Objective: The purpose of this study was to determine the prevalence of secondary traumatic stress (STS) in health sciences librarians (HSLs) who have direct contact with traumatized individuals and their families.

Methods: A twenty-five-item survey and the Secondary Traumatic Stress Scale (STSS) were distributed via email to three Medical Library Association email discussion lists.

Results: A total of fifty-five HSLs responded to the survey. Survey results indicate moderate levels of STS and variability of symptoms among participants.

Conclusions: Library and employee assistance program managers should be aware of the emotional toll of patient and/or family contact for HSLs.

INTRODUCTION

Since Mott’s 1919 description of “shell shock” in returning World War I soldiers, the understanding of the effects of trauma on the mind and body has grown by leaps and bounds [1]. Victims of war, violence, or simply life-altering circumstances, such as the death of a loved one, suffer lasting anguish that presents in a variety of forms. Avoidant behaviors, emotional numbing, and increased physiological arousal have all been documented in these individuals [2]. As the negative effects of traumatic events on human psychology become more and more evident, researchers are exploring how such trauma affects those who experience it indirectly, through contact with the victims. Secondary traumatic stress (STS) is defined as “the natural, consequent behaviors and emotions resulting from knowledge about a traumatizing event experienced by a significant other. It is the stress resulting from helping or wanting to help a traumatized or suffering person” [3].

STS has been observed in health care providers and allied professionals across many fields; however, this phenomenon remains unexplored in health sciences librarians (HSLs). An exploration of STS in the HSL population is a natural continuation of the current literature and an effort to further understand its prevalence across all helping professions. The purpose of this study is to determine if HSLs with direct patient contact experience symptoms of STS from their interactions and to explore the potential for future research in the population.

METHODS

STS has roots in posttraumatic stress disorder (PTSD) and shares symptoms with PTSD. PTSD, or “the development of characteristic symptoms following exposure to an extreme traumatic stressor,” is identified by six symptom criterion categories labeled A to F [2]. Studies of PTSD have revealed that professionals working with traumatized individuals may develop similar symptoms after long-term exposure to descriptions of their clients’ experiences.

The B, C, and D criteria for PTSD (intrusive thoughts, avoidant responses, and physiological arousal, respectively) are considered components of STS, while the other criteria are thought to measure vicarious traumatization, a separate though related concept [4]. STS is calculated using a number of different validated testing instruments, including the STS subscale of the Professional Quality of Life (ProQOL) measure, the Compassion Satisfaction and Fatigue Test (CSFT) [5], and the Secondary Traumatic Stress Scale (STSS) [6].

Based on our findings in the literature, the authors selected the STSS as the testing instrument for this study. Its singular focus on measuring STS, as opposed to looking at it in the context of vicarious traumatization, made it a more appropriate choice than some of the other instruments [7]. The STSS is a seventeen-item, Likert-response survey that asks participants to indicate how frequently given statements are true for them within a set period of time. The statements correspond to three criteria categories listed in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) for PTSD: “Intrusion,” “Avoidance,” and “Arousal” [2]. The maximum possible score is eighty-five, and a cutoff score of thirty-eight was used to indicate moderate levels of STS as recommended by Bride et al. [6].

We developed an online survey using Qualtrics survey software (Qualtrics, Provo, UT) to measure the incidence of STS symptoms in HSLs. Prior to
distribution, the survey was screened by a focus group of four librarians from the New York University (NYU) Langone Medical Center who had direct patient and/or family contact to ensure the testing instrument was appropriate for the study population and to resolve any ambiguities in the survey language. Based on feedback from the focus group, the term “clients” was changed to “patients and families” to better describe the population the HSLs worked with. The time frame measured by the instrument was also changed from seven to thirty days. This was done based on the consensus that many HSLs do not interact with patients and/or their families on a daily basis. Changing the time frame to encompass the prior month ensured that HSLs who worked with patients and families less frequently would still have experiences to draw on when responding to the survey.

The twenty-five-item survey consisted of screening questions on demographics, frequency and nature of patient or family contact, the seventeen STSS questions, and three questions about participants’ emotional support systems. Collected demographic information included employment status, job title, and gender. Participants were also asked to describe any formal or informal support systems they had sought assistance from in response to emotions brought on by patient contact.

