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Breaking the Silence: A Qualitative Analysis of Trauma Narratives Submitted Online by First Responders

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Objective: Trauma narration is important to PTSD recovery and is widely used in clinical interventions. First responders experience high rates of exposure to trauma yet there are no studies with a primarily first responder population despite that trauma exposure is a chronic and unavoidable aspect of their occupation. The aim of the current study was to qualitatively examine trauma narratives posted online through a supportive website dedicated for first responders. ***Method:*** 30 trauma narratives of police officers, firefighters, and emergency medical personnel were randomly chosen for inclusion in the study. While some narrative posters remained somewhat anonymous, overall, there was moderate diversity in terms of age, sex, job field, number of years on the job, and the locations of the employer. ***Results:*** Online narration offered a less formalized opportunity for self-disclosure that allowed for authenticity, honesty, and vulnerability. Thematic analyses revealed 5 themes: idealization with the job, disillusionment with the job, on the job trauma, trauma sequalae, and coping with trauma. ***Conclusion:*** Findings suggest that first responders are exposed to trauma on the job that significantly alters their work and home lives. Although they experience psychopathology, and could benefit from formal treatment, their decision to seek treatment is impacted by stigma in the culture. Implications and future directions are discussed regarding the need to improve perceived connectedness and support and reduce stigma in online platforms and within the subculture to encourage healing.

Clinical Impact Statement
This study suggests that first responders are exposed to chronic and cumulative trauma on the job that violates preemployment idealization with the profession and leads to disillusionment with their role and self-efficacy. It appears that some first responders reach out anonymously to support websites to share details of their trauma and receive support because this is perceived as somewhat safer and more acceptable than reaching out to familiar peers due to subcultural stigmata.

Keywords: trauma exposure, trauma narration, stigma, posttraumatic stress disorder, first responders

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Trauma narratives are important factors in PTSD recovery. Gold standard clinical interventions utilize trauma narratives to encourage inhibitory learning (Craske et al., 2008; Craske et al., 2014) and correct pathological stress responding (Foa & Kozak, 1986). According to prominent theory (i.e., Inhibitory learning; Craske et al., 2008; Craske et al., 2014) and Emotional Processing Theory (Foa & Kozak, 1986); these mechanisms are changed via engagement with trauma-related fear and exposure to trauma reminders that increase the person's distress tolerance and allow new learning to occur (Craske et al., 2008; Foa & Kozak, 1986; Foa et al., 1996). By narrating the incident, the person recollects, organizes, elaborates, makes sense of, and finds meaning within the traumatic experience (Pennebaker & Chung, 2011; Williams, 2011) and linguistically, their words reveal their processing of the trauma.

The literature supports that cognitive activity, social sharing, and defensive coping (i.e., disengagement or distancing) increase in the wake of a traumatic event (Campbell & Pennebaker, 2003; Cohn et al., 2004; Davis & Nolen-Hoeksema, 2001). During narration, cognitive activity may be revealed by a high use of causal (e.g., because, cause, and effect) and cognitive processing words (i.e., realize, understand). Conversely, social sharing may be evident by a high use of pronouns whereas distancing may be evident by an avoidance of present tense and the first-person singular style (Campbell & Pennebaker, 2003; Cohn et al., 2004). Indeed, the presence of certain narrative linguistic characteristics during

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treatment are related to posttreatment outcomes (Kleim et al., 2018). In one study of survivors of assault (Alvarez-Conrad et al., 2001) cognitive processing words and death-related words were related to posttreatment functioning. Survivors who used words such as "think" at a high rate had lower posttreatment anxiety levels than survivors who used those same words at low rates. Additionally, survivors that used a high number of words associated with death or dying had more severe PTSD and depression at the end of treatment. In a second study of survivors of assault (Kleim et al., 2018), cognitive processing words, death-related words, and first-person singular pronouns were related to PTSD symptoms. At the six-month follow-up, narratives that contained a higher number of cognitive processing words and death references, and a lower number of first-person singular pronouns were indicative of greater PTSD symptoms. Thus, trauma narration is a key mechanism by which people can process their experiences, make meaning of them, and restore their functioning posttrauma. It also is a useful tool that can be used clinically to predict posttrauma adjustment.

PTSD and Formal Treatment-Seeking

Despite being consistent with people's preferences (i.e., talking about problems as an effective way to heal after trauma: Angelo et al., 2008; Jaeger et al., 2009; Zoellner et al., 2003) and congruence with the delivery of evidence-based treatment (i.e., exposures that allow people to talk about or write about their trauma), treatment-seeking rates for trauma-exposed individuals are low (Gutner et al., 2016; Imel et al., 2013; Najavits, 2015), Indeed, first responders, or professionals who provide critical services during emergency situations (e.g., police officers, firefighters, and emergency medical personnel) are determined to have high rates of PTSD (Haugen et al., 2012) and low rates of treatment-seeking (Haugen et al., 2017).

It is well documented that attitudes and beliefs can negatively impact treatment-seeking behaviors (Corrigan et al., 2014; Mojtabai et al., 2011; Sickel et al., 2019). In particular, negative attitudes including stigma (Corrigan et al., 2014) and subcultural beliefs such as that it is best to deal with problems on one's own, that having problems is a sign of weakness, that revealing problems can negatively impact one's career and reputation (Haugen et al., 2017; Hom et al., 2018; Jones et al., 2020) stigmatize mental health difficulties and inhibit treatment-seeking.

