

Narrative medicine practices as a potential therapeutic tool used by expatriate Ebola caregivers

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This study examined how expatriate healthcare providers used narrative methods to process their experiences of working with Ebola patients. Key informant interviews and associated media and blog posts were analysed using an inductive thematic approach. Open coding informed the creation of a codebook which, in turn, was the basis for axial coding and thematic development. A team of researchers collaborated in both coding and theme development in order to address potential subjectivity bias. In the results of 6.5 hours of interviews with 20 nurses, physicians and nurse practitioners, four themes surfaced regarding use of narrative methods: memorialising, advocacy, self-reflection, and camaraderie. Providers of narrative methods reported beneficial and therapeutic effects of writing and public speaking, as well as the therapeutic value of sharing narrative practices with other colleagues. Evidence in this context suggests narrative medicine practices may mitigate negative sequelae related to secondary traumatic stress.

Keywords: compassion fatigue, Ebola, expatriate healthcare workers, narrative medicine, secondary traumatic stress, West Africa

*Stare out the window and weep,
Reality haunts those who sleep.
Break fast in the black,
One week to normal, there's no turning back.
One line at a time, step to the side.
A war without pieces to divide,
With echoed laughter and fallen tears.
Oh begging that we change.
Here's begging we change.*

(Excerpt from a song co-written by a study participant)

Key implications for practice

- Frontline expatriate health providers used narrative methods to manage stress and make meaning of suffering while working with Ebola patients
- Narrative medicine offers potential tools for the psychosocial support of expatriate healthcare providers
- National and international healthcare providers need efficient and effective psychosocial support to manage secondary traumatic stress

Introduction

Background: Ebola

From December 2013 until March of 2016, Ebola virus disease (EVD) caused international pandemonium along its swath of sickness and death [World Health Organization (WHO) 2016]. The epidemic killed more than 11,000 people, infected more than 28,000 and cost the US Government alone, 2.39 billion dollars (USAID, 2016). Organisations such as USAID, UKAID, the WHO, Centers for Disease Control, Médecins Sans Frontières (MSF), Partners in Health, International Medical Corps, Save the Children UK, International Committee of the Red Cross, as well as the Cuban Government contributed substantial funds and personnel to the response. At least 2,365 healthcare providers were trained in EVD patient care and deployed to Sierra Leone, Guinea and Liberia (MSF, 2015; personal communication from December 2015 to February 2016).

More than 800 healthcare workers were infected by the disease, and more than 500 died (Statista, 2015). Humanitarian aid work brings with it the potential for extreme stress (Sokol, 2006) and the Ebola outbreak reinforced the challenges humanitarian healthcare workers face when working with limited supplies and rapidly spreading contagion (Kilmarx et al., 2014). With case fatality rates of 75–80% for children under five years old in some Ebola treatment centres (ETCs) (Trehan, Kelly, Marsh, George, & Callahan, 2016) and unusually high rates of death by secondary causes, medical providers witnessed excess mortality on a daily basis.

Narrative medicine and compassion fatigue

The practice of narrative medicine (NM) is a relatively new concept based on centuries old practices of artistic creation and abstract thinking (DasGupta, & Charon, 2004). If *‘illness prompts secrets, conflicts and contradiction along with brave sincerity and distilled identity’* as Charon (2006) suggests, and if healthcare providers can achieve a better understanding of their altruistic identity through witnessing illness and participating in narrative practices (McCormack, 2010), then the field of NM merits close investigation in terms of its utility in practical settings. Narrative theory relies on the power of plot, or the wholeness by which a story is told, so that the audience or writer is able to make meaning in an often more abstract and profound manner than if events were laid out in chronological order (Culler, 2006). Hauser, & Allen (2007) insists that a person’s ability to develop plot in a narrative reflects his capacity to manage adversity. Adversity, in regard to stressful challenges in one’s profession or in witnessing traumatic events, can whittle away at psychological and emotional health (Epel, Daubenmier, Moskowitz, Folkman, & Blackburn, 2009; Hensel, Ruiz, Finney, & Dewa, 2015). If

narrative practices can enhance mental and physical health by providing healthcare providers with tools to examine and make meaning of challenging lived experience, as Pennebaker (2000) suggests, then they ought to be employed more readily in a myriad of contexts. One context, in which there is a dearth of literature regarding the benefits or risks of narrative practices, is in the literature regarding expatriate and national staff humanitarian aid workers.

