Camaraderie and community: Buffers against compassion fatigue among expatriate healthcare workers during the Ebola epidemic of 2013–16

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Abstract

Aim: This study assessed the prevalence of compassion fatigue, compassion satisfaction and burnout among expatriate Ebola aid workers roughly 1 year after they returned from deployment. It also investigated methods by which care providers managed stress in the field and when they returned to their homes.

Methods: A convenience sample of medical care providers who were solicited by non-governmental organizations that deployed practitioners to work in the Ebola response were asked to complete an online Professional Quality of Life (ProQOL 5) scale. Of those respondents, one-third consented to sit for a key informant interview to validate the findings and explore aspects of stress management. Responses were calculated for the whole sample and then differentiated into groups based on professional role and years of professional experience. MANOVA and independent samples t-tests were administered. An inductive thematic analysis, which included open and axial coding, was applied to the interview data.

Results: Fifty-eight participants completed the scale; of those, 20 participants were interviewed. There were no significant differences between the interview and non-interview group ProQOL 5 scores. The whole sample scored in the lowest 25% quartile with regards to compassion satisfaction, but scored in the 50% quartile with regards to compassion fatigue and burnout. Within the sample, physicians scored significantly lower than the other groups with regards to compassion fatigue (p=0.05, 95% CI −0.03 to 8.56). Providers with 1–5 years of experience scored significantly higher on the burnout scale compared to standard quartiles presented by ProQOL (p=0.031, 95% CI −10.47 to −0.51). Six themes arose from the qualitative analysis that supported the ProQOL findings: Changes on return, Camaraderie, Satisfaction—self and others, Dissatisfaction—organizational, Seeking organizational support and Extreme situations.

Conclusions: The qualitative data from this study validated the ProQOL 5 findings that expatriate providers who worked in the Ebola response did not experience high levels of compassion fatigue and burnout 1 year after deployment. These results suggest post-traumatic growth among the study sample. Post-traumatic growth refers to one’s ability to recognize and embody positive changes in one’s life after witnessing or experiencing trauma. One would posit that providers with lower levels of compassion fatigue and burnout post Ebola may be exhibiting post-traumatic growth which, through its positive response to traumatic events, may decrease the likelihood of burnout. Providers with fewer years of professional experience were most at risk for high burnout scores, and physicians, as compared to the other professional groups, had lower scores of compassion fatigue. Providers described strong senses of community and camaraderie, coupled with the use of narrative methods as tools that helped them manage the stresses of caring for Ebola patients. It is likely that collegial support, despite witnessing excess death and working in the face of organizational dysfunction, buffered these providers against compassion fatigue and burnout.

Key words: Ebola, global health, compassion fatigue, narrative medicine
INTRODUCTION

In December 2013, the first case of the world’s most extensive Ebola virus disease (EVD) outbreak emerged from a rural community in Guinea (World Health Organization, 2016). An epidemic that killed at least 11,301 people and infected 28,602 cost the US government alone 2.39 billion dollars (United States Agency International Development, 2016). Thousands of medical providers from within West Africa and around the world trained and prepared to treat EVD patients. It is estimated that at least 2,365 expatriate medical providers deployed from the US, Cuba, Canada and the UK (MSF, 2015, personal communication from December 2015 to February 2016). With substantial funding from private donations, the United States Agency for International Development (USAID) and the Department for International Development (DFID), numerous non-governmental organizations (NGOs) contributed supplies and healthcare providers to this response. In the context of this research, the term “medical providers” or “healthcare providers” will reflect nurses, nurse practitioners, physicians and physician assistants. This contextualization of “medical providers” for this study reflects the fact that the majority of the work needed for direct care of EVD patients consisted of nursing care. Nurses and nurse practitioners were key in training all providers of health in the care of patients during the EVD response.

