TYPE Original Research
PUBLISHED 22 June 2023
DOI 10.3389/fcomm.2023.1060169



OPEN ACCESS

EDITED BY
J. Brian Houston,
University of Missouri, United States

REVIEWED BY
Beverly Ann Cigler,
Penn State Harrisburg, United States
Megan Schraedley,
West Chester University, United States

*CORRESPONDENCE
Liselotte Englund

☑ liselotte.englund@kau.se

RECEIVED 02 October 2022 ACCEPTED 05 June 2023 PUBLISHED 22 June 2023

CITATION

Englund L, Bergh Johannesson K and Arnberg FK (2023) Reporting under extreme conditions: journalists' experience of disaster coverage. *Front. Commun.* 8:1060169. doi: 10.3389/fcomm.2023.1060169

COPYRIGHT

© 2023 Englund, Bergh Johannesson and Arnberg. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these

Reporting under extreme conditions: journalists' experience of disaster coverage

Liselotte Englund^{1,2*}, Kerstin Bergh Johannesson² and Filip K. Arnberg²

¹Department of Risk and Environmental Studies, Faculty of Arts and Social Sciences, Karlstad University, Karlstad, Sweden, ²National Centre for Disaster Psychiatry, Department of Medical Sciences, Uppsala University, Uppsala, Sweden

Introduction: Media presence on site and reports on disasters are crucial parts of disaster communication. Aside from authorities, civil society, concerned businesses and citizens, the media constitute an important actor. The working conditions, situational competence and management among journalists on duty in a disaster area are important factors within the complex area of crisis management and disaster communication. This study aims to explore the working conditions, challenges, and coping strategies among journalists covering the Haiti earthquake in 2010.

Methods: Ten months after the event, Scandinavian journalists (n = 32) provided free-text responses about their work on site through a web survey. The free-text responses underwent content analysis. In addition, self-report questionnaires were used to assess general mental health and posttraumatic stress.

Results: We found that journalists faced five main challenges in Haiti: situational (technicalities, practical, collegial), professional (mission, approach, roles), personal (traits, emotions, coping), traumatic (general mental health and posttraumatic stress) and experiential (learning and growth). They described a difficult and challenging mission, but also an eye-opening and life-changing experience. Most respondents' questionnaire responses indicated low risk for both poor mental health and posttraumatic stress, with a few significant exceptions. Being properly equipped and mentally prepared, getting collegial support and maintaining professional focus were seen as important, and good leadership and clear instructions from editors at home were highlighted.

Discussion: Corroboration of the present findings would strengthen our knowledge of their experiences, and may provide valuable insights for designing preparedness activities in the future as well as for applying to other communication functions in disasters.

KEYWORDS

disaster communication, disaster journalism, free-text survey responses, Haiti earthquake, journalists, media coverage, mental health, working challenges

1. Introduction

Global natural disasters have become an increasingly heavy burden for the wellbeing and safety of persons, communities and countries around the world through the past decades (UNISDR, 2015). Related to climate change, natural disasters may increasingly occur, and our knowledge thus needs to be strengthened.

Communication is essential at all crisis events. During natural disasters, journalists and news organizations play important roles with the duty to report—and sometimes warn—as well as examine the causes and consequences of the events. In the longer term, media also contribute to building disaster resilience in citizens, organizations and societies.

Journalists and news organizations are essential actors in disaster communication (Spialek and Houston, 2018; Houston et al., 2019; Antunes et al., 2022).

In this study we explore Scandinavian journalists' experiences and working conditions during the 2010 earthquake in Haiti, and evaluate self-reported mental health as well as learning outcomes from the mission.

1.1. The journalistic assignment on site

Media are important interacting and communicating actors in disasters (Englund et al., 2022). As the eyes and ears of citizens, journalists have a key role also in terms of creating coherence and meaning (Newman et al., 2009). During disasters, journalists are not only reporting but also witnessing the event—or "bearing witness" (Cottle, 2013). At best, media's function to inform the public in a crisis can prevent panic and anxiety among people: Well-conducted interviews may support and comfort victims as well as next-of-kin (Englund et al., 2014, 2022; Englund and Arnberg, 2018). In the longer term, media coverage may be part of disaster mitigation and preparedness as well as foster resilience for citizens and authorities (Houston et al., 2019) and raise public awareness and understanding (UNDRR, 2015).

The challenging working conditions at disaster sites implies impact both at a personal and professional level. Minimal resources, logistic difficulties and hard decisions often characterize the situation, beside the mental pressure and psychological impact. During disaster coverage, skills of directors, editors and journalists are tested to the limit (Puente et al., 2013). Investigating the impact on both of these levels has not been in-depth reported in the literature of disaster journalism, whereas examples can be found for other professions, such as hospital staff (Gil Cuesta et al., 2018).

1.2. Organizing work on site

Journalists frequently arrive on the scene at the same time as first responders but have significantly less training for the situation (Dworznik-Hoak, 2020a). Correspondents reporting from natural disasters are highly exposed to potentially traumatic events by witnessing human suffering, experiencing strong sensory impressions, taking risks in difficult practical and technical circumstances, and simultaneously managing their own stress reactions.

The task of journalists is to observe, analyze and edit news of value to readers, viewers and listeners, not to help and rescue (Knoester, 2014; Englund, 2018/2008). Yet, few studies shed light on the practical work situation in the acute stages of disasters and the journalists' ways of handling the situation (Salam and Khan, 2020).

Disasters may force news media to work in new and flexible ways. Media practices such as journalistic routines and organizational preparedness may change in the aftermath of a disaster. Opportunities and challenges that news organizations need to address have been highlighted (Takahashi et al., 2020). The difficult working conditions may also lead to improvisation and

embrace of alternative journalistic roles. Inadequate technology for the context can be one of the main barriers (Nieves-Pizarro et al., 2019). Journalistic challenges when covering a natural disaster could be communication barriers like restricted access to information, and ethical dilemmas, as well as emotional and psychological reactions (Puente et al., 2013).

1.3. Coping and managing

Like health and rescue staff at disasters, media staff are exposed to extraordinary and challenging working conditions, often facing the trauma both as responders and victims and working while concerned about their own safety and under emotional pressure, which means experiencing both private and professional burdens (Gil Cuesta et al., 2018). Disasters can be overwhelming experiences, and the emotional and psychological risks for negative psychological consequences are high.

It has been reported that work-related exposure to potentially traumatic events seems to have an effect on the psychological wellbeing of journalists (Osmann et al., 2020a). Still, studies are sparse of journalists as an occupational group covering disasters when it comes to professional practice and mental health. While first responders have been studied, the journalist profession has often been overlooked (Newman and Drevo, 2015). The psychological impact on journalists covering traumatic events, however, has been verified in some studies through recent years (Backholm and Björkqvist, 2012; Cottle, 2013; Feinstein and Owen, 2013; Keats and Buchanan, 2013; Allan, 2014; McMahon, 2016; Lee et al., 2018; Smith et al., 2018; Englund, 2018/2008; Backholm and Idås, 2020; Dworznik-Hoak, 2020a). Studies of journalists' stress reactions and coping when exposed to strong sensory impressions can generate information of their ability to reduce or manage strong professional exposure to trauma. After natural disasters (Thoresen, 2007), terrorist attacks (Busso et al., 2014), school shootings (Backholm and Björkqvist, 2012), daily press journalists, photo journalists and war correspondents have reported insomnia, flashbacks, and symptoms of post-traumatic stress disorder (PTSD), such as distressing intrusions of the event, avoidance of stressor-related stimuli and hyperarousal as expressed in exaggerated vigilance and startle responses, when exposed to potentially traumatic events (Czech, 2004; Osmann et al., 2020a). In addition, a possible low degree of social acknowledgment by supervisors and colleagues is identified as related to post-traumatic and depressive symptoms (Weidmann et al., 2008).

The impact of covering crises and traumatic events can also be seen as part of an "emotional turn" in the media, according to some researchers (Thomson, 2018; Wahl-Jorgensen, 2019). Among journalists covering disasters, war and conflict, tensions between norms and morals and between being professional and human may influence both emotions and ethical practices as well as challenge working routines (Englund, 2018/2008; Stupart, 2021). The experience of inner conflict between carrying out journalistic duties and showing enough respect toward crisis victims is a factor that puts journalists at risk for trauma-related problems such as work related guilt, as previous studies show (Englund, 2018/2008; Backholm and Idås, 2020).

Researchers have proposed that journalists to a greater extent should be seen as fellow human beings with a myriad of reactions when encountering a disaster, possibly also in need of support (McMahon Oam and McLellan, 2008).

1.4. Learning and preparing

Lessons learned studies are rare on journalistic practice regarding broader perspectives of the assignment, practical organizing of the work, stress and coping. A study on the humanitarian logistics during the Haiti earthquake state that there is lack of knowledge about implementing pre-disaster preparations, and a need for more academic research on learning from disasters (Salam and Khan, 2020). A challenge, not least for young journalists reporting from disasters, is the lack of practice, training and experience in this kind of assignments (McMahon, 2016). Methods and routines for training and preparing future journalists in the art of making sensitive and press ethical interviews with potentially traumatized individuals are of great importance. Challenges involve their own stress reactions as well as the reactions of the afflicted. The situation can cause journalists to misinterpret signals, to use inappropriate language or to make bad decisions (Duncan and Newton, 2010).

Yet, few studies shed light on the practical work situation and the journalists' handling of it, in the acute stages of disasters. The same applies to lessons learned based on these particular perspectives (Salam and Khan, 2020). Occupational studies of journalism at accident and disaster sites have looked into topics such as journalists as public witnesses, their own trauma, humanity vs. scoop, and reporting when children are victims (Simpson et al., 2006).

1.5. Studying journalistic work at disasters

The work situation for journalists who report from disasters is very demanding and involves the risk of trauma. Prerequisites for media reporting from these events need to be better understood. This concerns creating the best possible preparations (practical, technical, professional, emotional etc.) for journalists and media organizations to carry out the coverage, and to enable reporting with due regard for those affected (Kay et al., 2010; Houston et al., 2019). It also concerns reducing the risks of negative effects on the journalists' mental health and wellness during and after covering a disaster. Examining self-reported experiences among disaster-reporting journalists could therefore be of value for more than one reason. An increased understanding of journalists' working situation during disasters may also provide an increased understanding of how journalistic decisions are made, how the event is communicated and the final expression in the reporting from an event that meets the citizens and a media audience (Englund, 2018/2008).