NM practices could offer potential mitigation of stress. NM takes an art based approach to help medical providers hone their communication skills, in order to be more present with the people for whom they provide care (Shapiro, & Rucker, 2003). A small body of evidence suggests that these practices may encourage more compassionate care by providers, as well as girding resilience (Krasner et al., 2009; Moore, Rivera Mercado, Grez Artigues, & Lawrie, 2013). NM’s concept of *‘affiliation or the authentic and muscular connections between doctor and patient, between nurse and social worker, among children of a dying parent, among citizens trying to choose a just and equitable health care policy’* (Charon, 2007, p. 1267) is a theoretical explanation of how NM may function. Through these *‘authentic and muscular connections’* the writer (or healthcare worker) may be able to construct meaning and develop a deeper understanding of suffering and pain. NM has not been rigorously studied as a therapeutic method for medical providers who use narrative approaches, yet it holds promise as an effective psychosocial tool.

Compassion fatigue (CF), also known as secondary traumatic stress (STS) and burnout, are concepts ubiquitous to all health care providers. The higher the exposure (dose) a healthcare worker has in caring for those who experience extreme suffering or trauma, the more likely s/he is to develop symptoms of STS (Smart et al., 2014; Melvin, 2012). STS and burnout can also be positive predictors for shortening a professional career through negative physical or emotional health effects.

Humanitarian aid workers and frontline expatriate aid workers would be at high risk for STS and other emotional detritus stemming from witnessing excessive death during their work with EVD patients. It may be possible that the practice of using narrative methods to process, describe and/or evaluate their experience, may buffer against STS and burnout.

Objective

This study examined how expatriate healthcare providers used NM to process their experiences from working with EVD patients, and whether these processes were therapeutic.

Methods

After receiving Institutional Review Board approval from Columbia University Medical Center, data for this study were collected from 20 key informant interviews with expatriate healthcare workers (nurses, physicians and nurse practitioners). The participants were self-selected from a larger mixed methods study investigating STS, burnout and compassion satisfaction among EVD frontline responders. The study design included developing open ended questions (Table 1) intended to assess the use of NM techniques, as well as the presence of dissatisfaction or satisfaction related to past humanitarian work.

Interview questions were based on conceptual frameworks illustrative of the narrative process based on the Todorov Narrative Theory (Todorov, & Weinstein, 1969) as well as an adaptation of Day & Anderson's framework regarding the development of STS and the anticipated effects of NM practices on it (Day, & Anderson, 2011). Interviews were conducted by TC. TC reviewed all transcriptions and removed identifying data, then uploaded all de-identified transcripts to an online, encrypted platform called Dedoose 4.12TM (2016).

Table 1. Key informant interview questionnaire Frontline Ebola responders

- What are some coping mechanisms that you used to manage the memories of experiences while working in the Ebola response? Please describe what you did while working in West Africa, as well as after you returned.
 - If you think about your quality of life before you left and since you returned, how is it the same or different?
 - You indicated that you used creative means like writing or the visual arts to describe your experience. Will you discuss what form you used and why you chose this method of communication?
 - Were there any key messages or themes that you wanted to share?
 - You indicated that you used creative means like writing or the visual arts to describe your experience. Did you share this work publically or privately with just family and friends? Please explain why you shared it the way you did.
 - Will you describe what your process was like when you were creating these descriptions of your time working with Ebola patients?
-

A codebook was developed after coding four transcripts (numbers 20, 15, 10 and 5). The analysis team then applied open coding, utilising this codebook, for all 20 transcripts. Axial coding and thematic development followed. The analysis team was comprised of six investigators: TC, MC and four graduate students. Subjectivity memos and exercises were undertaken by investigators to address potential biases during analysis. In addition to analysing key informant interviews, the research team also analysed eight other narrative pieces that had already been made public through blogs, websites or social

media. These additional examples were selected for analysis because they were mentioned by participants in the interviews as narrative pieces that were reported to have been influential to the respondent.

Recruitment

TC contacted leadership at various nongovernmental organisations (NGOs) that deployed expatriate healthcare workers to provide care in the EVD response. He requested that their leadership send emails to any potential volunteers or staff members recruiting for the study. Additionally, TC sent direct emails to colleagues who had served in the response.

Interested participants were sent a link to an anonymous online survey designed to quantitatively assess STS, CS and burnout. Participants were given a prompt asking if they used narrative methods as a way to document their experiences working with EVD patients and if they would be interested in being interviewed. *Narrative methods* in this context, was based on definitions of NM practice, include writing, visual arts, public speaking and/or music. If the provider submitted their email address, they were contacted by TC. The first 20 who responded to scheduling emails from TC after submitting their consent were selected for interviews. Interviews were conducted using Skype™ or FaceTime™.

