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ABSTRACT

This article describes the results of a mixed methods study with 47 Deaf sign language interpreters (D-SLIs) and their experiences with secondary traumatic stress (STS). By replicating Daly and Chovaz (2020) research, this study contributes data based on the unique experiences of Canadian and American Deaf interpreters and allows us to contrast the findings to the original study with non-Deaf interpreters (ND-SLIs). The findings reveal that the majority of D-SLIs did not experience clinical levels of STS, compassion satisfaction, anxiety, or burnout. In looking at the results, one-third of the D-SLIs showed comparable levels of STS and compassion satisfaction but less burnout than the ND-SLIs. Recommendations are identified, including the need to offer secondary traumatic stress specific training for all SLIs. The study has implications for all sign language interpreters and interpreter educators in designing educational programs and professional development.

INTRODUCTION

This article describes the findings of the lived experiences of Canadian and American sign language interpreters regarding secondary trauma. It is critical to both research and report these types of findings to contribute to the literature as well as better educate mainstream clinicians and interpreters who may not have familiarity with this specialized area. Our study replicates a study first conducted by Daly and Chovaz (2020) with Canadian non-deaf interpreters and their experiences with secondary trauma. To date, very little has been reported regarding this construct. In this article, we begin by embedding this study in the literature about secondary trauma, share the findings of the current study, and follow with recommendations emerging from the results. While the literature review refers to secondary trauma, readers will note that there are times in the reporting of the qualitative data that the phrase *vicarious trauma* is used. This choice reflects the closest conceptual interpretation of the participants' American Sign Language (ASL) signs used to describe the concept of secondary trauma. Additionally, all interpreters are referred to as sign language interpreters (SLI) and may be Deaf or non-deaf. To distinguish between the interpreters, Deaf SLIs are referred to as D-SLIs, and hearing interpreters are non-deaf SLIs, or ND-SLIs.

LITERATURE REVIEW

Within the interpreting field, the specialty of sign language interpreters who are Deaf (D-SLIs), also sometimes referred to as Deaf interpreters or DIs, has proliferated rapidly over the last two decades. Most SLIs are hearing people with fluency in a signed language and in a spoken language along with a strong understanding of Deaf culture, the majority of whom have completed a three- or four-year interpreter training program. A D-SLI is a Deaf person typically with native fluency in a signed language and lived experiences of being Deaf (Russell, 2005) Although it is clear that the role of D-SLI is a much-needed addition to the interpreting field, (Adam et al, 2014; Russell, 2005; Forestal, 2005; 2011; Morgan & Adam, 2012; Stone 2009; Tester, 2018) there is a lack of research that distinguishes D-SLIs' work from their non-Deaf interpreter colleagues (Russell et al., 2022; Leeson, Napier, Skinner, Venturi & Sheikh 2016). Much of the work performed by D-SLIs is in the community alongside ND-SLIs, thus the challenges that D-SLIs experience may seem comparable to their hearing counterparts. All interpreters, Deaf or not, may potentially experience trauma and burnout because of their work. A review of the sign language interpreting literature, however, shows very little is documented about the well-being of D-SLIs in relation to secondary trauma and burnout. What is unknown is if any of the differences in experiences could be due to world views, first language experiences, and relationship to the Deaf community and culture.

DEAF COMMUNITIES

Deaf communities are local, national, and transnational in nature, consisting of members who communicate through signed languages such as American Sign Language, Auslan (Australia), or Japanese Sign Language, and live their lives ascribed to Deaf culture. Deaf signers from different countries typically congregate during international sporting events, artistic exhibitions, and advocacy activities, and during those gatherings Deaf people are often able to bypass linguistic challenges such as semantic differences in sign languages and find things in common.(Kusters, 2014; Kusters et al., 2020; Murray 2008) This transnational characteristic of the Deaf community (Breivik, 2007; Hiddinga & Crasborn, 2011) is evidenced by Deaf people who quickly establish linguistic commonalities and similar life experiences regarding nationality and language. Kusters and Friedner (2015) provided a description of this global phenomenon of a shared experience and identity and called it "DEAF-SAME," explaining that "it is grounded in experiential ways of being in the world as deaf people with (what are assumed) to be shared sensorial, social, and moral experiences: it is both a sentiment and a discourse (p. x)."