Previous studies have noted that investigating traumatic stress in professionals as well as victims requires an interdisciplinary approach. There are some qualitative studies of the psychological impact of disaster on rescue workers and volunteers (Mao et al., 2018), of journalists' work at disasters (Englund, 2018/2008), and of survivors' experiences of journalists' work and media coverage of disasters (Englund et al., 2014, 2022; Thoresen et al., 2014; Glad et al., 2017; Englund and Arnberg, 2018). The unique research design of the present study, which combines perspectives from journalism studies and psychotraumatology, can hopefully shed light on the very complex working conditions under which journalists' fulfill their mission during a natural disaster.

This study uses free-text responses to open-ended questions in a survey about working experiences and occupational management. The option given to the respondents to add information in free text was intended to catch issues that may be overlooked in a quantitative questionnaire. The open questions may be valuable in identifying journalist perspectives that are important to them and can guide further studies (Garcia et al., 2004).

The free-text responses were supplemented by two quantitative measures so as to document the level of stress reactions and general mental health, which provide context to the qualitative findings and may be of use for future studies into the psychological consequences of disaster journalism.

Fortunately, natural disasters of the 2010 Haiti earthquake magnitude, with corresponding devastation and extremely difficult working conditions for aid workers and journalists, do not occur annually. It is therefore natural for disaster studies to collect large amount of data which can be analyzed and generate publications even when a longer period of time has passed after the event. Experiences extracted from this kind of events should be considered in the light of the period's development regarding lessons learned, disaster preparedness, new technical conditions and recent research in the field.

This study aims to explore Scandinavian journalists' experiences and working conditions during the 2010 earthquake in Haiti, and to evaluate self-reported mental health and signs of posttraumatic stress, as well as learning outcomes from the mission.

The main research questions of this study are:

- 1. How did the journalists *experience* the assignment?
- 2. How did they *organize* the work on site?
- 3. How did they cope and manage the situation?
- 4. What was the most important *learning* outcomes?

2. Materials and methods

2.1. The event

Haiti is one of the most vulnerable countries in the world, according to INFORM Global Risk Index (INFORM, 2021). The earthquake hitting Haiti on January 12, 2010, was described as the most devastating and deadly earthquake in recorded history (Schuller, 2016). Different sources reported up to 316 000 deaths and 300 000 injured in this nation already struggling with vulnerability and poverty (Durocher et al., 2017; Hsu and Schuller, 2020; Arnaouti et al., 2022). The number of homeless people as a result of the earthquake reached two million, or one in seven. The disaster caused a massive destruction in the capital Port-au-Prince and its surroundings. A mobile phone study followed the escape from the area and estimated that 630 000

inhabitants of Port-au-Prince left the city following the earthquake (Bengtsson et al., 2011; Hsu and Schuller, 2020).

On January 12, buildings collapsed and electricity, telecommunications network, internet, cell phone towers, air and seaports lost its functions. More than half of the already undersized medical facilities were partly or totally destroyed, and the numbers of traumatically injured victims were enormous. One central problem for the disaster response, seen in post-disaster evaluations, was that despite massive personal, material and monetary aid, the lack of ability to manage those resources made the response insufficient. Tens of thousands of people lacked food and water and the working conditions were extremely challenging (Alexander, 2010). It was a tragedy that gripped the whole world, and "... the outpouring of solidarity within and outside Haiti was extraordinary." The global response to the disaster was massive humanitarian efforts (Schuller, 2016).

Within the first days after the earthquake, many journalists from around the world, including some dozen Scandinavian reporters and photographers, arrived to the capital Port au Prince in the midst of chaos.

2.2. Procedure

The authors selected respondents by first identifying Swedish and Norwegian journalists and photographers having reported from Haiti. It was done by checking media web sites and identifying editing staff, etc., who could provide contact details to potential respondents. Only major daily media had sent staff to Haiti. Ten months after the earthquake, national radio and TV channels, national morning and evening papers, and national news agencies in Sweden and Norway were invited to participate in the study. Contact was made with supervisors (news director/chief editor/head of foreign news or equivalent) who, after consulting with the journalists concerned for their consent, provided their contact details. Each potential respondent then received an e-mail with the link to a web-based survey. No one was asked to participate until a supervisor and the respondent had consented to receiving the survey. Virtually all correspondents from the two countries were included (n = 48). The data collection in the project took place in 2010 but was analyzed for the present study in 2021-22.

2.3. Design

The full survey consisted of several questions with fixed response options and—with the main focus in this paper—eight open-ended questions, with an option to write unlimited free-text responses. The survey questions were bilingual (Swedish and Norwegian). The open-ended questions covered the responders' experiences, their stress response, their wellbeing, working challenges and major learning outcomes. In addition, two self-report questionnaires on mental health were included.

The study was not suited to analyze free-text responses and the responses to the questionnaires in a combined set of data as in mixed-methods study to answer the same research questions (Creswell and Creswell, 2018). Instead, the quantitative measures

TABLE 1 Respondent characteristics.

	<i>n</i> (total = 34)	%			
Nationality					
Swedish	21	61.8			
Norwegian	13	38.2			
Gender					
Female	4	11.8			
Male	30	88.2			
Age					
20-29	1	2.9			
30-39	7	20.6			
40-49	5	14.7			
>50	21	61.8			
Main profession					
Reporter	22	64.7			
Photographer	6	17.6			
Photo-journalist	4	11.8			
Other	2	5.9			
Arrival in Haiti (after main earthquake)					
Within 3 days	16	47.1			
4–6 days after	9	26.5			
One week after	9	26.5			

of mental health provide a context to the qualitative findings and may be of use for comparison purposes in future studies.

The study was ethically reviewed and approved by the Ethics Review Board at Uppsala University (No. 2010/178).

2.4. Respondents

A total number of 48 journalists from national radio and TV channels, national morning and evening papers, and national news agencies in Sweden and Norway received the survey (Table 1). Only the largest publishers in Sweden and Norway sent staff to Haiti. The media companies from the two countries included in the survey were three national TV channels, two national radio channels, eight national daily newspapers and one news agency.

At the time of the survey, most of the respondents were stationed in their home countries (Sweden and Norway) while a handful were correspondents stationed abroad before being sent to Haiti. The majority held permanent positions while some were freelancing. The respondents represented a relatively even distribution between morning papers, evening papers, TV, radio, the net press and a news agency.

The journalists sent to Haiti were among the more experienced employees. Seven out of 10 had been employed for >10 years at the agency they represented. Two out of 10 had worked between 6 and 9 years and a few for a shorter time.

TABLE 2 Survey guestions inviting free-text responses.

Research topic	Supplementary survey question for free-text response	
Experience	Did you report from the disaster area after the 2004/2005 South East Asia tsunami? If yes, did your experiences from tsunami reporting come to any use in Haiti? If so, how?	
	Please summarize some of the new experiences the Haiti reporting gave you.	
	How did you experience your own role as a professional (journalist) on site?	
Organizing	Did you collaborate with a regular journalist/photographer when you were in Haiti? If yes, what significance did this have for the outcome/reporting?	
	Please write a few lines about how you balanced the roles of professional journalist and fellow human being in the difficult situation	
Coping and management	What do you think was the most important thing you did to master the situation during the Haiti reporting?	
	If you did something else to manage the situation, please describe this.	
Learning	What advice would you give your editors and managers when it comes to taking good care of their employee/s in a similar event?	

Nearly half of the journalists arrived in Haiti within 3 days of the first quake and a fourth of them somewhat later. A little more than half of them worked during a continuous stay, and roughly the same number arrived in Haiti two or several times. Most stayed for a week, and a few > 10 days.

2.5. Survey questions

Our research questions generated eight survey questions: these open-ended questions offering free-text responses are presented in Table 2. Some of the questions were derived from two previous journalist studies: a study of Norwegian journalists covering the Tsunami disaster 2004 (Thoresen, 2007), and an interview study of Swedish journalists covering the Gothenburg fire 1998 (Englund, 2018/2008).

In addition to the open-ended questions, two self-assessment questionnaires were used for assessing self-reported mental health. Self-assessment is a useful tool in addressing mental health problems that otherwise may be difficult to identify by professionals (Hankins, 2008).

The 12-item General Health Questionnaire (GHQ-12; Goldberg, 1972) was used to assess self-reported general mental health. The GHQ-12 focuses on the inability to undertake normal functions and the appearance of new and distressing phenomena (e.g., "Have you recently lost much sleep over worry?" and "Have you recently felt constantly under strain?") and is sensitive to short-term disorders but not enduring attributes of the respondent (Goldberg et al., 1997). The GHQ-12 is reliable and valid in community samples in different cultural contexts (Furukawa and

Goldberg, 1999). A sum score of the Likert-coded items (0-1-2-3) was used for the calculation of mean values (range 0-36). The GHQ scoring method with a cut-off at ≥ 3 points was used to estimate the proportion of respondents with a high likelihood of poor mental health (Goldberg et al., 1997).

The six-item Impact of Event Scale (IES-6; Thoresen et al., 2010) is an abridged version of the Impact of Event Scale–Revised (IES-R) and represents an attempt to devise a brief measure of posttraumatic stress for use in epidemiologic surveys and as a screening tool. The IES-6 includes two IES-R intrusion items, two avoidance items, and two hyperarousal items (e.g., "I thought about [the event] when I didn't mean to", "I felt watchful or on-guard"). The respondent is asked to rate how distressing the reactions pertaining to a specific event have been in the past 7 days, from not at all (0) to extremely (4), yielding a total score between 0 and 24. A total score of \geq 15 is indicative of high levels of posttraumatic stress (Arnberg et al., 2014).

There were four respondents who had missing responses on four of the GHQ-12 items and one respondent who had missing values on five items. The missing responses were imputed with the nearest-neighbors method using the package VIM 6.1.0 (Kowarik and Templ, 2016). *R* version 4.0.4 (R Core Team, 2021) was used for the statistical analysis.