Results

Eighty-four visits were logged to the online survey, and 63 participants completed it. Of those, 27 participants consented to be interviewed. The average length of interview was just over 24 minutes, and total interview time was 6.5 hours.

Twenty participants were interviewed and from those, one interview was removed from the analysis because the interviewee had not actually provided direct care to patients with EVD as s/he had indicated in the online survey. Of the 19 participants, three

mentioned that they had never worked in a humanitarian response prior to their work in the EVD crisis. It is notable, however, that all three of these had extensive travel experience to and/or work experience in *'development'* in resource poor settings. None of those interviewed were novices to working in settings different to their own culture. Despite having experiences working in resource poor settings and having received technical training with regards to treating patients with EVD, respondents collectively intimated that they did not understand exactly how challenging this work would be. One participant put it succinctly: *'so I, no, I don't think any of us was prepared for what we saw on the ground'*. Table 2 provides demographic data of respondents. Most participants stated they wrote, journaled, blogged or gave public presentations. Two participants reported writing lyrics and composing music, and one participant reported using drawing and painting as a narrative methodology.

Respondents offered equally affirmative and negative responses as to whether they shared their narrative works publically, with immediate friends and family, or not at all. Also, in addition to producing some sort of narrative form, a preponderance of participants noted that they read blogs and journals written by other providers to manage the memories from the experience: *'so... seeing it from somebody else's point of view... made the experience in a way, more real'*.

Axial coding facilitated the development of pertinent themes that follow here. These themes below best reflect the lived experience shared by EVD providers and their use of narrative methodologies within this context. The themes: *memorialising, advocacy, self-reflection, and camaraderie* illustrate the therapeutic process that these providers used as they used narrative means to enhance or maintain empathic ability. Table 3 provides additional in depth themes and quotations to supplement the discussion that follows.

Table 2 Descriptive demographics from interviews by profession and years experience

	Mean/Median/Mode: Days spent in Ebola response	Mean/Median: Years in profession	Mean/Median: Past humanitarian missions
Full sample (<i>n</i> = 19)	129/42/42	15.7/10.5	7/4
Nurses (<i>n</i> = 6)	84/63/42	15.7/12.5	11/4
Physicians (<i>n</i> = 8)	51/42/42	19.3/19	12/4.5
Nurse Practitioners/ Physicians Assistants (<i>n</i> = 5)	120/63/0	10.3/10.5	3/4
0–5 years exp. (<i>n</i> = 2)	33/33/ 0	2/2	0
6–10 years exp (<i>n</i> = 7).	67/42/42	8/8	4/4
11–15 years exp. (<i>n</i> = 3)	63/63/ 0	12.8/13	3/3
>16 years exp. (<i>n</i> = 7)	57/42/42	28.7/30	20/10
Total recorded interview time: 6 hours, 30 minutes. Mean interview time: 24 minutes, 12 seconds.			

Themes

Memorialising

A salient theme from the interviews centred on the desire not to forget. When prompted about the writing process, one participant mentioned how challenging it was to sit and write in a journal, however, the participant also remarked: *‘with me, it’s more like I’m getting this down so that I have a nice, clear record for the future.’*

During the interviews, respondents mentioned EVD patients and their family members by name. There was a sense of clarity and precision in the tone of the interviews when providers spoke of children, in particular, for whom they had provided care. One participant recounted the story of a child who had survived:

‘And this goes to, I don’t know if you remember [name removed] who survived and then ended up at the other hospital, that eight-year-old girl.

Q: Yeah, she was severely malnourished for quite a long time.

Response: Severely malnourished, some sort of an odd B vitamin tremor and all kinds of

weird things. Orange hair. I mean, she was sick as [name removed]. By the way, she’s doing tremendously.’

Stories of survival and defeat permeated the interviews. Yet, more than emphasising the frustrations of working in a resource poor setting with EVD and addressing the health-care inequity they witnessed because of systemic challenges and NGO disorganisation, respondents overwhelmingly stated that they wanted others to understand that they were treating *people*, not statistics. By memorialising detailed and individual stories about the patients they treated, providers reported that they were able to solidify their own memories and advocate against the ‘othering’ that frequently occurs in humanitarian aid:

‘You know, I suppose to individualise these people was the only thing that I could think of to try to bring this home that this wasn’t just another African epidemic that the US doesn’t have to think about. This was like these were people with names and families, you know. I don’t think that I did that consciously, but in retrospect I think that’s part of what I tried to get across, you know, so that they mattered.’

