic factors. No restriction regarding publication date was used in the search. The elements relief, disaster and emergenc* gave many thousand results. Random sampling showed that the vast majority of these articles were irrelevant to the research objective, as they referred to professional emergency personnel such as paramedics, nurses, firefighters and police in non-humanitarian employment (ref. chapter 2.2). The terms were removed from the later search strategies in order to obtain a more manageable outcome. A strategy sample is provided in Table 2. The full report on research strategies is provided in Appendix 1.

Table 2: Copy of PubMed strategy II, November 19. 2015

PubMed on	19.11.2015									
Search strategy 2 (title/abstract)										Results
1	aid OR humanitarian									124012
2	mental health OR stress OR distress OR depression OR trauma* OR suicide OR burnout OR compassion fatigue OR moral injury									1149979
3	1 AND 2									7919
4	passion OR satisfaction OR well-being OR self-care OR resilience OR cope OR coping									207095
5	1 AND 4									2346
6	support* OR motivat* OR prepared*									1492645
7	1 AND 6									13589
8	3 OR 5 OR 7									21494
9	worker* OR volunteer* OR staff									397849
10	8 AND 9									1405

Search results:

From the systematic search of electronic bibliographic databases, the total search results were 5185 references. These were screened first by titles and second by abstracts, according to selection criteria (ref. chapter 2.2). After duplicates were removed, 130 articles were left for full text screening (Table 3). References were stored, sorted and screened in EndNote X7.

2.1.2 Hand searches

Ancestry search

Of the 130 articles selected for full text screening, six were literature reviews. The reference lists of the reviews were searched, adding another 22 results. These were screened by abstracts and duplicates removed, leaving 12 additional articles (Table 3).

Journals and websites

Three key journals were selected for a more thorough hand search, meaning leafing through volumes and issues between 2005 and 2015 on the journal websites: the *International journal of stress management*, the *International Review of the Red Cross* and *Intervention - Journal of Mental Health and Psychosocial Support in Conflict Afflicted Areas*. The searches added 2 articles (Table 3). The following organization websites were hand searched yielding no additional results: the aforementioned Headington Institute (www.headington-institute.org) and Antares Foundation (www.ataresfoundation.org), as well as Professionals in Humanitarian Assistance and Protection (www.phap.org).

At this point, when hours of searching yielded little or no original results, the search was judged to have reached saturation. Full text versions (.pdf) were retrieved and attached to references in EndNote X7. Table 3 gives a summary of search results.

Table 3: Summary of search results

Electronic bibliographic databases	195
PubMed	81
Science Direct	3
ProQuest	33
Web of Science	20
PubPsych	8
Ovid	44
Cochrane Reviews	0
Google Scholar	6
Duplicates	- 65
Total	130
Ancestry search of references	22
Bills et al. (2008)	0
Brooks et al. (2015)	10
Connorton, Perry, Hemenway, and Miller (2012)	1
Strohmeier and Scholte (2015)	1
Thormar et al. (2010)	5
Walsh (2009)	5
Duplicates and irrelevant	- 10
Total	12
Journals and websites	2
International journal of stress management	1
International Review of the Red Cross Intervention - Journal of Mental Health and Psychosocial Support in Conflict Afflicted Areas	0
Total	2
References selected for full text screening	144
Full text not retrievable	18
Total references	126

2.2 Selection

At selection, certain limits were imposed on the source and type of information included in the study, as well as language and time of publication.

2.2.1 Quality criteria

Methodology

Even though scoping searches do not include formal quality assessments, a limited quality criterion was decided, accepting only those references reporting explicitly on methodology. Summaries, reports, comments, arguments and personal case studies were left out, as well as studies providing abstracts only. Because of the limited time frame, it was decided against retrieving full texts by e-mailing authors or organisations.

Cut-off date

Given how the empirical framework for crisis support has dramatically changed over the last couple of decades (ref. chapter 1.2), time limitation was deemed appropriate. Since the field of psychotraumatology moved towards more evidence informed psychosocial support systems at the turn of the century, a cut-off date was set to January 1. 2005.

2.2.2 Relevance

Concept

Included were studies relevant to MHPSS and the search elements specified above (ref. chapter 2.1.1). Excluded were studies reporting exclusively on disease and physical health issues.

Context

Included were studies in the context of larger scale humanitarian crises, caused by war, conflict, terrorism, natural disasters or extreme and ongoing poverty. Excluded were studies in contexts of smaller scale local emergencies such as fires, or development work in non-crisis locations.

Participants

Studies involving staff formally employed with humanitarian organisations, professionals and volunteers, paid and unpaid, international, national and local, governmental and NGOs were included. Studies were excluded which focused exclusively on emergency personnel in home based employment (paramedics, police and firefighters) as this study aims to look at humanitarians specifically. Excluded were also studies on private (spontaneous) volunteers not affiliated with humanitarian organisations, studies on public servants and foreign office staff thrown into humanitarian situations, humanitarian staff at headquarters (New York, Geneva etcetera), and other general or specific populations (beneficiaries, children, patients) in conflict or disaster afflicted areas. On this note, it is important to clarify that studies of broader scope were included when *among* respondents a significant number were identified as humanitarian workers fitting the criteria above. Some of these studies do not discriminate between findings regarding humanitarian workers and other groups. Repercussions are discussed in chapters 4.1.3 and 4.2.

Language

Only studies reported in English (full text) were included.

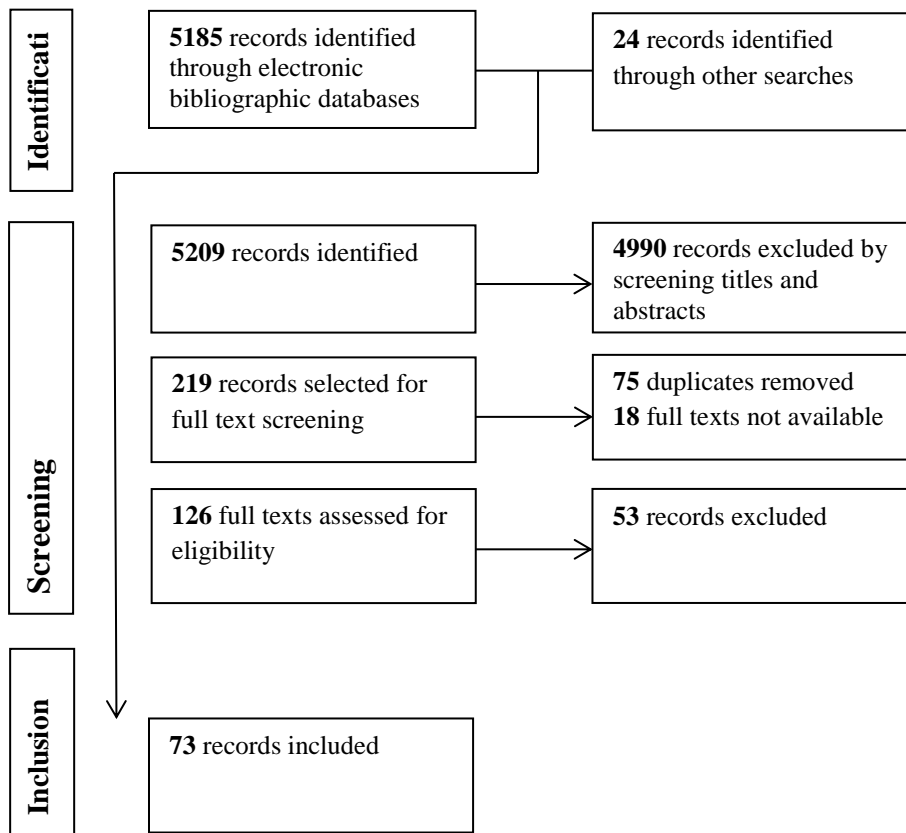
Timeframe

All types of deployment were deemed relevant, and no discrimination was made regarding emergency-, short- and long-term positions. Reports relevant to MHPSS pre-, peri- and post deployment were all included.

Full text screening by selection criteria excluded another 53 records. The remaining 73 records were alphabetized and charted in an Excel spreadsheet (Appendix 2). The nature and design of scoping studies implies that the final selection of records represents a broad and diverse spectrum of objectives, methodologies, respondents and results. Data from each article were manually punched into the spreadsheet to simplify cross-categorical searches and comparisons.

Figure 1 illustrates the entire record selection process.

Figure 1: Final record selection



3. Results

In this study, results are charted and reported in a sequence reflecting common elements of research articles, regardless of design: Author, year of publication, methodology, focus and objective, responders, location, time and main findings (Appendix 2).

3.1 Author

Though the final selection includes 73 different published references, these do not accurately represent the scope of original studies. Some authors have published two or more articles reporting on different aspects of the same study and sample of responders.

Putman and colleagues studies the same sample of national and indigenous aid workers in Guatemala (n= 135), reported in two articles where exposure to violence and traumatic loss are studied in relation to PTSD and complicated grief symptoms (Putman, Townsend, et al., 2009), and to “support needs, adjustments and motivators” (Putman, Lantz, et al., 2009). A PhD dissertation on the mental health of volunteers after working in disasters (Thormar, 2015) incorporates an identical literature review on the subject (Thormar et al., 2010). It also includes previously reported findings on “the role of peri-traumatic stress, level of personal affectedness, sleep quality and loss of resource” on PTSD symptoms and subjective health (Thormar et al., 2014), as well as the role of a set of organizational factors (Thormar et al., 2013). Cheek, Piercy & Granger (2015), and Piercy, Cheek & Teemant (2011) both study the same sample of “older volunteers”, although the first focuses on motivation and decision processes ahead of mission and the second asks participants about “challenges, changes and benefits” following their volunteer experiences.

Another author studies variations of the same topic, ethical and moral experiences, in selections of participants that are not clearly enough identified for the reader to determine whether they are identical or similar groups of persons (Hunt, 2008, 2009; Hunt, Schwartz, & Elit, 2012)

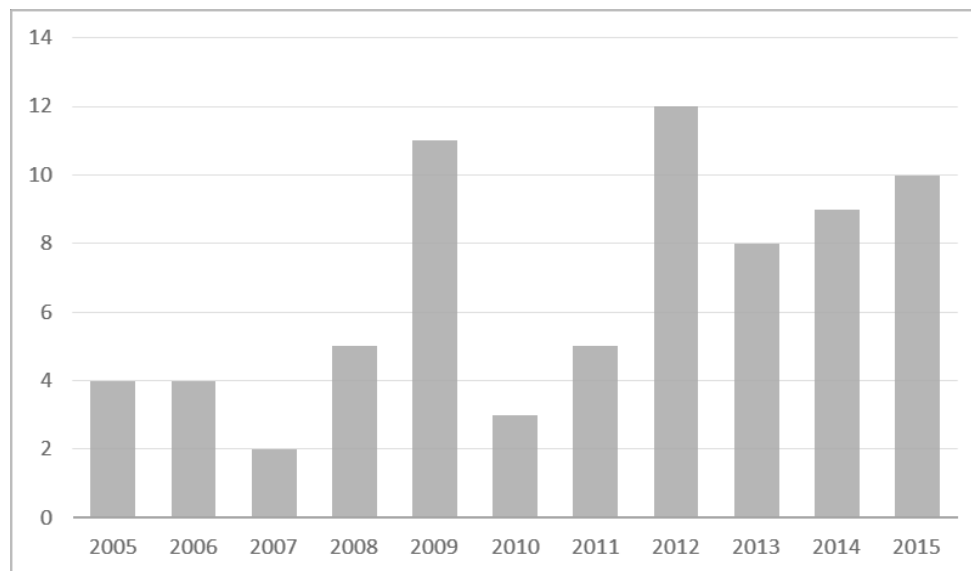
Yet others develop a theory of personality change conceptualized as “altruistic identity disruption” by in-depth interviewing one person (McCormack, Joseph, & Hagger, 2009). The theory then informs the development of a screening tool that is later test-run on 23 other humanitarian workers (McCormack & Joseph, 2012).

A number of authors appear as co-authors in each other's publications. They make up the *Antares-CDC Research* group, a collaboration between the aforementioned Antares Foundation and the Centers for Disease Control and Prevention. The major focus of the group is "a longitudinal study of expatriate humanitarian workers, combined with 4 national staff surveys" (Antares, n.d.). Hence, the scope of original studies might be somewhat smaller than the number of selected references, although not as easily counted.

3.2 Year of publication

Over the last decade, the average number of studies published per year has doubled. Figure 2 provides statistical details.

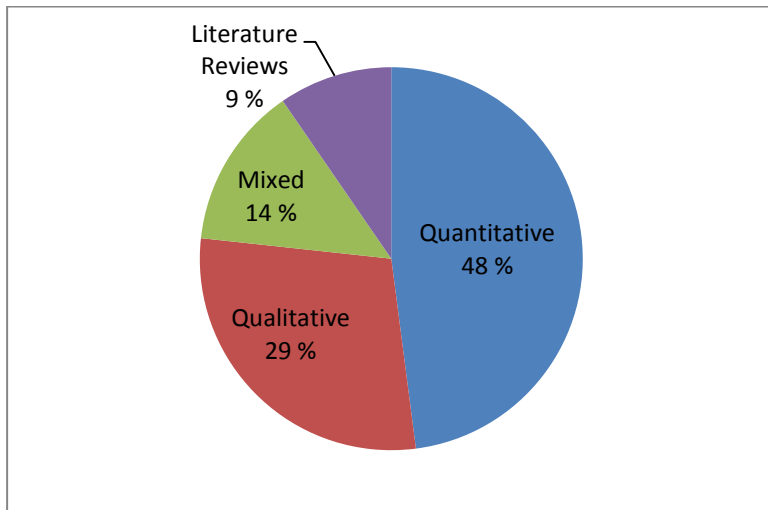
Figure 2: Number of studies per year



3.3 Methods used (how)

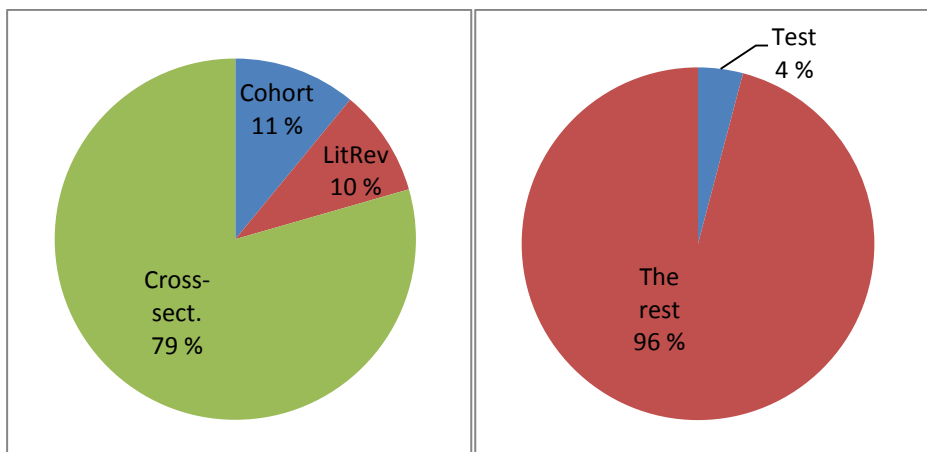
Almost half the final selection of articles reported a quantitative research design ($n = 35$). The second most frequent methodology were variations of qualitative thematic analyses, mostly based on in-depth semi-structured interviews ($n = 21$). Only a few employed mixed methods ($n = 10$), and yet a smaller group were literature reviews ($n = 7$). Figure 3 shows the relative overrepresentation of quantitative design.

Figure 3: Study design 1



A closer look reveals that a vast majority of quantitative, qualitative and mixed method studies are cross-sectional, of which many are retrospective ($n = 58$). As shown in figure 4, prospective longitudinal studies are rare ($n = 8$), and those comparing any kind of test- and control groups even more so ($n = 3$). Only one of these reports a randomized selection of participants.

Figure 4: Study design 2

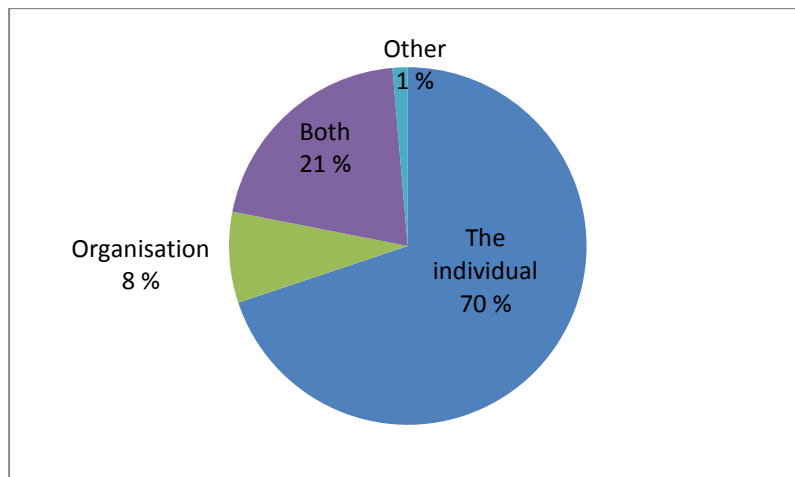


3.4 Focus and objectives of included studies (what)

The individual humanitarian workers' thoughts, opinions, subjective experiences or instrument-screened mental and emotional health are most often the foci of research ($n = 51$). A minority of studies focus on organizations' programs and policies on selection, training and staff support ($n = 6$). A moderate number explicitly look at the interaction between

organizational factors and individual health (n = 15), although organizational factors naturally appear quite often in the results sections of individually oriented studies. Figure 5 outlines study objectives.

Figure 5: Study objectives I



Studies of both individual workers and the interplay between the organizations and their staff tend to look for stressors, risk factors, pathology and symptoms of adverse health. Very few exclusively target protective factors, well-being, personal growth or health benefits, although a moderate number look for both pathologic and salutogenic factors and effects. Table 4 outlines the statistics of foci and objectives, as they emerge in major themes across the entire span of studies.

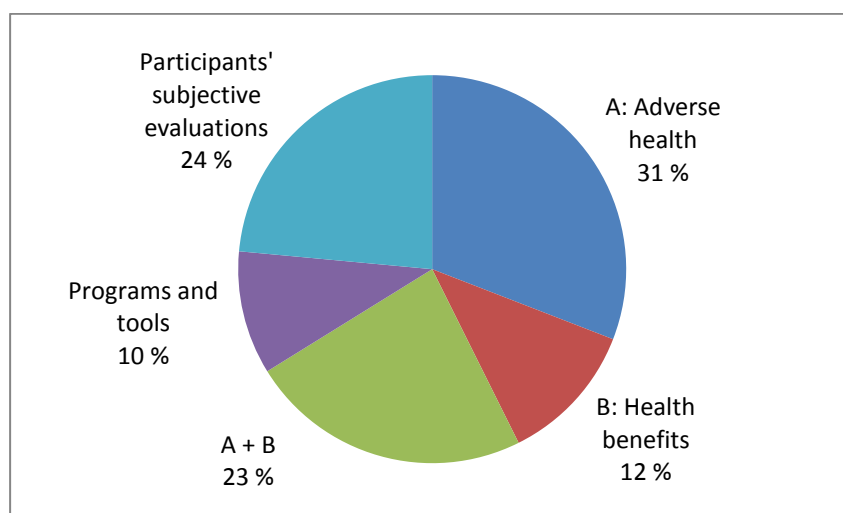
Table 4: Foci and objectives – all studies

Themes	Statistics	Reference number (Appendix 2)
I The individual worker	51	2, 7, 8, 13, 14, 16, 18, 20, 33, 38, 48, 52, 57, 63, 69, 72
II Organization and context	6	10, 24, 25, 31, 47, 71
III Both (I and II)	15	1, 9, 17, 19, 23, 26, 27, 43, 44, 55, 59, 61, 62, 67, 68
IV Other	1	37
The individual worker (I)		
a) Pathology, symptoms, stressors, risks, etcetera.	16	2, 7, 8, 13, 14, 16, 18, 20, 33, 38, 48, 52, 57, 63, 69, 72
b) Protective and salutogenic factors, well-being and growth	6	15, 21, 34, 51, 64, 66
c) a) and b) combined	13	4, 6, 22, 32, 39, 42, 45, 46, 49, 53, 56, 60, 65
d) Subjective experiences qualitatively reported (motivations, ideologies, perspectives, concerns, expectations, needs etcetera)	15	3, 5, 11, 12, 28, 29, 30, 35, 36, 40, 41, 50, 54, 58, 73
Other	1	70

Organization and context (I and III)		
a) Relations to risk, stressors, symptoms and pathology	5	19, 23, 55, 59, 61
b) Relation to protection, well-being, growth and positive change	2	1, 17
c) a) and b) (any outcome)	2	9, 62
d) Comparing mental health between the trained and untrained workers	1	26
e) Participants subjective evaluations of training, supports and other organizational factors	5	27, 43, 44, 67, 68
f) Identifying or evaluating training programs	4	10, 24, 25, 31
g) Identifying or evaluating staff care and support programs	2	47, 71
Other (IV)		
Test-running a screening tool	1	37

These thematic findings can be further reduced to simpler categories as shown in Figure 5:

Figure 5: Summary of objectives – all studies



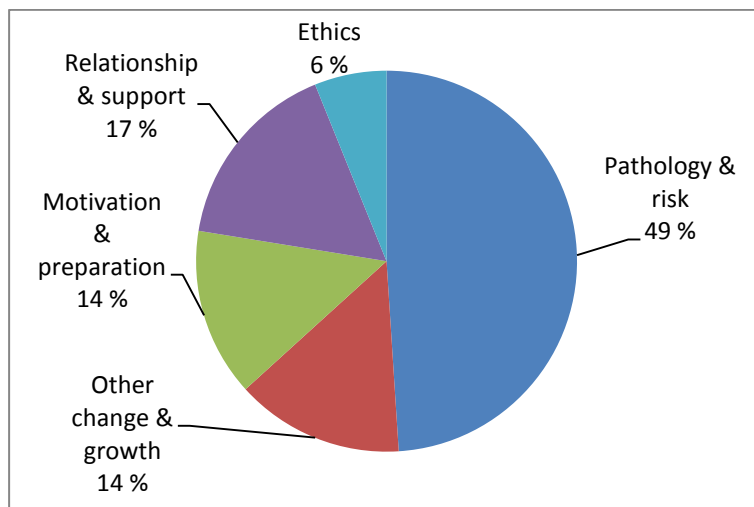
Some studies adopt generic language such as “mental health”, “mental illness”, “psychological distress” or “well-being”, whereas almost 70% (n = 49) investigate quite specific aspects of the humanitarian MHPSS experience. Table 5 provides statistical details.