SIGNED LANGUAGES

The predominant sign language used by Canadian Deaf community members and D-SLIs is ASL, although Langue des Signes Québécoise (LSQ)[1], Indigenous Sign Languages (ISL), and Maritimes Sign Language (MSL) are also used in different parts of the country. In 2019 the Accessible Canada Act (ACA) recognized ASL, LSQ, and ISL as the languages of the Deaf communities in Canada; however, the languages are not considered the official languages of the country, which are only English and French. ASL, as used in Canada and the United States, and all other signed languages are visual-gestural languages, each with its own syntax and grammatical rules (Janzen, 2006; Quinto-Pozos, 2008). As of 2019, there were 144 signed languages identified by the Ethnologue ("Signed Language," 2019), an annual reference that provides information about the living languages of the world. It is likely these visual-gestural aspects of sign languages in tandem with lived experiences that underlies the commonalities experienced by Deaf people.

SKILL SET OF A D-SLI

Deaf interpreters have been around for as long as there have been Deaf people. The profession started out as a voluntary one and Bienvenu (2001) identified schools for Deaf children as the original source of interpreting among Deaf people. Upon request, Deaf individuals served as translators of print communications (Bienvenu, 2001; Boudreault, 2005) or signed communications between Deaf students. Over time, this led to the introduction of Deaf interpreters to the profession as "intermediary" interpreters, bridging the gap between hearing interpreters and the Deaf clients that the hearing interpreters did not understand (Boudreault, 2005; Forestal, 2005).

The Canadian Association of Sign Language Interpreters (CASLI) provides a directory of its members (CASLI, 2022). Although there is no formal credentialing program for Deaf interpreters in Canada, to be a listed member of CASLI requires verification of 60 training hours within the categories of Deaf interpreting, the interpreting process, and ethics. In addition, there are a small number of D-SLIs who have completed two-year interpreter education programs, studied alongside non-deaf peers, and graduated with the same knowledge sets, although with a different fluency noted in ASL compared to the second language (L2) learners of ASL (personal communication, Barb Mykle-Hotzon, January 12, 2023). Currently, there are 50 D-SLIs listed with CASLI, with a majority based in the province of Ontario. An unknown number of D-SLIs have chosen to work without being listed as a CASLI member, and instead are registered with interpreting service providers.

The Registry of Interpreters for the Deaf (RID) also maintains a registry of its members and has offered a certification option for Deaf interpreters since 1998. The current criteria for becoming a Certified Deaf Interpreter include passing a Generalist Knowledge Exam, hold a bachelor's degree and pass the CASLI Deaf Interpreter Performance Exam. Currently, RID reports there are 226 CDI holders in the US. Given the lack of certification options for Deaf interpreters in Canada, some Deaf interpreters are pursuing the CDI track.

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[1] Also known as Quebec Sign Language

Fundamentally, the skill set of a D-SLI is rooted in a native fluency in sign language, lived experiences as a Deaf individual, and supported by specialized training in linguistics. A D-SLI is essentially a language broker (Boudreault, 2005). This role requires a distinct skill set referred to as Deaf Extra-Linguistic Knowledge (DELK) (Adam et al, 2014), which evolves through lived experiences as well as specific linguistic knowledge. The concept of DELK is what sets D-SLIs apart from ND-SLIs. D-SLIs with their inherent DELK are skilled in cultural mediation within the interpreting process through shared identities with their Deaf consumers and the targeted provision of visual information, visual aids, or gestural communication (Beldon et al., 2009). This means that many D-SLIs have the skills to connect and communicate across a diverse range of clients and settings much more effectively than ND-SLIs, supporting the need for the hiring of D-SLIs' in mental health and legal settings (Adam et al., 2011; Mathers & Witter-Merithew, 2014; Morgan & Adam, 2012; Stone and Russell, 2022; Tester; 2018).

Effective interpreting for complex assignments such as legal or mental health settings requires the ability to broker language and culture with Deaf consumers who may be distraught, depressed, anxious, psychotic, language-delayed or deprived, developmentally delayed, homeless, and/or desperate—in essence, an endless combination of stressors for all health care team members. In such complex and potentially high-risk settings, a specialized team of interpreters is required. Increasingly in the United States and Canada, these specialized teams are comprised of D-SLIs and ND-SLIs working together to understand cultural nuances or signed variations in a manner that allows information to then be accurately conveyed to all parties in the interaction, be it a courtroom, a counselling appointment, or a psychiatric assessment. (For a full description of the processes and strategies used between Deaf and non-deaf interpreters see Meudler & Heyerickk, 2013 and Tester, 2018)

SECONDARY TRAUMATIC STRESS (STS)

Secondary traumatic stress (STS) is a concept first developed to understand why service providers seemed to be exhibiting symptoms like post-traumatic stress disorder (PTSD) without necessarily exposing themselves to direct trauma (Figley, 1995; Osofsky et al., 2008). STS results from indirect exposure to trauma, which may develop after a single exposure or over a prolonged period and often develops among professionals who work in high-stress and trauma-exposed fields. STS occurs when one is exposed to the traumatic experiences of others with whom they have an empathic relationship; this then causes psychological distress and even changes to cognitive aspects of the self (Westmoreland, 2018).