In a systematic review of the literature, Haugen and colleagues (2017) examined stigma and barriers to mental health among first responders. From their 14 included studies, approximately one third of first responders endorsed stigma, and less than a quarter of first responders endorsed barriers to care that prohibited their treatment-seeking. There were a number of stigmata (e.g., fears about confidentiality, negative career impacts, and feelings of judgment from coworkers) and barriers endorsed (e.g., difficulty scheduling appointments, not knowing where to get help, having a leader discourage treatment-seeking) reflecting both a lack of information and a lack of support to receive services within the subculture. Indeed, both available rates of treatment seeking among first responders and their reasons for avoiding treatment confirms that negative attitudes and subcultural beliefs contribute to low treatment-seeking rates among this population (Haugen et al., 2017).

PTSD and Informal Treatment-Seeking

Although it is well known that treatment-seeking can be discouraged, inhibited, and barriered for highly trauma exposed populations, especially first responders, there are few examinations of trauma narration conducted outside of formal treatment. Of the studies that exist, a small number have examined the online media content (i.e., YouTube videos, blogs, forums, or threads) of individuals recovering from trauma, including victims of sexual assault or rape (Fawcett & Shrestha, 2016; Levy & Eckhaus, 2020; Moors & Webber, 2013), burn survivors (Badger et al., 2011); women with traumatic birth experiences (Blainey & Slade, 2015); and persons who experienced multiple traumas or were diagnosed with PTSD (Cohn et al., 2004; Ramanathan, 2015; Salzmann-Erikson & Hiçdurmaz, 2017). Generally, these studies focused on the logistics of the narratives, such as the structure and format of narration and online interactions, and the content, such as that writers share information about their reasons for writing their stories, their symptomology, how their symptoms restrict their daily lives, and how they cope.

There are no studies with a primarily first responder population whose trauma exposure is an unavoidable aspect of their occupation. Furthermore, there are limited results from nonfirst responder populations that highlight barriers to treatment-seeking and could generalize and bolster dissemination and implementation efforts with this population. This is a glaring gap, as first responders provide a number of services in the community where trauma exposure occurs at high rates (i.e., report to emergency situations, stabilize and preserve incident scenes, protect property, and provide lifesaving interventions [First Responder: Job Duties, Occupational Outlook, and Education Requirements, n.d.]), but they fail to seek treatment posttrauma to relieve suffering due to stigma.

Examining first responder trauma narration outside of formal treatment is promising as researchers have hypothesized that online mediums (i.e., support websites, chatrooms, blogs, social media groups) may offer less formalized opportunities for self-disclosure and social support that are anonymous and thus perceived as safer, more secure, and more authentic (Fawcett & Shrestha, 2016; Suler, 2004). While the extant body of literature supports that online narration is advantageous for many of the reasons that formal treatment is stigmatized (i.e., concerns about breaches of confidentiality, fears about self-disclosure, perceptions of weakness, or loss of reputation) it remains largely unknown to what extent trauma exposed first responders use informal means, such as online trauma narration, to process trauma when formal means of treatment are perceived as unacceptable and unviable.

Current Study

The current study examined trauma narratives voluntarily posted on an online supportive website dedicated for first responders. Because first responders experience high rates of trauma exposure as an occupational hazard, but seek formal treatment at low rates, the current study aimed to examine the content of trauma narratives posted online to answer the following exploratory research questions:

RQ1: What is the structure, formatting, and linguistic characteristics of the narratives?

RQ2: What type of trauma exposure is discussed?

RQ3: What is the impact of trauma exposure on first responder health and well-being?

RQ4: What factors are discussed in relation to coping, resilience, and recovery?

RQ5: What information, if any, is provided within the narratives about attitudes and beliefs of mental health issues and treatment seeking?

Method

Sampling Frame

The sample was drawn from anonymous narratives written about trauma exposure, that were voluntarily submitted to www.codegreencampaign.org, a support website hosted by and for first responders. Because this study was determined to be exempt by the first author's Institutional Review Board (i.e., involved analysis of anonymous narratives posted online), we did not obtain consent from the narrative writers. Website visitors were encouraged to "submit their story so others can see that they are not alone, and that other first responders have had similar experiences." Using an online random number generator, 30 narratives were chosen for inclusion in the study. Narratives submitted through July 14, 2020 had the potential for inclusion. The exclusion criteria were narratives that failed to discuss trauma (i.e., the website allowed publication of narratives about stress, mental health difficulties, and/or trauma) or that were submitted by someone other than the first responder themselves (i.e., the website allowed publication of narratives by family members or friends). If a narrative was excluded (this occurred on three occasions), a new random number was generated and the narrative that corresponded with that number was examined for inclusion to reach a final sample of 30 narratives. The final sample of 30 was chosen to parallel existing samples of online trauma narration with other populations and for feasibility of qualitative analysis (i.e., ranged from samples of 12 to 30: Blainey & Slade, 2015; Fawcett & Shrestha, 2016; Salzmann-Erikson, & Hiçdurmaz, 2017).