Table 3 Data display reflecting themes, codes supporting themes and additional excerpts illustrating themes

Theme	Excerpts
Memorialising Codes supporting: Memorialising	<i>‘The themes are just. . . it’s very kind of straightforward. It’s not like, “Oh, God, things here are so miserable and terrible.” And like, “Oh, the tragedy, oh, the suffering.” It’s nothing like that. Nothing like that. It’s more just, like, I think recording because I knew that things were so hectic, it would be really difficult to remember later.’ (1)</i>
Othering Others not wanting to hear Impact Writing process Not wanting to forget	<i>‘. . . it was just more of the same, you know. . . except each book that I go into it’s like, “Wow” I was feeling this way then and. . . it kind of amazes me when I can go back and read it and go. . . “Wow, what kind of a place was I in?” You know. . .’ (11)</i> <i>‘Yeah definitely, I think the. . . the act of. . . of. . . honouring a life that was lost by sharing the story. I think that sometimes. . . prior to this I had felt. . . I felt sort of self-conscious or disingenuous sharing stories of patients that I had lost.’ (17)</i> <i>‘And hopefully the memories will live on. And whatever, you know, I don’t know if we’re going to do little written pieces with it. I’m not quite sure of that part yet, but hopefully those pieces will live on, and it will mean whatever it means if anybody buys them. I don’t know. Maybe nobody buys them.’ (4)</i> <i>‘Like this. . . especially in other humanitarian situations, and this made me realise, that how important it is to share those stories and that it’s not sensational and it. . . sensationalism. It’s – it’s really honouring and respecting the struggle that that person had.’ (17)</i> <i>‘And that’s the most frustrating thing when you come back and you’re trying to sort of deal with this insanity about people’s fear with Ebola. You’re like, “These are humans. These are humans.” You know? I think that, I felt like for me that was the most important message I wanted to keep getting across.’ (18)</i>
Theme Advocacy Codes supporting: Advocacy	Excerpts <i>‘You know, and I wanted to be able to tell them what I was doing and to sort of get that message across. And then it stayed public because it mattered to people to read it because people would write back and say, you know, “Thank you for writing that and, you know, I’ve felt that way about patients before, or I’ve had that experience and I wasn’t able to articulate that.” You know, and it seemed to. . . it certainly was helpful to me to get feedback from people like I read it. I hear you. You know, I’m glad you said that.’ (10)</i>

Writing process
Therapeutic public speaking
Media influence response
Supportive feedback from peers

I had 3 weeks of quarantine so that was good just to have time to really sit I think with it, and then when I came back to work I just, I had it - I had to do a presentation and that actually helped solidify some...for me, help solidify my experience and...? (14)

So I mean I spoke. My coping mechanism was I ended up going down, I felt ridiculously guilty as I mentioned, so I ended up trying to contribute as much as I could after I got back. One of the ways that I did that was I helped with the [name removed] course to train other health care workers to go down, and I kind of felt like I was multiplying myself in that way? (18)

The most therapeutic was putting together a talk which meant, you know, taking slides and telling stories? (2)

Theme

Self-reflection

Codes supporting:

Self-reflection
Therapeutic writing
Writing processes
Therapeutic meditation
Therapeutic-writing-trying

Excerpts

You know, so it was. . . it was a survival mechanism for me? (7)

And that they - they help me...kind of summarise and get through each day and then each week as a whole where I could look back and see...the negatives and the positives of the whole week. And...and keep pushing forward with it in general? (16)

So the art for me in like the selfish reasons of wanting to do this is because I feel like it's a way that I can tell the stories and have the stories live on, and they're not going to be graphic stories of people bleeding and kids dying and people being in. . . you know, having to have their bones broken in order to get into body bags and, you know, that I can tell those stories and these three artists who I really, really trust will take those stories and will make their art with them. And so it will hopefully serve my need of needing to kind of put some of this to rest, some closure to some of it? (4)

Which is a sort of...first centring with simply following your breath and then going through some simple things like...it might be may I be safe, may I be strong, may I be well, may I be happy, you know...may I be at peace and free of fear. May my, have I been full with ease, but, and then moving that out to the people around you so, or my family. It - it's a Buddhist meditation. So, I did Metta every single night. I did...I used music? (8)

Theme

Camaraderie

Codes supporting: Camaraderie

Excerpts

I mean, I think little things like the walk back and forth was important, and you probably have, you know, saw it or heard about this, the eating meals together was important because, you know, there's that passage, I'm sure you know, from Henry V, Act IV Scene 3, you know, "He who sheds his blood with me shall be my brother." (15)