2.6. Analyses

A qualitative content analysis with a descriptive approach (Vaismoradi et al., 2013) was made on the total body of written survey responses to questions 1-7 in Table 2. At the outset, we decided against including question 8 due to its dissimilarity as well as its declarative rather than experiential content. A conventional inductive content analysis was used with the intention to provide knowledge, new insights and a practical guide to action (Elo and Kyngäs, 2008; Krippendorff, 2019). The analysis process followed the model by Elo and Kyngäs for inductive approach, from "preparation" with selecting and sense making, through "organizing" with coding, grouping, categorization and abstraction to "reporting" or "resulting" by presenting themes and a model (Elo and Kyngäs, 2008). As a first step, all free-text responses were read and re-read approximately ten times by the first author (LE) to get a view of the total text body (Tesch, 2013). During last readings, LE made mind-map notes and highlighted codes in the text. A coding process with inductive approach followed as a next step, in which LE identified meaning units and grouped them in subcategories and categories (Graneheim and Lundman, 2004). This step was also processed by the co-author FKA as well as discussed within a wider staff of researchers at a seminar, including the second co-author KBJ. Subcategories and categories were shaped and revised during a protracted period of time. These subcategories and categories were developed inductively in the form of key thoughts generated from the text through being organized into clusters (Ricci-Cabello et al., 2017), where the categories were internally homogenous and externally heterogeneous (Patton, 1987). Also, during this third step coding cycle, co-author FKA took part in shaping and reshaping the clusters and development of the themes. The content analysis proceeded across all seven questions simultaneously. The

TABLE 3 Excerpt of the four levels in the content analysis of free-text responses after second cycle coding.

Meaning unit/code	Subcategory	Category	Theme
"I tried to avoid letting feelings affect my work"	Avoiding and suppress feelings	Coping	Managing the personal challenges

respondents, being expressive and fluent writers, tended to reply wider than within the main topic of the open-ended question. Thus related content could be found across the survey questions. These rich and valuable written responses added great value to the study, but placed high demands on the analysis process. The analysis was concluded when the categories were deemed mutually exclusive (Elo and Kyngäs, 2008). The subcategories declared "In what way?", the categories intended to answer the question "What?" and referred to a descriptive level of the content (Krippendorff, 2013). The themes described an "aspect of the structure of experience", and answered the question "How?" (Van Manen, 1997; Graneheim and Lundman, 2004). See Table 3 for an example of the coding.

Results are reported without personal identification because of the small sample. Reporters and photographers were not reported as separate categories and no distinction was made between Swedish and Norwegian journalists due to the small sample. Media agents/employers are never stated. The free-text responses are quoted such that the anonymity of any respondent is protected. Both brief quotes within body text and longer block quotes are used to exemplify the subcategories.

3. Results

The number of respondents was 34 (Swedish n=21 and Norwegian n=13), which meant a response rate of 71% (34 out of 48). The majority of the respondents were men (n=30) and above 50 years old (n=21). A majority (n=22) were reporters, and the rest were photographers, photojournalists or local-based supervisor. The number of responses to the eight open-ended questions were between n=21 and n=32. There was a great variation between individual responses concerning the number of words in each written comment.

The qualitative analysis of the seven main questions rendered four themes and several sub-categories within each category. The themes were: managing the situational challenges; managing the professional challenges; managing the personal challenges; and managing the experience (Table 4).

3.1. Managing the situational challenges

Theme 1 "Managing the situational challenges" relates to the situational aspects on site, such as technicalities, practical issues and social/collegial aspects. This theme connects to research question #1 about the journalists' experiences of the assignment and #2 about how they organized their work on site.

In line with the difficult working conditions in disasters, the respondents provided several examples of technical, practical, and social aspects that were challenging. However, although the respondents expressed frustration by technical problems that could not be resolved, their responses also reflected their active attempts to overcome each of these challenges, often taking help from

TABLE 4 Themes, categories and subcategories of main research questions.

Theme (How?)	Category (What?)	Subcategory (In what way?)
Managing the situational challenges	Technicalities	Being properly equipped Accepting and solving problems
	Practical	Working around the clock Managing the time difference
	Collegial	Avoiding loneliness at work Team working Collaborating cross companies
Managing the professional challenges	Mission	Being at the center of an event Feels the duty to inform Wanting to do good
	Approach	Maintaining professional focus Working hard Getting support from leaders
	Roles	Being a skilful journalist Balancing role conflicts
Managing the personal challenges	Traits	Thinking safety and preparing well Utilizing personal abilities
	Emotions	Keeping a cool head Dealing with the compassion
	Coping	Avoiding and suppress feelings Applying wishful thinking Receiving social and peer support
Managing the experience	Learning	Carrying the lasting mental load Deciding for future missions
	Growth	Gaining new insights Life changing experience Boosted self-confidence

colleagues within and outside their teams. The successful handling of difficulties seemed to entail a sense of accomplishment that remained after returning home from the disaster.

3.1.1. Technicalities

3.1.1.1. Being properly equipped

Technical preparations were reported as being of great importance, such as in the response "you can never be too prepared".

In many ways, I got confirmation that mental and technical preparations were crucial./.../The experience is that you can never be totally prepared when everything falls apart as in Haiti.

The earthquake ruined infrastructure concerning communication systems, roads, airports and harbors, and journalists had to report via few channels. Ill-functioning satellite phones and internet connections was making transmission

uncertain and affecting quality. Almost all respondents indicated that the technical problems were very frustrating and challenging:

Contact with the home office was virtually non-existent, mostly due to technical problems. So, I delivered my reports in a vacuum, without knowing if they were received—or how they were received by the editors.

Being properly equipped also means well prepared in many ways. Earlier experiences are helpful:

As well as having planned for the worst scenario, for instance, that you may not survive or, as it were, are not able to report for lack of water.

3.1.1.2. Accepting and solving problems

Another topic emerging was the need for problem solving. An expression also true for the journalists is that "need is the mother of inventions". "I came up with my own solutions to arising problems", was a strategy that virtually all applied. And also a satisfaction with being able to solve the problems and to addressing managements for future missions.

I did have technical problems but mostly managed to solve them. Generally, it can be noted that technical solutions are often designed for the western world with functioning power and internet. This is not the case in a disaster area. Technicians should pay more attention to this situation.

Kindness and support from better-equipped colleagues was also helpful to some. "Helpful colleagues with better equipment saved me on several occasions".

3.1.2. Practical

3.1.2.1. Working around the clock

Eating and sleeping well on the job was indicated to be of great importance. Many felt that the demand to be available affected them negatively; "Reporting all hours of day and night, very tiring". Lack of sleep was mentioned as a serious stress factor during the covered period; "No sleep for five days".

Colleagues at home forgot or ignored the time difference and woke me up when I was sleeping.

Immediate deadlines are also an adding burden to time difference and lack of sleep.

A tough demand, bud at the same time understandable.

At a news agency we are also expected to do things as quickly as possible. Deadline is also five minutes ago.

3.1.2.2. Managing the time difference

The time difference led to a challenging working situation "... it meant that we had to get up in the middle of the night to do the live items, which in turn led to sleep deprivation".

Time difference meant more pressure with live broadcasts in the middle of the nights and sometimes also more stressful in day production.

Arriving from another time zone and immediately having to start reporting was also a stress factor:

Deadline in the wrong direction. Had to deliver TV clips before 12:00 to the main broadcast. Live to the morning broadcast in the night.

In various degrees, respondents conveyed that they were used to reporting across time zones:

Radio staff are used to this kind of problem since we often report live in different programs.

3.1.3. Collegial

3.1.3.1. Avoiding loneliness at work

A handful of journalists indicated that they were the single correspondent for their media company "which was a social challenge". "In Haiti, it was a great challenge not to have a partner to work with:

It made it much more difficult because of the safety challenges. I had to rely on finding other journalists to team up with. This was not always easy, and it took time.

A way of handling the situation of being alone without company colleagues or a team on site was to collaborate with other Scandinavian media company colleagues and colleagues from other countries, as well as rescue staff members. Respondents valued being part of a human group and "chatting with colleagues" were mentioned:

We tried to have dinner together and talking through what had happen in the day. Snacks and briefing with colleagues in the evenings solved any problem.

Cooperation with other professional groups, such as responders, health care staff and volunteer organizations, was judged to be good; "Very good to share the work and the pressure that comes with such news events".

3.1.3.2. Team working

The majority—nearly eight out of ten—worked in teams with a permanent reporter and photographer respectively during the stay in Haiti, and found it "of great importance". Team cooperation was perceived as central, positive and leading to a better result. "This was a great help, practically and also in terms of ideas". Amassed experience can be even greater. Many underlined the benefits of teamwork in terms of "competence, judgement, and comfort". Teamwork was natural for some, also in daily life.

For me personally it was more or less a necessity to be a team to manage this difficult task.

Having someone more experienced by ones side, was of great value. "It is often easier to work with someone you know and who knows what the employer expects", and "it also feels safer for me as a reporter to have an experienced traveling companion".

The photographer had long experience of war and disasters. Besides, it was nice to have someone to share everything with.

The comfort of working together with a familiar person was emphasized. Knowing and understanding each other's reactions in a crisis was of great importance.

Important to work with colleagues you know well. Then you know how they will react in different situations

On these kinds of news coverings, reporters and photographers come to be very close: "The contact is better than we work together at home" and "... then it is better to be two in this kind of situation. We can support each other."

3.1.3.3. Collaborating cross companies

There was some degree of cooperation with colleagues from other media employers. A few stated that this took place to a great extent, while the majority stated that it was rare and to a lesser extent.

The size of the teams that media companies had access to in Haiti varied. Most companies had a staff of two-three people there, while some were represented by five people or more. Only one of the journalists on site had a local editor in Haiti. All the others reported to their home offices.

Collegial support was also given weight—in terms of psychology, practicality and safety.

We can support each other logistically—get food/water/sleep etc, but also psychologically and for safety reasons.

Not just Scandinavian colleagues, but also correspondents from other countries and so-called "local fixers" (common expression among foreign correspondents and reporters) were of great value.

To work with a local man who knew the country, knew where to go, had good contacts.

3.2. Managing the professional challenges

Theme 2 "Managing the professional challenges" relates to the journalistic duty on site, such as the medias' mission, journalistic approach—to the job, to victims and other actors—and the journalistic role and in some cases role conflicts. This theme connects to research question #1 about the journalists' experiences

of the assignment and #2 about how they did organize their work on site.

Personal factors drove respondents' reasons for going on the mission. Examples of this could be personal values, such as the prospect of taking on a real challenge or their moral compass. Nonetheless, when on site, respondents highlighted their professional role and skills to manage the challenges of the mission. The suppression of their personal role at the disaster site was deemed necessary due to the overwhelming needs among the victims, a "sea of suffering". Simultaneous activation of the personal and the professional role was seen as something that led to an inner conflict.

3.2.1. Mission

3.2.1.1. Being at the center of an event

Regarding the decision to go, the responses highlighted the size and importance of the event, and the Haiti earthquake was a news event with massive consequences. The challenging idea to be where something important happens was mentioned by several respondents, "to be at the center of a news event". Many argued that it was part of their area of responsibility (read: an implicitly given task and not an active choice): "I knew why I was there, and thought I made a good job".

Being on site felt meaningful but rewarding: "An important course of events to cover, but felt personally powerless".