Table 5: Themes of specific foci

Themes	Statistics	Reference number (Appendix 2)
PTSD and/or depression and/or anxiety and/or burnout	18	2, 8, 13, 14, 18, 20, 22, 26, 32, 33, 48, 49, 53, 57, 63, 65, 69, 72
Secondary traumatic stress	3	52, 32, 42
Suicidal ideation	2	57, (69)
Risk-taking behavior	1	16
Altruistic Identity	3	37, 38, 39
Post-traumatic growth (PTG)	3	32, 34, 53
Transformative experiences	1	15
Spiritual change	1	21
Motivation	3	3, 5, 58
Empathy	1	12
Passion	1	56
PFA (training)	1	10
Preparing and decision making	1	11
Support	7	17, 19, 23, 27, 67, 68, 71
Relationships between colleagues	1	1
Ethics and moral experiences	3	28, 29, 30

Studies on adverse health seem to be overrepresented also in this sample (Figure 6).

Figure 6: Summary of studies with specific foci



Literature reviews warrant special mention, as they summarize findings on specific topics from a range of primary sources. Table 6 charts foci and objectives of the reviews.

Table 6: Summary of literature reviews

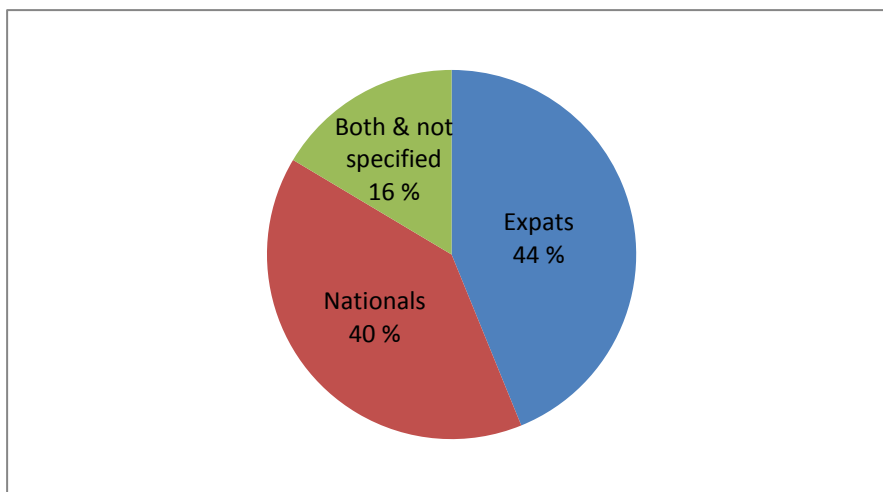
Author and year	Topic	Databases	Records
Bills et al., 2008	Mental health of responders to 9/11	PubMed & Medline	n = 25
Brooks et al., 2015	Risk and resilience factors affecting well-being of humanitarian workers after disasters	Medline, Embase, PsycInfo & Web of Science	n = 61
Connorton et al., 2012	Trauma-related mental illness. Studies on relief workers (n1) and organizations (n2)	Medline, PsycInfo & Google Scholar	n1 = 12 n2 = 5
Jacquet et al., 2014	Identifying training programs	EMBASE, Cochrane, Scopus, PubMed & Web of Science, plus open Internet search	n = 21
Strohmeier & Scholte, 2015	Trauma-related mental health problems in national staff	PubMed, PsycInfo & PILOTS	n = 14
Thormar 2010 & 2015	Mental health impact on volunteers in disasters	PsycInfo, PubMed, Web of Science	n = 9
Walsh, 2009	Experiences of stress reduction interventions	CINAHL, Ovid, Global Health Database, PsycInfo, Medline & REFWorks	n = 12

3.5 The respondents (who)

3.5.1 National background

At first glance this analysis found that studies seemed quite evenly spread between national (n = 29) and expatriate (n = 32) workers (Figure 7).

Figure 7: National staff and expatriates



Americans, Europeans and Australians are overrepresented in studies on expatriates, or in those including participants of two or more nationalities. Moreover, quite a few of research projects on national staff exclusively were carried out in the aftermath of natural disasters in the West, such as hurricanes and earthquakes. Studies on respondents to the 9/11 terrorist

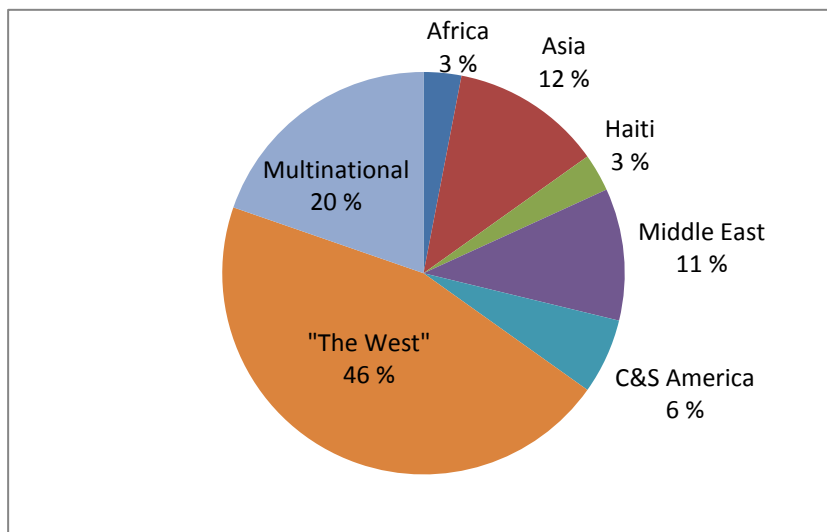
attacks in the USA are so heavily overrepresented in the literature that this review chose to include only one reference: another review of 25 articles (Bills et al., 2008). Even then, Westerners, and Americans in particular, make up the majority of respondents.

Table 7: Respondents' nationalities

Region	Nation	Statistics	Reference number (Appendix 2)	
American & Europeans only		4	11, 16, 21, 46	
Africa	Uganda	1	1	
	Sudan	1	42	
Asia	Cambodia	1	40	
	China	2	69, 72	
	India	1	52	
	Indonesia	1	2	
	Sri Lanka	3	9, 25, 67	
Caribbean (North America)	Haiti	2	24, 32	
Central and South America	Colombia	1	66	
	Guatemala	2	48, 49	
	Uruguay	1	58	
Europe	Belgia	1	64	
	Bosnia & Herzegovina	1	40	
	The Netherlands	1	65	
	Germany	1	33	
	Italy	2	15, 51	
	Kosovo	1	7	
	Norway	1	59	
	Sweden	1	5	
	Middle East	Middle East (5 areas)	1	55
		Iran	1	26
Jordan		1	20	
Pakistan		1	18	
Palestine (Gaza)		1	53	
Multinational respondents	Turkey	2	2, 34	
North America		13	3, 6, 8, 19, 22, 35, 41, 43, 47, 56, 58, 68, 71	
	Canada	4	23, 28, 29, 30	
Oceania	USA	10	4, 10, 12, 13, 14?, 24, 44, 45, 54, 70	
	Australia	1	50	
	New Zealand	2	36, 58	

There is a relative lack of studies on African staff. Another interesting finding is that though a considerable number of projects study Americans and Europeans deployed to the 2010 Haiti earthquake (ref. chapter 3.6), only two focus in on Haitian staff. Yet, this equals the number of those focusing in on African nationalities altogether.

Figure 8: Summary of respondents' national backgrounds



3.5.2 Professional background

As noted in chapter 2.2.2, selection criteria exclude studies focusing primarily on non-humanitarian emergency personnel such as paramedics, police and firefighters. Those looking at humanitarians within a wider group of respondents are included ($n = 3$). Connorton et al. (2012) compare combat- and relief work veterans. Hagh-Shenas, Goodarzi, Dehbozorgi, and Farashbandi (2005) compare trained firefighters and Red Cross workers with untrained student volunteers while others study humanitarian relief workers, local health care providers and traditional/spiritual healers in Cambodia and Bosnia and Herzegovina (L. McDonald, Mollica, Douglas Kelley, Tor, & Halilovic, 2012). The remaining studies ($n = 70$) concentrate on humanitarians only, providing this review with a relatively clean sample of participants. Still, most studies do not specify the professional training and backgrounds of their respondents ($n = 41$). Among those who do, health care professionals receive the most attention. A significant number of projects study humanitarian health providers exclusively ($n = 17$). Only one singled out other professional groups of humanitarians, namely rehabilitation and constructions workers. These were engineers and technicians, social organisers and consultants as well as coordinators and supervisors employed at an earthquake reconstruction site in Pakistan in 2005 (Ehring, Razik, & Emmelkamp, 2011). A few studies look distinctly at volunteers with little or no professional training or previous humanitarian experience ($n = 5$ (8)). These include the previously mentioned cluster of four articles resulting from one in-depth research project (Thormar, 2015; Thormar et al., 2014; Thormar et al., 2013; Thormar et al., 2010). Yet others focus on disaster survivors recruited and trained by humanitarian

organizations to provide psychosocial support in their own communities (n = 5 (7)). These do not include the uncharted but presumably large numbers of affected national staff in conflict affected areas.

3.5.2 Other demographics

Some humanitarian organizations have religious affiliations. Seven articles report on respondents’ religiosity or spirituality. These are mainly Christians or Mormons. One study identifies Buddhist, Hindu and Muslim staff (Ager et al., 2012), and one includes a sample of traditional/spiritual healers (L. McDonald et al., 2012). A study assessing “spiritual change” takes care to explain that only “four non-theistic items” on the spiritual transcendence index (STI) were explored. Still, 2/3 of its participants identify themselves as religious (Eriksson et al., 2015, p. 21). The number of articles reporting on religiosity is smaller than expected, yet significant enough to mention.

Almost all studies include participants of both genders, and most try to obtain even samples of males and females. Participants represent the entire range of employable age, although most have considerable humanitarian experience. Two references report from one study on “older volunteers” aged 50 or more (Cheek et al., 2015; Piercy et al., 2011). Table 8 summarizes professional background and other demographical findings.

Table 8: Summary of demographics

Professional background	Statistics	Reference number (Appendix 2)
Health professionals exclusively	17	3, 5, 10, 23, 24, 30, 32, 36, 50, 51, 53, 54, 55, 58, 64, 72, 73
Health pros and other humanitarians	10	2, 4, 7, 17, 25, 26, 28, 40, 65
Non-health providers exclusively	1	18
Professional background not specified	41	1, 6, 8, 9, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 27, 33, 34, 35, 37, 38?, 41, 42, 43, 44, 45, 46, 48, 49, 52, 56, 57, 59, 60, 61, 63, 66, 68, 69, 70, 72
Inexperienced volunteers	5 (8)	5, 11, 26, 63 (incl. 60-62), 67
Disaster survivors in training	5 (7)	24, 25, 34, 61-63, 69
Combat veterans	1	13
Non-humanitarian emergency personnel	1	26
Non-humanitarian health personnel	1	40
University students	1	26
Religious or spiritual affiliation	7	
Christian incl. Mormon	5	11, 12, 19, 21, 46
Buddhist, Hindu & Muslim	1	9
Other	1	40
Age specific studies	2 in 1	
Older volunteers		11, 46

3.6 Location (where)

A majority of studies do not specify work location (n =34). Countries that most frequently receive specific mention are Haiti (n = 6) following the earthquake in 2010, as well as Indonesia, India and Sri Lanka (n = 11). The latter generally report from the tsunami in 2004, although other disasters are also covered. Once again, African countries are rarely in focus (n = 4), although it is safe to assume that they fall into the large, non-specified category of “multiple locations”. Figure 9 shows numbers by region.

Figure 9: Deployment location

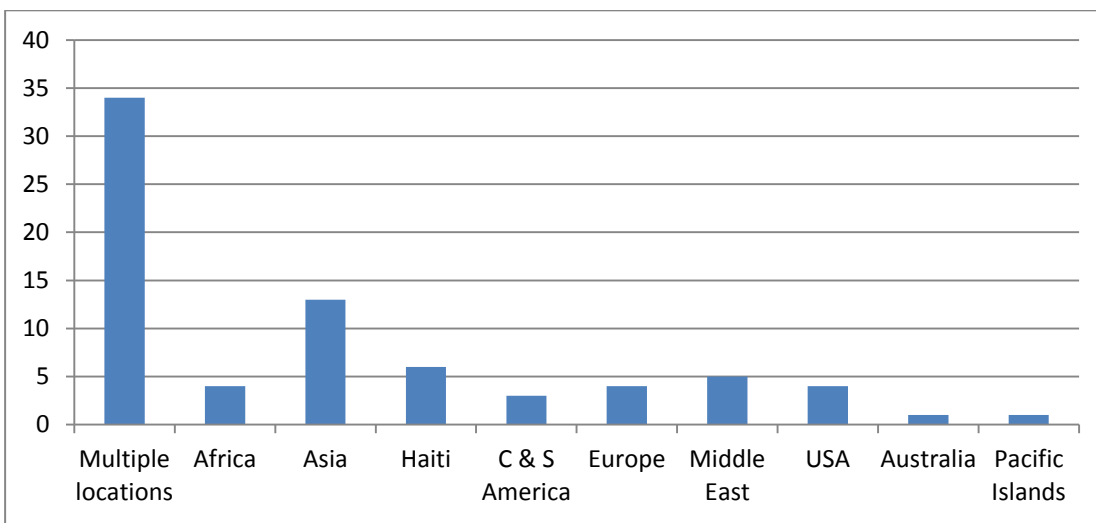
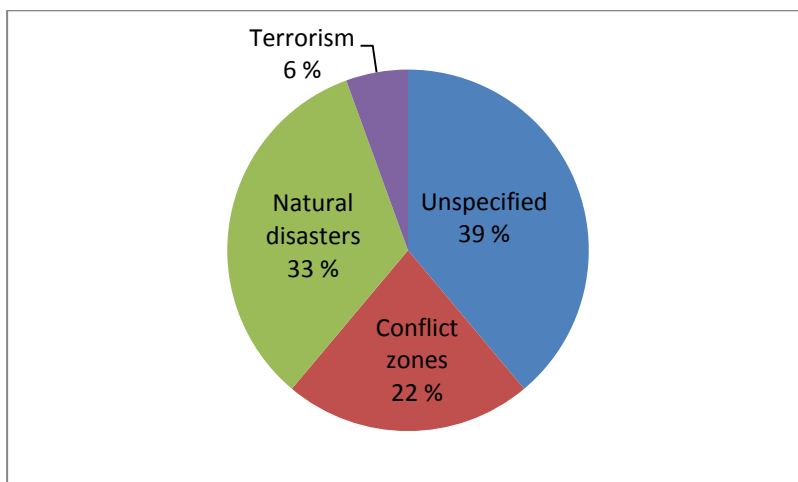


Figure 10 provides the relative distribution of studies reporting from areas of conflict and violence, in contrast to natural disasters such as earthquakes, hurricanes, tsunamis and widespread fires. The latter category is overrepresented.

Figure 10: Type of humanitarian crisis



3.7 Time (when)

Most studies feature quantitative or qualitative cross-sectional interviews during or after deployment. Interviews may cover one or a specific few experiences, yet often respondents report generically from extensive humanitarian employment spanning up to 40 years and multiple missions. Likewise, pre-deployment topics such as motivation and training are mostly studied in retrospect. Only seven studies interview participants ahead of missions (Appendix 2, reference no. 5, 8, 21, 22, 32, 56 and 64).

3.8 Findings reported by selected studies

Main findings can be categorized in three broad themes. Firstly, this study confirms, reinforces and adds nuance to main findings of larger evidence bases on stressors, adverse health consequences and risk factors. Secondly, well-being, resilience and protective factors, along with work satisfaction, benefits and growth rise as a rather prominent theme, particularly in qualitative reports. Thirdly, nearly half of the studies find that responders talk about, or hint at, ethical challenges and moral dilemmas. Inner conflict and self-blame seem to be sources of stress.

3.8.1 Adverse health

Stressors

Similar to what has been found in studies on combat or emergency professions (Nash, Westphal, Watson, & Litz, 2010; Watson et al., 2013), humanitarian work stressors can be grossly divided into four main categories:

1. PTEs such as life in danger, violence, threats or chasing, kidnapping, imprisonments, accidents, handling dead bodies, forced separation etcetera (Connorton et al., 2012). In conflict-afflicted areas, workers are naturally more exposed. A study in Northern Uganda concluded that more than 50% had experienced five or more PTE (Ager et al., 2012). In Kosovo, the mean number was 2.8 for expatriates and 3.2 for nationals (Cardozo et al., 2005). In Gaza, the mean total traumatic events were 7.5 (Shamia, Thabet, & Vostanis, 2015). In Guatemala, national workers experienced an average of 13 episodes of violence (Putman, Lantz, et al., 2009; Putman, Townsend, et al., 2009).

2. Dramatic loss implies murder or accidental death of coworkers, beneficiaries and (for national staff) family members or friends (Ehring et al., 2011). In Guatemala, 79% of national workers had experience the death of a close one (Putman, Lantz, et al., 2009; Putman, Townsend, et al., 2009). One project studied local survivors of an earthquake in China where 2/3 of the town residents had died (Wang, Yip, & Chan, 2013). Some struggle through loss or destruction of home and property (Shamia et al., 2015).
3. Chronic stressors include secondary/vicarious trauma, or indirect exposure to trauma through others' account of traumatic events (Shah, Garland, & Katz, 2007). One such example is the UNHCR intern who transcribed torture survivors' taped interviews (Welton-Mitchell, 2013, p. 29). Organizational risk factors such as job uncertainty, work-load, unpredictable hours, unclear boundaries, poor leadership, low team cohesion and conflict also operate as chronic stressors. Sometimes vicarious trauma and organizational stress come together. In areas with limited mental health services, humanitarians may find themselves in "expansive roles", expected to provide counseling, problem solving and psychosocial support also when it is not their skill or job description (Ranse & Lenson, 2012). In one study, national staff reported financial concerns as the number one chronic stressor (Eriksson, Cardozo, Ghitis, et al., 2013, p. 669).
4. Moral injury is a nomen for the experience of being forced to transgress against ones' own deeply held moral values, or witness and not being able to prevent others from carrying out gross ethical violations (Litz et al., 2009). Humanitarians in war zones sometimes witness torture and other violence (McCormack & Joseph, 2013). Less grave, but more common, are chronic ethical dilemmas, such as having to turn away people in need because of lack of time or resources (Thoresen, Tønnessen, Lindgaard, Andreassen, & Weisaeth, 2009).
5. One study adds a fifth category to the set of stressors, suggesting that humanitarian workers' risk taking behavior is high above average. Of 1190 returned ICRC workers, 40% experienced the mission as more stressful than expected. 35% had not followed malaria precautions, 1/3 engaged in causal and unsafe sex and 27% reported other risk taking behavior (Dahlgren, DeRoo, Avril, Bise, & Loutan, 2009).