The survey was distributed via email to 3 Medical Library Association email discussion lists: the Cancer Librarians Section’s CancerLib list (www.selu.com/cancerlib), the Nursing and Allied Health Resources Section’s NAHRS Discussion List (http://nahrs.mlanet.org/home), and the Consumer and Patient Health Information Section’s CAPHIS Discussion List (http://caphis.mlanet.org/). The 3 lists had a total of 1,200 subscribed email addresses at the time of distribution. The survey was open from January 29–February 19, 2014, and reminders were emailed to the email discussion lists 1 week before the survey closed. By participating in the survey, respondents indicated their consent to participate in the research study. Participants who indicated they were not currently employed or had no patient and/or family contact were excluded via the screening questions. Eligible participants were offered the chance to win a $25 Amazon.com gift card upon survey completion. No identifying information was collected, and participants who entered the gift card drawing could not be linked to their specific survey responses. The researchers received exemption status for the survey from NYU Langone Medical Center’s Institutional Review Board prior to distribution.

RESULTS

A total of 55 HSLs began the survey. Six respondents did not complete the survey, and 1 did not meet the eligibility criteria and was excluded via the screening questions. Three surveys were missing responses to a single question but were otherwise complete enough to be included, leaving a total of 48 usable surveys, a response rate of 4%. Demographic details of the usable responses are shown in Table 1. Forty-seven were female, and 1 was male. Job titles were highly variable, but responses tended to fit into 1 of 7 categories: health sciences librarian, librarian, management, patient or family librarian, consumer health librarian, clinical librarian, or cancer librarian (Table 1). Two respondents had completely unique titles, falling into an eighth “Other” category. Responses were spread evenly across the 3-week survey period, with a slight increase during the second week.

The majority of respondents reported daily patient contact. Thirty-three (69%) provided patient education services, and 5 (10%) attended rounds at their institutions. A variety of other services were mentioned, including searching for consumer health information on specific conditions and loaning out entertainment materials.

Table 2 illustrates the frequency of STS symptoms that HSLs reported. The mean STSS score was 33 (S.D. 11.4), with mean scores of 9.8, 9.6, and 13.4 for the Intrusion, Arousal, and Avoidance categories respectively. Scores were highest overall in the Avoidance category (Table 2). The most commonly reported symptom was intrusive thoughts about patients and/or their families, while the least commonly reported symptoms were disturbing dreams and avoidance of people, places, or things. Sixteen (33%) respondents scored at or above the cutoff score of 38.

In response to the question, “Do you feel you have access to emotional support systems, either professional or personal?,” all participants selected “Yes.” However, only half the respondents indicated that they had utilized those support systems. Regardless of use, respondents most frequently cited colleagues, employee assistance programs (EAPs), family members, and friends as potential sources of support.
Survey participants who turned to colleagues for support were emphatic about the value of their shared experiences. “Colleagues” referred to both other HSLs and other health professionals at respondents’ institutions, including social workers, nurses, attending physicians, and pastoral care providers. Multiple respondents mentioned the support of their “teams,” which generally included health professionals and themselves, but no other HSLs. When respondents listed specific family members’ support, they were either partners or siblings. EAPs were frequently mentioned by both respondent groups. Some HSLs who indicated they had not sought support nonetheless described discussing difficult experiences with colleagues or friends.

DISCUSSION

Survey results indicated mild to moderate levels of STS and variability of symptoms among participants. Similar mean STSS scores have been reported in other professions with comparable frequency of contact to traumatized individuals, including computer forensics investigators [8] and forensic interviewers [9]. Like Smith Hatcher et al.’s attorneys [10], Avoidance was the most prominent symptom category.

STS has been observed in a variety of fields, both health care-related and not, with fluctuating scores. In a survey of 43 oncology nurses, 16 respondents experienced STS levels above the cutoff score [11]. Out of 67 surveyed ER nurses, 33% of them exhibited elevated STS symptoms [12]. Three-quarters of Duffy et al.’s Irish ER nurses scored above the cutoff, with a mean total score of 45.9 [13]. A Canadian study of 280 mental health care providers revealed a mean STSS score of 40.9 in the respondents [14], while rescue workers’ scores averaged 33.4 [15].

Prevalence across symptoms categories is also highly variable. An examination of 133 surgeons of multiple specialties found intrusive thoughts about patients to be the most frequently experienced symptom, with half the sample reporting them at least occasionally [16]. However, the most common symptom category was Avoidance, with the surgeons experiencing symptoms of irritability, sleep difficulties, and hypervigilance. Attorneys and support staff in a public defender’s office also experienced high levels of intrusive thoughts, but the most prominently reported category was Avoidance, with more than half the sample indicating “a sense of foreshortened future” or avoidance of certain clients [10].