Dissatisfaction others	<i>'The majority of the people on the ground were phenomenal humans. . .like some of the best human beings I've ever met.'</i> (10)
Dissatisfaction organisational focus	
Dissatisfaction health inequities	
Dissatisfaction self	<i>'Yeah, and also the African Union staff at [location removed] were outstanding and, like, the Kenyans coming in to help and then in addition to all the Western expats and, like, the colleagues who were directly in my cohort.'</i> (5)
	<i>'I think when I was there it really helped to just kind of talk to other people about...you know, what we were doing every day and so, and I think that just kind of happened naturally like...in the, you know camp where we were...there was kind of like a...like a...bar area and so after dinner or sometimes we poured in there where we'd just like sitting around and just talk about what had happened that day, and...yeah, and I – I think that...just - just talking through it with people was just...it was really, really helpful.'</i> (12)
	<i>'I think the biggest coping mechanism was just talking about and encouraging the folks that I lived with and worked with to talk about what was going on, sharing our feelings, and I think we were really a great support for one another.'</i> (2)

'Othering' in this context, arises from medical providers creating a sense of detachment from the sickest of patients. Providers in this study struggled with the way the media seemed to make 'other' or minimise the way that this epidemic was portrayed as being so 'foreign' or 'just another African epidemic.' They detailed their journals and blogs, not only for the sake of memory and to honour those that they witnessed die, but also to advocate for their patients and, in general, for the citizens of Sierra Leone, Liberia and Guinea.

Advocacy

Providers found that it was beneficial in the interviews to compare their work with EVD patients to extreme situations they had witnessed in other work settings. The use of metaphor was also a tool in some interviews to express a theme. One respondent likened the life changing experiences that

occurred while working in Sierra Leone to *taking the red pill* — a cinematic allusion to the film *The Matrix* in which 'taking the red pill' enables the film's protagonist to permanently visualise the world in a completely new way. The provider used this metaphor as a launch pad from the experiences of working in West Africa to the provider's home country:

'You take the red pill and you can never see the world the same way again. And so, I came back. I was still a professor at the medical school. I felt like I had taken the red pill. . . right around that period of time. . .the riots erupted in Baltimore around Freddie Gray, and, you know, we had been thinking and praying about a community where we could live and serve, and the infant mortality information in the area where the riots were was just so stunning to me. It reminded me of Africa. If you are an African-American baby in Baltimore, you have a four to eight times

higher chance of dying in your first year of life than a white baby born in the same [city]. . . Washington is 10 times higher. If you're black and born in Washington, the black baby has a 10 times higher chance of death in the first year of life?

Not only in the interviews did providers advocate for people and populations who live under structural, organisational and economic duress, but they also used the narrative form of public speaking to advocate for the patients they served. A few respondents participated in a TED™ programme called *'The next outbreak? We're not ready.'* It supported the stance of its keynote speaker, Bill Gates, that this epidemic unveiled humanity's interconnectedness (Gates, 2015). Advocacy was a tool used by providers on intimate levels, as well as with broad international audiences.

Public speaking among the interviewees was met with mixed reactions. Many of them were asked to give lectures about their experience working with EVD patients. Some took this task on with vigour, others were more hesitant. Those that provided presentations mentioned the therapeutic effect they felt from giving voice to their experience:

'My medical school advisor runs the Global Health Program at [name removed]. . . and he was going to do a seminar, a big lecture on Ebola and he asked me if I would do it and I said no. . . And he knows me really well. . . and he said, "You really need to do this. It will be really good for you?'

This participant went on to say that, although there was significant resistance to presenting initially, when s/he spoke a therapeutic feeling of recovery occurred: *'it took me totally by surprise because, you know, first off it was eight months later, right? And how much do I have to process, right?'* Not all providers gave public remarks about their work with EVD patients. Those that did reported these

practices as not only methods for which to advocate for those affected by EVD and those living in challenging situations around the globe, but also as tools that provided them with a platform to address their own feelings of guilt, anger and sadness about working in the epidemic.

Self-reflection

The following codes: *therapeutic-writing*, *therapeutic-writing-trying*, *therapeutic-meditation* and *writing process* formed the theme of *self-reflection* and showed the many ways in which participants spent time alone to reflect, and then create and share.

Participants reported using music in order to make peace with the extreme suffering that was witnessed. Escaping by oneself to a place to listen to a classical piece of music, or by composing a piece to share with others, reflected how providers used both private and public means to make sense of the day-to-day challenges they had faced while treating EVD patients.

After returning home, providers reported that it was therapeutic to read blogs or reflections on their experiences from other providers:

'I just felt like I had trouble putting my feelings and experiences to paper. And so, finding other people's feelings and experiences and then just sort of either reposting or sharing them with like people who are more eloquent?'