Adverse health consequences

A majority of studies report adverse health symptoms. The prevalence of PTSD is higher than in general populations, but more common is anxiety, depression, secondary traumatic stress and burnout, or symptoms of these (Table 4 & 5; Figure 5 & 6). One study reports complicated grief, related to traumatic loss (Putman, Townsend, et al., 2009), another reports on secondary traumatic stress (Shah et al., 2007). Burnout is recognized by symptoms in three categories: emotional exhaustion, depersonalization and decreased sense of personal accomplishment (Cardozo et al., 2012; Eriksson et al., 2009). These are frequently reported as “compassion fatigue” (Clukey, 2010; Musa & Hamid, 2008; Van der Auwera, Debacker, & Hubloue, 2012; Weber & Messias, 2012), sometimes described in other language like “emotional burden” (Asgary & Lawrence, 2014). One research team develops a theory of personality change termed Altruistic Identity Disruption (McCormack & Joseph, 2012; McCormack et al., 2009), specifically related to “complex humanitarian distress” (McCormack & Joseph, 2013). One study reports remarkably high suicide ideation (Wang et al., 2013), which is also commented in one of the reviews (Strohmeier & Scholte, 2015).

A slight majority of prospective cohorts suggest that adverse mental health symptoms increase following humanitarian employment given certain risk factors (Ager et al., 2012; Cardozo et al., 2012; Eriksson et al., 2015; St-Louis, Carbonneau, & Vallerand, 2014; Thormar et al., 2014; Thormar et al., 2013). A couple of other longitudinal projects report no significant increases in health problems or decreases in well-being (Van der Auwera et al., 2012; Van der Velden, Van Loon, Benight, & Eckhardt, 2012).

Risk and protective factors

Brooks et al. (2015) dedicate a review to risk and resilience factors, based on 61 original studies. The prominent pre-deployment factor is preparedness and training. Important peri-deployment factors are mission’s length and timing, prevalence and intensity of trauma exposure, becoming emotionally involved, leadership, inter-agency cooperation, social support, formal and organizational support during disaster, clarity of role and tasks, job demands, safety and equipment, self-doubt, guilt and coping strategies. Post-mission, formal support and media coverage seemed to matter the most. Pre- and post-disaster experiences and socio-demographic characteristics yield mixed results, except for younger age, which consistently gave poorer outcomes. Another review found that adverse mental health

outcomes in national staff are either similar or higher to reference groups, suggesting that being national staff in and of itself for various reasons may be considered an indirect risk factor. One of few also looking for gender differences, this review only came up with “ambiguous results” regarding gender and mental health problems in its sample (Strohmeier & Scholte, 2015, p. 14). A third review finds that volunteers, compared to professional workers, have “higher complaint level”, listing key factors such as identification with victims, severity of exposure, anxiety sensitivity and lack of post-disaster social support (Thormar et al., 2010). A singular study looks at how “passion for a cause” affects health and subjective well-being, and finds that “obsessive passion” relates to work stress, self-neglect and injuries (St-Louis et al., 2014).

3.8.2 Wellbeing and growth

Less than half of participants in most studies have symptoms equivalent to a full PTSD diagnosis. Even in conflict or post-conflict areas where exposure to PTE is or has been particularly high, prevalence of PTSD is only 26% in Uganda (Ager et al., 2012), 24.2% in Banda Ache (Armagan, Engindeniz, Devay, Erdur, & Ozcakil, 2006), 19% in Sri Lanka and Gaza (Cardozo et al., 2013; Shamia et al., 2015), and 6.2% in national Kosovars (Cardozo et al., 2005). The studies that look for positive health outcomes, find in some respondents improved mental health (Ager et al., 2012), personal and professional growth, (Brooks et al., 2015), positive life changes (Eriksson et al., 2015), “enhanced sense of self-worth, purpose, social connection and satisfaction” (James, Noel, & Roche Jean Pierre, 2014, p. 152) and increases in compassion satisfaction (Van der Auwera et al., 2012). A handful of studies find post-traumatic growth, even national workers in areas of mass violence (James et al., 2014; Karanci & Acarturk, 2005; McCormack & Joseph, 2013; Shamia et al., 2015). Results from qualitative studies, which openly explore “experiences” rather than explicit outcomes, imply that respondents seem to talk about health benefits more often than researchers look for them. Workers find the humanitarian experience “enriching” or “rich” (Lal & Spence, 2014 p. 43), including “extremes of sadness and joy” (Sloand, Ho, Klimmek, Pho, & Kub, 2012, p. 242). Older volunteers returning from missions mention “expanded social networks, increased closeness to spouses and increased compassion and empathy for others”, as well as finding existential meaning in service (Piercy et al., 2011, p. 550). Local volunteers serving after Hurricanes Katrina and Rita surprised the researchers by talking mostly about “life-changing personal transformations” (Clukey, 2010, p. 644).

Factors that enhance well-being and growth are found in motivation, coping and organizational aspects. Before mission, training and preparation improves perceptions of self-efficacy, self-mastery, optimism and ability to cope (Gelkopf, Ryan, Cotton, & Berger, 2008; Makinen, Miettinen, & Kernohan, 2015; Walsh, 2009). “Harmonious passion” relates to work satisfaction (St-Louis et al., 2014, p. 1). Empathy decreases stress, anxiety and anger, while increases positive emotion (Cristea et al., 2014). Post-traumatic growth is associated with optimistic or fatalistic coping strategies (Karanci & Acarturk, 2005). Peri- and post-deployment organizational factors such as social support, trust and respect for leaders, strong team cohesion, lesser chronic stressors, a culture of openness and dialogue and the opportunity to rest and recuperate improve mental health (Ager et al., 2012; Kene, Pack, Greenough, & Burkle, 2009). Studies that investigate organizations’ training and support programs, find that “practices are inconsistent” and “existing guidelines tend not to be adhered to” (Porter & Emmens, 2009 p. 7). Organizations’ response rates to requests to participate in research are remarkably low. Even agencies with resources and priority to invest in external evaluations of staff support, fail to live up to standards (Welton-Mitchell, 2013).

3.8.3 Ethical experiences

One researcher only looks specifically for ethical or moral “experiences” and participants’ evaluations of ethical training (Hunt, 2008, 2009; Hunt et al., 2012). He targeted two different groups of humanitarian health professionals in two different studies and found five core themes in each. The themes charted in Figure 11 are further discussed in chapter 4.1.5.

Figure 11: Core themes (Hunt, 2008; 2009)

2008	2009
1) tension between respecting local custom and imposing values 2) obstacles to providing adequate care 3) differing understandings of health and illness 4) questions of identity for health workers 5) issues of trust and distrust	6) examination of motivations and expectations 7) the relational nature of humanitarian work 8) attending to steep power imbalances 9) limits of what is possible in a particular setting 10) organizational forms and structures shape moral everyday experiences

Moral values, ethical dilemmas and emotions related to these show up in 31 studies, most of which do not ask about it. They make up 45% of the entire sample. Among core themes in studies on motivation, are altruism, solidarity, accountability to beneficiaries, wanting to contribute, calling, heroism, sacrifice, passion, service, responsibility, obligation, compassion

and identification as “helper” (Asgary & Lawrence, 2014; Bjerneld, Lindmark, McSpadden, & Garrett, 2006; Norris, Watson, Hamblen, & Pfefferbaum, 2005; St-Louis et al., 2014; Tassell & Flett, 2011). In summary, workers have “strong humanitarian motivation” (Eriksson, Cardozo, Foy, et al., 2013, p. 46). Though staff find their work meaningful and useful, work satisfaction is often discussed in a context of ethical distress. It is articulated in language revealing or hinting at self blame, such as guilt, shame, rumination, self-doubt, lack of achievement, examination of motivations and expectations, remorse, and sense of moral failure (Brooks et al., 2015; Hearn & Deeny, 2007; Hunt, 2009; St-Louis et al., 2014). Others are disappointed with their organizations and experience shock, fatigue, anger, grief, sleep disturbance and frustration with leadership (Clukey, 2010; Hearn & Deeny, 2007), or try to make sense of global injustice and personal responsibility (McCormack et al., 2009). What seems to bother humanitarians most are high expectations and excessive demands (Soliman & Gillespie, 2011) combined with feeling inadequate and forced to compromise on ethics and professional standard (Ranse & Lenson, 2012; Sloan et al., 2012) Frustrations are expressed about:

- “unresolved conflict in relation to the organization, centered primarily around what the organizations say on paper and what they do in reality” (Hearn & Deeny, 2007, p. 33)
- “obstacles to providing adequate care” and “tragic choices in complex situations” leading to “moral uncertainty and remorse” (Hunt, 2008, pp. 59, 67)
- “limits of what is possible in particular settings” (Hunt, 2009, p. 521)
- “expertise considered not sufficient” (Lal & Spence, 2014, p. 18)
- being “ill-equipped” in addressing poverty and violence (L. McDonald et al., 2012, p. 185)
- “having to reject victims in need of help” (Thoresen et al., 2009, p. 353)
- “not being able to help as well as imagined” or “deliver good standard of health care” (Van der Auwera et al., 2012,)
- “insufficient capacity to meet overwhelming demands” (Weber & Messias, 2012, p. 1833)
- “overwhelmingness of need” (Zinsli & Smythe, 2009, p. 1)

These themes appear in articles discussing compassion fatigue and burnout. In addition to the classic burnout symptoms (emotional exhaustion, depersonalization and decreased sense of personal accomplishment), some express anxiety about being misunderstood or not

acknowledged by others. One study found that PTSD correlates with perceived disapproval (Jones, Müller, & Maercker, 2006), another that the combination of job burnout and work-family conflict increased suicidal ideation (Wang et al., 2013). Some experiences are severe enough to be described as moral injury. McCormack and colleagues worked with individuals returning from prolonged service in areas with mass violence. They describe a process of personality alteration, which they call *altruistic identity disruption*. The ex-humanitarians feel “isolated, invalidated and alienated from family and friends”, go through “a continuum from self-acceptance and adaptive reintegration into society of origin to self-doubt and social disruption”, and have difficulties “integrating with intimate others”. They need “reparation with self” and “redefining of self-worth and altruistic identity” (McCormack & Joseph, 2013, p. 147; McCormack et al., 2009, p. 109).

4. Discussion

Given the diversity of objectives, scope, methodologies and context, results are not easily compared, contrasted or summarized. Main findings are reported as broad themes and patterns that warrant further investigation, rather than detailed or conclusive results.

4.1 Main findings

Results on publication and authorship suggest a modest but rapidly growing scope. Results on methods used show that cross-sectional retrospective designs are overrepresented. Recognized quality methodologies such as cohorts and experiments are sparse. Closer investigation reveals that this emerging field of research is picking up speed and substance.

The main findings from comparing objectives is that the majority of researchers set out to study the humanitarian workers, while few study organizations and their programs. Most seem to be interested in stressors, risk and protective factors, PTSD and other trauma-related negative outcomes. Fewer studies look for health benefits, although the qualitative projects open for all experiences.

Results on respondents and locations give a picture of rather gross Western bias. Western expatriate staff are heavily overrepresented, as are workers with professional health background. There are more studies on responders to disasters than on staff in war and conflict zones.

Studies report elevated rates of exposure to both traumatic and chronic stressors. Common health consequences are symptoms of PTSD, anxiety, depression, burnout and compassion fatigue. Risk factors are young age, inexperience, lack of training and preparation as well as a range of organizational factors. Protective factors are social and formal support systems.

More notable are widespread findings on wellbeing, benefits, growth and complex change. Humanitarian workers seem to be thinking and talking about salutogenic factors and effects more often than researchers seem to ask about it.

Most prominent are findings on ethical experiences, moral distress and inner conflict. Although one researcher addresses this specifically, it arises as a central theme from almost all qualitative and mixed methods studies combined.

Table 9 provides a summary of findings discussed in this chapter.

Table 9: Summary of findings

Area	Results
Author	Co-authorship and collaborations suggest the field is even narrower than the final selection of 73 records
Year of publication	Trend: increased interest from 2005-2015
Methods used	Cross-sectional designs overrepresented: 79% Longitudinal references: 10%
Focus and objectives	The individual perspective: 70% Organisations: 8%
Specific foci	Pathology and risk: 49% Benefits and growth: 14% Motivation and preparation: 14% Relationships and support: 17% Ethics: 6%
Respondents' nationalities	The West (exclusively): 46% Multinational: 20% Africa (exclusively) 3%
Professional background	Health professionals (exclusively): 23% Non-health professionals (exclusively): n=1 Inexperienced volunteers/disaster survivors: 16%
Location	Multiple: 47%, Asia: 15%, Haiti: 8%, Middle East: 7% USA, Europe, Africa (respectively): 5.5%
Type of crisis	Natural disaster: 33% Violence: 28%
Reported findings	1 Elevated rates of exposure Consequences: PTSD, anxiety, depression, burnout Risk factors: young age, inexperience, little training, unsupportive organisational demands and culture Resilience factors: social and organisational support, clarity of roles and tasks, sound leadership 2 Personal and professional growth 3 Ethical experiences, moral dilemmas and inner conflict

4.1.1 Author, year and methods used

Research on mental health and psychosocial support for humanitarian workers is an emerging field, “still in its infancy” (Strohmeier & Scholte, 2015, p. 3). Yet, the infant seems to be growing fast, in numbers and substance. Test searches in early 2015 suggested a modest scope of about fifty records. The number included in the final selection (n = 73) is higher than expected. Ten records (14%) have been published in the last year since test searches were

performed. Statistics on publication date seem to reflect the trend suggested in chapter 1: an increased interest in the mental health and psychosocial support of humanitarian staff (ref. chapter 3.2). In the last half decade 47 records (65%) have been published, including all the longitudinal projects (n = 8) and five of seven literature reviews.

The reviews explore broader topics such as “the mental health effects of relief work” or “risk and resilience factors” related to humanitarian roles (Brooks et al., 2015; Connorton et al., 2012). Others try to map the scope of research on particular humanitarian populations such as volunteers (Thormar et al., 2010) or national staff (Strohmeier & Scholte, 2015). One seeks to identify all training programs for responders to humanitarian emergencies (Jacquet, Obi, Chang, & Bayram, 2014). Comparably, the earlier reviews have had narrower aims: To study responders to the terrorist events of September 11th (Bills et al., 2008), and to review a rather small number of post-mission interventions (Walsh, 2009).

It is noted that a number of authors reappear as co-authors in each other’s publications, leading the reader to overestimate the quantity and breadth of research (ref. chapter 3.1). Original studies might be considerably less than the selected seventy-three articles, confirming that the field is still quite small. Yet, co-authorship and clustering indicate that research has grown beyond budding interest and initial frameworks. Some articles are part of larger projects including literature reviews, cross-sectional and longitudinal works. The aforementioned *Antares/CDC* group involves researchers from across the world. The major focus has been one longitudinal study on 212 expatriate staff from 19 NGOs, and four cross-sectional studies on national staff. The longitudinal project is reported in one article on pre-deployment exposure, risk and resilience factors (Eriksson et.al., 2012), one article on “distress, depression, anxiety and burnout” measured at three time points (Cardozo et.al., 2012) and one on “trajectories of spiritual change” measured at three time points. The latter is explored as an indicator of “creating meaningful perspective on the work and developing coping strategies” (Eriksson et al., 2015, p. 13). Parallel studies were performed by many of the same authors on national staff in Uganda (Ager et al., 2012), Jordan (Eriksson et al., 2013) and Sri Lanka (Cardozo et al., 2013). Included in the project is also an earlier study on Kosovar staff by key researcher Barbara L. Cardozo (2005). Key researcher Cynthia Eriksson is involved in an earlier study on social, organizational and religious support (Eriksson et al., 2009), while another project member co-authors the later literature review on national staff (Strohmeier & Scholte, 2015). The *Antares/CDC* research appears to be the most far-reaching

and comprehensive project to date, proving that while the field is narrow; it is growing meat on its bones.

Given the discussion above, it is not surprising that the longitudinal studies have all been published between 2012 and 2015. One work addresses untrained volunteers. Over a span of six years, it involves a literature review (Thormar et al., 2010) and two longitudinal reports on Indonesian Red Cross community volunteers and earthquake survivors. It studies various organizational and non-organizational factors' effect on mental health, measured at two and three time points (Thormar et al., 2013; 2014), culminating in an exhaustive discussion (Thormar, 2015). Another project involves local staff survivors of the Haiti earthquake and the effect of their training to implement mental health programs to displaced peoples. Measurements were taken at six time points over 18 months (James et al., 2014). Again from Haiti, two studies measure mental health in Belgian and Dutch short term missions. They take measures pre-, peri, and post-deployment, up to seven different time points (Van der Auwera et al., 2012; Van der Velden et al., 2012). Adding to the knowledge base is the work on "harmonious passion and obsessive passion's affects on health and subjective well-being", also studied before, during and after missions (St-Louis et al., 2014). The longitudinal projects are few, yet hot off the press and include all the main humanitarian populations: volunteers, national staff, survivors in training, and professional expatriates.

Cross-sectional studies of both quantitative and qualitative design are heavily overrepresented. Despite limits of this method (ref. chapter 4.2), some add depth and nuance to subjects already explored by others. To exemplify, "older volunteers" at first seems too much a fringe topic to warrant much attention. Nonetheless, following interviews with returning 50+ year olds about the challenges and benefits of their experiences (Piercy et al., 2011), the team later on decided to look deeper into motivation and decision processes (Cheek et al., 2015). Results from other projects make plain the value of this investigation: in a growing evidence base, young age and inexperience appear to be key risk factors for mental health problems and burnout in particular (3.8.1). Qualitative deep dives into older workers' subjective thoughts pre- and post-mission, add invaluable information about an increasingly attractive group of humanitarian recruits.

The only project using a type of experimental design is a study on PTG among earthquake survivors and emergency volunteers, discussed in chapter 4.1.5.

4.1.2 Focus and objectives

It is understandable that the majority of researchers focus on individual workers, adverse mental health and vulnerability factors. After all, humanitarian work is dangerous (Carmichael & Karamouzian, 2014; Redwood-Campbell, Sekhar, & Persaud, 2014). Deaths are more often caused by violence than by accidents or diseases (Rowley et al., 2007). Trauma research gives solid evidence that the severity of PTE predicts mental health outcomes (Brewin, Andrew, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2008). Human-induced trauma such as mass violence, war, genocide and terrorism are associated with more dramatic consequences than natural disasters or accidents (Santiago et al., 2013). There is also evidence that the number and rates of violent incidents against humanitarians are growing. According to the Aid Worker Security Database, 2013 set a new record with 251 separate attacks affecting 460 aid workers (Stoddard et al., 2014). The same research centre also notes that “the perception of risk increases with each experienced incident” and that “memorable negative events affecting colleagues and counterparts can stick in the collective mind and raise the risk perception across the sector as a whole” (Stoddard, Haver, & Czwarno, 2016, p. 9).

While a violent attack is a PTE, perception of risk is a chronic stressor; one of many in humanitarian field work. Chronic stressors have been studied as risk factors associated with adverse mental health. Findings suggest that a considerable portion of risk and vulnerability factors is organizational, as are protective and resilience factors (ref. chapter 3.8). It is therefore pertinent to observe that so few studies (8 %) focus in specifically on organisations and their programs (ref. chapter 3.4), and that those who do report low response rates. A benchmark work, too early to be included in this review, is widely referenced. It surveyed practices with respect to mitigating and managing stress in field staff.

Only 17 of over 100 nongovernmental organizations contacted responded to the survey. Even among those that did respond, the limits on their investment in this area were evident. Few reported even the most perfunctory screening of potential staff with respect to risk factors for adverse responses to stress. Many failed to provide hands-on training with respect to stress management. Awareness of the role of bureaucratic and organizational actions in reducing stress was limited. Concrete preparation of staff for returning home was all but absent (Ehrenreich & Elliot, 2004, p. 53).