Humanitarian workers frequently volunteer to work in extremely challenging and dangerous situations. Violent attacks on humanitarian aid workers have increased during the last decade (Hoelscher et al., 2015). More than 500 healthcare workers died treating patients with EVD during the 2013–16 outbreak (Statista, 2015). It is clear that humanitarian aid work can be stressful. With a rise in both the frequency of complex emergencies as well as the development of new NGOs with increasing global reach, more and more humanitarian aid workers will be exposed to high levels of stress. Calls have been made to incorporate psychosocial support not only for those who have experienced warfare, displacement, disease or extreme poverty firsthand, but also for those who have witnessed it vicariously by treating those who are suffering (Pearlman and Mac Ian 1995; Tol et al., 2011; Tol et al., 2014).

Stress, both acute and chronic, can cause negative sequelae that may degrade psychological and physical health (Lovallo, 2015). Compassion fatigue or secondary traumatic stress (STS) and burnout are two states that can be used as indicators as to what extent an individual is experiencing stress that comes partially as a result of caring for people who have or are experiencing extreme suffering (Joinson, 1992; Figley, 2002; Bianchi et al., 2014). STS has been defined as “a state of tension and pre-occupation with traumatized patients by re-experiencing the traumatic events, avoidance/numbing of reminders and persistent arousal associated with the patient” (Ray et al., 2013). Stamm (2010) described how STS, burnout and compassion satisfaction (CS)—essentially fulfillment in one’s profession—affect one’s professional and personal quality of life. STS and burnout can be predictors of deleterious health outcomes as such as depression (Beristianos et al., 2016). CS may be a buffer against STS (Samios et al., 2013).

It is essential for leaders of NGOs and other organizations that deploy humanitarian aid workers to critical situations to understand the psychological effects of the stresses their employees and volunteers witness. As high levels of stress or low levels of satisfaction are assessed, it should be the responsibility of supporting organizations to develop interventions that support their healthcare workers. Essential to public health emergencies, healthcare providers, expatriate and national staff deserve adequate support to help them maintain sustainable careers and prevent them from causing harm due to not being able to manage or assess their own personal stress levels (Inter-Agency Standing Committee, 2007). Recognizing that expatriate frontline healthcare providers who worked with EVD patients may have developed increased STS because of volunteering to work in such a risk-filled situation, this study aimed to assess levels of STS among these providers 1-year after treating EVD patients. It also assessed methods used by the providers to manage their stress.

METHODS

This mixed-methods descriptive study incorporated quantitative and qualitative data from a sample of English-speaking expatriate healthcare frontline providers who worked directly with EVD patients between 2014 and 2015. Inclusion criteria consisted of any healthcare provider (older than 18 years) who provided direct, hands-on care to patients or corpses infected with EVD. All participants needed to speak English as a first or second language. There were no exclusion criteria for this sample.

The principal investigator (PI) received Institutional Review Board (IRB) approval from Columbia University. Ethical considerations for this study included risk that study respondents might face when revisiting the stressful experiences of working with EVD patients. All responses were de-identified and patient names and locations of
patient care services were removed from the qualitative data to honor patient and family member anonymity. No study respondents mentioned any harm or concern that was raised while participating in this study.

This study adapted the Professional Quality of Life scale (ProQOL 5) per specifications found on ProQOL.org and then attributed the scale to an encrypted online platform, Typeform. The ProQOL survey was anonymous. Participants who chose to share their email address did so by responding to a prompt on the survey asking them if they had used “narrative methods” while working with EVD patients and if they would be interested in being interviewed for this study.

Participants who provided consent for both the online survey and the key-informant interview were then contacted by the PI who scheduled an interview with them. One-third of the respondents were interviewed in key-informant interviews via Skype or FaceTime technologies. The first 20 who responded to scheduling emails from the PI after submitting their consent were selected. All interviews were audio recorded and professionally transcribed. Identifying data were removed prior to analysis. Table 1 lists the interview questions used for this study’s focus and purposes.