It was one of the absolute toughest missions I've been on. At the same time it was very rewarding to report on something so important.

Being in the middle of the terribly strong impressions sharpened all senses:

There are few times when you are as present in your profession as while working in a disaster area.

Despite being a heavy duty, journalists' were very eager to go:

I think it was a must as a journalist to cover this disaster. It was burdensome on many levels, but I don't regret going there for a second. I'm still frustrated that the boss didn't let me go earlier (it took a week before I was cleared to go, for safety reasons).

3.2.1.2. Feels the duty to inform

Having the chance to raise public opinion through journalism was mentioned as an argument:

I wanted to go to make my/our readers understand how important it is to help. To tell the world about the need for help.

Reporting can also be seen as a responsibility, or as one of the journalists put it, a moral duty:

I have traveled regularly in Haiti since 1986. It seemed like a moral duty for me to be there.

Practical factors, such as being able to take off at short notice, were also influential, as was being early with reports:

Satisfied with being among the first in the area. It felt extremely great to be the first with a report home, which was a challenge due to the difficulty of communicating via phone and email. I felt it was important to tell about what happened. It was also important for the sake of those affected.

3.2.1.3. Wanting to do good

Simply concentrating on doing a good job for a good purpose was also a driving force:

To convey this horrible disaster in the best possible way to the TV viewers.

Most of the respondents reported that they were highly engaged in the fate of the survivors, and "also felt the affected Haitians respected the job I did".

Many stated that being part of human aid, made the working situation somehow feel a bit better:

I was thinking that the job we were doing was in the interest of all the afflicted people.

But not all put "doing good" in the first place. Journalism first:

You are not there to help—because then you would drown in human fate and never have time to report.

3.2.2. Approach

3.2.2.1. Maintaining a professional focus

The "professional filter" was mentioned as the most important factor during the journalistic mission.

If you go in to just be a reporter—that is, eyes and ears—and describe what you see and hear, you "tune out" in the role of trying to be some kind of aid worker. It is a difficult balancing act, but if you simultaneously see that what you report on can lead to improvements for those affected, it becomes easier.

Respondents stated that they to a great extent had to "maintain the professional approach":

Focusing on the job and keeping up talking with the afflicted to show that I cared about them.

3.2.2.2. Working hard

Another way of focusing and managing mentioned was to work hard and keep going forward: "I concentrated on the next report", or as expressed in the following response:

My way of coping with the situation was simply to work really hard. Reporting home as much as possible/.../doing my best to describe individual fates as well as the bigger picture of the disaster.

A pragmatic approach was helpful to keep the journalists on track. Just being a journalist, even if it was difficult: "I felt professional, focused, effective, quick and exhausted".

3.2.2.3. Getting support from leaders

The importance of clear job instructions from the editorial staff was highlighted as a way of helping the journalists to focus on the task. Clear instructions, preparation and good leadership on the part of the employer were emphasized:

The importance of knowing what the editorial staff expect of you. Not expecting a full and complete picture to be delivered.

A committed management helps strengthening:

That time the boss called and asked how I was seemed really important actually.

For more input regarding leadership, instructions and collaboration with editor-in-chiefs, see Appendix.

3.2.3. Roles

3.2.3.1. Being a skillful journalist

Many stated the importance of being part of a coverage that would be executed properly, "doing as good a job as possible", and with high quality: "Important to cover this event skilfully".

I know that I can both handle and do a good job in this kind of situation.

Several emphasized that this event also required experience of both previous disaster coverage and of reporting on Haiti:

I knew I would do a good job, because Haiti is close to my area of responsibility.

Also working with a skilful colleague in the team, strengthens the own journalistic role:

This is important to my newspaper because we give great weight to good pictures.

3.2.3.2. Balancing role conflicts

Most of the respondents reported that they were highly engaged in the fate of the survivors. Being a journalist and being a private person and a fellow human being could lead to a moral conflict, "A strong emotional dilemma", but "in all assignments in crisis situations, I try to be both a reporter and a fellow human being":

These roles are intimately associated with each other even in everyday life. Being a "fellow human being" is no different from being a "professional". On the contrary, without being a fellow human being, you are not a professional.

In some cases, the closeness to disaster victims also stretched the journalists' own boundaries between roles.

For the first few days I lived, completely involuntarily, in a tent camp together with the people affected. That experience was important for forming human ties beyond the "news situation".

But adjustments to the situation were also reported. One respondent stated:

It is not possible to be either one or the other. To get something, you also have to give something, and to be human.

Keeping up the professional work and letting the job come first while victims were suffering involved a huge emotional challenge:

A fierce emotional dilemma. Arrived before aid workers, but had to do my job instead of helping severely injured people. Worked in a sea of human suffering.

3.3. Managing the personal challenges

Theme 3 "Managing the personal challenges" relates to the journalist as individual human being, illustrated by aspects like traits, emotions and the ability to cope with stress and pressure on site. This theme connects to research question #1 about the journalists' experiences of the assignment. It also connects to the quantitative measures of self-reported levels of general mental health and posttraumatic stress (see Section 3.5.).

Several strategies to address personal challenges while separating the personal and professional roles were described by the respondents. They indicated that previous experience was generally beneficial. Notably, they suggested that by separating their personal and professional roles personal challenges could be managed by keeping their emotions under control during working hours, and then using various strategies to allow for recuperation between work shifts. The respondents cited strategies ranging from psychological, social, and contextual approaches, all mindfully used by them to cope with how the disaster affected them personally.

3.3.1. Traits

3.3.1.1. Thinking safety and preparing well

Some respondents also emphasized the importance of previous experiences, that is, being "prepared for the worst", properly equipped and safety conscious:

To start with, you know that you should be well prepared regarding clothing, feelings and health.

Using my experience from previous coverage. Personal safety is important. And preparation.

Preparation is fundamental, but not always completely possible:

We prepared well for being able to cope on our own. We lacked some equipment, but this went beyond to some extent.

3.3.1.2. Utilizing personal abilities

The reasons for sending a specific journalist to the earthquake disaster area varied. The most common reason reported was the person's previous experience of similar assignments, being psychologically and mentally equipped.

All previous experiences provide knowledge that helps to make you strong enough to face the misery again. The first time is always the worst.

Mental preparedness for similar events was mentioned, as well as learning to tackle a job under very difficult circumstances.

Also, it's useful to have experience of your own reactions or behavior in a crisis situation, psychologically speaking. Even if it's impossible to prepare enough when you face the pain of others.

Dead bodies are not the worst, but the very pain you can see in others.

Personal capacity to meet a traumatic event helps, but is not an armor, because "you may not be as stress resistant as you think".

3.3.2. Emotions

3.3.2.1. Keeping a cool head

Strategies applied were being observant of their own reactions, looking ahead and trying to see hope, like "taking it easy", "working normally" and "staying calm". But it was not always easy to keep the cool head up:

It is possible to carry out a news reporting surrounded by so much suffering, but it's something I will never be able to keep up completely at a distance.

3.3.2.2. Dealing with the compassion

One topic reported was the experience of powerlessness when confronted with the needs; "accepting the situation and making the best of situation". Talking to the afflicted was not only a burden but also a way of managing the own compassion:

Keeping up talking with the afflicted to show that you care about them.

There was generally mixed feelings of being burdened but at the same time thankful when working in this community devastated by disaster, and yet being able to keep a head high.

It was a matter of finding hope in all the misery, people's dreams and highlight this in my reports, not only misery journalism.

3.3.3. Coping

3.3.3.1. Avoiding and suppress feelings

A strategy reported by many, but still to a limited extent, was avoidance; "I tried to avoid letting feelings affect my work". In addition, geographical distancing offered an opportunity for mind distancing. Leaving the disaster area to "change scene" in the evening was seen by someone as a relief:

We lived a bit outside of the actual disaster area. It probably helped that we left Port-au-Prince every afternoon.

Self-medication as avoidance behavior was mentioned by a very few, as an effort to suppress feelings:

I tried to feel better by having a drink or something.

3.3.3.2. Applying wishful thinking

The method of mentally try to escape and "... if problems arose, I hoped that they would pass or disappear", was applied by some respondents. Similarly, fantasies "of how it would end" was mentioned as a way of coping with the situation:

I daydreamed and escaped to a better time and place than I was in now during this disaster.

3.3.3.3. Receiving social and peer support

As for the collegial aspects of managing the situational challenges (3.1.3.), the social networks of colleagues were mentioned as very important for coping mentally with the situation.

I have experienced many disasters before Haiti, but what Haiti has taught me is the enormous need of being able to live in normal human relationships during the event. That's where survival energy is, and to see dimensions beyond immediacy.

I lived with a group of Mexican colleagues. We spent the days together, slept together and became each other's confessors.

3.4. Managing the experience

Theme 4 "Managing the experience" relates to how the journalist, personally and professionally, managed in the longer term by growing and learning from working and reporting from such an event. In some ways it relates to the journalists' resilience. This theme connects to research question #4 about the most important learning outcomes from the mission. It also connects to the open-ended question (Q8, Table 2) that was not included in the content analysis, but is summarized in Appendix: "What advice would you give your editors and managers when it comes to taking good care of their employee/s in a similar event?". This advice checklist in Appendix can also be seen as an extension of

the perceived learning the journalists expressed on a more personal level within the theme here presented.

In retrospect, although the respondents noted that the experience had both professional and personal consequences for them, the personal consequences seemed to be slightly more predominant. These consequences were both positive and negative, and were related to the respondents' reasons for going on a mission. The majority of them perceived that they were able to manage the negative consequences, which was corroborated by their self-rated mental health reports.

3.4.1. Learning

3.4.1.1. Carrying the lasting mental load

A heavy thing to learn and bear is how to carry the psychological impact.

I am well prepared for this difficult situation, and now know from experience that I can handle it. But this time the impressions probably exceeded anything else I have experienced.

Some respondents reported an increased sensitivity to the stench of death, which became a lasting imprint:

In addition, the only "damage" I have suffered after Haiti is a greater sensitivity to odors. The stench of dead bodies was bad, and therefore I react more to rotten smell than before. But it's not bad enough to be a problem.

3.4.1.2. Deciding for future missions

There were many things to learn from, and to make decisions about for upcoming assignments, e.g. "you must constantly be prepared for re-prioritization", and don't stay too long:

You simply can't bear to report for more than about 10 days straight—but then you can get out completely—that's the whole strategy. An aid worker can be there for a longer time.

Media people are privileged. We can go from there.

And more elementary, practical learnings:

When I go out now, I bring more medical products.