That was 2004, and practices may change over a decade. Yet, later attempts to investigate seem to have had similar difficulty engaging leaders, and even staff, to participate. Porter & Emmens were somewhat successful in 2009, when 20 out of 35 invited NGOs participated in a study on staff care. Of these, only 1/3 had a staff care evaluation practice, and none had conducted publicly available research on the subject. The *Antares/CDC* group remarks that the sampling of NGOs is “one particular limitation” of their longitudinal project. From the initial list of 88, only 19 chose to participate. They comment that “the NGOs choosing to be involved [...] may have specific interest in the topic of staff support, and/or they may represent NGOs with more resources” (Eriksson, Cardozo, Foy, et al., 2013, p. 46). Even so, when the UNHCR hired external consultants to do a mixed method global evaluation, only 16% of workers responded to the online survey. One of the study’s interviewees might shed light on this hesitance:

There is often an unspoken code in this line of work that says that we are the tough ones, that we can face the harsh realities of war and human suffering. We wear the number of war zones and hungerstricken countries we have worked in as badges of honor. Self-care is a luxury that no self-respecting aid worker has. I was definitely from that school of thought until I could no longer afford to be (Welton & Mitchell, 2013, p. 29).

This “school of thought” is perhaps not limited to UN workers. Another research team interviewed German NGO expats in deployment or at headquarters after return. Hundred percent of the returned workers completed the questionnaires, compared to 10.6% of the workers in the field. While workload and time constraints must be taken into consideration, the researchers also note that “responders appreciated anonymity” and sent their forms directly to the researchers and not free of charge through their organization. They propose that minimal response and the need for anonymity may be explained by “low support” for the study in “various national offices” (Jones et al., 2006, p. 98). At a humanitarian multi-media conference in 2015, a key member of the *Antares/CDC* research group identified organisational or “branch culture” as a source of difficulty: “The humanitarian system struggles to deliver aid worker wellbeing due to short-term contracts, lack of hard evidence, and the perception that good staff care is a luxury” (Ager referenced in Laing, 2015, p. 5).

It makes sense to study the characteristics of workplace and organisation as potential risk factors. Organisational chronic stressors such as leadership, team cohesion, clarity of roles

and tasks, formal and peer support, job demands, length of service, workloads and long hours have been found to matter greatly as predictors of psychosocial health consequences (particularly burnout) in reference groups such as emergency personnel or soldiers (Michel, 2014; Nash et al., 2010, Watson et al., 2013). Yet other factors must not be overlooked. One reviewer finds it “remarkable” that the research on volunteers tends to omit “variables that have been found predictive of poorer outcomes in professionals who work with trauma on a daily basis”. Among these, she lists neuroticism, hardiness, avoidant coping styles, history of prior treatment for psychological disorders, physical injury or threat to life, low social support, lower socio-economic status, increased taking of sick leave, female gender, fatigue and young age. She concludes that “future studies on volunteers should include these risk factors” (Thormar et al., 2010, p. 535).

4.1.3 Respondents and location

There is concern in the industry that albeit national staff makes up the majority of workers in humanitarian organizations (Taylor et al., 2012, p. 32), most of the research in the field examines the experiences, needs and health consequences of Western expatriate staff (Strohmeier & Scholte, 2015). In this review, statistical findings on respondents’ nationalities give support to this concern about favoritism. Though the number of studies on expats and national staff at first glance seems to be fairly even (ref. chapter 3.5), selection criteria have to answer for this misinterpretation. It was decided against including studies from “development” or “third world” areas only. After all, humanitarian efforts and development work are not identical, as disasters, war and terrorism can strike anywhere in the world. Therefore, a fair amount of the “national staff studies” in these statistics has been conducted in the West. This is somewhat misleading. Where the literature studies or discusses “national staff”, it generally means national and local staff in international organizations, often in comparison to expatriate staff. A closer look at nationalities reveals that studies with responders from exclusively Western countries made 46% of the sample, compared to the second largest group: 20% of multinational background (ref. Figure 8). A particularly conspicuous finding, given the enormous amount of international humanitarian efforts in Africa, is the relative lack of studies on African staff exclusively, namely 3% (ref. chapter 3.5.1). Why the number of studies on national staff after one earthquake in Haiti in 2010 equals the number of studies on national staff spanning the entire African continent over a decade, can be explained with the massive expatriate Western presence in Haiti. Given the

fact that 92% of humanitarian workers operating in the field are national staff, and 87% violent attacks on humanitarians target national staff (Stoddard et al., 2014; Stoddard et al., 2016), it is irresponsible to keep local workers in broad and general research categories such as “multiple” or “unspecified” nationalities. Firstly, different sets of risk factors apply to national and expatriate workers. While national staff may have the support of family and other social networks nearby, they and their loved ones may also be victims of disasters or at heightened risk in conflict areas. The study on nurses in Gaza found that scores on both PTSD and PTG symptoms were more strongly related to community incidents experienced as civilians than to stressors experienced as professionals at the hospitals (Shamia et al., 2015). A Chinese study on emergency volunteers following an earthquake found high scores on suicide ideation. The volunteers were recruited from a village where 2/3 of the population had died in the earthquake (Wang et al., 2013). Secondly, a considerable number of authors confess that the tools and instruments applied to measure various health outcomes have not been culturally validated for the countries and areas they study. This echoes a major and common criticism of health and trauma research, as well as humanitarian programs of mental health and psychosocial support for beneficiaries: that Western perspectives on health has dominated, particularly with its focus on individual and pathological health, while other cultural approaches to suffering and healing have been neglected or heedlessly handled (Abramowitz & Kleinman, 2008; Rasmussen, Keatley, & Joscelyne, 2014). As articulated by “A Kurdish Man”:

“...in our country we don’t have a thing called before war and after war. Since we are born we come to the war... that’s how we are created.... Maybe the person who [made] those questionnaires, maybe he didn’t know about our situation. Maybe he just knows...big combat or big wars..” (Hollifield et al., 2002, p. 611).

In later years, this issue has been addressed. The *Antares/CDC* research group did four projects on national staff in Kosovo, Uganda, Jordan and Sri Lanka. They found that exposure to traumatic, chronic and secondary stressors were common. Yet there was significant difference in depression, anxiety and burnout across nationality (Ager et al., 2012; Cardozo et al., 2005; Cardozo et al., 2013; Eriksson, Cardozo, Ghitis, et al., 2013).

Statistics on location confirm the hypothesis of Western bias. Here, studies on events in Haiti even exceed studies conducted in African countries, while studies in Europe and the USA score the same as studies in Africa. This is after the huge body of research related to 9/11 and

Hurricanes Rita and Katrina is excluded. Again it is fair to assume that most research on African, South American and Middle Eastern locations hides within “multiple locations” (n = 34). The second largest location category is Asia (n = 13). Although a few of those works are related to recent earthquakes in Indonesia (Armagan et al., 2006; Thormar et al., 2014; Thormar et al., 2013) and China (Wang et al., 2013; Zhen et al., 2012), most concern efforts following the tsunami of 2004 where Western expatriates were heavily involved. Disaster sites (33%) are studied with higher frequency than conflict zones (22%), though it is well established that intentional violence and human rights transgressions are associated with more dramatic and far-reaching mental health consequences (Santiago et al., 2013), and that populations affected by armed conflict have elevated levels of poor mental health (Roberts & Browne, 2011). The exception is studies on the mental health and support of professionals and volunteers responding to the 9/11 terrorist attacks in New York and Washington. They were too many to include in this scope: “A review done on all articles published between September 2009 and January 2008 revealed 484 articles in total” (Bills et al., 2008, p. 117).

One project looks at the imbalance between “the West and the rest” within the microcosm of the workplaces: relationship satisfaction between international and national colleagues (n = 1290) in 202 organizations were measured and correlated with work motivation and performance variables. Local workers value their relationships with expats when they perceive there is pay justice and options for international mobility. The relationships are viewed negatively when there is pay comparison or when locals see themselves as less competent than their international colleagues. Expats view their relationships with locals positively with self-assessed ability, high turnover and job satisfaction, but negatively with the perception of pay injustice. Receiving higher salaries seem to induce a sense of guilt (McWha & MacLachlan, 2011).

By selection criteria this review takes pain to exclude non-humanitarians, so that groups of emergency personnel already thoroughly studied (paramedics, firefighters, police, nurses etcetera) do not dominate the selection. Findings show that professionally trained health care workers are still overrepresented in the literature (ref. chapter 3.5.2). This might not be entirely unfair, because health care personnel make up a considerable amount of humanitarian staff. Fieldwork offers different challenges and risk factors than they face at home. Still, the humanitarian workforce is heterogeneous, including staff from a range of different professional backgrounds. Also medically oriented organizations deploy workers in

administrative and other roles. Because of their emergency training and experience, and because of their access to peer support within professional networks, health workers are supported by protective factors not equally available to other humanitarian staff. Furthermore, the academic literature on combat veterans or nurses includes large numbers of studies on ethical dilemmas, inner conflict and moral distress. This is arguably all but absent in the literature on humanitarian staff, except for the work of one researcher (Hunt, 2008, 2009; Hunt et al., 2012). Interestingly then, the person most affected by distress in one expatriate team in Haiti in 2010, is a logistical member not in direct contact with earthquake victims. This staff member is plagued by guilt about not being able to help (Van der Auwera et al., 2012). Though this might seem contra intuitive to some, it could make sense in light of established findings in trauma research: peri-traumatic reactions such as perceived helplessness and inability to affect the situation is strongly associated with later distress (Breh & Seidler, 2007; Brewin, 2003; Lensvelt-Mulders et al., 2008). The field therefore would benefit from more research targeting other humanitarian staff than professional health workers. This search strategy found one such study on Pakistani earthquake rehabilitation and construction workers, of who most were also survivors. Of these, 42.6% had disaster related PTSD symptoms when interviewed two years after deployment, and 20% had symptoms of depression and anxiety. Levels of burnout were comparably low (Ehring et al., 2011).

Following this argument, one can dispute the decided distinction between humanitarians and others caught in humanitarian situations. This review defines a humanitarian worker as someone professionally affiliated with a humanitarian organization, paid or volunteer (ref. chapter 1.4 & 2.2). Yet, a local nurse employed in a UN hospital may share more characteristics with a local nurse in a community hospital, than with an expatriate UN office clerk. Yet the studies on community hospitals were excluded (Nasrabadi, Naji, Mirzabeigi, & Dadbakhs, 2007; Palgi, Ben-Ezra, & Possick, 2012). Similarly, local earthquake survivors haphazardly recruited to the Red Cross may share more vulnerability factors with journalists, foreign office staff or independent civilians caught in humanitarian roles, than with trained fire fighters and doctors within their own organisation. Yet the studies on government or embassy staff were excluded (Bakhshi et al., 2014; Footer, Meyer, Sherman, & Rubenstein, 2014). On the other hand, the large evidence base saying that organizational aspects are crucial risk and resilience factors defends this specific selection criterion. In order to address implications for organisational humanitarian staff support, it is wise to study humanitarians exclusively.

Inexperience and lack of preparation and training is acknowledged as serious risk factors for traumatic stress and burnout (Eriksson, Cardozo, Foy, et al., 2013; Musa & Hamid, 2008). The literature review and longitudinal project on volunteers at disaster sites are timely (Thormar, 2015; Thormar et al., 2014; Thormar et al., 2013; Thormar et al., 2010). This thorough work supports the hypothesis of volunteer vulnerability, and list specific factors such as “identification with victims as a friend, severity of exposure to gruesome events during disaster work, anxiety sensitivity and lack of post-disaster social support” (Thormar, 2010 et al., p. 529). Other studies show that local survivors recruited, supported and properly trained with humanitarian organizations, experience health benefits, wellbeing and growth. They find that relief work support known resilience factors such as meaningful engagement, sense of community and self-efficacy (Wang et al., 2013). Local survivors and volunteers also add invaluable resources to the organization, serving as liaisons between beneficiaries and other staff (Putman, Lantz, et al., 2009; Putman, Townsend, et al., 2009).

4.1.4 Adverse health

The 73 selected articles regarding mental health and psychosocial support for humanitarian workers mainly confirm, reinforce and add nuance to main findings of larger evidence bases on stress research and crisis support. Unsurprisingly, studies report high rates of exposure to potential traumatic events and other stressors, and common health consequences are symptoms of PTSD, anxiety, depression, burnout and compassion fatigue. Research on suicidal ideation among humanitarians is notably rare. The one study that reports it is limited by a small and not very representative sample of respondents, namely the before mentioned Chinese nurses who survived an earthquake that killed 2/3 of the townspeople (Wang et al., 2013). The most prominent risk factors for adverse health are young age, inexperience and lack of training and preparation. Common are also unreasonable demands, heavy workloads, long hours and unsupportive organizational culture, whereas social and organizational support, clarity of roles and tasks as well as sound and respected leadership seem to protect (Brooks et al., 2015). Deviating slightly from the psycho-trauma literature at large, the one review looking for relations between gender and mental health problems, merely concludes that it “appears to be complex” (Strohmeier & Scholte, 2015, p. 14). Research on PTSD in both general and reference populations suggests that women are at higher risk (Bowler et al., 2010; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995).

Conclusively, humanitarian deployment, like combat or disaster response, may be seen as a mental health risk factor in and of itself (Connorton, Perry, Hemenway, & Miller, 2011). Relevant in this respect, is that such a conclusion cannot be reached by looking exclusively at the humanitarian sector. The studies predominantly apply cross-sectional quantitative surveys or qualitative interviews, methodologies not suited to draw conclusions on cause and effect (Mann, 2003). Except for the few longitudinal projects, studies are most often conducted in retrospect, giving no baseline indicator on pre-deployment mental health to compare with post-deployment scores. When data is collected years after return, one cannot account for post-deployment trauma and stressors and risks overestimating the relationship between humanitarian work and mental illness. Studies conducted peri-deployment or soon after return cannot account for late onset of traumatic distress and possibly underestimate the relationship. The argument for counting humanitarian fieldwork as a mental health risk factor comes from comparing trauma-related illness or burnout in this population with other reference groups. Humanitarians have elevated rates of stress responses compared to general populations in non-conflict countries. Humanitarian scores can be likened to emergency personnel in general, refugees or other populations in areas of armed conflict (Kessler et al., 1995; Michel, 2014; Mollica et al., 2004; Roberts & Browne, 2011). The handful of longitudinal projects, however, hints of greater complexity. While a few support the conclusion that mental health problems seem to increase with humanitarian deployment, others find no dramatic effects or even effects to the contrary (ref. chapter 3.8).

4.1.5 Wellbeing and growth

Although humanitarians seem to have higher prevalence of mental health problems than the general population, resilience, well-being and satisfaction are also rather prevalent. The predominant findings are PTSD, anxiety, depression and burnout, which merely reflects the focus of the field. Questions regarding pathology and risk were asked in 49% of the projects, while 14% looked specifically for other change, benefits or growth (chapter 3.4). Quantitative surveys with pre-defined questions screening for symptoms of distress or burnout do not pick up on other experiences and perspectives. Results regarding benefits or complex change in humanitarian workers, therefore, are worth mention. Although only eight studies look specifically for humanitarian related health benefits or growth, such results are found in more than double the amount of works ($n = 18$). Humanitarian workers seem to regard their work as meaningful and useful, and it is common to report a sense of improved health or personal or

professional growth despite, or even because of, hardship. The literature review on “risk and resilience factors affecting the psychological wellbeing” of humanitarians, found that several studies reported evidence of psychological growth, meaning that participants said they had benefited from the experience. They talked about making a contribution, personal accomplishment, improved confidence and self-esteem, increased compassion, re-evaluation of the meaning of life and the feeling of “giving back” (Brooks et al., 2015). It seems that common elements of the humanitarian experience resonate with the characteristics of resilience and growth. The work may inherently reflect some of the key principles for crisis support (ref. chapter 1.2): a sense of self-efficacy and community-efficacy, a sense of meaning and purpose, connectedness and hope (Hobfoll et al., 2007).

Post-traumatic growth (PTG) is, according to the researchers who coined the concept, “the experience of positive change that occurs as a result of the struggle with highly challenging life crises” (Tedeschi & Calhoun, 2004, p. 1). PTG is measured by an inventory including elements from five key areas: relating to others, new possibilities, personal strength, spiritual change, and appreciation for life (Calhoun & Tedeschi, 2006, p. 5). Theory and findings on PTG, admittedly, have been contradicting and controversial. While respondents show symptoms of PTSD or other coping difficulties, they may simultaneously report self-perceived growth (Zoellner & Maercker, 2006). A recent literature review of 42 articles found “a significant linear relationship between PTG and PTSD symptoms”, confirming that “positive and negative post-trauma outcomes can co-occur” (Shakespeare-Finch & Lurie-Beck, 2014, p. 223).

Three research teams measured PTG with dubious results. Following the 1999 Marmara earthquake in Turkey, one hundred disaster preparedness volunteers and one hundred other survivors were compared using the Stress Related Growth Scale. Results show that being a volunteer is a significant predictor of PTG (Karanci & Acarturk, 2005). Still, the conclusions relied on cross-sectional retrospective self-reports, with data collected 4.5 years after the earthquake, giving less weight and credibility to the evidence. Another study on eight survivors of the Haiti earthquake in 2010 “revealed decreased PTSD symptoms, consistently high compassion satisfaction, low burnout, moderate secondary trauma and high levels of PTG measured over 18 months” (James et al., 2014, p. 152). Yet, it must be pointed out that measures were taken before, during and after the workers received training in implementing psychosocial interventions for displaced people, and can therefore not be taken as proof of

PTG as such. The perceived growth may well result from the coaching, training, meaningful work and new relationships formed by participating in the study itself, and not from struggling with the traumatic event. The third team studied nurses in Gaza two years after an incursion in 2009 using the post-traumatic growth inventory checklist (PTGI). They found that while participants experienced PTSD symptoms “within the clinical range”, they also “appeared to develop a variety of post-traumatic growth responses” (Shamia et al. 2015, p. 749). Again, measurements were self-reported years after the particular exposure in a place known for various additional hardships.

The *Antares/CDC* researchers singled out one of the PTG parameters. In a prospective study they looked at “spiritual transcendence” at three time points. Outcomes were relatively stable in three groups with high, middle and low scores at the outset. The high and low score groups had, respectively, minimally- and non-significant decreases, yet no group had increased scores. Although only “non-theistic” variables were measured, participants reporting religious affiliation were more likely to score highly and “be more oriented toward personal growth after trauma exposure in their work” (Eriksson et al., 2015, p. 13).

Benefits may also be gleaned from the humanitarian work as a whole, albeit not from single critical incidents. Compassion satisfaction (CS), contrary to the more familiar compassion fatigue (CF), is a term for “the sense of reward, competence invigoration and efficacy gained from one’s role as a helper” (Figley, 2002, 2013; James et al., 2014, p. 153). One longitudinal project measured both CS and CF in a Belgian first aid team travelling to Haiti after the earthquake in 2010. Measurements were taken at six time points. A stable condition was monitored in seven participants, a dip in five, arousal in ten and a double pattern was found in one (Van der Auwera et al., 2012). Other studies find that “harmonious passion” is positively related and burnout is negatively related to work satisfaction (Musa & Hamid, 2008; St-Louis et al., 2014).

The quantitative studies give confusing and inconclusive answers to the question of growth and well-being, but qualitative research open for ampler and more subjective interpretations of such experiences. Those who study motivations for entering into humanitarian work, find that participants are looking for benefits, and that personal development is often expected (Bjerneld et al., 2006; Piercy et al., 2011). Tassell and Flett (2011) found that while novices report personal needs and wants mixed with feelings of responsibility and obligation as reasons to join the sector, experienced workers list sense of achievement, satisfaction and

engagement as reasons to continue. However, the sense of dualism discussed above is also reflected in the qualitative literature. Norwegian disaster personnel deployed after the 2004 tsunami report the experience as “stressful but rewarding” (Thoresen et al., 2009, p. 353). When the terms “rich” or “enriching” appear in different sources (ref. chapter 3.8.2), there seems to be an attempt to describe experiences encompassing such complexity: pairing war zone anxiety with growth (Lal & Spence, 2014), and reporting “hope amid devastation” at disaster sites (Sloand et al., 2012, p.). Red Cross volunteers in Italy had the most “optimal experience” when high challenges were mixed with adequate skills” (Sartori & Delle Fave, 2014, p. 242). The local relief volunteers after hurricanes Rita and Katrina in the USA who reported life-changing personal transformations, had strong negative emotions such as shock, fatigue, anger, grief and frustration, yet secondary stress reactions were “minimally reported”. They were seemingly mitigated by compassion, personal satisfaction and pride (Clukey, 2010, p. 648).