Table 1 Interview guide with questions specific to Professional Quality of Life (ProQOL) 5 mixed-methods study

<table>
<thead>
<tr>
<th>Question</th>
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</thead>
<tbody>
<tr>
<td>What are some of the things that made you decide to work as a provider during the Ebola response?</td>
</tr>
<tr>
<td>How did working in the Ebola response change your professional practice when you returned home?</td>
</tr>
<tr>
<td>Some who worked in the Ebola response feel satisfied, some dissatisfied, how do you feel about the work you did and why do you feel that way?</td>
</tr>
<tr>
<td>Some who worked in the Ebola response feel satisfied, some dissatisfied, how do you feel about the work you did and why do you feel that way?</td>
</tr>
<tr>
<td>If you think about your quality of life before you left and since you returned, how is it the same or different?</td>
</tr>
<tr>
<td>Will you describe what your process was like when you were creating these descriptions of your time working with Ebola patients?</td>
</tr>
</tbody>
</table>

The ProQOL 5 was updated to its most current version in 2012, and is based on the original scale that was created in 1995 by Figley (ProQOL.org, 2015). The ProQOL 5 scale is free for research use as long as certain criteria are upheld. Although the ProQOL is not a diagnostic tool, it has been validated as an appropriate measure to assess STS, burnout and CS. This scale has been used among nursing, medical, emergency response and psychological support providers. A sizeable bibliography, collected by the architects of the ProQOL 5, reflects how this scale has been used to collect data on providers who have worked in both chronic and acutely stressful situations (Stamm, 2010). The ProQOL 5 Manual provides baseline population data based on n = 1,187 population, and has established national quartiles for individual or group comparison. It has also provided t-scores reflecting subgroups such as years of experience in a given profession (Stamm 2005, Stamm, 2010).

Recruitment

The PI contacted leadership at various NGOs that sent expatriate healthcare workers to provide care in the Ebola response. He also sent direct emails to colleagues who had served in the EVD response. This method of convenience sampling also used an aspect of snowball sampling, in that interested participants were encouraged to reach out to other colleagues to assess desire to participate in this study.

Statistical Analysis

De-identified ProQOL 5 data were analyzed using IBM SPSS Statistics 23 software (IBM, North Castle, NY, USA). Means were compared between sample groups and against national quartiles produced by the ProQOL Manual (Stamm, 2005). Subgroups consisted of the sample differentiated by profession (nurse, RN; physician, MD; and nurse practitioner/physician’s assistant, NP/PA) as well as by years practicing in one’s profession (0–5 years, 6–10 years, 11–15 years, 16 years and greater). Multiple analysis of variance (MANOVA) tests were run to measure differences between sample subgroups and the continuous variables. Independent sample t-tests were applied to the subgroups to identify significant differences between these groups and priori t-scores, as established in the ProQOL Manual.

Qualitative data were analyzed using Dedoose 4.12 software. First, open coding and then axial coding provided the framework for a thematic analysis. A codebook was developed and critiqued by the research team. To account for subjectivity arising from the qualitative data analysis, a team of four public health graduate students analyzed the interviews in addition to the PI who collaborated closely with the co-author, MC.

ProQOL 5 survey results

There was a total of 84 visits logged to the online survey; 63 respondents completed the survey and 58 responses (N = 58) met criteria for analysis. These RNs (n = 26,
44.8%), MDs (n = 23, 39.7%) and NPs/PAs (n = 9, 15.5%) worked in the EVD response between June 2014 and May 2015. They had provided care in Sierra Leone (n = 45), Liberia (n = 12) and Guinea (n = 1).

The raw scores for the full sample and subgroups showed that all groups scored in the lowest quartile of the ProQOL whereas they scored within the 50% or average percentiles regarding STS and burnout scores (Table 2). The study sample did not show elevated signs of STS or burnout. The MANOVA allowed for a more detailed examination of differences between subgroups. Because the whole sample is not representative of all expatriate providers who worked in the response, the results from the MANOVA are not as pertinent as the overall ProQOL 5 raw score results. Results from the MANOVA, however, showed some significant differences between groups that support evidence with regards to STS and burnout.

Among subgroups, providers who had 1–5 years of professional experience scored significantly higher on the burnout scale as compared to the published t-scores from the ProQOL manual (p = 0.031, 95% CI −10.47 to −0.51). There were no other significant differences between t-scores (Table 3). It is also notable that MDs scored significantly lower than their nursing colleagues with regards to STS (p = 0.05, 95% CI −0.03 to 8.56). Tables 4 and 5 show the mean comparisons between subgroups. Though the results were not statistically significant, it is notable that providers who had worked in their profession for more than 15 years scored lower than the other subgroups regarding STS and burnout while scoring higher in the CS scale.