Sample Characteristics

"Narrative posters," the term used herein to describe the individuals who uploaded their narrative online, had the option to submit their trauma narrative anonymously or with accompanying information: name, age, gender, job field, number of years on the job, location of employer, and if they had ever sought professional help. A high proportion opted to remain somewhat anonymous by failing to provide at least one identifiable demographic characteristic (See Table 1). Of those who provided information, narrative posters ranged in age from 21 years to 51 years of age (M = 30.7, SD = 8.45), were approximately equally represented in terms of sex (female: n = 6; 23.3%; male: n = 12; 36.7%) and endorsed working within a variety of professions: broadly within Emergency Medical Services (n = 5, 16.7%), or more specifically as an EMT/Paramedic (n = 19, 63.3%) Police officer (n = 1, 3.3%), Firefighter (n = 4, 13.3%), or Search and Rescuer (n = 1, 3.3%). The number of years spent in the profession ranged from 1 year to 47 years, with an average of 11.8 years (SD = 9.4) years in the profession.

Table 1
Sample Demographic Information

	Provided data (n = 30; 100%)		Missing data	
	N	Percent	n	Percent
Sex	15	50%	15	50%
Age	12	40%	18	60%
Previous mental health treatment	0	0%	30	100%
Profession	30	100%	0	0%
Number of years in profession	23	76%	7	23%

Procedure

All transcripts of included trauma narratives were copied and pasted into word documents. Linguistic analyses were conducted using the Linguistic Inquiry and Word Count (LIWC2015: Pennebaker et al., 2015), and content analyses were conducted using Saldana's (2015) thematic analyses framework.

Linguistic Analysis

The LIWC2015 software is a gold standard text analysis software that checks each word of a document against an internal dictionary of over 6,400 words and word stems and assigns them to specific linguistic categories (i.e., summary language variables, linguistic dimensions, psychological constructs, personal concern categories, and informal language markers). The 2015 version of the software is described to read "netspeak" and can process language commonly utilized on the Internet (i.e., Twitter, Facebook, chatrooms, text messaging) as the development of the 2015 version included written samples from blogs, expressive writing activities, natural speeches, and Twitter samples. Our analysis focused on linguistic analysis across the four summary variables (i.e., analytical thinking, clout, authenticity, and emotional tone) pronoun use, attentional focus, and two psychological constructs (e.g., affect, cognition; See Pennebaker et al., 2015 for a review of the development of the summary variables).

Content Analysis

Transcripts were coded using first (i.e., Initial Coding: Charmaz, 2014; Corbin & Strauss, 2015) and second (i.e., Concept Coding: Saldana, 2015) cycle coding methods (Saldana, 2015). First cycle coding methods involved analyzing the transcript line by line for summaries to obtain "gist" codes. Second cycle coding methods involved refining first cycle codes and developing abstract, "bigger picture," themes as they emerged from the data coding. Then, thematic content was organized within the context of the study research questions. Two independent coders coded each narrative; Intercoder reliability as calculated by percent agreement (85.7%).

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Results

Linguistic Analysis

All 30 trauma narratives underwent linguistic analysis utilizing the LIWC2015 software. Trauma narratives ranged from 163 words to 3313 words, with an average word count of 734 words (*SD* = 652).

Summary Variables

Percentiles for the four summary variables, "Analytic," "Clout," "Authenticity," and "Emotional Tone" were computed and means are provided below for each variable.

Analytic. The analytic word category captures the degree to which a narrative poster displays logical or hierarchical thinking (i.e., use of comparison words, such as "before," quantifiers, such as "few," and cognitive processing words, such as causation words: "because"). The mean percentage of Analytic words across the narratives was 50.6% (*SD* = 16.86).

Clout. The clout word category captures the degree to which a narrative poster displays social status, confidence, or leadership within their narrative (i.e., references to social or affiliative processes, such as "friend" or "coworker," and personal or plural pronouns). The mean percentage of clout words across the narratives was 47.4% (*SD* = 25.02), (See "pronouns" below for an extension of these results).

Authenticity. The authenticity word category captures the degree to which a narrative poster is honest and personal (i.e., opinion words such as "think" and tentative words, such as "maybe") The mean percentage of authenticity words across the narratives was 79.2% (*SD* = 22.28).

Tone. The emotional tone word category considers the weight of both positive and negative emotional words present within a narrative (i.e., references to words such as "good," "cried," or "worthless"). Cohn et al. (2004) argued that higher percentages of emotional tone words are indicative of a positive emotional tone whereas lower percentages (i.e., below 50) are indicative of a negative emotional tone. The mean percentage of emotional tone across the narratives was 21.3% (*SD* = 14.95), (See "Affect" below for an extension of these results).

Psychological Constructs

Pronouns. Narratives contained an average of 18.3% of pronouns (*SD* = 2.36). In particular, personal pronoun use (*M* = 13.1%; *SD* = 2.36) occurred at the highest rate within the narratives. The mean percentage of the word "I" across the narratives was 8.2%, whereas the mean percentages of the words "we," "you," "she/he" and "they" ranged from .67% to 1.8%.

Affect. Narratives contained an average of 4.91% of affect words (*SD* = 2.10) Using the LIWC software, affect words can be further described in terms of valence, with positive words (e.g., love, nice) and negative words (e.g., hurt) separated. Narratives contained an average of 2.2% of positive words and 2.7% of negative words (*SD* = 1.28; 1.06, respectively).

Cognitive Processes. Narratives contained approximately 10.6% of words that were indicative of cognitive processes (*SD* = 3.09). Cognitive process words are words that show cause (e.g., because; *M* = 1.0973; *SD* = .81294), discrepancies (e.g., should, would; *M* = 1.32; *SD* = .68), insight (e.g., think, know; *M* = 2.29; *SD* = .96), tentativeness (e.g., maybe, perhaps), (2.42; *SD* = 1.05), and certainty (e.g., always, never; *M* = 1.44; *SD* = .68).