Work-related satisfaction, growth and transformation may thus be explained in various ways. Firstly, that PTG may follow personal exposure and response to potentially traumatic events, often coexisting with stress symptoms. Secondly, that pre-deployment expectations of personal gain and adventure may result in perceived benefits during and after mission. Thirdly, that humanitarian workers consciously or unconsciously learn by observing the people they serve. *Secondary traumatic stress* or *vicarious trauma* are well-known concepts in the literature, referring to symptoms developed as a result of helpers’ empathic exposure to the traumatic experiences or stories of others (ref. chapter 1.4). On the flip side, *vicarious post-traumatic growth* and *vicarious resilience* refer to the “processes of positive transformation and resilience that result from learning about coping through work with trauma survivors” (James et al., pp.152-153).

4.1.6 Ethical experiences

It is particularly interesting how frequently humanitarian workers mention ethical dilemmas or indirectly hint at moral distress (ref. chapter 3.8.3). It is not a prominent finding because it is unexpected that humanitarians encounter such challenges and inner conflicts. It is remarkable because only one researcher directs the spotlight at ethical experiences, and still it emerges from the combined literature as a major theme. In his two studies, Matthew R. Hunt

(2008; 2009) finds ten ethical and moral sub-themes (ref. chapter 3.8.3). To simplify, these can be organized into three broader categories:

- individual self-reflection (4, 6)
- relationships, differences and imbalances between expatriates and locals (1, 3, 5, 7, 8)
- situational and structural limits and inadequacies (2, 9, 10)

This categorization is suitable to interpret ethical themes in the literature at large, which seems to reflect in particular concerns regarding the latter group. As demonstrated in chapter 3.8.3, feelings of inadequacy and professional compromise seem to lead to ruminations about personal and organizational guilt, blame and shame. Studies looking at pre-deployment characteristics find idealism, while studies looking at peri-and post-deployment issues find signs of disappointment, disillusion, strong emotional reactions and moral doubt. Some also find post-mission dissatisfaction with the overall operation and changes to workers' personalities and abilities to reintegrate with family and friends (Asgary & Lawrence, 2014; McCormack & Joseph, 2012, 2013; McCormack et al., 2009). If not achieved, high or unrealistic expectations to self, the mission or the humanitarian industry cause not only disappointment. Groundless idealism may end in "deeper negative feelings", succinctly understated by Hearn and Deeny (2007, p. 32).

Hunt concludes with relative certainty that ethical struggles have "significant impact" on workers and result in stress and anxiety (Hunt, 2008, p. 67). Given the resonance between his research and the literature at large, it seems fair to say that issues of ethics and morality are important to the mental health and psychosocial support for humanitarian workers. To be better understood, these issues need to be further studied, firstly in view of existing literature on occupational-related moral stress and injury (Dudzinski, 2016; Litz et al., 2009; Nilsson et al., 2015; Repenshek, 2009). Secondly, humanitarian-specific moral stress needs to be investigated in reference and comparison to other findings within the larger context of stress and trauma studies. That is beyond the scope of this literature review, but two examples may give pointers:

- 1) A Norwegian study on soldiers' motivations found that those with more idealistic reasons for service in international military operations were more prone to need psychological evaluation post-service (Michel, Hjemdal, & Wentzel-Larsen, 2014). Is idealism a vulnerability factor for adverse mental health? Would investigations into

humanitarians' pre-deployment motivation and post-deployment stress levels yield similar results?

- 2) Unreasonable and exaggerated ideas of guilt, shame and self-blame are signs of dysfunctional cognitive and affective changes within the spectrum of PTSD symptoms (American Psychiatric Association, 2013). Is there statistical relationship between humanitarian workers who express such feelings and the number and intensity of personal exposure? Given their typical idealistic motivation and the nature of their work, are humanitarians more susceptible to these types of stress symptoms than to classical signs of trauma (re-experiencing, avoidance and arousal)? How does one distinguish normal moral reactions and constructive reflections from the excessive and destructive responses?

Answers to these and multiple other questions related to ethics and psychological health might have implications for humanitarian organizations' recruitment, training, support programs and work culture. When a UNHCR staff member claims that self-care is considered inappropriate luxury not suitable for "any self-respecting" humanitarian (ref. chapter 4.1.2), this could be interpreted as an example of internalized shaming. If this perspective is representative for the humanitarian culture at large, organizations have a job to do with respect to creating healthier psychosocial work environments. Perceived disapproval from peers and others is not surprisingly related to stress and anxiety (Jones et al., 2006), while pre-deployment training and a sense of shared values, attitudes and beliefs foster self-awareness and self-care (Makinen et al., 2015). In the words of one worker: "There is a need for everyone in the organization to understand that the little things count, better people skills are needed" (Hearns & Deeny, 2007, p. 34). The global humanitarian online conference mentioned in the introduction of this review, came to similar conclusions. A poll asked participants what they thought should be the main focus for improving staff wellness. A majority of respondents answered "the overall working culture and way that we relate to each other in the workplace" (Laing, 2015, p. 8).

Key findings of this literature review may be condensed in a single quote: "one overarching theme: complex humanitarian distress and growth" (McCormack & Joseph, 2013, p. 147).

4.2 Strengths and limitations

4.2.1 The field in general

Seventy-three articles of a heterogeneous selection will have different strengths and weaknesses. As discussed in chapter 2, scoping reviews do not perform formal quality evaluations of each article included. Based on the studies' self-reported chapters on "limitations", it is still possible to identify certain broad patterns in the field. Limitations are generally related to methodology.

Cross-sectional studies are heavily overrepresented, which means they cannot conclude cause-effect relationships (Grimes & Schulz, 2002; Mann, 2003). When there is no measure of workers' mental health pre-deployment, or when measures are taken years after exposure, there is weaker evidence that post-deployment symptoms are work-related. When studies are performed at homecoming or soon thereafter, possible late onsets of symptoms are excluded. Moreover, adverse health symptoms are generally assessed by screening instruments, not by clinical interviews. Mono-methodology and small or homogeneous samples of respondents make results non-generalizable. So do low response rates, most notably from organizations. Retrospective self-reports are vulnerable to response bias. Overrepresentation of Western respondents and screening instruments not locally validated in non-Western countries, represent cultural bias.

Nevertheless, when similar issues arise from a selection of 73 studies of disparate methods and different populations in different organizations and locations, there is still some weight to the combined evidence behind the central themes: 1) complex experiences of distress and growth, and 2) the crucial importance of organizational factors like training, support and psychosocial work environment.

4.2.2 This review in particular

This scoping review provides a preliminary outline of a field that has not until the present been comprehensively mapped. Although in the last few years relevant reviews have been performed, their scopes have been somewhat narrower, looking at distinct sub-populations such as volunteers or national staff, or particular psychosocial aspects such as mental illness or risk and resilience factors (ref. chapter 3.4). The broad objective and scope of this review is

one of its strengths, as well as the number of databases searched (ref. chapter 2.1.1) and quite generous inclusion criteria (ref. chapter 2.2). Comparable reviews list three to four databases, none more than six (ref. Table 6). Most limit by peer-reviewed literature, but not by humanitarian occupation only. This review caught a number of interesting studies missed by others. Its extensiveness in terms of countries, nationalities, locations and projects represented is, in this field, unmatched. By excluding other emergency professions, its humanitarian focus is also uniquely precise. From such a clean sample, findings may be compared to studies on reference groups by profession (fire-fighters or combat veterans) or location (war populations and refugees). Main findings are conclusive with the psycho-trauma literature at large, which supports their validity.

However, this is a rough overview of a broad field performed within a limited time-frame. Although electronic databases of peer-reviewed journals were searched to saturation, the number of references added by hand and ancestry searches were significant. Most references found at organization's websites did not qualify by inclusion criteria, but certain key documents did. One example is the UNHCR study (Welton-Mitchell, 2013), not available through academic sources. This leaves a question whether there is a gap between academic and humanitarian industry knowledge bases. More extensive hand searches, time allowing, might have yielded more results. While selection criteria secured a humanitarian only sample, the distinction between humanitarians and non-humanitarians can be discussed (ref. chapter 4.1.3). A number of highly relevant non-English studies were excluded for practical reasons, reflecting a limitation of the scholarly discourse in general. The 2005 cut-off date excluded the aforementioned organization study by Ehrenreich and Elliott (2004), a key reference described by some as "the landmark evidence in the field" (Hearn & Deany, 2007, p. 31).

Seventy-three articles of such diversity provide complex material, which would have benefited from more thorough and comprehensive scrutiny. Data charting and analysis was performed without the support of specialized software. Digital word count could possibly have indicated patterns and themes not readily available to the eye. As is, findings may be colored by pre-judgment. Contrary to the methodological standard of literature reviews, this study was performed by one person only. Analysts coming from different theoretical backgrounds might have weighted additional perspectives. A case in point is gender. Most of the selected studies include male and female respondents. A feminist researcher might have investigated gender differences more systematically.

4.3 Implications

4.3.1 Further research

Authors unanimously call for more research of mixed-method approaches, particularly of longitudinal, interventional and experimental design. Because most quantitative studies employ self-reporting screening questionnaires, there is expressed need for in-depth clinical interviews. The field would benefit from non-English research being translated and added to the debate, and culturally sensitive instruments would improve validity of evidence. There is particular need for more research on organizations as such, their pre-deployment selection practices, preparation and training programs, as well as peri- and post-deployment support interventions. Referring to literature on other operational personnel, such as police, firefighters and military, research on leadership and organizational culture is critical, and therefore warranted in the field of humanitarian work as well. The substantial qualitative findings on humanitarian-specific benefits, growth and ethical distress provide starting points for further investigation. As mentioned above, a systematic approach to gender differences might add interesting nuances. The unparalleled protective effect of formal and informal psychosocial support suggests that members of close-knit families are attractive as staff. This warrants research on other family members, particularly on how deployment affects the children of humanitarian workers.

4.3.2 Organizations and policy makers

Humanitarian organizations, donors and policy makers are throughout the literature consistently advised to allocate resources and priority to selection, training and support. Chronic stressors need to be reduced when possible, while known motivators and protective factors need to be enhanced. Workers need time and access to rest, relaxation and exercise. Organizations would benefit from a culture of peer support, openness and internal debate where workers may safely share experiences and thoughts on coping strategies and ethical dilemmas. Leaders are called to prioritize staff support. Mentorship programs in which experienced workers guide young newcomers are frequently suggested. Access to family could be made easier, through free internet and phone services. Late-stress reactions may be explored and followed up, psychological first aid employed when appropriate, and re-deployment timing reconsidered. National staff needs higher priority and targeted support.

One study on approaches to staff care in 20 larger international NGOs, conclude that “post-assignment care is the area where most improvements can be made” (Porter & Emmens, p. 8).

The Antares Foundation and Headington Institute, among others, provide staff- and self-care resources based on the principles of PFA (Brymer et al., 2006). These are tailor made for the humanitarian context. While PFA (“first-aid” is appropriate for the acute post-PTE phase, *Skills For Psychological Recovery (SPR)*, developed by many of the same experts, is intended for the recovery phase. Like PFA, SPR can be applied by professionals and para-professionals alike (Berkowitz et al., 2010). Organizations are well-advised to also make use of resources developed for reference professions such as the *Combat and Operational Stress First Aid (COSFA)*; Nash et al., 2010) and the *Firefighter Stress First Aid (SFA)*; Watson et al., 2013). The recently concluded OPSIC project (ref. chapter 1.2) has published a *Comprehensive Guideline* on MHPSS in disaster settings, including the needs of “helpers” specifically (Juen et al., 2015). In 2016, the OPSIC partners plan to set up the *COMPASS Foundation* to “help organizations worldwide improve management of mental health and psychosocial support after crisis”. At the time of this study going to print, online resources are under development.

4.3.2 Humanitarian workers

Implications for humanitarian workers may be summarized in two basic points of advice:

- Seek employment with organizations that systematically implement professional, evidence-based training and staff-care programs. Additionally, educate yourself by relevant Internet resources.
- Invest in family, friends and other social supports systems. Invest also in rest, exercise and other self-care. Challenge ideas that staff-care is extravagant.

5. Conclusions

- Mental health and psychosocial support regarding humanitarian field workers has not been sufficiently researched, but there is a trend of growing interest in the subject. Recent publications include literature reviews and longitudinal studies of some substance.
- The combined literature unfortunately reflects a Western, expatriate bias. Health professionals are also overrepresented. This needs to be rectified.
- Main findings are conclusive with research results on reference professions, such as medical personnel, fire fighters and combat veterans. Yet, particular to the humanitarian sector is the high percentage of national staff in larger international organizations. Also characteristic, are large numbers of field deployed administrative or other staff without professional emergency training or background in medical relief work. These groups need better representation.
- Humanitarian workers experience higher levels of traumatic, chronic and secondary stressors compared to a general population. Presumably work-related adverse mental health during and after assignments is, as expected, also more common in this sector.
- Although humanitarian work can be dangerous, the literature does not only discuss reactions to extreme or violent incidents. Burnout, compassion fatigue and ethical distress, caused or accentuated by a range of every-day organizational and situational factors, seem to be equally hazardous.
- Reflecting again the general psycho-trauma evidence base, sound and robust formal and informal social support systems along with healthy working cultures seem to protect the best against mental health problems. Proper and thorough training, preparation, age and experience are also mitigating factors.
- Particular responsibility rests with humanitarian leadership, and the field needs more research on the organizational level.
- There seems to be inherent aspects of the humanitarian work experience aligned with well-established factors of human resilience and growth. When the job demands

problem solving and creativity, it also offers a sense of efficacy. Motivations such as healthy passion and altruism may foster a sense of connection with team members, beneficiaries and the greater humanitarian community. Being a helper on a mission, is often an identity of purpose, usefulness and pride. Even doubt, ethical distress and struggles to “make sense of it all”, at times render the humanitarian worker to deeper reflection, meaning-making and even beneficial life changes. Although researchers have mainly concerned themselves with humanitarian risk and distress, staff are generally deeply aware of the gratifying aspects of the service.

- Trauma and growth, grief and joy, achievement and distress often come entwined, and relations between salutogenic and pathological aspects of the humanitarian psychosocial experience seem very intricate. Ethical and moral issues, in particular, hold this complexity. Humanitarians struggle to balance altruistic motivation with realism in the field. Research shows that naked idealism or obsessive passion may leave one vulnerable to mental illness, while a balance between extrinsic (altruistic) and intrinsic (self-serving) motives is the most psychologically protective. Humanitarian ethical experiences such as inner conflicts, impossible dilemmas and moral injury are scantily studied, yet emerge as a major theme from qualitative self-reports. This particular finding calls for more research. It also has implications for organizational culture and the priority of staff care and support.

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Appendixes

Appendix 1: Search strategies

Appendix 2: Charting the data: tool for analysis

Appendix 1: Search strategies

(Tables are summarized and copied from eight Microsoft Excel spreadsheets)

Summary of search results

Date	18.11.2015	19.11.2015	20.11.2015	21.11.2015	21.11.2015	21.11.2015	25.11.2015	25.11.2015	
Source	PubMed	PubMed	ScienceDirect	ProQuest	Web of Science	PubPsych	Ovid	Google Scholar	TOTAL
	Strategy 1	Strategy 2	3 categories	7 resources	All	All	9 resources		
Results	1502	1405	336	342	1033	148	314	98	5178
1st screening	178	79	14	60	30	12	89	14	476

PubMed

18.11.2015

Search strategy 1 (title/abstract)	Results
1 humanitarian work* OR humanitarian staff OR humanitarian volunteer* OR humanitarian personell	203
2 aid work* OR aid volunteer* OR aid staff OR aid personell*	153
3 disaster...	1876
4 relief...	1041
5 complex emergenc*	0
6 international emergenc*	0
7 1 OR 2 OR 2 OR 4 OR 5 OR 6	3166
8 mental health OR stress OR distress OR depression OR trauma* OR suicide OR support OR preparedness OR motivation OR resilience OR cope OR coping OR self-care OR well-being OR satisfaction	1945672
9 7 AND 8	1239
10 humanitarian OR aid OR relief OR disaster OR complex emergenc* OR international emergenc*	206360
11 occupational health OR occupational stress OR burnout OR compassion fatigue OR moral injury OR moral distress OR secondary trauma* OR vicarious trauma*	18965
12 10 AND 11	279
13 9 OR 12	1502
1st screening (titles)	178

PubMed

19.11.2015

Search strategy 2 (title/abstract)	Results
1 aid OR humanitarian	124012
2 mental health OR stress OR distress OR depression OR trauma* OR suicide OR burnout OR compassion fatigue OR moral injury	1149979
3 1 AND 2	7919
4 passion OR satisfaction OR well-being OR self-care OR resilience OR cope OR coping	207095
5 1 AND 4	2346
6 support* OR motivat* OR prepared*	1492645
7 1 AND 6	13589
8 3 OR 5 OR 7	21494
9 worker* OR volunteer* OR staff	397849
10 8 AND 9	1405
1st screening (titles):	79

Science Direct

20.11.2015

Search strategy	Results
TITLE-ABSTR-KEY(humanitarian) and TITLE-ABSTR-KEY(health OR psycho* OR stress OR trauma OR well-being OR support) [All Sources(Nursing and Health Professions,Psychology,Social Sciences)].	336
1st screening (titles)	14

Proquest

21.11.2015

7 sources: International Bibliography of the Social Sciences (IBSS) PILOTS: Published International Literature On Traumatic Stress ProQuest Dissertations & Theses A&I ProQuest Health & Medical Complete ProQuest Psychology Journals Social Services Abstracts Sociological Abstracts
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Search strategy (abstracts)	Results
1 (mental health) OR well-being OR resilience OR satisfaction OR passion	416442
2 stress OR trauma OR burnout OR depression OR fatigue	813517
3 support OR self-care	1004375
4 humanitarian AND (worker* OR volunteer*)	1006
5 humanitarian AND (staff OR personell)	439
6 4 OR 5	1345
7 (1 AND 6) OR (2 AND 6)	194
8 7 OR (3 AND 6)	342
1st screening (titles)	60

Example: Copy-paste from database: try-and-fail approach to finding the best search strategy

Search	Databases	Results
Ⓜ (((ab(humanitarian) AND ab((worker* OR volunteer*))) OR (ab(humanitarian) AND ab((staff OR personell)))) AND (ab(mental health) OR ab((well-being OR resilience)) OR ab((satisfaction OR passion)))) OR (((ab(humanitarian) AND ab((worker* OR volunteer*))) OR (ab(humanitarian) AND ab((staff OR personell)))) AND (ab(stress) OR ab((trauma OR burnout)) OR ab((depression OR fatigue)))) OR (((ab(humanitarian) AND ab((worker* OR volunteer*))) OR (ab(humanitarian) AND ab((staff OR personell)))) AND (ab(support) OR ab(self-care)))	7 databases	342*
Ⓜ (((ab(humanitarian) AND ab((worker* OR volunteer*))) OR (ab(humanitarian) AND ab((staff OR personell)))) AND (ab(mental health) OR ab((well-being OR resilience)) OR ab((satisfaction OR passion)))) OR (((ab(humanitarian) AND ab((worker* OR volunteer*))) OR (ab(humanitarian) AND ab((staff OR personell)))) AND (ab(stress) OR ab((trauma OR burnout)) OR ab((depression OR fatigue))))	7 databases	194*
Ⓜ (ab(humanitarian) AND ab((worker* OR volunteer*))) OR (ab(humanitarian) AND ab((staff OR personell)))	7 databases	1,345*
Ⓜ ab(humanitarian) AND ab((staff OR personell))	7 databases	439*
Ⓜ ab(humanitarian) AND ab((worker* OR volunteer*))	7 databases	1,006*
Ⓜ ab(support) OR ab(self-care)	7 databases	1,004,375*
Ⓜ ab(stress) OR ab((trauma OR burnout)) OR ab((depression OR fatigue))	7 databases	813,517*
Ⓜ ab(mental health) OR ab((well-being OR resilience)) OR ab((satisfaction OR passion))	7 databases	416,442*