On average, the participants worked for 58.5 days each during the EVD response. The NP/PAs spent significantly more time working in the response (187.9 days) compared to MDs (53.3 days) (p = 0.008, 95% CI −0.66 to −0.09). Providers with 1–5 years of professional experience spent more time working in the response than any other subgroup. Participants’ years of experience were divided into the following subgroups: 1–5 years of experience (n = 14, 24.15%); 6–10 years of experience (n = 17, 29.3%); 11–15 years of experience (n = 13, 25.6%); >15 years of experience (n = 9, 11.9%).
Table 4  Compassion satisfaction, compassion fatigue and burnout results among provider groups

<table>
<thead>
<tr>
<th></th>
<th>Compassion satisfaction</th>
<th>Burnout</th>
<th>Compassion fatigue/STS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full sample (N = 58)</strong></td>
<td>40.3 25.0 25.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RN (n = 26)</strong></td>
<td>41.1 24.9 27.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MD (n = 23)</strong></td>
<td>39.69 24.86 22.7*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NP/PA (n = 9)</strong></td>
<td>40.7 25.8 26.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1–5 years (n = 14)</strong></td>
<td>37.6 26.7 25.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6–10 years (n = 17)</strong></td>
<td>40.1 25.5 26.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>11–15 years (n = 14)</strong></td>
<td>42 24.4 25.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>&gt; 15 years (n = 13)</strong></td>
<td>41.9 23.2 23.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STS, secondary traumatic stress; RN, registered nurse; MD, practitioner; NP/PA, nurse practitioner/physician’s assistant.

MDs had a significantly lower STS score than RNs (p = 0.05, 95% CI −0.03 to 8.56).

Table 5  Mean time spent in response and years of experience

<table>
<thead>
<tr>
<th></th>
<th>Mean: Days spent in Ebola response</th>
<th>Mean: Years of professional experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full sample (N = 58)</strong></td>
<td>58.5</td>
<td>13.1</td>
</tr>
<tr>
<td><strong>RNs (n = 26)</strong></td>
<td>126</td>
<td>14.1</td>
</tr>
<tr>
<td><strong>MDs (n = 23)</strong></td>
<td>53.3</td>
<td>14.5</td>
</tr>
<tr>
<td><strong>NP/PA (n = 9)</strong></td>
<td>187.9*</td>
<td>8.6</td>
</tr>
<tr>
<td><strong>1–5 years (n = 14)</strong></td>
<td>160.6</td>
<td></td>
</tr>
<tr>
<td><strong>6–10 years (n = 17)</strong></td>
<td>74.9</td>
<td></td>
</tr>
<tr>
<td><strong>11–15 years (n = 14)</strong></td>
<td>114.8</td>
<td></td>
</tr>
<tr>
<td><strong>&gt; 15 years (n = 13)</strong></td>
<td>74.3</td>
<td></td>
</tr>
</tbody>
</table>

RN, registered nurse; MD, physician; NP/PA, nurse practitioner/physician’s assistant.

Among these respondents, NPs/PAs spent significantly more time working in the Ebola response than MDs (p = 0.008, 95% CI −0.66 to −0.09).

Table 6  Descriptive demographics from qualitative interviews by profession and years’ experience

<table>
<thead>
<tr>
<th></th>
<th>Mean/Median/Mode: Days spent in Ebola response</th>
<th>Mean/Median: Years in profession</th>
<th>Mean/Median: Past humanitarian missions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full sample (N = 19)</strong></td>
<td>129/42/42</td>
<td>15.7/10.5</td>
<td>7/4</td>
</tr>
<tr>
<td><strong>RNs (n = 6)</strong></td>
<td>84/63/42</td>
<td>15.7/12.5</td>
<td>11/4</td>
</tr>
<tr>
<td><strong>MDs (n = 8)</strong></td>
<td>51/42/42</td>
<td>19.3/19</td>
<td>12/4.5</td>
</tr>
<tr>
<td><strong>NP/PA (n = 5)</strong></td>
<td>120/63/Ø</td>
<td>10.3/10.5</td>
<td>3/4</td>
</tr>
</tbody>
</table>