Focus. Narratives contained 7.3% (*SD* = 3.08) of words indicative of a past-oriented attentional focus, 9.0%(*SD* = 4.39) of words indicative of a present-oriented attentional focus, and .79% (*SD* = .58) of words indicative of a future-oriented attentional focus. The attentional focus variable weighs several factors, including the use of pronouns and verb tense within the narrative.

Content Analysis

All 30 narratives were analyzed qualitatively in an effort to answer the five exploratory research questions for the current study. Thematic content was organized within the context of the study research questions.

Narrative Structure and Formatting

All narratives were written as an account of the narrative poster's experience/s in their profession. Twenty-nine of the narratives were written from the first-person singular perspective (e.g., "I") and one narrative was written from the third-person singular perspective (e.g., "She"). The narratives were written with complete sentences, few spelling or grammatical errors, and were linear (i.e., information was presented in a logical or chronological order). While some narratives began the narration in the present and flashed back to the past to recall traumatic moments, the majority of narratives began the storyline prior to the trauma and ended when the trauma was over. It was common for narratives to weave in a discussion of some present-day problems that are occurring as a consequence of the trauma on their functioning, although the placement of this information within the narratives varied.

Narratives Descriptions of Trauma Exposure

All narratives discussed trauma exposure that occurred while the narrative poster was working in their respective professions (see Table 2). Seven trauma narratives described more than one traumatic incident. Two narratives detailed traumatic incidents that the narrative poster had experienced in their personal lives in addition to the trauma/s that they had been exposed to at work. The primary reason why narrative posters shared a personal traumatic event was to justify why they were affected by the work-related traumatic incident. For instance, one narrative poster (#4) described losing her sister to an unresolved homicide. She reported that within 1 week (numerals should be used with units) of grieving her sister, she had to respond to a service call for a homicide with a similar aged and gendered victim to her sister.

Trauma Exposure: Pediatric Death. The most commonly described traumas were incidents involving children and pediatric death (*n* = 11). Narrative posters described responding to unresponsive children due to sudden infant death syndrome (SIDS; *n* = 1), drowning (*n* = 1), motor vehicle accidents (*n* = 2), fires (*n* = 1), and life-threatening illnesses (*n* = 1). A few narratives were too vague to determine the cause of death for the child (*n* = 5), but it was clear that the narrative poster had responded to a scene where

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Table 2
Narrative Traumatic Events

Traumatic event	*n (N = 30)*	Percentage
Pediatric death	11	36.6%
Motor vehicle accidents	7	23.3%
Suicide	5	16.6%
Vague Incidents	8	26.6%

a child had died. The narratives vividly described the conditions of the children's bodies upon arrival to the incident (i.e., pale and cyanotic in the drowning, bleeding and mangled in the motor vehicle accident) and the actions that the first responder took toward providing lifesaving intervention (i.e., CPR, AED, gathering data from friends and family, transporting to the ER). Two narratives described responding to children who were actively being harmed at the time of the call (i.e., sexual abuse victim and an unborn fetus wherein the mother was being treated for involuntarily detoxing from heroin).

Trauma Exposure: Motor Vehicle Accidents. The second most commonly described traumas were motor vehicle accidents (n = 7). There were descriptions of motorcycles colliding with vehicles (n = 1), cars colliding with trees (n = 2), and car accidents ending the passenger's lives due to the vehicle catching on fire (n = 1). There were a few narratives that were too vague to determine more specific information other than that a car accident had occurred (n = 4). Motor vehicle accident traumas frequently referenced more than one victim and in one narrative involved an entire family, including three young children, all of whom perished.

Trauma Exposure: Attempted and Completed Suicides. The third most commonly described traumas were attempted and completed suicides (n = 5). Narrative posters described responding to scenes of attempted suicide by gunshot (n = 1) and jumping out of a moving ambulance on the highway (n = 1) and completed suicides by gunshot (n = 2) and hanging (n = 1). Descriptions of the attempted and completed suicides were brief and succinct, with the exception of one narrative (i.e., described the gunshot trajectory and the sights, sounds and smells associated with the patient). Colloquial references were used for gunshot suicides only (e.g., "blew his face off").

Trauma Exposure: Vague Incidents. The final category of traumas that were described were vague traumas (n = 7). These descriptions involved references to "bad calls," "high stress calls," "seeing tragedies," and "the night that will haunt me forever," but that never went into depth about the events that unfolded during the traumatic incident (narrative posters 1, 7, 14, 26). For instance, one narrative poster (#7) reported "I was being troubled by the thoughts of some previous high-stress calls."

The Impact of Trauma Exposure on First Responder Health and Well-Being

All thirty narratives included details about how trauma exposure had impacted narrative poster's lives. For many, there was a clear juxtaposition between the reasons why they were drawn to the job (i.e., idealization of the role as the helper) and what they actually experienced on the job (i.e., cumulative trauma, occupational stressors, and negative alterations in their personal and professional selves). There was also much discussion of how they tried to cope posttrauma (See Table 3).