An observation made was that this was an experience that one could do without, stated as follows:

I wouldn't dream of doing it again—covering other disaster zones.

More experiences on the topic learning can be found in Appendix with journalists' recommendations to editor-in-chiefs, for the future.

3.4.2. Growth

3.4.2.1. Gaining new insights

Another observation was that it had been an educational assignment. Reporting from a disaster area was described as hard but also inspiring and developing:

However horrible it sounds... I like working in disaster-like situations. You get close to yourself, you are put to the test of performing your profession under pressure. And you grow if you succeed.

The most important experience is that I (since this was my first disaster assignment) learnt a lot that will be useful in future assignments.

Respondents also stated: "Never regret going". It was clearly a difficult but also an important job, demanding on many levels, but still no regrets about having gone. Another learning experience was the importance of being ethical. Attitudes to afflicted people taught them a lesson for the future. Examples were given that the last thing human beings lose is dignity, which is important to remember when covering a disaster far from home.

One aspect of learning reported was that the mission provided a broader view and a better understanding of this type of country and its conditions:

Insight into how things work, or rather not work in a "failed state" like Haiti, into how important political, long-term solutions are to human problems. Solutions lifting people, providing education and moving things ahead.

3.4.2.2. Life changing experience

Another topic that appeared was a changed attitude toward life, a broadened life perspective as a powerful manifestation of how transforming the reporting job could be, and that the experience affected the journalists in various ways:

The earthquake opened my eyes, and the eyes of many others, to what is going on in one of the poorest and most corrupt countries in the world.

Also, it gives a feeling of doing something worthwhile, for example, reporting that plundering was not all as common as stated in the major media all over the world.

3.4.2.3. Boosted self-confidence

Some were surprised by their own mental endurance and resistance, and grateful for being there:

I got yet another proof that I can manage reporting from a disaster area both privately and professionally.

My daily life ... sounds weird, but these are the jobs I do best.

It was a tough challenge for which I'm thankful I had a crack at.

Working alone may certainly place demands on mental strength. Managing such a situation with good outcomes

strengthened self-confidence and increased self-awareness, which gave a good feeling for similar jobs in the future:

Regarding my profession, this was my first experience of having to work completely alone in an acute and stressful situation where I was expected to be both reporter, photographer and editor and to deliver at least one report a day. The pressure was enormous, but I managed and that has boosted my self-confidence.

3.5. Self-reported mental health

In addition to the open-ended questions, the respondents answered to two self-assessment questionnaires on mental health. The answers provide context to the content analysis. The results regarding the self-reported levels of general mental health and posttraumatic stress are subject to caution due to the small sample size as indicated by the wide confidence intervals around the proportions.

For self-reported general mental health, encompassing questions about depressive and anxious reactions in the past 2 weeks that negatively influences one's ability to undertake normal functions, the GHQ-12 mean score was 22.1 (SD = 3.5; range = 18–35). There were three respondents whose scores indicated a high likelihood of poor mental health (8.8%; 95% CI: 0.0%, 18.3%), suggesting a level of distress that may deserve clinical attention.

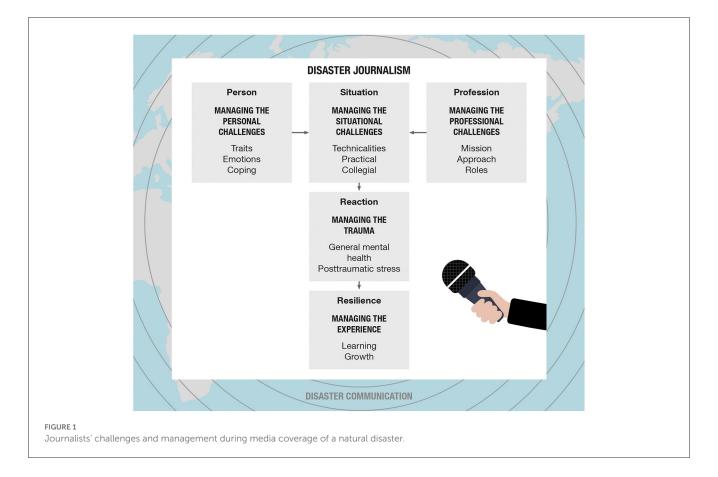
Self-reported posttraumatic stress encompasses the experience of event-related distressing reactions including intrusive mental images, increased arousal both generally and to reminders of the event, and a tendency to avoid stimuli related to the event. The mean score on IES-6 was 10.7 (SD = 3.4, range = 6–21), suggesting low levels of posttraumatic stress overall. There were five respondents whose responses indicated high levels of posttraumatic stress (14.7%; 95% CI 2.8%, 26.6%).

In combination, the responses from four out of five respondents ($n=28;\,82\%;\,95\%$ CI: 69.5%, 95.2%) indicated low risk for both poor mental health and posttraumatic stress.

4. Discussion

The content analysis rendered four main themes: situational, professional, and personal management, and experiential learning outcomes in the longer term. Although the circumstances during the Haiti media reporting in 2010 were challenging, most responders seemed to experience the assignment as important, as a moral duty to inform about, as meaningful, and as worthwhile. This outcome is in line with conclusions from an earlier study on rescue staff and media personnel at disasters (Thoresen et al., 2009). Specific preparations seem to be an important factor to reduce stress (ibid.).

Together with the quantitative measures of mental health, a fifth topic "Managing the trauma", based on the self-reported quantitative measures on mental health, generated a model (Figure 1) summarizing journalists'



challenges and management during media coverage of a natural disaster.

The five boxes in the model aims to show aspects of journalists' challenges and management. They also respond to the four research questions:

- 1. How did the journalists *experience* the assignment? The journalists' total experiences of the challenging reporting from Haiti, can mainly be found in three of five themes: the personal, situational and professional challenges.
- 2. How did they *organize* the work on site?

 Mainly two themes helps to describe how the journalists' organized the work on site: The theme "Managing the situational challenges" expresses technically, practically and collegial challenges and solutions. "Managing the professional challenges" describes how they experienced the mission, approach to the assignment and roles on site.
- 3. How did they *cope and manage* the situation?

 The theme "Managing the personal challenges" replies to the question how they coped with the personal challenges. Besides the fifth theme shaped by the quantitative survey responses about mental health, also helps to answer the third research question.
- 4. What was the most important *learning* outcomes?

 The theme "Managing the experience", with expressions about learning and growth, helps to answer the fourth research question. In addition, the Appendix with the journalists' free-text responses on the option to give some

recommendations for managers and editor-in-chiefs, constitutes an important contribution to the learning outcomes from the Haiti media coverage.

The post-disaster situation in Haiti involved great technical, practical, organizational and psychosocial challenges. Being properly equipped and prepared was seen as important. Many of the journalists mentioned never-ending deadlines and also being alone at work, as stressors. Giving opportunities to rest alone should not be confused with the feeling of loneliness at work for those who lack a colleague. Newsroom managers have an opportunity, or responsibility to mitigate distress responses by allowing time to rest and detach from reality to prevent distress.

The journalists' management of the professional perspective, seen as a mission, included the subcategories feeling obliged to inform; doing something good; and being at the center of the event. Being professional also seemed to include working hard and balancing the professional role and the private role, which otherwise might evoke moral dilemmas. Similar role conflicts and moral dilemmas are noted in some previous studies (Backholm and Idås, 2015; Englund, 2018/2008). In this study, respondents also mentioned the importance of being human and showing a human side, while keeping the reason for doing the job in mind. What may prevent journalists from helping victims on the scene may be their belief that the journalistic mission is as crucial as the mission of any other first responder, as indicated in a study of the Oklahoma bombings (McCaffrey, 2021).

A professional issue in our study was the necessity of good preparation as well as clear instructions and good leadership from the editorial staff. It has been shown that lack of preparation and a low degree of role clarity are associated with a sense of lack of control and a higher rate of PTSD. This is even more the case among nonprofessional volunteers than among trained rescue workers (Mao et al., 2018). Conversely, role clarity has been associated with a feeling of control which could boost the resilience to psychological distress among rescue workers (Pedersen et al., 2016). Due to limited training for disasters and rescue operations among journalists and media companies, media professionals may be seen as similar to volunteers when it comes to preparedness, exposure, resilience, etc.

The journalist at work is also a private person in action. The separation between personal and professional roles was noted in several ways and the personal challenges emerged as a third theme. Traits like self-awareness, sensitivity to stress, security thinking, coping ability and use of social and peer support were common subcategories in the responses of the respondents. Aspects concerning coping presented both emotion-focused coping and problem-focused coping (Lazarus and Folkman, 1984).

Way of coping, mainly problem-focused, seems to matter for the management and recovery after work-related traumatic events (Yang and Ha, 2019). A previous study concluded that avoidant emotional coping (Suls and Fletcher, 1985) was common among journalists covering trauma-related stories. Journalists reporting greater symptoms of PTSD and who used avoidant coping indicated the strongest predictor of psychological strain, followed by organizational stressors, and the intensity of exposure to work-related stressors. Avoidant coping may be adaptive during a mission to cover the event (staying focused etc.), but may be maladaptive in the longer term (Smith et al., 2018). An earlier study of a Swedish disaster event suggests that so-called coping competence may explain how a journalist reacts and is able to cope in such a situation (Englund, 2018/2008).

Most respondents in our study had responses indicating low risk for both poor mental health and posttraumatic stress. Managing the psychological reactions on to the traumatic event may still be the most personal challenging aspect of the mission. Self-reinforcement, and the need to search for hope in the reported stories appeared to be such aspects, along with the professional challenges of keeping a cool head, maintaining a professional approach and suppressing personal feelings. Similar tendencies are shown in studies on health staff in disasters, indicating that faith could be an important coping mechanism (Gil Cuesta et al., 2018). Other studies from natural disasters also indicate that the level of stress reactions among journalists and other disaster workers can be relatively low, which may indicate that personnel at disaster sites often are able to cope well with the challenges of the situation (Thoresen et al., 2009). Notably, it has also been reported that journalists may experience high levels of posttraumatic stress, similar to victims physically involved in traumatic events such as natural disasters (McMahon, 2001).

Indeed, a handful of Scandinavian journalists in our study had responses indicating a risk for poor mental health and posttraumatic stress, suggesting that for some, the consequences of the reporting assignment had been difficult. Studies of journalists covering war suggest that reporters and photographers may suffer psychologically from their work in zones of conflict (Feinstein and Starr, 2015; Lee et al., 2018; Osmann et al., 2020b; Peralta García and Ouariachi, 2021). They appear to be particularly vulnerable to the development of depression. In addition, work-related exposure to events involving death and injury seems to be important for understanding the risk for PTSD in journalists (Pyevich et al., 2003).