Years’ experience

<table>
<thead>
<tr>
<th></th>
<th>Mean/Median: Past humanitarian missions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0–5 (n = 2)</strong></td>
<td>2/2</td>
</tr>
<tr>
<td><strong>6–10 (n = 7)</strong></td>
<td>8/8</td>
</tr>
<tr>
<td><strong>11–15 (n = 3)</strong></td>
<td>12.8/13</td>
</tr>
<tr>
<td><strong>&gt; 16 (n = 7)</strong></td>
<td>28.7/30</td>
</tr>
</tbody>
</table>

RN, registered nurse; MD, physician; NP/PA, nurse practitioner/physician’s assistant.

Total recorded interview time: 6 h, 30 min. Mean interview time: 24 min, 12 s.

24.15%); and 16 or more years of experience (n = 13, 22.4%).

The qualitative results that follow provide information that supports the most pertinent findings here that expatriate providers did not show elevated levels of STS or burnout. The fact that their scores are normal in those aspects are notable in consideration of the extensive suffering they witnessed on a daily basis.

**RESULTS**

Twenty-seven participants who responded to the online survey consented to interviews. The mean length of the interview, of the 20 selected, was just over 24 min. Six nurses, nine physicians and five nurse practitioners were interviewed. One interview was removed from the data set because the participant did not work directly with Ebola patients. The group represented a mean of 15.7 years of professional experience (RNs 15.7, MDs 19.3, NPs 10.3 years of experience). Seventy-four percent of the interview respondents had at least 6 years of professional experience prior to their work with EVD patients. One provider skewed the mean time working for the EVD response because this provider had spent 1 year in the response as compared to most other providers who spent, on average, 42 days. That provider reported having just 1 year of professional experience prior to deployment. All but the least experienced providers (0–5 years of experience, n = 2) had experience providing medical care in a humanitarian setting. Table 6 provides demographic statistics from the qualitative sample.

The research team developed six pertinent themes from these interviews: Changes on return, Camaraderie, Satisfaction—self and others, Dissatisfaction—

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Providers discussed how their professional lives had changed:

It’s definitely challenged me to grow as a leader and a manager and an organizer, and those skills sets that have sort of developed in the, you know, height of the emergency has translated really well now in my position doing other sort of programmatic work. (Participant 1)

Participants shared a sense of empowerment having gained new skills that indicated a deeper engagement in work and therefore less likelihood of burnout. Many providers mentioned that they had a hard time adjusting to their lives immediately after their return, that it was challenging to find a sense of normalcy:

And I’d…walk around and, but I found myself really quite emotionally labile and in tears quite a bit, and when I first came out of quarantine I…then had to figure out how to, about how to be around people. (8)

Some respondents reported a period of alexithymic feelings and responses to other people in their lives that collectively resolved during the timespan of a few weeks. One provider admitted to having symptoms of PTSD within a short period of time after returning from this work:

And then it was a couple of weeks later that I said to myself, “Whoa…I’m a little different now. Now I have a little bit more energy and initiative. (6)

Providers who had left their jobs, which they enjoyed, and who already had self-described job satisfaction, felt generally more engaged when they returned to their work back home:

I feel like I’m working like four times as hard, but it’s all the things I love. So from that perspective it’s been great. I kind of feel like I’ve regained my passion for clinical medicine, you know. I think it’s so easy in developed world, sort of of your 20th…consult and, you know, in the ICU and sort of feel like you’re not really making a difference, and so this really made a difference. (18)

Providers who reported less job satisfaction prior to departing to work with EVD patients or who were already planning on making life and professional changes expressed a sense of empowerment after returning.