Idealization and Disillusionment of the Job. Many narrative posters (n = 12) described working within the profession from an early age and idealizing the first responder role as one where they would be a part of the action and help others (narratives 4, 17): "It's all I've ever wanted to do since I was 4 years old . . .," "I was ready to save the world." Unfortunately, it was not uncommon for narrative posters to describe an abrupt awakening to the true nature of the job and to become disillusioned (narrative 18): "When I started this path five years ago at the age of 16, I was invincible. . . now at 21, I'm not sure what that kid saw in this career." References to cumulative trauma early in the career (n = 13) and descriptions of compassion fatigue and burnout (n = 18) were frequent: ". . .but now, every day it just seems like another piece of my soul gets chipped off, and I do not know how much more I have left" (narrative 4). Some narratives included descriptions of failures on the part of the organization to provide debriefings, to prioritize patient care, or to support responders after a trauma. Narrative poster (23) stated, "We had some people come down to talk about the incident with the crew. I did tell one of them that it was bothering me, and they said they'd check up on me in a few months, but they never did."

On the Job Trauma Exposure and Trauma Sequalae. "Through countless nights, weekends, holidays, rainy days and horrific days, I absorbed a part of your darkest moments. . ." This narrative poster's (20) quote captures the cumulative nature of trauma exposure that occurs and begins a cascade of changes within the first responder at home and at work. After many exposures, narrative posters described their development and suffering from psychological disorders (e.g., depression, anxiety, posttraumatic stress disorder). There were frequent references to specific symptomology, such as amotivation, fatigue, sleep disturbances, irritability, weight gain and appetite changes, susceptibility to illness, lack of self-care, difficulties in interpersonal relationships, intrusive memories, hyperarousal, and avoidance, that impacted their health and well-being. There was also evidence that narrative posters left intimate relationships due to the symptoms in three narratives.

The most evident psychiatric symptoms in the narratives were posttraumatic stress symptoms. References to intrusive thoughts (n = 15), reexperiencing (n = 6) and sleep disturbances (n = 10) were common. Narratives 8, 11, and 16 demonstrated the presence of posttraumatic stress symptoms: "A year later, I wake up every night with that picture in my head and the mother's screams of anguish as we brought the covered bodies back to the ranger station in my ears" and "This call will forever be etched in my very soul, my very heart. I still hear his screams when I have the night terrors and I still cry like I did the first day."

Factors Related to Coping, Resilience, and Recovery From Trauma

Coping With Trauma. There were a variety of coping strategies referenced as a way to manage the sequalae of trauma responses. Broadly, these coping strategies were categorized as adaptive or maladaptive. Adaptive coping strategies included joining support groups (n = 1), using mindfulness or grounding skills (n = 1), seeking out social support (n = 3), and obtaining professional mental health services (n = 11). On the other hand,

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Table 3
Themes, Subthemes, and Narrative Descriptions

Theme	Subtheme/s	Summarized findings
Idealization of the job	1. Young employee 2. Helping others 3. Being a part of the action	1. Working from a young age, starting out of high school, naivety. 2. Showing up when others are in a panic, saving lives, helping others. 3. Thrilling, pure adrenaline.
Disillusionment with the job	1. Inability to help/save others. 2. Burnout/breaking point 3. Compassion fatigue 4. Lack of organizational support	1. Helplessness, responding to calls too late, doing everything they can although the person is "too far gone," being unprepared. 2. "At the end of their rope," personal and professional life bleed together. 3. "Love weighs heavy," no longer deriving satisfaction from work. 4. Failure to receive debriefings after trauma, perceived unfair shift work, no support to receive counseling.
On-the-job trauma exposure	1. Early Exposure to Human Suffering. 2. Personalization of the Trauma. 3. Feelings of guilt, shame, and/or helplessness.	1. Cumulative exposure to trauma within the first year/s. 2. Familiarity with the victim, finding resemblances of one's own family in the victim. 3. Being unable to help the victim, regretting their decisions during the trauma, ruminating that they could/should have done more.
Trauma sequalae	1. Development of Psychopathology 2. Poor Quality of Life3. Social Withdrawal	1. Depression, anxiety, PTSD, substance use issues, suicide attempts. 2. Overwhelmed, lack of self-care, getting sick, getting injured. 3. Feels alone, can't relate to coworkers, hides trauma impact from others, self-isolates.
Coping with trauma	1. Maladaptive coping strategies. 2. Adaptive coping strategies. 3. Stigma toward treatment-seeking.	1. Alcohol and substance use, suppressing feelings, cutting, withdrawing from friends and family. 2. Grounding skills, talking to a counselor, seeking out support, using prescribed medication. 3. Acting as if nothing had happened, culture of silence, fear of asking for help.

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maladaptive coping strategies included alcohol or substance use (n = 6), abuse of prescription medication (n = 3), overeating (n = 2), cutting(n = 1), suicidal ideation/attempts (n = 3), and social withdrawal (n = 7). Sadly, narrative poster 13 described the use of maladaptive skills as a subcultural norm, stating "By the time I was 25, a lot of my coworkers/friends were already dead from the job, drugs, alcohol, or a combination of everything."

Notably, there was no discussion of resiliency in the face of potential future trauma. Discussions of recovery included references to coping and references to help-seeking as a potential avenue for relief. These discussions were categorized as either stigmatizing (i.e., treatment seeking is not an option) or open-minded (i.e., treatment seeking is an option).

Attitudes and Beliefs About Mental Health and Treatment-Seeking. The attitudes toward mental health difficulties was highly stigmatized and described to be a reflection of someone's inability to "handle the job." Several narratives (n = 11) made reference to holding a self-reliant attitude, an unwillingness toward help-seeking, and the subcultural code of "sucking it up" and keeping the silence among peers in the wake of trauma exposure. Narrative poster (4) described "It's still not ok for me to tell my partner or my coworkers that I'm struggling. That I'm scared. I do not want to be seen as weak," while narrative poster (8) stated "If I ever wanted to continue my career, I couldn't let anyone find out about my weakness, my instability." Interestingly, there was also evidence that keeping the silence was an expectation among leadership too; Narrative poster (21) reported "You cannot show anything is bothering you, so when asked if I was ok [by her superior] after the incident I, of course, said I was."