One provider was suspect of people sharing their narratives publicly, suggesting that the writing was not entirely truthful. Sharing one's self-reflections was both beneficial and potentially detrimental to other providers who chose to read those narratives.

Self-reflection manifested from a solitary act into group activities and sharing. People wrote, read and meditated in private, but then shared with their immediate colleagues their creativity, thoughts and struggles.

A song titled, ‘*The Chlorine Blues*’ was written by one of the responders; it closes with the following lines:

*‘another man done gone,
I never knew his name,
another child done gone,
another baby done gone,
I never knew her name,
another woman done gone,
I never knew her name. . . .’*

The recording of this song was taken in a large, open setting. Backing up the instruments that produced the melody are voices of people laughing and talking as the song plays. It does not sound as if people in the background were laughing at the lyrics, rather, there was a sense of community that this recording captured, a community in the setting of death and unspeakable suffering.

Camaraderie

Unsolicited by the interviewer, most of the EVD providers mentioned that sharing stories, songs or the events of the day with the other providers was therapeutic. Though not officially a ‘*narrative practice*’ it is important to mention the role of camaraderie and its effects on this research.

‘That doing this immediate work that is...wonderful, beautiful, and...in – in the sense that I’m, I’m engaging with people in ways that...just amazing people, there’s a beauty here. There’s a love, there’s...I mean, just this sense of...the humanity is so incredibly beautiful, and it’s overlaid with this horror?’

In light of the extreme stressors, providers spoke of paradoxical feelings of love and beauty. These close relationships manifested in email or Skype communication after providers returned to their homes.

‘Talking to people, which our country made it extremely difficult because we were

quarantined for three weeks. It was the most important time that you need to decompress?’

While working with the EVD response, these providers had the opportunity to meet with each other daily to debrief their experiences. On returning home, providers were abruptly removed from the company of each other, so just at the point when providers were readjusting to a new normalcy, they did not have the same support they had while working in the field. It is evident that many providers reverted to narrative methods in the form of emails and blogs to communicate with each other in order to maintain a sense of camaraderie. This camaraderie, according to the respondents, endures to this day.

Discussion

Narrative methodologies were readily utilised by some expatriate healthcare providers during the EVD response. These methodologies were not always used primarily as a therapeutic tool. Yet, providers who created works using narrative methods or read works by others, report therapeutic effects from doing so. In a few interviews, participants mentioned specifically that it felt therapeutic to incorporate narrative methods, and these statements aligned with claims from literature specific to NM (Shapiro, 2008).

The intention to not forget, to honour and to memorialise patients with whom providers developed unique relationships, pervaded the interviews when respondents spoke of why they used narrative methodologies. They wrote, they sang, they devised artistic projects to preserve memories, both grotesque and gracious. This process supports assertions by Macpherson (2008) and Wessel and Garon (2005) describing how medical providers use narrative to honour the lives of the dead.

Beyond intending to memorialise, these providers also worked to advocate for patients who were effectively voiceless in the countries from which the expatriate

providers hailed. Those patients that were not voiceless were all too often portrayed as 'other' in the media, a stereotypical poor person living in a stereotypically poor country. By advocating for the communities they served, providers reported a sense of coming to terms with the suffering they witnessed. In effect, advocacy was therapeutic to some respondents.

Participants also used forms of storytelling, that is building a narrative with plot, so as to address a theme. In constructing plot to their narratives, they developed a personal narrative identity that likely connected them more soundly to the stories, those to whom they were telling the stories and the patients themselves (Culler, 2006; Hauser, & Allen, 2007). Though camaraderie is not a form of NM, providers embodied a sense of affiliation through camaraderie thus making evident the effects of a NM theme. The providers engaged with each other for therapy and to share their narratives. This act mirrors the concept of affiliation that Charon discusses, as it stands as a result of NM practice (2007).

From self-reflection to devising and sharing a narrative, this process appeared to provide therapeutic benefits. Miller et al. (2014) describes the importance of self-reflection as a key first step in constructing a narrative, particularly in regard to medical care. It would be incorrect, however, to assume that one particular step within the full process of an expatriate provider's experience working with EVD patients would be the *only* factor providing therapeutic benefits. It would also be obtuse to ignore the positive attributes of narrative practices.

When asked why a participant used narrative methods during this response, s/he made it simple and clear: *'Oh, survival I think. Emotional survival.'*

Though not a narrative practice itself, the theme of camaraderie pervaded the interviews. Providers used narrative methods in order to bring groups of people together to tell their stories, and they shared their

creative works with other EVD responders and continue to share their works back home. The text that began this manuscript are lyrics of a song that was released online in 2016 and will be available for download spring of 2017 (Foster, 2016).