Providers mentioned leaving jobs, going back to school and even retiring after their deployments:

I feel an urgency to be very clear about what it is that I want to do with my time and it forced a couple of difficult conversations with my employer and just helped me craft my personal response to…my plan for how I’m going to not stay in ruts and kind of get out there and do things that are more meaningful like the Ebola work we did. (2)

Comments from providers experiencing more “meaning” in their lives upon return, coupled with feelings of gratitude, were pervasive in the interviews. Providers mentioned that they felt more compassionate for the patients for whom they worked. Those that felt less compassionate towards their patients back home and who stated they had lost a tolerance to work with a subgroup of patients (i.e., emergency department patients), left their jobs and found a more personally rewarding career path.

A clear trajectory of change from the time providers first returned from working with EVD patients to a year later was seen in the interviews. Codes that contributed to this theme were Change in Profession; Change in Quality of Life; Lessons Learned-Professional; No Change in Quality of Life and No Change in Profession. These codes showed how the respondents managed personal and professional adjustments to their post-Ebola lives.

Extreme situations

All healthcare providers who treated EVD patients experienced horrific events, many of which they felt the “outside” world could not comprehend:

It was really bad. I mean there were just bodies in the courtyard. There were…there were…the whole situation was horrific. (8)

Try to compare it like that cause to me it was…it was horrible, it was horrible, and that we in the States did not even realize how bad it was there and how little they had to fight; it amazed me. (11)

They reported sustained (2) suffering and the inundation of death made providers, many of whom had extensive humanitarian experience in war zones and natural disasters, incapable of comparing this experience to others: Conditions…far worse than anything I had ever experienced (15). And with that impotence in being able to compare these experiences built perceived frustration with the rest of the world (3) for its seeming lack of adequate international response.

Camaraderie

Respondents mentioned the therapeutic effects of spend-
ing time with each other socially, when they were not working in the ETCs. Respondents used “camaraderie” verbatim to discuss tendencies towards companionship as a tool of stress management. When asked about coping mechanisms they employed during and after their work in the field, many mentioned writing and public speaking as activities, but all mentioned spending time with other practitioners: I drew a great deal of strength from the team that I was there with. (15)

Providers indicated that it was challenging to share what they witnessed as if the work, at times, was so extreme that it was surreal.

A lot of the time spent there is a bit like a dream. Like I could...convince myself that it never actually happened because it’s such a finite experience that...there’s sort of no physical residual of right now in my life. There’s just the emotional and the people...the people that were there. So, having other people there, it’s like we all...all share, experience the same dream (17).

This respondent reflects upon the experience as a dream, in the present tense, that all those healthcare workers who responded may still be sharing that dream. And despite the extreme nature of the work, this provider refers to it as a dream rather than a nightmare. Having colleagues present, living with them in close quarters outside of the ETC, and an elevated sense of camaraderie all influenced the perceptions of the work in-country in an arguably positive manner.

Satisfaction with self and others

The excess mortality from EVD weighed heavily on the providers. In addition to mentioning the lack of proper supplies, medication and a deficient global response, respondents commented on having a sense of self-satisfaction for the work they and their colleagues contributed. The theme that “we did something with very little, but at least it was something,” resonated in the interviews.

It is ironic that providers expressed satisfaction from the work they did when considering the traditional medical context of saving lives and curing disease. The irony rests in the common idea that healthcare providers work to save and improve lives; this was frequently not the case in the EVD context.

I’m not sure it had big impact on survival rates or death rates for that matter. I’m not sure that it mattered...And I’m not sure that survival rates or death rates were better or worse because I was there. (4)

Here, a respondent debates the utility of the impact provided.

And it was all pretty...dire and just the fact that we were able to give treatment to anybody and make anybody comfortable...more comfortable and whether or not we...changed the tide and saved some or not others. I still think that...there were some people who didn’t have to die alone; cold and wet. (17)

It is notable that despite the dire circumstances, the challenges of witnessing often gruesome deaths from EVD and also deaths secondary to global healthcare disparities, providers, a year after their work, focused more on ideas of personal satisfaction, teamwork and a sense that a difference was made for some people and some positive impact left behind.

Dissatisfaction - organizational

When providers spoke about dissatisfaction, the themes they highlighted focused more on dissatisfaction with organizational factors. These factors included the NGO for which providers volunteered, the local health system, and the national governments that were seen as being ineffective at times in addressing the pressing needs of the patients with EVD.