Importantly, in the safety of anonymity, many narrative posters broke the code of silence and made statements such as (narrative 13) "I'm glad to see the wall of silence coming down. It's not the job that's killing us, it's the silence." There were other references to encourage help-seeking, connect, and validate other's experiences (narrative 7) "we're not alone. . .we're not broken," (narrative 6) "I encourage anyone to seek help do not let it go too far," and (narrative 14) "reach out to a friend when you see them hurting. Be the voice of change. Only we truly understand what it's like to be us." It appeared there was some recognition that the cumulative trauma impacts their well-being, that that silence only alienates and worsens their suffering.

Discussion

This study is one of the first examinations of informal trauma narration among first responders. The 30 narratives in this study provided insight to the structure and the linguistic and thematic content of trauma narratives written for purposes outside of trauma-focused treatment. Overall, our results highlighted that the online medium (i.e., support website) offered a less formalized opportunity for self-disclosure that allowed for authenticity, honesty, and vulnerability during narration (Fawcett & Shrestha, 2016; Suler, 2004), and that revealed five key themes: idealization with the job, disillusionment with the job, on the job trauma, trauma sequalae, and coping with trauma.

Insights From the Linguistic Analysis

Trauma narration is important to PTSD recovery because it allows the person to recollect, organize, elaborate, make sense of,

and find meaning within the traumatic event. Indeed, the literature suggests that specifically translating a traumatic experience into language (as opposed to inhibiting or suppressing the experience) is helpful and can reveal aspects of a person's processing of the traumatic event (Pennebaker, 1997). While cognitive activity, social sharing, and defensive coping (i.e., disengagement or distancing) generally increase in the wake of a traumatic event (Campbell & Pennebaker, 2003; Cohn et al., 2004; Davis & Nolen-Hoeksema, 2001), in the current study, there were low rates of causal and cognitive processing words and moderate rates of pronoun use within the narratives, which is somewhat in contrast to the existing evidence.

Prior studies utilizing linguistic analyses have reported that pronoun use covaries with the storyteller's attention (i.e., first-person singular is associated with narrower attention) and have shown that causal and tentative language demonstrate superficiality and disorganization of a narrative (Campbell & Pennebaker, 2003; Cohn et al., 2004; Davis & Nolen-Hoeksema, 2001). In our study, there was less elaboration, more avoidance, and more self-immersion, particularly related to events that occurred in the past. While increased usage of first-person singular style and low proportions of causal and tentative language may indicate that the story being told in the narrative is not fully formed, it may also be that the narrative is being told for the first time. For instance, in exposure-based treatments for trauma, there is a specific directive for narratives to be recounted repeatedly using the word "I," with the rationale of allowing the person to recount the trauma without avoidance and to organize and process the events that occurred over time (Foa, 2011). There is an acknowledgment that trauma narratives are originally more disorganized, and that over time, and through repetition, they progress to a more linear and coherent storyline. While our results differed from existing literature and highlighted less elaboration and more avoidance and self-immersion, they mirror the process that occurs during formal trauma treatment. It is possible that narrative posters had never before shared their story and thus their narrative was not well-organized or fully formed. It then follows that cognitive activity and social sharing were lower because avoidance was higher, and that over time, through repetition, their narratives could become more detailed and coherent.

These results may also reflect higher levels of subcultural stigma (e.g., it is best to deal with problems on your own). Narratives were posted and the website was hosted by unfamiliar first responders, but at least one narrative poster explicitly stated that they "felt like they were doing something wrong" by writing about their trauma. Although the purpose of the website was to allow first responders to share their story and recognize that they are not alone (i.e., increase connectedness and support), it is possible that shame, guilt, or other negative emotions engrained from the subculture were present and distanced and restricted narrative posters in their writing.

Insights From the Content Analysis

The narratives in the current study detailed that first responders are drawn to their jobs to help others, but that over time, cumulative trauma exposure leads to disillusionment with the job, psychopathology, and the adoption of adaptive and maladaptive strategies to cope with trauma. Results also highlighted the role of stigma as a barrier to treatment-seeking. These results parallel existing literature of trauma exposure, its association with compassion fatigue, burnout, and psychopathology, and the role of stigma in the subculture (Haugen et al., 2017; Hom et al., 2018; Jones et al., 2020), but highlights one interesting point: that some first responders want social support from other first responders, but do not want to share their experiences with familiar coworkers. Importantly, existing workplace interventions (i.e., critical incident stress management, despite limited support of benefit: Lilienfeld, 2007) fail to account for this finding and thus may alienate employees that feel they need more privacy, anonymity, and support from unfamiliar peers to heal. This finding also alludes to the stigma apparent in the subculture. Recent research on peer support programs suggests that these programs can encourage trust, increase self-efficacy and mental health literacy, and normalize help-seeking behaviors which positively shifts the subculture away from stigma (Milliard, 2020). Although peer support programs require familiar peers to support each other within the organization, phenomenological evidence suggests that formal internal policy, or commitment to the programming from upper management, "paints everyone with the same brush" and destigmatizes help-seeking among peers (Milliard, 2020, p. 6).