Understanding the organizational climate journalists are working in, as well as the manner in which journalists manage work-related stressors, is important in the development of a more comprehensive model of who may develop work-related psychological symptoms. This knowledge is an opportunity for news organizations to learn and prepare their staff before going to a disaster area to cover a traumatic event (Smith et al., 2018).

The fourth theme, managing the experience from disaster coverage over time, generated categories of both learning and growth. On the one hand, many respondents seemed to have experienced mental and personal growth after the event, and described it as educational and insightful, meaningful and life changing. Some responses indicated that the mission had given a boosted self-confidence. In contrast, for others the experience rendered a decision never to go on such a mission again. Similarly, a recent study of war correspondents found that they were excited by the experience of war and seeking adventure (van der Hoeven and Kester, 2020). Just as war may be "a stimulant" (Feinstein, 2006), so can disaster journalism be a stimulant, beside personal ambitions and the opportunity to witness history in the making. But those driving forces may also have negative consequences like the death of a colleague or private financial problems (van der Hoeven and Kester, 2020).

Still, media companies might have a way to go in improving planning for disaster reporting and to prevent psychological consequences among their employees. As long as studies show that journalists lack preparation, instructions, communication, support and follow-ups by their managers, there is need for organizational learning and better crisis management within the media. The occupational risk of PTSD among journalists can possibly be counter-acted by news organizations and journalist educational institutions through effective prevention and intervention strategies. A few studies highlight the need for training and education regarding trauma, coping skills/resiliency building and safety. Of great importance is psychological preparation and consistent and supportive organizational climate. Well prepared journalists may deliver high quality news with less risk for negative psychological consequences (Monteiro, 2018; Smith et al., 2018).

Among the lessons learned from the Haiti media coverage, the importance of training and organizational learning becomes clear. Organizational mechanisms to detect and treat those in need are suggested (Feinstein and Owen, 2013; Feinstein and Starr, 2015). Organizational and individual training and learning could contain basic knowledge about psychotraumatology, what in earlier studies has been called "emotional literacy" (Richards and Rees, 2011). Also a "coping competence", specific to the professional assignment, may be possible to achieve through training and experience (Englund, 2018/2008). Preparing for

unforeseen events is also influenced by the organization's level of competence, plans, exercises and capacity for organizational improvisation (Argyris and Schön, 1995; Herberg et al., 2019). At the same time, planning and preparing may lead to a false sense of security (Boin and Lagadec, 2000; Herberg et al., 2019).

Previous studies of other occupational groups, such as rescue workers, suggest that a stringent employment selection process, and, later on, continuous training, make the personnel well prepared and more resilient to chaotic and traumatic missions (Mao et al., 2018). Training is also shown to have the most consistent mitigating effect on aid workers' burnout and PTSD symptoms (Kroll et al., 2021). In addition, job pride may be a protective factor against burnout and PTSD (ibid.), which is in line with the journalists' statements after the Haiti earthquake coverage. Further factors that have been mentioned as important for coping and recovery after a disaster are passion for the profession, a strong sense of purpose with their work, the mission to educate and enlighten the audience, a necessary ego strength, specific intellectual skills, creative capacities and life experiences (Himmelstein and Faithorn, 2002).

4.1. Limitations

Our approach was to take a general look at what kind of content journalists include in their free-text responses, and so the study design precluded a more in-depth analysis of a particular topic. The web survey method gave no opportunity to ask respondents for clarifications and feedback, which prevented in-depth qualitative analysis. Nevertheless, it is quite rare to extract this kind of information from one event, and from this kind of occupational group, representing two nationalities. The volume of free-text responses in this survey was impressive, and the density of information was very high. In addition, the response rate of the open-ended questions was very high. Further, we note that the data were primarily analyzed by the first author (LE) and it is important to be mindful of the risks that arise from the lack of corroboration during significant parts of the analysis. However, reconciliations and working labs have been regularly held with co-author FKA who took part of re-analyzing cycles and co-author KBJ to discuss considerations regarding clustering.

As for the quantitative measures, they contribute information about the tendencies of the psychological load on the sample while interpretations of the statistics should be done keeping in mind the wide confidence intervals. Although the sample included responses from a large proportion of all present Scandinavian journalists at the event, the sample was small, limited by the number of professionals from two small countries. In addition, this was a cross-sectional study, and no follow-up over time has been done. The experiences thus constitute snapshots, but still convey an important and unique picture. Finally, it should be noted that the data were collected in 2010 and possibly the challenges that journalists experience today are different. Nonetheless, these findings may serve an important comparative purpose for future studies.

4.2. Practical implications and suggestions for future research

A higher awareness of potential stress reactions among journalists is an important part of the planning for organizational support to provide psychological relief among those affected (WHO, 2013; Mao et al., 2018). Understanding the professional factors contributing to psychological effects after covering traumatic events may help newsroom managers establish the types of working environments that mitigate potential negative consequences and enable more resilient staff, and in the longer term may also ensure a better reporting from traumatic events (Dworznik, 2018). Promoting high levels of social support to staff in difficult working conditions should be prioritized, especially when the individual lacks the competence to handle the challenges (Herberg et al., 2019).

Newsroom managers have an opportunity, or responsibility, to mitigate distress responses by allowing time to rest and detach from reality to prevent distress. This could be done by creating a critical incident schedule that includes consistent breaks and time off (Dworznik-Hoak, 2020b). After the disaster, one method that has been suggested is doing "lessons-learned exercises"—scheduled talks between journalist and editor—for evaluating and learning from the assignment. The outcome of the study may also be helpful to form a basis for making professional and organizational norms and guidelines for disaster media coverage (Englund, 2018/2008; Dworznik-Hoak, 2020a).

Despite the increased knowledge in the field of trauma journalism during the past decades, it is still rare in journalism programs at universities to teach trauma reporting, including interviewing victims and coping with trauma (Dworznik and Garvey, 2019; McCaffrey, 2021). The findings of this study may serve to facilitate such educational activities. As noted, organizational and individual training and learning may benefit from including "emotional literacy" (Richards and Rees, 2011) and "coping competence" (Englund, 2018/2008).

In addition, clinicians may increase awareness of situations when journalists become secondary victims. Preparedness programs based on experiences from previous disasters is another example (Gil Cuesta et al., 2018). Awareness among communication managers of the important roles of media and journalists may be an important factor due to the complex, intense and vulnerable flow of communication during disasters. Disaster preparedness plans may benefit from including media as an actor, journalists as an occupational group on site and the importance of good media relations and media management.

Further research should be done to increase our knowledge about the need for training, preparing and supporting journalists—before, during and after disaster coverage. Newsroom managements and editors may benefit from evidence-based routines and guidelines for trauma journalism at disasters. It could also be interesting with future similar studies on a larger sample of respondents from several countries, e.g. by in-depth interviews to learn more about nuances in journalists' experiences.

Theoretically, there is an open window for future research on disaster journalism as a part of disaster communication systems and disaster communication preparedness. Thus far, trauma journalism has mainly been approached within the field of psychology, and some studies with theoretical frameworks from journalism studies. From a multidisciplinary point of view, medias' work in disasters should not be explored in isolation, but also as a key factor in the societal communication, preparedness and response to disasters.

An interesting idea for future studies could be to apply the Haddon Matrix on disaster media coverage (trauma journalism). The Haddon Matrix has primarily been used for injury prevention, but also applied to public health preparedness (Barnett et al., 2005) and frontline care staff (Salio et al., 2022). Also, the outcome of our present study could be relevant to analyze with the Haddon Matrix framework; pre-event, event and post-event related to contributing and influencing factors. The journalists' recommendations to editors and managers (see the Appendix) give a small hint in that direction.

4.3. Conclusion

This study provides a first glimpse into a combination of personal and professional perspectives on covering a serious natural disaster event through journalists' experiences with their own words. The model presented above (Figure 1) should be seen as a first draft explanatory model, in need of future revision based on more extensive research.

In summary, the level of professionalism, coping abilities and resilience was high among the respondents, despite being an occupational group with the mission to witness and report under very difficult circumstances. Most respondents showed few signs of posttraumatic stress or poor mental health. Still, some individuals provided responses that may deserve clinical attention.

Finally, covering a major disaster like the Haiti earthquake, can be experienced as an eye opening and a life-changing event for journalists on site. The mission can broaden life perspectives and be educational, insightful, inspiring and developing as well as a proof of one's own capacity, which can boost self-confidence. At the same time, an experience like the one from Haiti can be a burden to bear, and can cause a strong impact in the memory lasting for several years. Some reporters and photographers may react with saying "never again". Others might say "never regret" and would decide to go again.

Data availability statement

Restrictions related to the Ethical Approval from the Uppsala Regional Ethics Committee prohibit the authors from making the dataset publicly available. The ethical approvals obtained in 2010 ensure use of the dataset to answer the stipulated research questions and to ensure that the data are processed in accordance with the Swedish Personal Data Act. Data are available upon request for researchers who meet the criteria for access to confidential data from: filip.arnberg@neuro.uu.se; National Center for Disaster

Psychiatry, Department of Medical Sciences, Uppsala University Hospital, 751 85 Uppsala, Sweden. Requests to access the datasets should be directed to filip.arnberg@neuro.uu.se.

Ethics statement

The studies involving human participants were reviewed and approved by Uppsala Regional Ethics Committee, Uppsala, Sweden (No. 2010/178). The patients/participants provided their written informed consent to participate in this study.

Author contributions

LE had the original idea and constructed the survey questions for the study, conducted the data collection of the full original survey, and conducted the visualization. LE and FA developed the methods and original idea for the paper, conducted the data curation and formal analysis, and wrote the original paper draft. All authors reviewed, edited, and approved the final version of the manuscript.

Funding

The study design and data collection was carried out without funding. LE was later granted a scholarship from the Swedish Journalist Foundation for Professional Development.