I would say it was hard, it was...felt frustrating. It felt like, a big...excuse my language, [laughs] but “cluster fuck” like people didn’t know what they were doing and it was a mess and the organization I was working for felt frustrating. (14) …and the Ministry of Health or...or even straight up the level of corruption that like I think some people became very frustrated with in terms of a government hospital or...and...but, you know, my...my overall feeling, was really good. I felt really good also about what we were able to do at [location removed]. (8)

This final statement reflects a rebound from feeling dissatisfaction towards a return to the sense of self-satisfaction. The theme of this last statement in which a respondent expresses dissatisfaction, which then shifted to satisfaction with regards to and individual’s work or care, was not uncommon.

Respondents who reported 1–5 years of professional experience prior to working with EVD patients or who had participated in fewer than two humanitarian missions had collectively more negative responses that were coded as Dissatisfaction—others; Dissatisfaction—organizational focus; Dissatisfaction—health inequities or Dissatisfaction—self.

Seeking more organizational support

Within the first few months, and specifically the first 21 days following their return, some respondents voiced that they desired more psychosocial follow up from the organizations for which they worked:
We were supposed to have been given some decompression time by the company that I went with and I did not experience any of that, so...you know, you’re - you’re plucked down back in your environment and...pretty much left to figure it out for yourself. (11)

The need for some to have a debrief or debriefing activities provided by the organizations for which they volunteered was salient in some interviews. Not all providers mentioned that as a significant issue, while others became adamant in the interviews about how unfair and even callous it felt that they were offered limited, if any, follow up from the organization for which they worked.

Remediation of this, especially with regards to the providers who spoke of dissatisfaction with NGO support post-deployment, came in the form of camaraderie, Skype, phone and email communication with other colleagues who had also provided EVD care in the form of unofficial support groups.

**DISCUSSION**

The officially reported case fatality rates for EVD were 50%, but ranged from 25 to 90% given the location of the outbreak and confounding factors such as supplies and healthcare disparity (World Health Organization, 2016). Providers witnessed multiple deaths on a daily basis. Providers suffered dehydration from working prolonged hours in protective gear and temperatures well over 37.8°C (100°F). Many also complained of a condition coined as “chlorine cough”, which was respiratory irritation from inhaling fumes of the ubiquitous substance being frequently sprayed upon all surfaces and corpses.

Extreme working conditions and repeated traumatic experiences are thought to serve as positive predictors of STS and burnout (van Mol et al., 2015). In addition to extreme working conditions, mortality, especially among children, was excessive and it was questionable whether treatments were, at times, effective (Trehan et al., 2016).

As Sawe et al. (2016) assert, it would follow that expatriate medical care providers would be likely to exhibit signs of burnout, STS and even PTSD. The results from the ProQOL 5 survey differ with this assumption, and the qualitative results suggest why this group of medical professionals had arguably “normal” scores. That providers did not have higher levels of burnout or STS could be explained by the fact that they overwhelmingly reported deep senses of camaraderie and community amongst other EVD providers. Even though some respondents mentioned that they were frustrated by the perceived lack of organization and organizational resources, they remained optimistic and satisfied with the work they did. Community support, despite a sense of organizational security, can mitigate symptoms of burnout and STS (Ray et al., 2013; Samios et al., 2013). Respondents acknowledged their frustrations with organizational mechanisms, which seemed to fail them frequently; however, they often returned to the sentiment that they were still proud and satisfied of what they accomplished with their colleagues. This group of respondents allowed feelings of camaraderie to buffer against organizational frustrations.

A key factor to consider is the psychological make-up of the providers interviewed. Even providers who had served in active war zones described the Ebola response work as being the worst situation they had ever witnessed. The women and men who volunteered, then, to help EVD patients may have been less prone to symptoms of STS by even showing a willingness to work in this context. They may be more likely to express more post-traumatic growth (PTG) rather than STS. PTG refers to positive emotional developments following traumatic experiences, such as acknowledging new perspectives on life and a more deeply described respect for life (Calhoun & Tedeschi, 2014; Powell et al., 2003). Even if the providers in this sample were inherently less likely to develop STS and more inclined for PTG, these findings showed other nuanced and important data.