Providers used narrative practices to enchant their audiences, a theme that Felski (2011) highlights. Enchantment has the power to remove someone from their current setting, or as in the case of providers who needed to read the words of their colleagues' experiences, it can provide a deep sense of solidarity with others in similar circumstances. Providers were not just enchanted by the written words of their colleagues, but also by words spoken and sung. Through narrative practices providers enchanted one another and brought themselves together. By spending time together, reflecting on their work with EVD patients, they developed a close-knit community. This community demonstrated emotional support, which arguably decreased the providers' risk of STS and may have encouraged positive post traumatic growth.

Limitations

This study only focused on expatriate healthcare workers from the USA and Canada. These findings are not representative of the whole body of expatriate providers who responded to the outbreak. It should also be noted that TC worked as an EVD volunteer and thus brings a unique perspective, as well as bias to this analysis. Those interviewed in this study reported, on the online survey, that they used narrative methods. It would be beneficial to this research to interview similar providers who chose *not* to use narrative methods, thus helping to mitigate a respondent bias in favour of the use of narrative methods. Finally, it should be recognised that there is no way to isolate the effects of narrative practices from other protective factors, such as exercise, meditation or other supporting

activities that could also have contributed to emotional wellbeing.

Although there are limited data that document the negative effects of narrative medicine practice, it is important to recognise that these practices may not be suitable for everyone. The process of writing or creatively constructing a narrative around a traumatic experience can exacerbate intense emotions. Theoretically, if one were to experience such strong emotions and did not find an outlet with which to express them, a practitioner of narrative medicine could experience negative emotional sequelae. There was no evidence of such complications among the respondents in this study. It is also necessary to recognise that audiences witnessing or reading the narrative works by these providers could potentiate negative effects. Some providers, who published narratives about the work they experienced changed names of patients and removed names of locations for ethical considerations. However, any time that sensitive narratives are made public there is a risk of causing emotional stress to the reading audience.

Conclusions

The psychosocial wellbeing of humanitarian aid workers, expatriate staff and national staff merits innovative approaches to improve the wellbeing of those dedicated to helping.

The authors recognise the importance of understanding more accurately the psychosocial needs of national health staff who often do not have the luxuries of higher pay scales, scheduled rest and relaxation days, and more comfortable accommodations than their expatriate counterparts. Many health care workers in West Africa, who survived the Ebola epidemic, continue to serve in hospitals and clinics, having had virtually no rest from the end of the epidemic until now. One might assume the stressors on national humanitarian aid workers to be

more than on expatriate workers, particularly those from resource wealthy nations.

Acknowledgments

The authors would like to acknowledge more than 500 healthcare workers who died while fighting Ebola, protecting the rest of the world from this disease.

Special thanks for the advice and guidance of Alastair Ager and Michael Wessells.

References

- Charon, R. (2006). *Narrative medicine: Honoring the stories of illness*. Oxford: Oxford University Press. (pp. 3–16).
- Charon, R. (2007). What to do with stories The sciences of narrative medicine. *Canadian Family Physician*, 53(8), 1265-1267.
- Culler, J. D. (2006). *The literary in theory*. Palo Alto, CA: Stanford University Press.
- DasGupta, S. & Charon, R. (2004). Personal illness narratives: using reflective writing to teach empathy. *Academic Medicine*, 79(4), 351-356.
- Day, J. R. & Anderson, R. A. (2011). Compassion fatigue: an application of the concept to informal caregivers of family members with dementia. *Nursing Research and Practice*, 2011. doi.org/10.1155/2011/408024.
- Epel, E., Daubenmier, J., Moskowitz, J. T., Folkman, S. & Blackburn, E. (2009). Can meditation slow rate of cellular aging? Cognitive stress, mindfulness, and telomeres. *Annals of the New York Academy of Sciences*, 1172(1), 34-53.
- Felski, R. (2011). *Uses of literature* ((Vol. 71)). New York, NY: John Wiley & Sons.
- Foster, J. (2016). One line at a time. [Audio recording] Location: <https://www.youtube.com/watch?v=NkHVSllsa5U> and <http://www.jfmusic.net>.
- Gates, B. (2015, March). Bill Gates: The next outbreak? We're not ready. Accessed 4 March 2016. Retrieved from <https://www.ted.com/talks/>

billgates.the.next.disaster.were.not.ready?
language=en#t-46587.