Search strategy	Results
Step #1-18 as shown below	1033
1st screening (titles)	30

WEB OF SCIENCE™ THOMSON REUTERS™

Search My Tools Search History Marked List 30

Search History: All Databases

Set	Results		Combine Sets AND OR	Delete Sets Select All Delete
# 18	1,033	#17 AND #3 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 17	Approximately 4,496	#16 OR #15 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 16	Approximately 2,495	#14 AND #2 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 15	Approximately 2,585	#14 AND #1 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 14	Approximately 38,720	#13 OR #5 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 13	Approximately 1,072	#12 OR #11 OR #10 OR #9 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 12	0	TOPIC: (humanitarian) AND TOPIC: (personell) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 11	277	TOPIC: (humanitarian) AND TOPIC: (staff) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 10	247	TOPIC: (humanitarian) AND TOPIC: (volunteer*) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 9	378	TOPIC: (humanitarian) AND TOPIC: (worker*) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 8	Approximately 35,002	#7 OR #6 OR #5 OR #4 Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 7	1	TOPIC: (aid) AND TOPIC: (personell) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 6	Approximately 12,249	TOPIC: (aid) AND TOPIC: (staff) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 5	Approximately 8,373	TOPIC: (aid) AND TOPIC: (volunteer*) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 4	Approximately 16,417	TOPIC: (aid) AND TOPIC: (worker*) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 3	Approximately 5,249,998	TOPIC: (support) OR TOPIC: (self-care) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 2	Approximately 4,129,131	TOPIC: (stress) OR TOPIC: (trauma) OR TOPIC: (burnout) OR TOPIC: (depression) OR TOPIC: (fatigue) OR TOPIC: (moral injury) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>
# 1	Approximately 1,285,792	TOPIC: (mental health) OR TOPIC: (resilience) OR TOPIC: (well-being) OR TOPIC: (satisfa*) OR TOPIC: (passion) Timespan=All years Search language=Auto	<input type="checkbox"/>	<input type="checkbox"/>

PubPsych

21.11.2015

Search strategy	Results
humanitarian (stress OR trauma OR burnout OR fatigue OR health OR resilience OR well-being OR support OR self-care)	148
1st screening (titles)	12

Ovid

25.11.2015

9 sources Books@Ovid October 26, 2015, Journals@Ovid Full Text November 19, 2015, UiO's Journals@Ovid, ERIC 1965 to September 2015, Global Health 1973 to 2015 Week 45, Health and Psychosocial Instruments 1985 to October 2015, International Political Science Abstract 1989 to October 2015, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present, PsycINFO 1806 to November Week 3	
Search strategy:	Results
1 (humanitarian work* or humanitarian staff or humanitarian volunteer* or humanitarian personell).ab.	228
2 (aid work* or aid staff or aid personell or aid volunteer*).ab.	558
3 1 OR 2	772
4 (mental health or stress or trauma or depression or suicide or compassion fatigue or burnout or moral injury or insomnia OR passion or satisfaction or resilience or well-being or resilience or cope or coping).ab.	1916037
5 (passion or satisfaction or resilience or well-being or cope or coping or support or self-care).ab.	2504457
6 4 OR 5	4095323
7 3 AND 6	314
Removed internal duplicates	246
1st screening (titles)	89

Google Scholar

25.11.2015

Search strategies:	Results
altitittel: humanitarian work AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	7
altitittel: aid work AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	45
altitittel: humanitarian staff AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	2
altitittel: aid staff AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	15
altitittel: humanitarian volunteer AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	0
altitittel: aid volunteer AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	9
altitittel: humanitarian personell AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	0
altitittel: aid personell AND stress OR trauma OR burnout OR fatigue OR injury OR resilience OR cope OR coping OR well-being OR self-care OR support	20
Total:	98
1st screening (titles):	14

Cochrane Reviews

25.11.2015

Search strategy:	Results
humanitarian	3
aid work	41
humanitarian aid	1
humanitarian AND stress	1
Total:	46
1st screening	0

Appendix 2: Charting the data (tool for analysis)

No.	Year	Author	How (methods used)	What (focus and objectives of included studies)	Who (the respondents)	How many (number of participants)	Where (location)	When (time of study)	Results (findings reported by selected studies)	Limitations (self-reported by studies)	Implications (self-reported by studies)
1	2012	Ager et al.	Quantitative Survey, cross-sectional	Mental health Contextual and organisational factors predicting well-being	National workers in NGOs, INGOs or UN agencies	n = 376 (Of 590, 64% response rate) Mean age: 31 21 agencies M/F: 64/36	Northern Uganda		1) >50% had 5 or more PTE 2) Depression 68% 3) Anxiety 53% 4) PTSD 26% 5) 25-50% close to burnout 6) Females higher than males 7) UN agencies fewest symptoms 8) Social support, strong team cohesion, less chronic stressors gave improved mental health	Only staff working in Organizations with at least 20 employees Three Organizations declined participation Cross-sectional - no causation Self-report - no clinical interviews. Claims regarding diagnosis cannot be made	Organizations Clear evidence that organisational factors have influence. 1) Reduce chronic stressors 2) enhancing team cohesion 3) promote social support. Actively deploy staff support strategies Research: Longitudinal research
2	2006	Armagan, Engindeniz, Devay, Erdur, & Ozcakir	Quantitative. Trauma screening and interview	Frequency of PTSD	Turkish Red Crescent Disaster Relief Team. Doctors, nurses, logistic workers.	n = 33	Banda Ache, Indonesia.	One month after arrival	PTSD diagnosed in 8 of 33 participants. 24.2% Minimum one symptom: 63.6% No difference in distribution of PTSD, but severity of symptoms higher in women, nurses and participants with less disaster experience Prevalence similar to that of disaster victims.	Small sample Only PTSD studies, while there are other trauma related conditions. No data on delayed onset.	Organizations: Measures should be taken to prevent: pre-duty prep, and info on negative coping. Research: interventional studies on effects of different preventive strategies.
3	2014	Asgary & Lawrence	Qualitative Descriptive. In-depth semi-structured interviews containing open-ended questions	Characteristics, motivations, ideologies and perspectives	Experienced (min. 3 years), expat, medical aid workers from wide range of Organizations	n = 44 m/f = 39/61 Average age: 41 Average time served: 11.8	INGOs and UN agencies in Africa, Asia, Europe and Americas	Some peri and some post (field) mission. None had left the industry	Core themes: 1) Populations' right to assistance 2) altruism and solidarity as motives 3) self-identifications with mission and INGO 4) shared morals foster collegiality 5) accountability towards beneficiaries 6) burnout and emotional burden 7) uncertain job safety and security 8) uneasiness with increasing professionalisation and shrinkin access 8) dissatisfied with overall aid operation 9) satisfied with own work and believed in strong relationships with beneficiaries	Not comprehensive Not generalisable None who had left the industry	Organizations: Need strategies regarding management of psychosocial stresses Adressing militarisation and neo-humanitarianism Nurture individuals' and Organizations' growth with emphasis on humanitarian principles and ethica practices Culture of internal debate, reflection and reform
4	2008	Bills et.al.	Literature review PubMed and MedLine	Mental health status and needs	Heterogenous population of disaster workers responding to 9/11 terrorist attacks.	n = 25	Various, incl. Red Cross New York City (Humanitarians AND others)		1) Different methodologies - MOSTLY cross-sectional 2) Various degrees of mental health, most substantial rates of PTSD and MDD symptoms 3) Risk factors: exposure to events. In Red Cross workers - related to more use of alcohol 4) Utilization of services: half of those who accepted referrals to mental health services, attended. But not much studies	Few studies using diparate methods and different sub-populations	Qualitative resarch on psychopathology to better understand and serve this group
5	2006	Bjernerld, Lindmark, McSpadden, & Garrett	Qualitative Focus group interviews	Motivations, concerns, expectations	Scandinavian health professionals with no previous experience of humanitarian work, applying for or decided to volunteer with various NGOs	n = 19	Uppsala, Sweden At International Health	Autumn 2003 and spring 2004	Themes: 1) Security (financial and physical) 2) Community and coherence (work to make sense, connected to larger whole) 3) Recognition and self-esteem 4) Professional competence and mastery: both self-confidence and doubt. 5) Wanting to contribute. Altruism. Calling. Heroism. Sacrifice 6) Search for personal development and self-knowledge/growth. 7) Search for new experiences 8) Desire for more satisfying work, more responsibility, independent thinking		Organizations: Recruiting should be aware of Maslow's hierarchy of needs, and adress the self-actualized type. Keep in mind Herzberg's satisfiers (advancement) and dissatisfiers: maintain relationships back home, sercure working conditions, re-examine salary scales, prepare for specific organisation so participants feel part of greater whole.

6	2015	Brooks et.al.	Literature review Medline, Embase, PsycInfo, Web of Science Thematic analysis	Risk- and resilience factors for psycho well- being	Disaster relief workers (humanitarian and others)	n = 61	Disaster		Pre-deployment: 1) Preparedness and training Peri-deployment 2) Dep length and timing 3) Traumatic exposure 4) Becoming emotionally involved 5) Leadership 6) Inter-agency cooperation 7) Social support 8) Formal during-disaster support 9) Role (clarity, tasks) 10) Demands, workload and long hours 11) Safety and equipment 12) Self-doubt and guilt 13) Coping strategies Post-deployment 14) Formal post-disaster support 15) Media 16) Personal and professional growth 17) Socio-demographic characteristics and pre/post disaster experience: mixed results. Younger age - poorer outcomes	Many studies from North America Majority of papers qualitative and cross- sectional	Research: Future reviews should translate foreign-language research. Also prospective longitudinal studies. Organizations: Incorporate stress prevention measures into the work. Systematic training Guidelines Training management Reward good work Team training Joint goals Support training Inter-agency communication Identify those with poor support network at home - compensate Encourage talking, sharing, relaxing and expressive outlets Non-judgmental support groups Positive thinking and coping strategies Education on risks Psychosocial skills Self-esteem, self-efficacy Certain stress and risk factors cannot be changed - (exposure, emotional attachment) - then particularly
7	2005	Cardozo et.al.	Quantitative. Crosssectional survey Standardized screening tools. Self-report only Regression analysis.	Consequences of exposure to traumatic events. Risk factors for psycho. Morbidity	Expatriate and Kosovar Albanian humanitarian aid workers. Health programs	285 expats 325 Kos.Alb 22 orgs.	Kosovo	2000 (June) Peri-deployment	1) Mean no. PTE by expats: 2.8, by KA 3.2 2) PTSD: 1.1% expats and 6.2% KA 3) Depression: 17.2 expats and 16.9 KA. Significant results on depression	Only self-report, no clinical instruments. Response rates high, but 30% expats and 24% KA did not respond. No adequate info on symptoms before expat deployment. Other factors could also contribute (uncertainty, conflicts etc.) Retrospective studies of recollection of PTE, what about incorrect recall. Longterm deployment. Not generalizable to acute and short term work.	Organisational support targeted at both groups

8	2012	Cardozo et.al.	Quantitative. Prospective longitudinal. Bivariate regression analysis at three time points. (Same sample as Eriksson et al.2015)	1) Consequences of exposure to stressors (and protective factors). Mostly PROBLEMS Chronic stressors and traumatic experiences during deployment. Protective factors: social support, healthy lifestyle, healthy coping strategies Psychological distress, depression, anxiety and burnout. Life satisfaction. 2) Prevalence anxiety, burnout, depression	Expatriate humanitarian workers in NGOs	212 participants 19 NGOs 88 contacted 18+22 did not respond or provide info, 21 declined to participate		Pre-deployment Immediate post-dep. 3-6 months post-dep. 2005-2009 (Dec-Dec)	1) Anxiety: increased 2) Depression: increased 3) History of mental illness increased risk anxiety 4) Chronic stress exposure - increased risk for depression, and burnout/emotional exhaustion. 5) Social support - less depression, distress and burnout, more life satisfaction	Agencies did not respond. May have less concern and support for workers. Potentially underestimating association stress and mental health in aid workers.	Humanitarian org. At recruitment: 1) Consider history of mental illness 2) Decrease chronic stressors 3) Strengthen social support networks
9	2013	Cardozo et.al.	Quantitative. Cross-sectional survey. Standardized screening tool. Self-report.	Determine mental health status, and influence of contextual and organisational factors Stress, work characteristics, social support, coping styles, symptoms of psycho distress	Nationals Tamils: 86.5% M: 44.3% F: 55.7% Median age: 29 Single: 45.2% Comm. Relationship: 52% Hindu 66.3, Christian 20.1, Buddhist 7.8, Muslim 5.3	398 staff members 9 Organizations 7 local NGOs with 78.6% of respondents 1 intern. NGO 1 UN org.	Vanni Region, north Sri Lanka	2010 (Aug) Peri-deployment	1) Exposure to traumatic, chronic and secondary stressors very common. 2) PTSD 19% Elev. anxiety 53% Elev. depression 58% 3) High level of social support, lower level of PTSD and depression 4) Age >55 sig. less anxiety than 15-34 5) Travel difficulties sign. ass. with anxiety (??)	Cross-sectional survey cannot assert causal relationship between variable and outcomes. Only self-reporting symptoms, not certain they'd match clinical diagnosis. Cultural differences? Screening method used in Sri Lanka before, but not validated for Vanni region	Organizations: provide stress management training and increase support
10	2014	Chandra et.al.	Mixed methods. 1) Self-administered pre- and post-training surveys 2) Field notes from focus group discussions	To establish if PFA training (a specific module LPC) impacts knowledge, attitudes and practices. Describe initial responses to a brief (2 hour) training.	Medical Reserve Corps volunteers = hum.org. Not (only) professional emergency personnel. Prepare and respond to larger scale natural disasters and disease outbreaks = hum.sit. Predominantly women Age: 35-64 2/3 whites 20% hispanic/latino	76 attended training and completed pre- and post-training survey 76 attended discussion groups.	Los Angeles county	Peri	Surveys: 1) Perceived ability and confidence increased from 71% to 90% 2) No increase found in PFA-related knowledge Qualitative analysis: Knowledge and intention to use PFA increased with training. Themes: Favourable view of the training. PFA applicable in diverse locations and populations 68% planned to use PFA Hesitant if sufficiently prepared	LPC is by design a limited intervention. Responder group already well-educated. They would benefit from a more intermediate level training. Small sample, not representative of full MRC population. Self-report, perceived improvement in ability.	
11	2015	Cheek, Piercy & Grainger	Qualitative. Semi-structured interview In home or by phone. Demographic questionnaire Analysis: McCracken five-stage process	To study the process of preparing (planning and decision making)for intensive volunteering. Fogg Behaviour Model: motivation (pleasure, anticipation, social cohesion), ability (resources, willingness) and trigger (sparks, facilitator, signals)	European-Americans. Senior citizens (>50) Volunteers, intensive disaster relief and humanitarian. Expats. Faith-based humanit. Organizations (Mormon, Mennonite, Lutheran) 50/50 men and women	37		Pre-deployment process studied post-deployment	Preparing to leave home is a complex and multi-stage process. Ability (Do I have what it takes?) stronger determinant than motivation (Is it something I want?). Competence, health and finances. Less time concerns. No mental health concerns.	Recall bias. Respondents also mixing with preparations for even older assignments. Only those who had completed both prep AND service were interviewed. Limited sample of individuals and orgs.	Organizations: At recruitment, provide support at important decision points. Address specific needs, put in contact with returning volunteers and information about challenges.

12	2010	Clukey	Qualitative. Interviews + survey and demographic sheet. Thematic analysis.	Transformative experiences. (Prominent finding. Not studied per se.) To explore experiences.	Americans. Hurricane disaster relief volunteers. National agency or religious group. Age: 26-72 M: 5 F: 3	8	Hurricanes Katrina and Rita disaster sites	2005 1-90 days	Themes: 1) Emotional reactions shock, fatigue, anger, grief, sleep disturbance. 2) Frustration with leadership 3) Life-changing personal transformations Secondary stress reactions minimally reported. Seemingly mitigated by compassion and personal satisfaction and pride.	Limited scope.	"Debriefing" mentioned, although not by definition. Too early? Follow up after one year recommended. Explore late stress reactions. (No mention of PFA, screen-n-treat-knowledge) Stimulate more research.
13	2011	Connorton, Perry, Hemenway, & Miller	Quantitative. Survey, computer-assisted interviews	Correlation between mental illness (diagnoses) and 1) combat experience 2) peacekeeping or relief work 3) or both	American males (!) Very small number of females exposed. Both military veterans and relief workers.	5692 participants asked about exposure. 288 exposed	Not stated	35 years after exposure (on average) Data collected 2001-2002	288 exposed. 272 male, 16 female. Combat only: 203 Peace/relief only: 38 Both: 31 Relationships: 1) Combat and PTSD and drug/alco problems 2) Peace/relief only (n=38) no higher association than general population	Lacking occupational labels, categories of subjects are inferred, not confirmed. Peacekeeping and relief work in one category. Small samples of exposure. Representativity issues. Responses self-reported. No clinical assessment. 35 years late. Recall bias Also, did not control for additional lifetime trauma. So - association, not causality. Pre-Iraq and Afg. wars	To HR officers: pre-screening reduces mental health problems and aborted service Future surveys should differentiate between military peacekeepers and relief workers Longitudinal studies on relief workers needed. Control for previous illness and exposures.
14	2012	Connorton, Perry, Hemenway, & Miller	Literature review of peer-reviewed sources 3 databases: Medline, PsycInfo, Google Scholar	Mental health effects (illness) of relief work. Is relief work a risk factor of trauma-related mental illness?	Relief workers, multinational Male (2/3) and female Relief NGOs	Relief workers: 12 studies, alltogether few individuals (n = 1842) Organizations: 5 studies, combined number small. (n=66)	"Outside the United States".		Relief workers: elevated rates of trauma (PTE) and more PTSD, anxiety and depression than general population. Organizations have varying approaches to training. 1) Pre-deployment preparation to prevent stress in field is limited 2) stress management practises varies 3) staff support resources underdeveloped ALL org. studies referenced DEBRIEFING, even CISD	Multinational respondents, difficult to compare results All studies featured single survey or interview. None used control group or pre-deployment baseline survey.	Organizations: More pre-deployment stress preparation and support in the field is needed. At present no evidence base on how to prepare. Stop debriefing, try PFA. Research: what specific support and training would be helpful Longitudinal approaches needed More studies on organisations' selection, preparation and support. Studies on difference nationals and expats needed
15	2014	Cristea et.al.	Quantitative. Psychopathological screening and questionnaires.	Empathy, and its effects on stress levels Emotional reactions of volunteers.	Community volunteers with Italian Department of Civil Protection	272 volunteers m=165 f= 107	L'Aquila, Italy. Post-earthquake site Pre- and post relief work data	Relief phase. 4 months after disaster (honeymoon phase)	"Decreases in perceived stress, general distress, anxiety and anger, and increases in positive emotion".		
16	2009	Dahlgren, DeRoo, Avril, Bise, & Loutan	Quantitative Self-administred anonymous questionnaire	Self-reported health risk and risk-taking behaviour	IRCR expatriates	95% completed questionnaire (n=1190)	IRCR Headquarters Geneva	Between May and September 2004, during systematic debriefing	36.4% reported worse health on return 35% not following malaria precautions 40% mission more stressful than expected 10% injuries or accidents 16.2% exposed to violence. 1/3 engaged in casual sex, only 64% using condoms. 27% reported risk taking behaviour		To Organizations: Improve selection, implement concern targeted training, strengthen social support locally, follow-up in field.
17	2015	De Paul & Bikos	Quantitative. Web-assisted survey: Survey Monkey platform using established scales.	Percieved organisational support and well-being	Healthcare and humanitarian aid staff in NGOs. From 26 different countries.	n= 159 female: 59% married:47%	Deployed to 53 countries.	Average lenght: 3 years. Peri-deployment	Percieved organisational support both by home and host (most by host) org. and sociocultural adaption associated with psychological wellbeing, consistent with studies of corporate expats.		Organizations: Host and home collaborate to monitor well-being