The literature reports that those working within the mental health field often experience STS based on their professional experiences (Cosden et al., 2016; Hernandez-Wolfe et al., 2015; Sui & Padmanabhanunni, 2016). Cohen and Collens (2013) conducted a meta-analysis among trauma workers exploring the impact of the trauma they encountered and found that the workers responded to their clients' experiences through the expression of negative emotions that resonated with the workers for weeks afterward. The negative encounters sometimes permanently changed the workers' mental schemas, the thoughts people have and understand about the world.

The prevalence and the understanding of STS is especially salient among both ND-SLIs and D-SLIs who work in a variety of settings, including mental health (Daly & Chovaz, 2020; Kindermann et al., 2017). However, unlike the training of mental health clinicians, sign language interpreter training typically does not include awareness or information regarding mental health.

Thus, interpreting professionals may potentially experience and/or witness traumatizing events and life stories for which they are not prepared. For example, the well-being of ND-SLIs who provided mental health interpreting services with refugees in the UK indicated that 56% of ND-SLIs had been emotionally affected by their work, and 67% sometimes found it difficult to get clients off their minds (Doherty et al., 2010). Mehus and Becher (2016) examined the professional quality of life among ND-SLIs working in mental health settings in the United States with results indicating significant levels of STS and compassion satisfaction. Finally, Daly and Chovaz (2020) examined STS and quality of life among 85 Canadian ND-SLIs who worked in mental health settings with Deaf clients. Their results showed that about a third of the ND-SLIs experienced moderate STS scores in addition to low to moderate burnout and moderate to high compassion satisfaction. The conclusions of Daly and Chovaz (2020) were that ND-SLIs working within trauma-related fields may require specialized training and support to ensure the skills necessary to mitigate trauma-related effects.

A review of the literature did not find any studies specifically examining D-SLIs and the experience of work-related trauma. It is concerning that D-SLIs may experience similar traumatic responses as their counterpart ND-SLIs without appropriate preparation, including coping strategies and psychoeducation (Daly & Chovaz, 2020). It may also be that the experiential response of D-SLIs is qualitatively different in either positive or negative ways, this may potentially be even more complicated and more severe as D-SLIs have a shared linguistic and cultural identity with Deaf consumers. Also, an ND-SLI may return home at night to the hearing community, whereas a D-SLI is typically part of the same community as Deaf consumers.

CURRENT STUDY

The purpose of the current study was to replicate the Daly and Chovaz (2020) study with a focus on SLIs who are Deaf (D-SLIs). As in their study, we assessed STS and the effects on the well-being of D-SLIs. Well-being was assessed through professional quality of life, life satisfaction, and how compassion satisfaction and anxiety might impact these relationships. Ethics approval for this study was granted by the Institutional Review Board at George Brown College and King's University College at Western University.

POSITIONALITY OF RESEARCHERS

As authors we wish to acknowledge our positionality and how that influences our work. Four of us are Canadian researchers, and one member of the team lives in the United States. Our backgrounds bring together signed language linguistics in American Sign Language (ASL), education, interpreting, psychology, and mental health.

Nicholson was born Deaf to Deaf parents and raised in a multilingual context where he acquired fluency in ASL and English. He has taught second language learners of ASL and interpreters in an academic institution for 25 years. He also works as a D-SLI in community contexts including legal, medical, and media spaces. As a parent of a Deaf child, he is passionate about addressing challenges that face Deaf people in Canada.

Chovaz became Deaf as a young adult. She quickly acquired ASL and began an academic journey that led to her career as Canada's first Deaf clinical psychologist with expertise in mental health and Deaf people. Her research agenda has addressed the barriers that Deaf people experience in accessing mental health services, the translation of mental health assessment tools into ASL, the skill set required of ASL interpreters working within the mental health care system and the many ways in which Deaf people are marginalized by a health care system that largely does not understand their needs. She maintains an active clinical practice with Deaf individuals as well as an academic university appointment.