Hauser, S. T. & Allen, J. P. (2007). Overcoming adversity in adolescence: Narratives of resilience. *Psychoanalytic Inquiry*, 26(4), 549-576.

Hensel, J. M., Ruiz, C., Finney, C. & Dewa, C. S. (2015). Meta-Analysis of Risk Factors for Secondary Traumatic Stress in Therapeutic Work With Trauma Victims. *Journal of Traumatic Stress*, 28(2), 83-91.

Kilmarx, P. H., Clarke, K. R., Dietz, P. M., Hamel, M. J., Husain, F., McFadden, J. D. & McAuley, J. (2014). Ebola virus disease in health care workers—Sierra Leone, 2014. *Morbidity and Mortality Weekly Report*, 63(49), 1168-1171.

Krasner, M. S., Epstein, R. M., Beckman, H., Suchman, A. L., Chapman, B., Mooney, C. J. & Quill, T. E. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA*, 302(12), 1284-1293.

Macpherson, C. F. (2008). Peer-supported storytelling for grieving pediatric oncology nurses. *Journal of Pediatric Oncology Nursing*, 25(3), 148-163.

McCormack, L. M. (2010). *Primary and vicarious posttraumatic growth following genocide, war and humanitarian emergencies: an interpretative phenomenological analysis* (Doctoral dissertation, University of Nottingham).

Médecins Sans Frontières (MSF) (2015). 'Pushed to the Limit and Beyond: A year into the largest ever Ebola outbreak?' *Médecines Sans Frontières*. Accessed 3 March 2016. Retrieved from <http://www.msf.org/article/ebola-pushed-limit-and-beyond>.

Melvin, C. S. (2012). Professional compassion fatigue: what is the true cost of nurses caring for the dying. *International Journal of Palliative Nursing*, 18(12), 606-611.

Miller, E., Balmer, D., Hermann, M. N., Graham, M. G. & Charon, R. (2014). Sounding narrative

medicine: Studying students' professional identity development at Columbia University College of Physicians and Surgeons. *Academic Medicine: Journal of the Association of American Medical Colleges*, 89(2), 335.

Moore, P. M., Rivera Mercado, S., Grez Artigues, M., & Lawrie, T. A. (2013). Communication skills training for healthcare professionals working with people who have cancer. The Cochrane Library.

Pennebaker, J. W. (2000). Telling stories: the health benefits of narrative. *Literature and Medicine*, 19(1), 3-18.

Shapiro, J. & Rucker, L. (2003). Can poetry make better doctors? Teaching the humanities and arts to medical students and residents at the University of California, Irvine, College of Medicine. *Academic Medicine*, 78(10), 953-957.

Shapiro, J. (2008). Walking a mile in their patients' shoes: empathy and othering in medical students' education. *Philosophy, Ethics, and Humanities in Medicine*, 3(1), 1.

Smart, D., English, A., James, J., Wilson, M., Daratha, K. B., Childers, B. & Magera, C. (2014). Compassion fatigue and satisfaction: A cross-sectional survey among US healthcare workers. *Nursing & Health Sciences*, 16(1), 3-10.

Sokol, D. K. (2006). Virulent epidemics and scope of healthcare workers' duty of care. *Emerging Infectious Diseases*, 12(8), 1238-1241.

Statista, 2015. Ebola cases and deaths among health care workers due to the outbreaks in West African countries as of November 4, 2015. Accessed on 29 February, 2016. Retrieved from <http://www.statista.com/statistics/325347/west-africa-ebola-cases-and-deaths-among-health-care-workers/>.

Trehan, I., Kelly, T., Marsh, R. H., George, P. M. & Callahan, C. W. (2016). Moving Towards a More Aggressive and Comprehensive Model of Care for Children with Ebola. *The Journal of Pediatrics*, 170(e7), 28-33.

Todorov, T., & Weinstein, A. (1969, October). Structural analysis of narrative. In *NOVEL: A forum on fiction* (Vol. 3, No. 1, pp. 70–76). Durham, NC: Duke University Press.

USAID (2016) Ebola: Get the facts. Accessed on 28 February 2016. Retrieved from <https://www.usaid.gov/ebola/facts>.

Wessel, E. M. & Garon, M. (2005). Introducing reflective narratives: Into palliative care home care education. *Home healthcare nurse*, 23(8), 516-522.

World Health Organization (WHO) (2016). Media Centre—Fact Sheets. *Fact Sheet N° 103, Updated January 2016*. Accessed on 3 March 2016. Retrieved from <http://www.who.int/mediacentre/factsheets/fs103/en/>.

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DOI: 10.1097/WTF.0000000000000138