Limitations and Future Directions

This study examined a sample of publicly available narratives voluntarily posted to a first responder support website. While we analyzed trauma narratives using linguistic and content analyses, it is not possible to confirm if or how often narrative posters previously discussed their trauma and whether they were suffering from any psychopathology. Furthermore, since it was optional for narrative posters to provide demographic information, the study was limited in examining the personal characteristics of the sample and determining if these characteristics were representative of the larger population of first responders.

Future research should aim to collect a sample of trauma narratives with more comprehensive demographic information that can be compared to the larger population of first responders. It will be important for future studies to bridge the gap between the perceived safety of posting narratives online anonymously and the necessity of collecting demographic data to draw generalizable conclusions. A second direction is to investigate how websites can foster connectedness and support to reduce stigma. The current study illustrated that narrative posters felt they were doing something wrong by posting about their trauma and the website functioned as less supportive than was intended. Researchers should aim to make relevant, concrete recommendations to increase connectedness and support. A third research direction is to explore how preemployment idealization with the first responder role can be a vulnerability when these beliefs are later challenged on the job. An emphasis should be placed on changes that occur as a result of trauma exposure. Researchers may consider utilizing methodologies that allow for tracking changes within the same person over time, such as time series designs, or other longitudinal methods. Finally, research should target subcultural attitudes and beliefs that inhibit treatment-seeking. Since the literature describes both a lack of information about mental health difficulties and a lack of support to receive services as problems within the first responder subculture, future research should aim to target both sources of stigma.

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Conclusion

The purpose of this study was to examine trauma narratives that were written by first responders outside the scope of formal treatment. Our results revealed that some first responders choose to write about their trauma exposure within online job-specific platforms because they can control their anonymity, have privacy from familiar peers, yet still share, normalize and process their experiences with other first responders. Based on the results we can conclude that first responders are drawn to the jobs because they want to help others, but that over time, cumulative exposure to trauma leads to disillusionment with the job, reduced self-efficacy, psychopathology, and the problems coping and moving beyond trauma. Further suffering from posttraumatic symptomology was evident across narratives, yet subcultural stigma was described as a significant barrier to treatment-seeking. Thus, the results of the current study provide support that future research should aim to reduce stigma and increase options for help-seeking that address subcultural concerns for first responders.

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References

Alvarez-Conrad, J., Zoellner, L. A., & Foa, E. B. (2001). Linguistic predictors of trauma pathology and physical health. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory & Cognition*, *15*(7), S159–S170. https://doi.org/10.1002/acp.839

Angelo, F. N., Miller, H. E., Zoellner, L. A., & Feeny, N. C. (2008). I need to talk about it": A qualitative analysis of trauma-exposed women's reasons for treatment choice. *Behavior Therapy*, *39*(1), 13–21. https://doi.org/10.1016/j.beth.2007.02.002

Badger, K., Royse, D., & Moore, K. (2011). What's in a story? A text analysis of burn survivors' web-posted narratives. *Social Work in Health Care*, *50*(8), 577–594. https://doi.org/10.1080/00981389.2011.592114

Blainey, S. H., & Slade, P. (2015). Exploring the process of writing about and sharing traumatic birth experiences online. *British Journal of Health Psychology*, *20*(2), 243–260. https://doi.org/10.1111/bjhp.12093

Campbell, R. S., & Pennebaker, J. W. (2003). The secret life of pronouns: Flexibility in writing style and physical health. *Psychological Science*, *14*(1), 60–65. https://doi.org/10.1111/1467-9280.01419

Charmaz, K. (2014). *Constructing grounded theory: A practical guide through qualitative analysis* (2nd ed.). SAGE.

Cohn, M. A., Mehl, M. R., & Pennebaker, J. W. (2004). Linguistic markers of psychological change surrounding September 11, 2001. *Psychological Science*, *15*(10), 687–693. https://doi.org/10.1111/j.0956-7976.2004.00741.x

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research*. Sage.

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest*, *15*(2), 37–70. https://doi.org/10.1177/1529100614531398

Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A. (2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research and Therapy*, *46*(1), 5–27. https://doi.org/10.1016/j.brat.2007.10.003

Craske, M. G., Treanor, M., Conway, C. C., Zbozinek, T., & Vervliet, B. (2014). Maximizing exposure therapy: An inhibitory learning approach. *Behaviour Research and Therapy*, *58*, 10–23. https://doi.org/10.1016/j.brat.2014.04.006

Davis, C. G., & Nolen-Hoeksema, S. (2001). Loss and meaning: How do people make sense of loss? *American Behavioral Scientist*, *44*(5), 726–741. https://doi.org/10.1177/0002764201044005003

Fawcett, H., & Shrestha, L. (2016). Blogging about sexual assault: A thematic analysis. *Journal of Forensic Practice*, *18*(1), 39–51. https://doi.org/10.1108/JFP-05-2015-0032

First Responder: Job Duties, Occupational Outlook, and Education Requirements. (n.d.) Retrieved from https://learn.org/articles/First_Responder_Job_Duties_Occupational_Outlook_and_Education_Requirements.html

Foa, E. B. (2011). Prolonged exposure therapy: Past, present, and future. *Depression and anxiety.*

Foa, E. B., McNally, R. J., & Williams, L. (1996). Mechanisms of change in exposure therapy. In R. M. Rapee (Ed.), *Current controversies in the anxiety disorders* (pp. 329–343). Guilford Press.

Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, *99*(1), 20–35. https://doi.org/10.1037/0033-2909.99.1.20

Gutner, C. A., Galovski, T., Bovin, M. J., & Schnurr, P. P. (2016). Emergence of transdiagnostic treatments for PTSD and posttraumatic distress. *Current Psychiatry Reports*, *18*(10), 95. https://doi.org/10.1007/s11920-016-0734-x

Haugen, P. T., Evces, M., & Weiss, D. S. (2012). Treating posttraumatic stress disorder in first responders: A systematic review. *Clinical Psychology Review*, *32*(5) 370–380. https://doi.org/10.1016/j.cpr.2012.04.001

Haugen, P. T., McCrillis, A. M., Smid, G. E., & Nijdam, M. J. (2017). Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis. *Journal of Psychiatric Research*, *94* 218–229. https://doi.org/10.1016/j.jpsychires.2017.08.001

Hom, M. A., Stanley, I. H., Spencer-Thomas, S., & Joiner, T. E. (2018). Mental health service use and help-seeking among women firefighters with a career history of suicidality. *Psychological Services*, *15*(3), 316–324. https://doi.org/10.1037/ser0000202

Imel, Z. E., Laska, K., Jakupcak, M., & Simpson, T. L. (2013). Meta-analysis of dropout in treatments for posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, *81*(3), 394–404. https://doi.org/10.1037/a0031474

Jaeger, J. A., Echiverri, A., Zoellner, L. A., Post, L., & Feeny, N. C. (2009). Factors associated with choice of exposure therapy for PTSD. *International Journal of Behavioral and Consultation Therapy*, *5*(3-4), 294–310. https://doi.org/10.1037/h0100890

Jones, S., Agud, K., & McSweeney, J. (2020). Barriers and facilitators to seeking mental health care among first responders: "Removing the darkness." *Journal of the American Psychiatric Nurses Association*, *26*(1), 43–54. https://doi.org/10.1177/1078390319871997

Kleim, B., Horn, A. B., Kraehenmann, R., Mehl, M. R., & Ehlers, A. (2018). Early linguistic markers of trauma-specific processing predict post-trauma adjustment. *Frontiers in Psychiatry*, *9*, 645. https://doi.org/10.3389/fpsyt.2018.00645

Levy, I., & Eckhaus, E. (2020). Rape narratives analysis through natural language processing: Survivor self-label, narrative time span, faith, and rape terminology. *Psychological Trauma*, *12*(6) 635–642. https://doi.org/10.1037/tra0000587

Lilienfeld, S. O. (2007). Psychological treatments that cause harm. *Perspectives on Psychological Science*, *2*(1), 53–70. https://doi.org/10.1111/j.1745-6916.2007.00029.x

Milliard, B. (2020). Utilization and impact of peer-support programs on police officers' mental health. *Frontiers in Psychology*, *11*, 1686–1686. https://doi.org/10.3389/fpsyg.2020.01686

Mojtabai, R., Olfson, M., Sampson, N. A., Jin, R., Druss, B., Wang, P. S., Wells, K. B., Pincus, H. A., & Kessler, R. C. (2011). Barriers to mental health treatment: Results from the National Comorbidity Survey Replication. *Psychological Medicine*, *41*(8), 1751–1761. https://doi.org/10.1017/S0033291710002291

Moors, R., & Webber, R. (2013). The dance of disclosure: Online self-disclosure of sexual assault. *Qualitative Social Work: Research and Practice*, *12*(6), 799–815. https://doi.org/10.1177/1473325012464383

Najavits, L. M. (2015). The problem of dropout from “gold standard” PTSD therapies. *F1000prime Reports*, *7*, 43. https://doi.org/10.12703/P7-43

Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, *8*(3) 162–166.

Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The development and psychometric properties of LIWC2015*. University of Texas at Austin.

Pennebaker, J. W., & Chung, C. K. (2011). Expressive writing: Connections to physical and mental health. In H. S. Friedman (Ed.), *Oxford library of psychology*. *The Oxford handbook of health psychology* (pp. 417–437). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195342819.013.0018

Ramanathan, V. (2015). ‘The words are stuck inside me: I write to heal’: Memory, recall, and repetition in PTSD blogs. *Communication & Medicine*, *12*(2-3), 257–271. https://doi.org/10.1558/cam.22049

Salzmann-Erikson, M., & Hiçdurmaz, D. (2017). Use of social media among individuals who suffer from post-traumatic stress: A qualitative analysis of narratives. *Qualitative Health Research*, *27*(2), 285–294. https://doi.org/10.1177/1049732315627364

Saldana, J. (2015). *The coding manual for qualitative researchers*. Newcastle upon Tyne Sage.

Sickel, A. E., Seacat, J. D., & Nabors, N. A. (2019). Mental health stigma: Impact on mental health treatment attitudes and physical health. *Journal of Health Psychology*, *24*(5), 586–599. https://doi.org/10.1177/1359105316681430

Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & Behavior*, *7*(3), 321–326. https://doi.org/10.1089/1094931041291295

Williams, I. (2011). Autography as auto-therapy: Psychic pain and the graphic memoir. *The Journal of Medical Humanities*, *32*(4), 353–366. https://doi.org/10.1007/s10912-011-9158-0

Zoellner, L. A., Feeny, N. C., Cochran, B., & Pruitt, L. (2003). Treatment choice for PTSD. *Behaviour Research and Therapy*, *41*(8), 879–886. https://doi.org/10.1016/S0005-7967(02)00100-6

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