Russell first met Deaf people when she was attending college. This led her on a journey of learning ASL and working with the Deaf community. She became fluent in ASL and developed a deep appreciation and awareness of language diversity. She is an interpreter educator and researcher and maintains an active interpreting practice with a primary focus on legal and mental health settings. Her research agenda has included examining interpreting practices in legal settings, with specific attention to the ways in which interpretation can support or interfere with Deaf people gaining full access to the legal system. Given an entire working career spent living and working in Deaf communities, she also has a natural bias towards social justice for linguistic minorities.

The study also involved graduate research assistant Margie English, a Deaf doctoral candidate, and Victoria Paquette, a hearing Honours psychology undergraduate student.

As a research team, we were prepared to approach the research process and any of the results with openness and a lens of curiosity. The lead authors are part of the Deaf community, and this study has allowed us to privilege our academic positions to highlight the experiences of Canadian Deaf citizens and their interactions with the legal system.

METHODOLOGY

PARTICIPANTS

Participants involved in this study were D-SLIs from Canada and the United States who met the criteria of currently working as a D-SLI, had three or more years of work experience, and met the training requirements to become a member of either the Canadian or U.S. national professional body. Participants were recruited through our professional contacts in Canada and the US and the following organizations: Canadian Hearing Services, CASLI, RID, Ontario Association of Sign Language Interpreters (OASLI), and Deaf Interpreters Network. The study was conducted in two phases beginning with data collection based on the psychological scales followed by focus groups conducted with a smaller sample of D-SLIs that completed the scales and agreed to participate in the groups.

Eligible D-SLIs were asked to email the research team and complete a survey using Qualtrics, Western University’s online survey platform. Participants were not compensated for completing the survey.

MATERIALS

Participants completed five questionnaires in addition to an informed consent form that stated the instructions and purpose of the study. The first part of the survey included a 17-item demographics questionnaire (Appendix A). The second part of the survey included questionnaires measuring professional quality of life (compassion satisfaction), secondary traumatic stress, anxiety, and satisfaction with life. Afterwards, participants read a debriefing form that contained the purpose and hypotheses of the study and provided resources for the participants if needed. All survey questions and questionnaires used in the study were translated into ASL videos by the researchers for accessibility to all participants and the information was also available in written English.

TRANSLATION PROCESS

The English questionnaires and survey questions were translated into ASL by one of the research team members who was a Deaf native signer, a Deaf interpreter, and a doctoral student at Gallaudet University. Collaborating with the other researchers, she confirmed the accuracy of the content, producing a draft digital translation from English to ASL. During the drafting process, the team identified lexical items that needed standardized signs such as *consumer*, *client*, *anxiety*, and *trauma*. Based on feedback from the other researchers, the final version was created. A black backdrop and LED ring lighting were used to ensure the quality and visibility of the final filmed translation. All ASL terms were checked for consistency of use and to ensure that both Canadian and U.S. participants would readily recognize the signs. The three Deaf researchers consulted with an external group of 4 Deaf interpreters, two from Canada and two from the US, to verify the sign usage.

DEMOGRAPHIC QUESTIONNAIRE

Participants completed a 17-item self-report demographic questionnaire that measured variables including age, gender, years of experience as a D-SLI, membership in organizations, and the settings in which they interpreted (Table 1). Some examples of the demographic questions included: *Are you a member of an interpreter association? What is your age?* and *Have you taken training as a Deaf interpreter?* Question 24 asked participants if they were a D-SLI; if they answered in the negative, they were taken to the end of the study since this was the only requirement for participation. The demographic questionnaire also asked about the years of experience as a D-SLI, highest level of education, relationship status, current employment, and so forth. For the full demographic questionnaire see Appendix A.

PROCEDURE

The purpose and objectives of the research study were shared via relevant websites and organizations. Once participants contacted the research team regarding their interest in the study, an access link to the survey was sent that included an informed consent series, demographic questions, and the study measures. The survey was expected to take 20-25 minutes to complete. Participants had the option to complete the survey by using a Qualtrics link with or without accompanying ASL videos.

QUANTITATIVE MEASURES

Secondary Traumatic Stress Questionnaire (STSQ; Bride et al., 2004) is a 17-item, self-report inventory with three subscales that measure intrusion[2] (five items), avoidance[3] (seven items), and arousal[4] (five items) each on a five-point Likert scale. The subscale scores are summed to yield a total STS score with a clinical cutoff score of 38 indicating a significant level of STS.