Acknowledgments

The questionnaire was developed together with Dr. Siri Thoresen at the Norwegian Center for Violence and Traumatic Stress Studies, Norway, and Dr. Per-Olof Michel, the former director of the National Center for Disaster Psychiatry, Uppsala University, Sweden. Contact with Norwegian media companies to identify Norwegian respondents and translating the survey questions from Swedish into Norwegian, was undertaken with the help of Trond Idås, adviser at the Norwegian Journalist Union. Swedish and Norwegian free-text responses were translated into English by Dr. Elisabeth Wennö. We also would like to thank participating journalists and news media for sharing their important and unique experiences.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of

their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fcomm. 2023.1060169/full#supplementary-material

References

Alexander, D. (2010). News reporting of the January 12, 2010, Haiti earthquake: the role of common misconceptions. *J. Emerg. Manag.* 8, 15–27. doi: 10.5055/jem.2010.0036

Allan, S. (2014). Witnessing in crisis: photo-reportage of terror attacks in Boston and London. *Media, War Conf.* 7, 133–151. doi: 10.1177/1750635214531110

Antunes, M. N., da Silva Pereira, S., Zézere, J. L., and Oliveira, A. E. (2022). Disaster journalism in print media: analysis of the top 10 hydrogeomorphological disaster events in Portugal, 1865–2015. *Int. J. Disaster Risk Reduct*. doi: 10.1007/s13753-022-00425-2

Argyris, C., and Schön, D. A. (1995). Organizational Learning II: Theory, Method and Practice. Reading, MA: Addison-Wesley.

Arnaouti, M. K. C., Cahill, G., Baird, M. D., Mangurat, L., Harris, R., Edme, L. P. P., et al. (2022). Medical disaster response: a critical analysis of the 2010 Haiti earthquake. *Front. Public Health.* 10, 995595. doi: 10.3389/fpubh.2022.995595

Arnberg, F. K., Michel, P.-O., and Johannesson, K. B. (2014). Properties of Swedish posttraumatic stress measures after a disaster. *J. Anxiety Disord.* 28, 402–409. doi: 10.1016/j.janxdis.2014.02.005

Backholm, K., and Björkqvist, K. (2012). Journalists' emotional reactions after working with the Jokela school shooting incident. *Media, War Conflict* 5, 175–190. doi: 10.1177/1750635212440914

Backholm, K., and Idås, T. (2015). Ethical dilemmas, work-related guilt, and posttraumatic stress reactions of news journalists covering the terror attack in Norway in 2011. *J. Trauma. Stress.* 28, 142. doi: 10.1002/jts.22001

Backholm, K., and Idås, T. (2020). "In the Aftermath of a Massacre: Traumatization of Journalists Who Cover Severe Crises," in *Media Health. The Personal in Public Stories*, Hornmoen, H., Kjos Fonn, B., Hyde-Clarke, N., and Benestad Hågvar, Y. (eds). (Oslo: Scanidavian University Press) p. 258. doi: 10.18261/9788215040844-2020-12

Barnett, D. J., Balicer, R. D., Blodgett, D., Fews, A. L., Parker, C. L., and Links, J. M. (2005). The application of the haddon matrix to public health readiness and response planning. *Environ. Health Perspect.* 113, 561–566. doi: 10.1289/ehp.7491

Bengtsson, L., Lu, X., Thorson, A., Garfield, R., and von Schreeb, J. (2011). Improved response to disasters and outbreaks by tracking population movements with mobile phone network data: a post-earthquake geospatial study in Haiti. *PLoS Med.* 8, e1001083. doi: 10.1371/journal.pmed.1001083

Boin, A., and Lagadec, P. (2000). Preparing for the future: critical challenges in crisis management. *J. Contingencies Crisis Manag.* 8, 185–191. doi: 10.1111/1468-5973.00138

Busso, D. S., McLaughlin, K. A., and Sheridan, M. A. (2014). Media exposure and sympathetic nervous system reactivity predict PTSD symptoms after the Boston Marathon bombings. *Depress. Anxiety.* 31, 551. doi: 10.1002/da.22282

Cottle, S. (2013). Journalists witnessing disaster. J. Stud. 14, 232–248. doi: 10.1080/1461670X.2012.718556

Creswell, J. W., and Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks, CA: SAGE.

Czech, T. (2004). Journalists and trauma: a brief overview. Int. J. Emerg. Ment. Health 6, 159–162.

Duncan, S., and Newton, J. (2010). How do you feel?: Preparing novice reporters for the death knock. J. Pract. 4, 439–453. doi: 10.1080/17512780903482059

Durocher, E., Chung, R., Rochon, C., Henrys, J.-H., Olivier, C., and Hunt, M. (2017). Ethical questions identified in a study of local and expatriate responders' perspectives of vulnerability in the 2010 Haiti earthquake. *J. Med. Ethics* 43, 613–617. doi: 10.1136/medethics-2015-102896

Dworznik, G. (2018). Personal and organizational predictors of compassion fatigue symptoms in local television journalists. *J. Pract.* 12, 640–656. doi: 10.1080/17512786.2017.1338532

Dworznik, G., and Garvey, A. (2019). Are we teaching trauma? J. Pract. 13, 367–382. doi: 10.1080/17512786.2018.1423630

Dworznik-Hoak, G. (2020a). Emotional Labor During Disaster Coverage: Exploring Expectations for Emotional Display. J. Pract. 16, 1–19. doi: 10.1080/17512786.2020.1816858

Dworznik-Hoak, G. (2020b). Weathering the Storm: Occupational Stress in Journalists Who Covered Hurricane Harvey. *Journalism Studies* 21, 88–106. doi: 10.1080/1461670X.2019.1628659

Elo, S., and Kyngäs, H. (2008). The qualitative content analysis process. *J. Adv. Nurs. (Wiley-Blackwell)*. 62, 107–115. doi: 10.1111/j.1365-2648.2007.04569.x

Englund, L. (2018/2008). The Eye of the Disaster: Journalists' Work and Media Coverage at Traumatic Events. Gothenburg: University of Gothenburg.

Englund, L., and Arnberg, F. K. (2018). Survivors' experiences of journalists and media exposure: A retrospective qualitative study 15 years after a ferry disaster. *Disaster Prev. Manag.* 27, 573–585. doi: 10.1108/DPM-02-2018-0056

Englund, L., Bergh Johannesson, K., and Arnberg, F. K. (2022). Media perception and trust among disaster survivors: Tsunami survivors' interaction with journalists, media exposure, and associations with trust in media and authorities. Front. Public Health. 10, 943444. doi: 10.3389/fpubh.2022.943444

Englund, L., Forsberg, R., and Saveman, B.-I. (2014). Survivors' experiences of media coverage after traumatic injury events. *Int. Emerg. Nurs.* 22, 25–30. doi: 10.1016/j.ienj.2013. 03.010

Feinstein, A. (2006). "Journalists under fire: The psychological hazards of covering war", in *Journalists Under Fire: The Psychological Hazards of Covering War*. (Baltimore, MD: Johns Hopkins University Press).

Feinstein, A., and Owen, J. (2013). Symptoms of posttraumatic stress disorder in major news network journalists pre and post September 11. J. Trauma Stress Disor. Treat. 2, 2. doi: 10.4172/2324-8947.10 00105

Feinstein, A., and Starr, S. (2015). CivilWar in Syria: the psychological effects on journalists. J. Aggress. Confl. Peace Res. 7, 57–64. doi: 10.1108/JACPR-04-2014-0119

Furukawa, T., and Goldberg, D. P. (1999). Cultural invariance of likelihood ratios for the General Health Questionnaire. *Lancet.* 353, 561–562. doi: 10.1016/S0140-6736(98)05470-1

Garcia, J., Evans, J., and Reshaw, M. (2004). Is there anything else you would like to tell us" – methodological issues in the use of free-text comments from postal surveys. *Qual. Quant.* 38, 113–125. doi: 10.1023/B:QUQU.0000019394.78970.df

Gil Cuesta, J., van Loenhout, J. A. F., de Lara-Banquesio, M. L., Isiderio, J. M., Aujoulat, I., and Guha-Sapir, D. (2018). The impact of typhoon haiyan on health staff: a qualitative study in two hospitals in Eastern Visayas, The Philippines. *Front. Public Health.* 6, 208. doi: 10.3389/fpubh.2018.00208

Glad, K. A., Thoresen, S., Hafstad, G. S., and Dyb, G. (2017). Survivors report back. *J. Stud.* 19, 1–17. doi: 10.1080/1461670X.2017.1291313

Goldberg, D. P. (1972). The Detection of Psychiatric Illness by Questionnaire: Maudsley Monograph No.21. London: Oxford University Press.

Goldberg, D. P., Gater, R., Sartorius, N., Ustun, T. B., Piccinelli, M., Gureje, O., et al. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychol. Med.* 27, 191–197. doi: 10.1017/S00332917960 04242

Graneheim, U. H., and Lundman, B (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ. Today* 24, 105–112. doi: 10.1016/j.nedt.2003.10.001

Hankins, M. (2008). The reliability of the twelve-item general health questionnaire (GHQ-12) under realistic assumptions. *BMC Public Health.* 8, 355. doi: 10.1186/1471-2458-8-355

Herberg, M., Torgersen, G.-E., and Rundmo, T. (2019). Competence for the unforeseen: social support and concurrent learning as basic components of interaction under risk. *Front. Commun.* 4. doi: 10.3389/fcomm.2019.00019

Himmelstein, H., and Faithorn, E. P. (2002). Eyewitness to Disaster: How journalists cope with the psychological stress inherent in reporting traumatic events. *J. Stud.* 3, 537–555. doi: 10.1080/1461670022000019173

Houston, J. B., Schraedley, M. K., Worley, M. E., Reed, K., and Saidi, J. (2019). Disaster journalism: fostering citizen and community disaster mitigation, preparedness, response, recovery, and resilience across the disaster cycle. *Disasters*. 43, 591–611. doi: 10.1111/disa. 12352

Hsu, K. J., and Schuller, M. (2020). Humanitarian aid and local power structures: lessons from Haiti's "shadow disaster". *Disasters*. 44, 641–665. doi: 10.1111/disa. 12380

INFORM (2021). Global Risk Index for Humanitarian Crises and Disasters. Available online at: https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Country-Risk-Profile (accessed June 9, 2023).

Kay, L., Reilly, R. C., Connolly, K., and Cohen, S. (2010). Help or harm? *J. Pract.* 4, 421–438. doi: 10.1080/17512780903429829

Keats, P. A., and Buchanan, M. J. (2013). Covering trauma in canadian journalism: exploring the challenges. *Traumatology*. 19, 210–222. doi: 10.1177/1534765612466152

Knoester, B. (2014). The Journalist's Burden: Reporting News and The Risk of Psychiatric Injury The Dart Center for Journalism and Trauma. Available online at: https://dartcenter.org/content/journalists-burden-reporting-news-and-risk-psychiatric-injury (accessed June 9, 2023).

Kowarik, A., and Templ, M. (2016). Imputation with the R Package VIM. J. Stat. Software. (2016) 74, 16. doi: 10.18637/jss.v074.i07

Krippendorff, K. (2013). Content Analysis: An Introduction to its Methodology. Thousand Oaks, CA: SAGE.