18	2009	Ehring, Razik & Emmelkamp	Quantitative Standardized instruments/questionnaires Cross-sectional	PTSD Anxiety Depression Burnout	Rehabilitation and construction workers employed with Pakistan Poverty Alleviation Fund (PPAF) Three groups: 1. Social organisers/consultant 2. Engineers and technical reconstruction workers 3. Coordination and supervision	n = 267 (of 278) Response rate 96%	Earthquake in North Pakistan 2005	2 years post-deployment July-Nov 2007	1) Most were also disaster survivors 2) Earthquake-related PTSD: 42.6% 3) Depression and anxiety: approx. 20% 4) Levels of burnout were low 5) PTSD associated with - exposure severity - past traumas - work-related stressors - low social support - female gender	Cross-sectional Self-report Not validated instruments for Pakistan	Research: Assess prevalence with structured, clinical interviews Develop culturally sensitive instruments for all variables Prospective designs
19	2009	Eriksson et.al.	Quantitative stress and trauma survey	Perceived social support, organisational support and religious support (support from God) in relation to burnout Burnout: 1) emotional exhaustion 2) depersonalisation 3) personal accomplishment	International faith-based agency, expats. 34 different countries of origin across Africa, Asia, E.Europe, W.Europe, Oceania, N.America and L.America 96% Christian	n = 111 response rate 54%	44 different countries		Important with variety of support networks. Young age - higher burnout (but older workers may have been "naturally selected" - survival of the fittest style) 40% high levels of burnout in one scale, but only 3.6% on all three	1) One Organizations, faith based missions 2) Subtle cultural nuances lost because of wide range of cultures. 3) Cross-sectional design prevented possibilities of causal inferences	Organizations: Research: 1) Longitudinal research needed 2) Organisational functioning, such as management, org. Culture and team relationships
20	2013	Eriksson, Cardozo, Ghitis et.al.	Quantitative (mixed) Needs assessment survey One open-ended question at the end.	Factors associated with adverse mental health (depression, anxiety, PTSD and burnout)	"Locally recruited aid workers" Jordanian humanitarian staff Iraqi volunteers NGOs serving Iraqi "guests"	n = 258	Jordan	2008 Peri-deployment	1) Sign. difference in depression, anxiety and burnout in both samples. 2) Lower social support - risk for anxiety 3) More time at post - lower depression and anxiety (counter to idea of cumulative stress and strain) 3) Trauma exposure (part. traumatic loss) associated with PTSD, dep and anxiety 4) Chronic stressor no. 1 was financial concerns 5) Exposure to secondary trauma (and 4) linked with burnout. 6) Management position and low team cohesion - higher burnout (emotional exhaustion) 7) Respondents stressed management concern and access to health services	1) Not representative 2) Predetermined list of stressors - little nuance and little room for respondents own ideas 3) Cross-sectional design - cannot assert causal relationship	Research: longitudinal analysis needed for causal relationships and effectiveness of staff support programs. In-depth interviews for nuance.
21	2015	Eriksson et.al.	Quantitative Prospective longitudinal Bivariate regression analysis at three time points. Same sample as Cardozo et al.2012)	"Spiritual change" "Internal resources", "meaningful perspectives" and "coping strategies" operationalized as assesment of "spiritual transcendence", trauma exposure, psychiatric distress and post-	Multinational expats (North America and Europe)	Pre, n = 212 Post, n = 170 Follow-up (3-6 m), n = 154 17 Organizations		3 time points	Three distinct trajectories: 1) High at pre-dep with slightly decreasing scores 2) moderate and stable scores 3) Low at pre-dep and slightly decreasing scores. NO INCREASE! "Relatively stable". Religious affiliation often in group 1. Different trajectories not risk or protection for psychiatric distress, but group 1 reported more positive life changes (oriented towards personal growth)	Only 4 non-theistic items of STI - one particular conceptualisation of "spiritual transcendence" Overrepresent a religious sample - more than 2/3 religious affiliation	
22	2013	Eriksson, Cardozo, Foy et.al.	Quantitative Survey Multiple regression analysis	Measures of mental health (dep, anx and PTSD), risk factors (childhood trauma, family risk, adult trauma) and resilience factors (coping, social support, healthy lifestyle)	Expat aid workers in international NGOs (excl. UN, local agencies or other governmental.	n = 214 NGOs: only 19 of 88 participated.		Pre-deployment	Low levels of mental health distress and frequent use of proactive coping, social support and healthy physical habits. Strong humanitarian motivation. 1) Childhood trauma and family risk not sign. related to symptoms. 2) Adult trauma exposure significantly related to all three. 3) Social support related significantly to less depression and PTSD. 4) Avoidance (coping) associated with all	The sampling of NGOs. Most of list of 88 chose not to participate. (Similar Ehrenreich and Elliot 2004). Orgs represented may have special interest in staff support. Not representative.	Organizations: 1) Help staff "take an inventory" of recent exposure. Avoidance and quick moves to new deployment disservice to staff. Consider timing of redeployment. 2) Develop social peer support programmes, activities and e-mail/phone access to family Research: Longitudinal

23	2015	Fahim, O'Sullivan & Lane	Qualitative Interviews Grounded theory Strauss and Corbin's 1990 structured approach	Effectiveness of the supports in place to mitigate physical, emotional and mental risk during overseas deployment	Canadian health and social service providers deployed to earthquake site	n = 21	Haiti	2010	Supports alone do not determine the overall outcome of participant experiences. They interact with causal factors, expectations and "the lens" (Individual, internal, rooted in experiences, attitudes and beliefs.) Supports identifies: instrumental, communicative, leadership. Big orgs: felt supported, part of bigger picture. Small orgs: felt response disorganised.	Small population, lacking validity. Setting: Haiti - a unique and extensive disaster. Transferability issues.	Organisation: Identified supports should be tailored to suit context. Research: repeat with larger population
24	2013	Floyd	Mixed method 3 surveys (students, staff and volunteers) Some free text - qualitative content analysis	Evaluate a training program	Midwives for Haiti. Educates birth attendants	Students n = 11 (of 12) Staff midwives n = 2 (of 2) Volunteers n = 48 (of 68), response rate 71%	Haiti	2010	Themes 1) All groups agree volunteers need more preparation 2) All positive to volunteers' contribution 3) Better translation, more structured programme	Small pilot study, survey instruments not pretested and nonvalidated. Small number of participants. Content analysis by one author Potential for bias: staff midwives (participants) administered surveys, and students participated two weeks prior to graduation	
25	2008	Gelkopf, Ryan, Cotton & Berger	Quantitative RCT (!) 3 psychometric scales Self-report	Evaluating a "training the trainers" course The ERASE Stress course and an alternative "befriending" programme	Education and mental health disaster volunteers, already involved with NGO (Sumithrayo)	n = 62 Randomly chosen to ERASE group, (n = 37) Control group (n = 25)	Sri Lanka Post-conflict - not enough "conflict"?	Peri-deployment	ERASE group significantly improved their perception of 1) self-efficacy, 2) self-mastery, 3) optimism and 4) perceived ability to use cognitive coping strategies.	Small sample size Select group of education and mental health disaster volunteers Optimism and self-efficacy based on single items Did not assess WHICH aspects of the program had affect Know nothing on long-term impact	
26	2005	Hagh-Shenas, Goodarzi, Dehbozorgi & Farashbandi	Quantitative Three scales and indexes Comparison ("control")	Compare psychological status between different groups of humanitarians	Formal training (Red Cross and fire fighters) University students with no formal training	n = 154 Students: 100 Red Cross: 18 Firefighters: 36	Bam earthquake, Iran	2004	1) Untrained volunteers higher scores PTSD and GHQ than trained. 2) Of untrained, 34% scored higher than cut-off for PTSD diagnosis. 3) Students higher Anxiety Sensitivity 4) Students younger and predominantly single, less formal education	Cross-sectional Self-report?	Organisation: The significance of formal training as protective factor.
27	2007	Hearns & Deeny	Qualitative Phenomenological, open-ended conversational style interview.	Concept of support as perceived by aid workers		n = 6 male = 3 female = 3 Age 28 to 56	Missions in Africa or South-East Asia	2004-05	Expectations to self, org and mission can cause disappointment and deeper negative feelings if not achieved. Aid workers did not feel sufficiently supported pre, peri AND post-deployment. Feelings: reduced self-worth, anger with organisation, lack of achievement	Small study raises more questions than it answers.	Organisation: Expectations should be articulated and discussed well in advance. Stress and coping strategies. Reflect on management, people-friendly policies, communication needs to be improved.
28	2008	Hunt	Qualitative Phenomenology Semi-structured interviews	How do health humanitarians experience ethics?	Six nurses, one physical therapist, one physician, one social worker, one exec.director of health care NGO. Expat missions with 8 different NGOs Canadian?	n = 10	Mostly in post-war countries in Africa, Asia, Central America and Eastern Europe		Five themes: 1) tension between respecting local custom and imposing values 2) obstacles to providing adequate care 3) differing understandings of health and illness 4) questions of identity for health workers 5) issues of trust and distrust. Ethical issues "can have significant impact on int. health workers and results in stress and anxiety". "Tragic choices in complex situations". Moral uncertainty and remorse.	More women than men	Organisation: support and equip staff in analyzing and responding to ethical issues. Organisational strategies to address this at many levels: selection, training, and "debriefing". Research: A larger cohort is needed
29	2009	Hunt	Qualitative Interpretive Description methodology	Explore moral experience	Canadian health care workers (15), human resource or field coordination officers (3)	n=18			Five themes: 1) examination of motivations and expectations 2) relational nature of hum. Work 3) attending to steep power imbalances 4) limits of what is possible in particular setting 5) Organizational forms and structures shape moral experience	Difficulty in maintaining an exclusive focus on humanitarian emergencies	

30	2012	(Hunt, Schwartz, & Elit, 2012)	Qualitative Semi-structured in-depth interviews Grounded Theory analyses	Experience of ethics preparation, training and supports	Canadian health care professionals in international aid work. Nurses, physicians, allied health pros. 60 missions, 20 NGOs.	n = 18		Pre-departure training, in-field supports, retrospective "debriefing". Post-deployment interviews	A range of trainings and supports were considered beneficial. Scepticism and ambivalence to specific modalities.	Intentional diversity of participants, also a limitation to transferability. Possible recall bias	Efforts to test, develop and implement ethics training needed.
31	2014	Jacquet, Obi, Chang, & Bayram	Environmental scan through peer-reviewed literature and open Internet search	Identify training programs					14 peer-reviewed articles mentioned or described 8 training programs, the Internet search added 13 programs. In total 21. 7 (33%) free of charge 4 (19 %) focus on mental aspects of disasters, 14 (66 %) conducted in multiple locations. Mean duration: 5-7 days		
32	2014	James, Noel & Pierre	Mixed methodology: Employing and training participants to deliver and develop mental health skills training to IDPs (PFA-related) Weekly processing meetings with project manager and psychology consultant Paper versions of three instruments (Harvard Trauma Questionnaire HTQ at 6 time points, Professional Quality of Life Scale ProQOL-V at 5 time points. Post-Traumatic Growth Inventory PTGI at 4 time points. Qualitative: Open-ended	Experience of local staff (Ajan), survivors themselves, implementing mental health programs to displaced people in camps Trauma (PTSD) Burnout Compassion STS PTG	Local non-professional lay mental health workers, "earth quake survivors themselves", recruited with AFD (organisation devoted to empowerment of youth and women and earthquake relief projects)	n = 8 males 4 females 4	Port-au-Prince, Haiti	2010 Aftermath of earthquake Measured at 4-6 time points over 18 months	Largely beneficial outcomes as w work. Earthquake related stress diminished. Quantitative results: 1) PTSD symptoms decreased 2) Compassion satisfaction consistently high 3) Burnout low 4) Secondary trauma moderate 5) PTG high Qualitative recounts: 1) enhanced sense of self-worth, purpose, social connection and satisfaction	Small sample Instruments not validated for Haiti Lack of comparison group or randomized controlled designs Effects could be product of time passing "Potential for demand characteristics". Desire to support the project could affect responses, despite measures taken to secure anonymity.	Organizations: Use (well-trained and supported) local lay disaster survivors as implementors of psychosocial implementations.
33	2006	Jones, Müller & Maercker	Quantitative (mostly, surveys and scales with one open-ended question)	Prevalence of 1) traumatic events 2) PTSD 3) subsyndromal PTSD 4) duty features 5) social acknowledgement as victim or survivor	Developmental aid workers from German Development Service About half female Mean	n=312	Expats and returned at HQ	Homecoming (100% completed) and abroad (10.6% completed)	Experience of Potentially traumatic events: 47% Witnessed PTE: 7% Full or partial PTSD: 16% PTE correlated with duration and number of duty, while PTSD did not. PTSD correlated with perceived disapproval/not acknowledged as victim (lack of social support). Respondents appreciated anonymity. Many sent forms directly to researchers and not free of charge through orgs.	Rate of return comparably low. Feared lack of anonymity? Low support for study in various offices? No way of monitoring distribution of questionnaire, as in HQ. Restricted use of psycho variables.	Practical implication: design and implement comprehensive training and supervision programme. Access to counselling and therapy when needed, in case of PTE. Supervision and counselling via third party on Internet.
34	2005	Karanci & Acarturk	Quantitative Questionnaire Control group!	Post-traumatic growth (PTG)	Survivors involved in disaster preparedness as volunteers with NGO	n = 100 Control group = 100	Marmara earthquake	1999 Data collected 4,5 years post-quake.	1) Earthquake experience severity is either perceived severity of impact, or life threat. 2) Coping: problem focused, fatalistic, helplessness and escape approaches 3) Possible factors related to growth: a) problem solving/optimistic and fatalistic coping strategies 2) being a disaster preparedness volunteer. Latter only after controlling for coping strategies.	Cross-sectional design Long duration since earthquake Lack info on coping strategies etc. before volunteering. Does characteristics draw someone to volunteering, or does volunteering change them? No controlling for personality characteristics.	Research: Longitudinal studies

35	2009	Kene, Pack, Greenough, & Burkle	Quantitative Survey (Internet, 17 questions)	Evaluate humanitarian professionals' identification, needs/interest in professional support and priorities of potential services	Survey circulated openly via humanitarian listservs	Respondents n=119 Completing all 17 questions n = 96		February and March 2009 Peri and post	1) Respondents viewed themselves as humanitarian professional almost to the same extent as health professionals 2) strong desire to establish professional society reflecting that identification, with priority on: 3) education and training, networking and dialogue, developing and refining core competencies.	Small sample size (relative to estimated humanitarian workers) Survey internet-based, those without access were excluded. North-America and Europe likely overrepresented	Start a professional organisation!
36	2014	Lal & Spence	Qualitative Phenomenological analysis	"To achieve a deeper understanding of lived experience"	New Zealand surgical nurses in war zones Age: late twenties to mid forties Total: 18 years humanitarian work Between 1 and 9 missions	n = 4 50/50 male and female		Not specified	Three themes: 1) Feeling anxious, worrying and being misunderstood 2) Practicing differently 3) Adjusting to life back home Experience also enriching and providing personal and professional growth Specialized nursing expertise considered essential but NOT sufficient for humanitarian work.	Small sample Level of specialty: pediatric, general intensive and surgical Mixture of short- and longterm service	Organizations: In recruiting, preparation must include emphasis on contextual and cultural issues Mentorship by more experienced nurses Research: Larger studies, mixed-methods approaches
37	2012	McCormac & Joseph	Mixed method? Test-running a psychological screening tool Participants comment on content, language and complexity of 70 item questionnaire. E-mail	Tool: a questionnaire designed to identify re-integration difficulties following humanitarian missions. The questionnaire: Postmission Altruistic Identity Disruption Questionnaire (PostAID/Q) Single scale based in AID as "interrelated feelings of doubt, isolation and self-blame in response to perceived invalidation".	Aid personnel involved in more than one international humanitarian mission	n = 23			The PostAID/Q was screened from a 79-item to an 18-item self-report measure. It can alert Organizations about post-mission dissatisfaction and reintegration difficulties.	A relevant sample, but quite small. Representativity issues.	Research: Test the instrument for reliability and validity Longitudinal research to test relationship of the PostAID/Q to later problems of functioning to "establish predictive validity". Aid workers: useful tool for self-monitoring. Guide for organisational support
38	2013	McCormac & Joseph	Qualitative Phenomenological Semi-structured interviews Interpretative phenomenological analysis (IPA)	"Idiographic interpretations" of aid personnel working in complex emergencies such as genocide The impact of such exposure on reintegration after mission. Personally exposed or witnessed gross violence on mission. Professional medical personnel - on roster		n = 2 m/f Age 47/53	Conflict, genocide Rwanda, Sudan, Sierra Leone, East Timor, Burma, Liberia, Pakistan, Solomon Islands	Post	1 overarching theme: Complex humanitarian distress and growth 5 subthemes: 1-4: Longterm psychological distress shame, moral doubt, betrayal, narcissistic coping 5: Reparation with self. A redefining of self-worth and altruistic identity over time despite earlier perceived moral failure and sense of rejection		Good risk assessment Safety and evacuation procedures Psychosocial follow up
39	2008	McCormac, Joseph & Hagger	Qualitative case study Interpretive, phenomenological analysis (IPA)	Phenomenological experience of humanitarian worker and long-term psychology	Individual with >35 years in humanitarian work 57 years Married - through career Two adult children University education prior to aid career Field work, senior management and	n = 1	Multiple international locations and situations	Post-deployment	One distinct superordinate theme: Altruistic Identity. "A continuum from self-acceptance and adaptive reintegration into society of origin to self-doubt and social disruption". (p. 111) AIDisruption: feeling isolated, invalidated, alienated from family and friends post-mission. Subthemes: making sense of global injustice, personal responsibilities as humanitarians, mental health and adaptive processes to traumatic exposure, difficulties post-mission integrating with intimate others	Not stated (but pretty obvious)	Organizations: "Must be accountable to their personnel." Psychosocial support protocols for vulnerable communities could also be used to support aid workers and families: 1) Debriefing 2) Psychosocial support 3) Psychoeducational support

40	2012	McDonald et.al.	Mixed method Cross-sectional Semistructured questionnaire Likert-scale ratings and open-ended questions	Identifying existing approaches to care and the needs of the care provider community	Three groups of care providers: 1) local health care 2) traditional/spiritual healers 3) humanitarian relief workers	n = 45	Post-conflict settings Bosnia and Herzegovina Cambodia		Themes: 1) Poverty and violence seen as significant causes and consequences of human suffering 2) ill-equipped in addressing these issues 3) other limitation: limited support, lack of training resources and funding.	Small and not very heterogeneous sample size Old data (2003)	Admonition: Listen to the ones who've got the shoes on! "Can provide important insight".
41	2011	McWha & MacLachlan	Quantitative Testing Factor-analysis	Relationships between workers. Test a measure of relationships and learning (within aid context) the Aid Relationships Quality Scale (ARQS) correlating it with key work motivation and performance variables	Local (77%) and expatriate (23%) aid workers. Male 64% Female: 36%	n = 1290 202 organisations	3 regions Africa: Malawi, Uganda Asia: India, China Oceania: PNG, Solomon Islands	Peri-deployment	On organizational level Relationships with expats - positive correlation with pay justice, international mobility, negative with de- motivation, pay comparison and self-assessed ability. Relationships with locals: positively with self- assessed ability, turnover and job satisfaction, negative with pay justice (sympathy).	Small number of expatriate participants	Use ARQS as tool for capacity building
42	2008	Musa & Hamid	Quantitative 3 questionnaires: ProQOL, Relief Worker Burnout Questionnaire, General Health Questionnaire (GHQ-28)	Mental health in war zones. Relationships between burnout, job satisfaction, compassion satisfaction, STS, compassion fatigue and distress	National workers 60% Expats 40% Mean age: 31.6	n = 53	Darfur (war zone)	Peri	1) Burnout positively related to general distress and STS, negatively to compassion satisfaction. 2) Nationals higher burnout and STS 3) Females higher burnout than males 4) Burnout and STS negatively associated with higher age	No limitations stated! Surely, this study is perfect.	Organizations: Adequate training, cultural orientation and psychological support services. Research: Establish academic discipline on humanitarian education, training and research
43	2015	Mäkinen, Miettinen & Kernohan	Qualitative Case series Hermeneutic phenomenological approach with thematic semi-structured interviews. Content analysis	Identify participants interpretations of appropriateness of pre- deployment preparation in supporting mental well- being during and after.	Both genders, several nationalities	n = 6	Varied training- base locations and number of deployments and locations	Post-deployment	All in all, pre-dep training seen as appropriate. Seven main themes as important and supportive of mental well-being during and after dep: 1) realistic expectations 2) team building and support 3) self-awareness and self-care 4) post-dep support 5) practical skills and creative solutions 6) shared values and beliefs 7) safety and security Lacking areas: communication, self-care, post-dep support, safety/security	Participants responded in a more generalized way. Difficult quantifying issues? Case series cannot be generalised.	Relief workers place significance on pre-deployment preparation
44	2005	Norris, Watson, Hamblen & Pfefferbaum	Qualitative Interviews, broad questions	Participants' roles, activities, training, interactions, stress management, service characteristics and barriers	Staff and volunteers affiliated with various Organizations (humanitarian and others)	n = 34	Oklahoma City bombing	Post-disaster, 7 years (2002)	6 action-themes a) preparing for disaster b) training the workers c) negotiating insider-outsider dynamics d) implementing inter-agency response e) caring for the workers f) serving the consumer The stressfulness of providing services were "profound"	Only the perspectives of providers, no voice of consumers have been heard.	Participants recommend comprehensive state-of-the- art disaster preparation training ahead of crises. Relying on previous experience is not good enough.
45	2006	Partridge, King & Proano	Quantitative Retrospective chart review of workers using emergency clinic	Evaluate acute health care needs	US disaster workers	n = 60	"In remote setting with limited medical resources." Yap	April-July 2004 Post (retrospective)	163 visits in all Original visits: 125 Medical screening: 15 Physical issues: 110 "Neuro/Psych": 3 (all original) Anxiety 1, Grief reaction 1, Insomnia 1 Nothing life-threatening "One person was evacuated on a commercial flight"	Retrospective, descriptive. All workers belonged to one organisation.	