It is notable that one subset of providers, those with 1–5 years of professional experience, scored significantly higher than their colleagues on the burnout scale when the means of subgroups were compared. Also, during the interviews, providers with less humanitarian experience expressed more bitterness and anger. A lack of professional experience can increase one’s risk of burnout among nurses and physicians (Alacacioglu et al., 2009; Ilhan et al., 2008). Providers who reported more than 15 years of professional experience had more optimal scores on the ProQOL 5 and they reflected these scores during their interviews, which, expressed less anger and frustration with some of the most challenging aspects of EVD care. Age and experience are thought to be mitigating factors of burnout (Piercy et al., 2011) and thus the more experienced responders may have been able to use their life experience as a coping tool that reduced symptoms of STS. These findings suggest the importance of developing ways to better support less experienced providers so as to prevent symptoms of STS.

In addition to reporting how camaraderie improved senses of self-satisfaction despite the horrific circumstances in which the respondents worked, many also spoke of using narrative methodologies such as writing,
composing music and public speaking as methods to both advocate for the patients they served, as well as a way to create meaning around their experiences. The evidence in this study is not robust enough to express a correlation between the use of narrative methodologies and decreased STS scores; however, this concept merits more examination. The practice of narrative medicine (NM) suggests that by using creative art forms to process and relate stories of patient encounters, the provider who creates the story may feel a deeper sense of connection with the patient or patients, and her/his community of professionals (Charon, 2006; Ofri, 2015). Literature regarding mitigating factors of STS suggests that a strong sense of community can reduce STS and burnout (Ray et al., 2013). It would follow then that the practice of NM in challenging settings may help reduce stress for the provider as well as for her/his colleagues. Providers in this study used NM in writing songs and text that they then shared with one another, increasing and strengthening the sense of camaraderie, which in turn brought about reported stress relief.

LIMITATIONS

The PI worked as a nurse during the EVD outbreak and thus brought both insight and bias to this work. The ProQOL 5 is not a diagnostic tool and therefore results from this work should remain as a starting point for discussion that contributes to the literature about psychosocial well-being for expatriate humanitarian workers.

The sample size of expatriate respondents is not representative of the actual population. The denominator of expatriate healthcare providers was estimated at more than 2,000 providers. There is no data set of actual numbers, and some NGOs that sent providers have reported to keep their statistics internally and therefore have not been forthcoming with specific data (MSF, 2015, personal communication from December 2015 to February 2016).

CONCLUSION

With considerably normal levels of STS and burnout, the providers interviewed and surveyed for this study reveal that 1 year later, despite emotional residue and acute memories of their experiences in West Africa, they do not show unusual risk for negative sequelae associated with the two aforementioned conditions. Less experienced providers, consequently, did indicate that they may be at more risk than their colleagues for burnout and thus more intense psychosocial support interventions may be merited for this demographic of medical providers. Enhancing mentorship programs or facilitating connections between more experienced humanitarian aid workers and less experienced workers could reduce the risk of younger providers experiencing burnout.

Nuanced information from the interviews in this study presciently revealed the importance of camaraderie and community among care providers working in stressful situations. Both NGOs and organizations that send expatriate providers to do work in complex emergencies should develop and appreciate methods by which to support opportunities to establish camaraderie among team members. In addition, the use of narrative practices and NM should be investigated more thoroughly regarding the risks and benefits of their usage to mitigate STS.

This study suggests aspects of community, camaraderie and the use of narrative methodologies that may have buffered providers from experiencing burnout and STS. It reflects a general call to recognize the strength of healthcare workers, their resilience and willingness to continue this kind of work. Much psychosocial research takes a deficiencies approach in assessing stress and burnout (Wessells, 2016); these findings suggest that a different perspective may be more appropriate in understanding the effects of working under such harsh conditions. The results from this research expose resilient and empowering actions taken by providers that possibly reduced their STS 1 year after their service.

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REFERENCES