Krippendorff, K. (2019). Content Analysis: An Introduction to Its Methodology. Fourth Edition ed. Thousand Oaks, CA: SAGE Publications. doi: 10.4135/9781071878781

Kroll, A., Remington, C. L., Awasthi, P., and Ganapati, N. E. (2021). Mitigating the negative effects of emotional labor: a study of disaster response and recovery workers after the 2010 Haiti earthquake. *Governance*. 34, 87–106. doi: 10.1111/gove.12476

Lazarus, R. S., and Folkman, S. (1984). Stress, Appraisal, and Coping. Berlin: Springer Publishing Company.

Lee, M., Ha, E. H., and Pae, J. K. (2018). The exposure to traumatic events and symptoms of posttraumatic stress disorder among Korean journalists. *Journalism.* 19, 1308–1325. doi: 10.1177/1464884917707596

Mao, X., Fung, O. W. M., Hu, X., and Loke, A. Y. (2018). Psychological impacts of disaster on rescue workers: a review of the literature. *Int. J. Disaster Risk Reduct.* 27, 602–617. doi: 10.1016/j.ijdrr.2017.10.020

McCaffrey, R. (2021). The Oklahoma City bombing: institutional practices by journalists covering the biggest story of their lives. *J. Pract.* 19, 1–17. doi: 10.1080/17512786.2021.1998791

McMahon Oam, C., and McLellan, T. (2008). Journalist Reporting for Duty: Resilience, Trauma and Growth. Hauppauge, NY: Nova Science Publishers. p. 101–121.

McMahon, C. (2001). Covering Disaster: A Pilot Study into Secondary Trauma for Print Media Journalists Reporting on Disaster. Mt. Macedon: Australian Emergency Management Institute.

McMahon, C. (2016). An Investigation into Posttraumatic Stress and Posttraumatic Growth Among Trauma Reporting Australian Journalists. John St, Hawthorn VIC: Swinburne University of Technology.

Monteiro, S. (2018). O stress ocupacional dos journalistas: estudo exploratório no contexto diário e em cenários críticos. Lisboa: Dr, Universidade de Lisboa.

Newman, E., and Drevo, S. (2015). Journalists as partners in early response to trauma: agreements, tensions, and future directions to aid collaboration. *Eur. J. Psychotraum.* 6, 28544. doi: 10.3402/ejpt.v6.28544

Newman, E., Shapiro, B., and Nelson, S. (2009). "Journalism and Media During Disasters," in *Mental Health and Disasters*, Neria, Y. G., and Norris, F. H. (Cambridge: Cambridge University Press) p. 291–301. doi: 10.1017/CBO9780511730030.017

Nieves-Pizarro, Y., Takahashi, B., and Chavez, M. (2019). When everything else fails: radio journalism during hurricane Maria in Puerto Rico. *J. Pract.* 13, 799–816. doi: 10.1080/17512786.2019.1567272

Osmann, J., Dvorkin, J., Inbar, Y., Page-Gould, E., and Feinstein, A. (2020a). The emotional well-being of journalists exposed to traumatic events: a mapping review. *Media, War Conflict* 1750635219895998. doi: 10.1177/1750635219895998

Osmann, J., Khalvatgar, A. M., and Feinstein, A. (2020b). Psychological distress in Afghan journalists: a descriptive study. *J. Aggress. Confl. Peace Res.* 12, 115–123. doi: 10.1108/JACPR-02-2020-0473

Patton, M. Q. (1987). How to Use Qualitative Methods In Evaluation. Thousand Oaks, CA: Sage Publications.

Pedersen, M. J. B., Gjerland, A., Rund, B. R., Ekeberg, Ø., and Skogstad, L. (2016). Emergency preparedness and role clarity among rescue workers during the terror attacks in Norway July 22, 2011. *PLoS ONE.* 11, e0156536. doi: 10.1371/journal.pone.0156536

Peralta García, L., and Ouariachi, T. (2021). Syrian journalists covering the war: assessing perceptions of fear and security. *Media, War Conflict* 1750635221999377. doi: 10.1177/1750635221999377

Puente, S., Pellegrini, S., and Grassau, D. (2013). Journalistic challenges in television coverage of disasters: lessons from the February 27, 2010, earthquake in Chile. Desafios periodísticos en la cobertura televisiva de desastres: lecciones del terremoto del 27 de febrero de 2010 en Chile. 26. 103–125. doi: 10.15581/003.26.36062

Pyevich, C. M., Newman, E., and Daleiden, E. (2003). The relationship among cognitive schemas, job-related traumatic exposure, and posttraumatic stress disorder in journalists. *J. Trauma. Stress* 16, 325–328. doi: 10.1023/A:1024405716529

R Core Team (2021). R: A Language and Environment for Statistical Computing. (Vienna: R Foundation for Statistical Computing).

Ricci-Cabello, I., Saletti-Cuesta, L., Slight, S. P., and Valderas, J. M. (2017). Identifying patient-centred recommendations for improving patient safety in General Practices in England: a qualitative content analysis of free-text responses using the Patient Reported Experiences and Outcomes of Safety in Primary Care (PREOS-PC) questionnaire. *Health Expect.* 20, 961–972. doi: 10.1111/hex.12537

Richards, B., and Rees, G. (2011). The management of emotion in British journalism. *Media, Cult. Society.* 33, 851–867. doi: 10.1177/0163443711411005

Salam, M. A., and Khan, S. A. (2020). Lessons from the humanitarian disaster logistics management: a case study of the earthquake in Haiti. *Benchmarking*. 27, 1455–1473. doi: 10.1108/BIJ-04-2019-0165

Salio, F., Pirisi, A., Ciottone, G. R., Echeverri, L. M., Peleg, K., Redmond, A. D., et al. (2022). Applying the haddon matrix to frontline care preparedness and response in asymmetric warfare. *Prehospital Disaster Med.* 37, 577–583. doi: 10.1017/S1049023X22001066

Schuller, M. (2016). $Humanitarian \, Aftershocks \, in \, Haiti. \,$ New Brunswick, NJ: Rutgers University Press.

Simpson, R., Harris, J., Scherer, M., and Coté, W. E. (2006). Covering Violence: A Guide to Ethical Reporting About Victims and Trauma. New York: Columbia University Press.

Smith, R. J., Drevo, S., and Newman, E. (2018). Covering traumatic news stories: Factors associated with post-traumatic stress disorder among journalists. *Stress Health*. 34, 218–226. doi: 10.1002/smi.2775

Spialek, M. L., and Houston, J. B. (2018). The development and initial validation of the citizen disaster communication assessment. *Commun. Res.* 45, 934–955. doi: 10.1177/0093650217697521

Stupart, R. (2021). Feeling responsible: Emotion and practical ethics in conflict journalism. *Media, War Conflict.* 14, 3. doi: 10.1177/17506352211013461

Suls, J., and Fletcher, B. (1985). The relative efficacy of avoidant and nonavoidant coping strategies: a meta-analysis. *Health Psychol.* 4, 249–288. doi: 10.1037/0278-6133.4.3.249

Takahashi, B., Zhang, Q., and Chavez, M. (2020). Preparing for the worst: Lessons for news media after Hurricane Maria in Puerto Rico. *Journalism Pract.* 14, 1106–1124. doi: 10.1080/17512786.2019.1682941

Tesch, R. (2013). Qualitative Research: Analysis Types and Software. New York: Routledge. doi: 10.4324/9781315067339

Thomson, T. J. (2018). Mapping the emotional labor and work of visual journalism. Journalism. 22, 956–973. doi: 10.1177/1464884918799227

Thoresen, A., Lindgaard, C. V., Andreassen, A. L., and Weisæth, L. (2009). Stressful but rewarding: Norwegian personnel mobilised for the 2004 tsunami disaster. *Disasters*. 33, 353. doi: 10.1111/j.1467-7717.2008.01078.x

Thoresen, S. (2007). "Coping and stress among emergency personnel and journalists mobilized for the Tsunami disaster Mestring og stress hos insatspersonell og journalister mobilisert till Tsunamikatastrofen," in: Rapport 2/2007. Publikasjonsserie fra Nasjonalt kunnskapssenter om vold og traumatisk stress. (Oslo, Norway: [The Norwegian Centre for Violence and Traumatic Stress Studies - NKVTS] Nasjonalt kunnskapssenter om vold og traumatisk stress - NKVTS).

Thoresen, S., Jennsen, T. K., and Dyb, G. (2014). Media participation and mental health in terrorist attack survivors. *J. Trauma. Stress* 27, 639–646. doi: 10.1002/jts.21971

Thoresen, S., Tambs, K., Hussain, A., Heir, T., Johansen, V. A., and Bisson, J. I. (2010). Brief measure of posttraumatic stress reactions: impact of Event Scale-6. Soc. Psychiat. Psychiatr. Epidemiol. 45, 405–412. doi: 10.1007/s00127-009-0073-x

UNDRR (2015). "Sendai Framework for Disaster Risk Reduction 2015 - 2030". (Geneva: UNDRR).

UNISDR (2015). "Sendai Framework for Disaster Risk Reduction 2015-2030". First Edition ed. (Geneva: United Nations International Strategy for Disaster Risk Reduction).

Vaismoradi, M., Turunen, H., and Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nurs. Health Sciences* 15, 398–405. doi: 10.1111/nhs.12048

van der Hoeven, R., and Kester, B. (2020). Demythologizing war journalism: Motivation and role perception of Dutch war journalists. *Media, War Conflict* 15, 263–279. doi: 10.1177/1750635220917411

 $\label{lem:condition} \begin{tabular}{ll} Van Manen, M. (1997). Researching Lived Experience: Human Science For An Action Sensitive Pedagogy. Lodon: Althouse Press. \end{tabular}$

Wahl-Jorgensen, K. (2019). An emotional turn in journalism studies? $\it Digital~J.~2,~1-20.$ doi: 10.4324/9781315167497-1

Weidmann, A., Fehm, L., and Fydrich, T. (2008). Covering the tsunami disaster: subsequent post-traumatic and depressive symptoms and associated social factors. Stress Health 24, 129–135. doi: $10.1002/\mathrm{smi.1168}$

WHO (2013). Psychological First Aid: Facilitator's Manual for Orienting Field Workers. Geneva: World Health Organization.

Yang, S.-K., and Ha, Y. (2019). Predicting posttraumatic growth among firefighters: the role of deliberate rumination and problem-focused coping. *Int. J. Environ. Res. Public Health* 16, 3879. doi: 10.3390/ijerph16203879