46	2011	Piercy, Cheek and Teemant see Cheek (2015)	Qualitative In-depth interviews by phone or in person. McCracken's 5 step process for long interviews	Challenges, changes and benefits from volunteer activities	Mid-late life volunteers. "Service done on a 24-hour a day basis at a location away from home" Age: > 50 Religious-based volunteering, within disaster relief and long-term needs.	n = 38 50/50 male/female	Away from home	Post	1) Challenges: adjustment to situations and cultures, work-related, readjustment to home. 2) Benefits: expanded social networks, increased closeness to spouses, increased compassion and empathy for others. 3) Changes: personal perspectives, less materialism and self-focus, greater appreciation of cultural differences, finding existential meaning in service. (Wisdom...?) Psychosocial "growth"?	Generalizability Participants, only the successful ones - so bias on the positive feelings	Use older people as volunteers
47	2009	Porter & Emmens	Mixed methods 21-question survey Semi-structured interviews by phone	Approaches to staff care in international NGOs (title) Overreaching trends across the sector	INGOs Inclusion criteria: annual income > 50 million US\$	n = 20 (of 35 invited) Response rate 57%	Peri	April-May 2009	1) Practices inconsistent, existing guidelines tend not to be adhered to 2) All have some policies covering staff care, but only 1/3 have distinct and specific staff care policies 3) Definitions not consistent, scope of provisions also inconsistent 4) 60% standardized induction process, 30% are "revamping" induction system 5) Several have developed robust peer support programs 6) 50% don't have standard procedure for medical check-up, and only 25% require or strongly encourage psychological review or debriefing upon return 7) Staff care is at risk for further cuts, face-to-face interaction may decrease 8) < 1/3 evaluate staff care practice. No one had conducted (publicly available) research on staff care. Improvements mostly in pre-assignment staff care. On-assignment care very diverse. Post-assignment care is the area where most improvements can be made.	Certain staff care practices not explored: recruitment, personnel management capacity, team cohesion, leadership, legal issues, occupational health, benefits Diverse sample, direct comparisons cannot be made Resource constraints mean that the detail of specific staff care practices not researched	
48	2009	Putman, Townsend, et al.	Quantitative 3 measures: Grief Screening Scale (GSS) Los Angeles Symptom Checklist (LASC) SCECV - a community violence questionnaire	Exposure to violence and relation to PTSD and grief symptoms	National (some indigenous) aid workers	n = 135 (f64%)	Guatemala Conflict zone		Death of close ones: 79% Traumatic loss: 33% Average lifetime CV: 13, the highest 32 PTSD: 36% Traumatic loss correlated with complicated grief (CG). Traumatic human-perpetrated loss gave higher levels of hyperarousal PTSD symptoms	Non-random selection. Not generalizable. Self-report Cross-sectional - so no causality outcomes Translation between English and Spanish Reduces response rate on PTSD measure Expert panel, not individual, categorized "traumatic loss"	Organizations: National workers need extra support, and safety measures. Training and psychoeducation.
49	2009	Putman, Lantz, et al.	Mixed methods Focus groups and surveys	Exposure to violence and PTS symptoms, burnout, support needs and motivators	National (some indigenous) aid workers	Focus group (n = 26) Survey (n = 135) same sample as the one above	Guatemala Conflict zone		Average lifetime violence: 13. PTSD: 17% (what???) PTSD related to direct violence exposure, and emotional exhaustion. Negative relation: personal accomplishments. Protective factors: expressed support needs, motivators and rewards	same	same
50	2012	Ranse & Lenson	Qualitative Single, semi-structured telephone interviews (cross-sectional) Thematical analysis		National nurses through the humanitarian organisation St John Ambulance Australia Away from home deployment	n = 11	Australia Bushfires	February 2009	Two broad themes: being prepared and expansive role. Nurses role minimal clinical care. More psychosocial support, coordinator and problem solver	One event, one organisation	

51	2014	Sartori & Flave	Mixed method Experience sampling method (ESM) Repeated self-reports that participants fill out in real time during one week. Questionnaires, also open-ended questions.	First-aid activities and well-being	Professional and volunteer Red Cross ambulance workers. Included because volunteers have other occupations: office clerks, engineers, teachers and students	n = 25 pros = 14 vol = 11	Italy	May 2007 to January 2008	Anxiety - more frequent with volunteers Optimal experience - both groups (high challenges matched with adequate skills)	Cross-sectional data Small sample size	Suggest new research directions: designing training programs
52	2007	Shah, Garland & Katz	Quantitative STSs-scale Cross-sectional	Prevalence of secondary traumatic stress	Humanitarian aid workers (HAWs)	n = 76	Indija, Gujarat	Violence, February 2002 Evaluation completed August 2002. Post	STS reported: 76 = 100% PTSD: 8% Lower SES higher trauma scores.	Scale not validated for local/cultural context No comparison groups. Nor baseline data from other nation.	Organisatoin: develop support and protection policies a) recruiting criteria b) worker training and awareness c) encourage rest and relaxation d) planned and readily available counselling
53	2015	Shamia, Thabet & Vostanis	Quantitative Three checklists: Gaza traumatic event checklist, PTSD checklist and Posttraumatic Growth Inventory	Associations between war PTEs and PTSD/PTG	Nurses, employed with public sector, UN orgs and (less) NGOs	n = 274	Gaza	Incursion: Winter 2009 Study: April 2011	Full PTSD: 19.7% Sign rel. between PTE and PTSD Sign rel between community-related PTE and PTG (???) Both PTSD and PTG more related to community-related PTE (as civilians) than to work related PTE (as professionals)	No understanding of "underpinning mechanisms" of PTG, other than its association with both exposure and post-traumatic symptoms.	Organizations: A need for different level of support for health care staff in war-afflicted areas. Training, counseling and support.
54	2012	Sloand et.al.	Qualitative In-depth interviews	Explore experiences of...	... American nurse volunteers	n = 10	Haiti	January 2010	Four themes: 1) hope amid devastation 2) professional compromises and unsettling results 3) universality of children 4) emotional impact Rich experiences, including exptremes of sadness and joy.	Small sample, large variation in participant characteristics	Nurses: Be prepared to address specific needs of children Humanitarian orgs: Employ nurses with pediatric experience Research: Children and disasters Larger quantitative study on needs of nurses. Systemic documentation on needs could lead to better preparation, training and support
55	2011	Soliman & Gillespie	Mixed method Direct observation and focus groups Statistical analysis (how does this tranlate?)	Testing occupational stress theory in humanitarian setting. Work-stress determinants: tasks, management, appreciation and collaboration	Social workers in refugee camps M/F = 40/60	n = 274 Response rate 88.4% of 310 contacted (high!)	Five regions of Middle East: Jordan, Lebanon, Syria, Gaza, West Bank	2006	To relationships statistically significant: Management and appreciation (directly) and tasks (indirectly) affecting work-related stress. Complicated tasks, high expectations and excessive demands. Relationship consistent with stress theory. (So stress theory validated for this region?) Contrast to stress theory: collaboration with service providers and community leaders does not reduce stress		Organisatoin: Better preparation to work in extreme conditions. Research: Identify means of enhancing workers' skills and abilities.
56	2014	St. Louis, Carbonneau & Vallerand	Quantitative Cross-sectional and longitudinal designs 3 studies	Passion for a cause (harmonious HP and obsessive OP) affects on health and subjective well-being	Volunteers with local and international (humanitarian missions)	Study 1, n = 108 Study 2, n = 83 Study 3, n = 77			Study 1 HP: positively related to work satisfaction and not related to work-related injuries. Op: unrelated to satisfaction, related to injuries. Study 2 Findings replicated. Plus self-neglect mediated effects of HP and OP on injuries Study 3 HP predicts increasase and health over 3-month mission. OP predicted increase in physicia symptoms and decrease in health. OP before mission related to self-neglect and physical symptoms post-mission. Also rumination conducive to PTSD. HP unrelated to these	Correlational nature of all three studies - no definitive conclusions about causality Self-reporting bias	Research: Experimental design

57	2015	Strohmeier & Scholte	"Qualitative systematic literature review", 3 databases: PubMed, PsycInfo, PILOTS. Quality criteria: peer-reviewed, published in journal, English	Traumarelated mental health problems. PTSD, depressive disorder, anxiety disorder, SUD, suicidal behaviour. 1. Prevalence 2. Gender as predictor mental health problems. 3. Organisation type as predictor.	Criteria: National staff. Humanitarian workers only.		Criteria: Development countries. Results: China (3) Guatemala (1) India (1) Indonesia (1) Iran (1) Jordan (1) Kosovo (1) Pakistan (2) Sri Lanka (1) Sudan (1) Uganda (1)	Criteria: No restrictions Results: 2005-20013	14 articles. 8 on national staff exclusively, 6 on mixed participants. Quantitative: 11 Qualitative: 2 Mixed method: 1 1) Prevalence PTSD, depression and anxiety similar or higher to reference groups 2) Research on SUD or suicidal behaviour rare. 3) Gender/mental health relation complex 4) Research on org. type/mental health problems rare. Staff support seem to be important determinant.		Humanitarian community: increased attention. Academic community: further research, particularly longitudinal studies.	
58	2011	Tassel & Flett	Qualitative Semi-structured interviews Thematic analysis Self-determination theory	Motivation (the consciously available reasons)	Humanitarian health workers European, Uruguayan, New Zealand	n = 5 m/f = 1/4	Deployments: India, Sri Lanka, Cambodia, Indonesia, Gambia, South Africa, Tanzania, Zambia	Retrospective	Reasons to begin in the first place: introjected motivation. Personal needs and wants, values such as sense of responsibility, obligation, compassion. Identification as "helper" Reasons to continue: Identified motivation. Sense of achievement, satisfaction, engagement. Not	Small sample size. Only expats. Heterogenous occupational group Retrospective, recall bias	Research: Mixed methods approach needed Organisation: identify motivation characteristics of those most likely to continue in the business, for better recruitment.	
59	2009	Thoresen et al.	Quantitative Web-based/paper questionnaire	Disaster related stressors and training/experience	Norwegian personnel, deployed to Asia Home-based personnel if extensive personal contact with victims in immedate post-disaster period	n = 581 Response rate 56% of sum total 1179. Disaster area: 335 Home based: 246 26 Organizations	Tsunami	Disaster: 2004 Retrospective 9-10 months	1) Post-stress reactions relatively low (>10% moderate level), indicating successful coping. 2) Intrusive memories higher in disaster-area p 3) Stress reactions significantly associated with a) witnessing experiences and b) having to reject victims in need of help. (moral distress) 4) Specific preparation ass. with lower stress reactions 5) HW at increased risk for depression and burnout, and lower life satisfaction post-mission	The majorities of agencies contacted declined participation or did not respond. Study did not measure resilience. Concept and instruments not well defined at outset of study.	Organizations: Screening for history of mental illness and family risk factors. Support during and after assignment. Inform staff about risk factors Best possible, accomodation, workspace, transportation Reasonable workload, good management and recognition for achievement Liberal telephone and Internet use policies Research:	
60	2010	Thormar	Literature review Three sources: PsycInfo, PubMed, Web of Science Until October 2009	Mental health of volunteers after working in disaster		n = 9 (of 448 screened)	Aftermath of earthquake (4) Terrorist bombing (1) Exploisions (1) Aviation disaster (1) Tsunami (1) Bus accidendt (1)	All post-disaster	Compared to professional workers, volunteers have higher complaint levels. Contributing factors: identification with victim as a friend, severity of exposure to gruesome events, anxiety sensitivity, lack of post-disaster social support	Limited number of studies No standardization of what constitutes a professional	Organizations Research: None of the studies explored variables that have been found predictive of poorer outcomes in other professionals: neuroticism, hardiness, avoidant coping style, history of prior treatment, physical injury or threat to life, low social support, lower SES, female gender, fatigue, young age.	
61	2013	Thormar	Quantitative Longitudinal 3 time points Questionnaire	Organisational factors (preparation, training, tasks and support) Assessing anxiety, depression, SHC and PTSD	Indonesian Red Cross community volunteers	n = 506 m/f = 74/26 Age: 75 % younger than 30 77% single 27% uni education 21% no volunteer experience	Yogyakarta earthquake	2006 Assessment at 6, 12 and 18 months post-disaster	1) Higher level of PTSD and subjective health complaints (SHC) up to 18 months. 23% maintained clinical levels at 18 months. 2) Anxiety and depression at normal rates 3) Higher levels of exposure and certain tasks - more vulnerable 4) Greater psychopathology at 18 m related to a) sense of safety b) expressed need for support at 6 mn and lack of perceived support from leaders and org		Research: important to research organisational factors	
62	2015	Thormar	Quantitative Dissertation abstract same sample and objectives as studies reported above.									
63	2014	Thormar et al.	Quantitative 2 time points Impact of Event Scale Revised and Subjective Health Complaints Inventory	Peri-traumatic stress, level of personal affectedness, sleep quality, loss of resources	Same	same as above	Same	6 and 12 months post-disaster	1) Quality of sleep related to both PTSD and SHC 2) Resource loss related to PTSD (only) 3) Neither peri-tr stress or level of affectedness were predictive of symptoms. Characteristics of disaster work (low quality of sleep) could be related to later symptoms Comparison with other work: higher health	Lack of data from adequate control groups - difficult to attribute symptoms to the work	Organizations: Future revisions of IASC Guidelines	

64	2012	van der Auwera, Debacker & Hubloue	Quantitative Longitudinal prospective Scales, measurement at 7 time points Self-administrated	Mental well-being	Belgian First Aid and Support Team	n = 23 (out of 27 team members)	Haiti earthquake 2010	Pre, peri AND post-mission!	1) Compassion fatigue and satisfaction: stable in 7, dip in 5, arousal in 10 and double pattern in 1 2) Dips: underlying feeling of distress. Not being able to help as well as imagined, not deliver good standard of health care, not being able to....Worst dip in a logistical member, no contact with patients and felt guilty for not being able to help	Small sample size Study period limited to 3 months post-experience Many did not regain baseline CS Self-report	
65	2012	van der Velden, van Loon, Benight & Eckhardt	Quantitative Prospective pre-post comparison Pen and pencil standardized questionnaires	Rescue workers Measures: Demographics Health Substance use Mental health services utilization Experiences with disaster and aftermath Coping self-efficacy	Dutch national operational team (USAR NL) fire fighters, police officers, nurses, a surgeon, communication personnel	T1 n = 56 (response rate 100%) T2 n = 51 (91%)	Haiti 2010. 10-day mission Jan 14-24	T1: one day pre-mission T2: Three months post-mission	At T1 and T2: health problems almost absent, no significant increases in health problems or use of substances PTSD very low. Coping very high. Protective factors: good team functioning, recognition and job satisfaction were clearly present. Risk factors: sustained injuries or death of co-worker were absent.		Organizations: Enhance or restore protective factors, and post-disaster health problems may be prevented.
66	2010	Vergara & Gardner	Quantitative Pen and paper Spanish version of the Stress Profile	Well-being. Relationship with stressors, appraisal and coping	Local NGO-personnel	n = 75	Medellin, Colombia (High level community violence and poverty)	Peri	1) Wellbeing associated with adaptive patterns of appraisal, coping, satisfaction with social support, cognitive hardiness. 2) Stressors NOT associated with decreased wellbeing, appraisal or coping		Organizations: Psychological wellbeing can be compromised, but not necessarily. Support from family, friends and organisation seems to be more important, than stressors. Research: More on effects of support and cognitive hardiness on wellbeing Longitudinal studies needed
67	2015	Vickers & Dominelli	Qualitative Transcripts of 173 interviews	Perception of preparation, support during mission, their debriefing, and how they think humanitarian aid can be improved	Students and staff, expat volunteers in 2 Organizations	Students n = 79 Staff n = 38	Sri Lanka Post-conflict - not enough "conflict"?	Qualitative research from 2009 to 2012 Pre and post mission	357 themes (Jesus!) in 12 areas of findings		1) Increased openness to international employment 2) Exposure to unfamiliar experiences and knowledge, opening up mutuality and awareness of other "ways" 3) Cross-cultural learning 4) Reflexive learning "Personal growth stuff"
68	2009	Walsh	Literature review	Experiences of interventions to reduce stress following disaster situations	Relief workers	n = 12			Identified themes: Debriefing Team building Preparation	Themes only reflect pre, peri - and post (really) Strange - this is a literature review, yet it seems to be somewhat uninformed about the field	
69	2013	Wang, Yip & Chan	Quantitative Surveys designed Retrospective, cross-sectional	Well-being and suicidal ideation. Dependent variable: postdisaster suicidal ideation. Independent variables: bereavement, depression, PTS, daily work hours, job burnout, work-family conflict,	Local relief workers/themselves survivors	n = 73 (of 83) Response rate 84,3%	One town in worst quake hit region in China. Where 2/3 of residents had died.	2008 Post-disaster (11 months)	1) Suicidal ideation: increased threefold (!) 7.1% -> 21.4% 2) Potential risk factor: interaction conflict of job burnout and work-family conflict 3) Potential protective factors: daily work hours and work satisfaction (meaningful engagement)	Cross-sectional. No causal relationships. Only conditions that can potentially increase or reduce risk. Recall bias	Organizations: More flexibility Better management Encourage to take time off to take care of themselves and their important ones
70	2012	Weber & Hilfinger Messias	Qualitative Mixed method Field observations, public document analysis, in-depth interviews	Analysis of the intersections of gender, race and class in advocacy, power relations and health	Front-line workers representing local NGOs	n = 32 Organizations: 27	Mississippi	Post Hurricane Katrina	"Following a brief period of hope for progressive change, recovery workers became increasingly stressed and fatigued, particularly from lack of communication and coordination, limited resources, insufficient capacity to meet overwhelming demands, gendered and racialized mechanisms of marginalization and exclusion.		

71	2013	Welton-Mitchell UNHCR Global evaluation External consultant	Mixed methods Desk review, e-mail, telephone and field interviews, focus groups, online survey	Mental health and social support (MHPSS) for humanitarian staff. Wellfare, care, well- being. 1) What MHPSS programs and policies? 2) Do staff know, can they access and use them? 3) What are their needs and are self-identified needs the same as needs identified by organisation 4) What adjustments will enhance effectiveness?	UNHCR staff	Online survey (n = 1341) only 16% response rate Interviews (n = 231) of 188+43 contacted		May - November 2012	1) Lack of adequate response to critical incidents 2) Inadequate utilization, coupled with lack of option for service outside UNHCR 3) Lack of adequate support for informal peer networks 4) Lack of accountability for the adequacy of MHPSS services	Response rate for online survey: 16%	The opposite to "Results"
72	2012	Zhen et al.	Quantitative Questionnaire, self-report Cross-sectional Control group!	PTSD and depression symptoms	Red Cross disaster relief nurses	Sample group of exposed nurses, n = 210 Reference group, n = 236	Wenchuan earthquake, China	Quake: 2008 Survey: within 1 year	1) Exposed nurses higher distress on all aspects than control group 2) PTS-symptoms predicted by peri-traumatic thought avoidance, personality traits, prior disaster experience and preexisting stress		Organizations Training and support "Immediate psychological intervention should be initiated."
73	2009	Zinsli & Smythe	Qualitative Interviews Phenomenology	Question: How is difference (and sameness) in being a nurse revealed when working in a disaster/relief context?	Nurses who had worked for Red Cross, Emergency and CARE	n = 7	Up to 12 missions in 10 countries over a period of 21 years.		Themes: Differences: 1) Extent of injuries 2) Limits of treatment 3) Overwhelmingness of need 4) Personal danger Sameness: 5) human-to-human call 6) response to need		