Our study differs from other STS investigations primarily because it measures the phenomenon in an unexplored profession. Our results may be more specific than those studies that use the ProQOL or CSFT, because the STSS only examines interactions between the HSLs, patients, and families rather than looking at other aspects of the librarians’ work environment. Due to the response rate and the modest population of HSLs who have direct patient contact, our sample size is also considerably smaller than other studies, particularly those in nursing. Our respondent pool is also overwhelmingly female. This is a moderate departure from the current body of STS literature that may also affect the results. More mixed populations appear to have slightly higher overall mean STSS scores [8, 9, 12]. Interestingly, Warren et al.’s study of mostly male surgeons had a mean STSS score of 31.7 [10], very close to our sample’s 33. However, as previously mentioned, the highest scoring symptom categories are different, which suggests possible gender disparities in the experience of STS.

Table 2
Frequency of secondary traumatic stress symptoms reported by HSLs

| Criterion | Never or rarely | Occasionally | Often or very often | Total responses | M   | SD  |
|-----------|-----------------|--------------|--------------------|----------------|-----|-----|
| Criterion B: Intrusion | | | | | | |
| Cued physiological reaction | 36 (75%) | 10 (21%) | 2 (4%) | 48 | 1.81 | 0.98 |
| Sense of reliving patients’ trauma | 36 (75%) | 9 (19%) | 3 (6%) | 48 | 1.79 | 0.97 |
| Cued psychological distress | 32 (67%) | 13 (27%) | 3 (6%) | 48 | 2.15 | 0.87 |
| Intrusive thoughts about patients | 22 (46%) | 17 (35%) | 9 (19%) | 48 | 2.65 | 0.96 |
| Disturbing dreams about patients | 44 (92%) | 4 (8%) | 0 (—) | 48 | 1.40 | 0.64 |
| Criterion C: Avoidance | | | | | | |
| Emotional numbing | 35 (73%) | 10 (21%) | 3 (6%) | 48 | 1.96 | 0.92 |
| Foreshortened future | 29 (60%) | 13 (27%) | 6 (13%) | 48 | 2.23 | 1.13 |
| Detachment from others | 33 (69%) | 12 (25%) | 3 (6%) | 48 | 1.92 | 0.99 |
| Diminished activity level | 37 (77%) | 8 (17%) | 3 (6%) | 48 | 1.77 | 1.02 |
| Avoidance of people, places, things | 41 (85%) | 5 (10%) | 2 (4%) | 48 | 1.50 | 0.85 |
| Avoidance of patients | 28 (58%) | 16 (33%) | 4 (8%) | 48 | 2.56 | 1.47 |
| Inability to recall patient information | 43 (90%) | 5 (10%) | 0 (—) | 48 | 1.48 | 0.68 |
| Criterion D: Arousal | | | | | | |
| Difficulty sleeping | 41 (87%) | 2 (4%) | 3 (6%) | 47 | 1.74 | 0.97 |
| Easily startled | 35 (74%) | 11 (23%) | 1 (2%) | 47 | 1.77 | 0.89 |
| Difficulty concentrating | 34 (71%) | 9 (19%) | 5 (10%) | 48 | 2.13 | 0.94 |
| Irritability | 31 (66%) | 10 (21%) | 6 (13%) | 47 | 2.17 | 1.01 |
| Hypervigilance | 36 (75%) | 7 (15%) | 3 (6%) | 48 | 1.90 | 1.13 |

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of years in a patient or family contact role, could prove particularly valuable. A greater awareness of the effects of STS may change how HSLs interact with their patrons by encouraging them to create support systems to counteract the most commonly experienced STS symptoms in the profession.

Limitations

As noted, the response rate is small and unlikely to be representative of the population of interest. Only ten respondents indicated they made clinical rounds, whereby they presumably would be exposed more directly to individual morbidity and mortality than, for example, those who provided patient education to family and recovering patients. The prevalence of STS may be much higher in HSLs who participate more directly in patient care.

CONCLUSION

This is the first study of STS in the HSL population. Our sample reflected mild to moderate levels of STS in HSLs with direct patient contact, as measured by a validated and pretested survey instrument. Future research in this population is needed to create a more detailed portrait of the effects that such contact has on HSLs as a group, as well as practical methods for curtailing the negative consequences. Library and EAP managers should be aware of the emotional toll of patient and/or family contact on HSLs, and use such knowledge in developing and promoting available resources.

ACKNOWLEDGMENTS

The authors thank the HSLs who participated in our study, as well as the moderators of the CAPHIS, NAHRS, and CancerLib email discussion lists for allowing us to distribute our survey. We also thank our colleagues, particularly the other HSLs with direct patient contact for assisting us in the survey’s development. The authors assert that they have no conflict of interests and did not receive any funding from internal or external sources.

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Received August 2014; accepted November 2014