The Professional Quality of Life Questionnaire (ProQOL; Stamm, 2010) is a 30-item, self-report scale that measures three aspects of professional quality of life: compassion satisfaction (10 items) is the pleasure one derives from being able to do one's work well, burnout (10 items) is the exhaustion, frustration, anger and depression related to work, and STS (10 items) is feeling fear in relation to work-related primary or secondary trauma. For the purposes of this study, the two subscales of compassion satisfaction and burnout were utilized. Each of these subscales have 10 items scored on a Likert scale of 1(Never) -5 (Very Often) with raw scores5 summed and categorized as low (22 or less), moderate (between 23 and 41) or high (42 or more). As only two subscales were utilized, a total composite score was not generated.

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) is a five-item, seven-point Likert scale designed to measure global cognitive judgments of one's life satisfaction. The possible range of scores is 5-35, with a score of 20 representing a neutral point on the scale. Scores between 5-9 indicate the respondent is extremely dissatisfied with life, whereas scores between 31-35 indicate the respondent is extremely satisfied.

The Beck Anxiety Inventory Scale BAI) (Beck & Steer, 1993) is a 21-item, self-report assessment for measuring the severity of anxiety using a three-point Likert scale. The BAI total scores are classified as minimal anxiety (0 to 7), mild anxiety (8 to 15), moderate anxiety (16 to 25), and severe anxiety (30 to 63).

CHARACTERISTICS OF SAMPLE

There were 47 participants who fully completed the survey (*M*=19, 40%), (*F*=28, 60%) with no participant endorsing "other" gender choices. Participants who did not fully complete the survey were excluded from the study.

The age range was 18 to 65+ years old with the majority within the 35–44-year range (29.8%) closely followed by the 55–74-year range (27.7%). Twenty-four (51.1%) D-SLIs were married, 12 were single (25.5%), one was widowed (21. %), and 10 were divorced (21.3%). The vast majority (93.6%) indicated they had interpreter training, but only 16 (34%) indicated they had participated in a formal interpreter training program. The number of years of experience ranged

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[2] Intrusion are core symptoms of PTSD, and include unwanted and upsetting memories, nightmares, flashbacks and emotional and/or physical stress after exposure to reminders.

[3] Avoidance symptoms are categorized as the attempt to avoid distressing or unwanted memories, thoughts, and feelings to escape painful or difficult feelings.

[4] Arousal symptoms include irritability or aggression, risky or destructive behavior, hypervigilance, heightened startle reaction and difficulty sleeping.

from under five to 50 years. Over half of the SLIs-D (53.2%) reported they had engaged in additional mental health training; see Table 1 for a summary of the demographics.

Table 1. *Demographics of the Sample (*n*=47)*

Variable	**N**	**%**		**Variable**	**N**	**%**
Age (years)				**Work Settings**		
18- 24	1	2.1		Mental Health	35	74.5
25-34	7	14.9		Medical	36	76.6
35-44	14	29.8		Educational	26	55.3
45-54	7	14.9		Community	42	89.4
55-64	13	27.7		Legal	28	59.6
65+	5	10.6		Emergency	30	63.8
Education				Conference	30	63.8
High School	2	4.3		Theatre	14	29.8
Trade/Technical Training	1	2.1		Designated Staff	8	17
Bachelor’s degree	16	34.0		Media	25	53.2
Master’s degree	15	31.9				
Doctoral Degree	3	6.4				
Other	10	21.3				
Years of Experience						
0-5	8	17.0				
6-10	11	23.4				
11-15	8	17				
16-20	11	23.4				
21-30	3	6.4				
31-50	6	12.8				

Note. As participants were able to select multiple options for work settings, *n* does not equal 47 and percentages total over 100.0 for that variable.

Data Analysis: Quantitative

Research Question 1: What are D-SLIs' Experiences of STS, Compassion Satisfaction and Burnout?

Responses to the individual items on the ProQOL were tabulated on a Likert scale with 1 being "never" and 5 being "very often". The mean summed scores for D-SLIs experiences of STS, compassion satisfaction, and burnout are shown in Table 2 along with the clinical cut-off scores and percentage of the sample within the clinical range. Results indicate that 32% of the sample experienced STS within the clinical range compared to Daly and Chovaz (2020) who found that 30% of their ND-SLI sample experienced STS. Ninety-eight percent of both samples reported compassion satisfaction, although 100% of the ND-SLIs sample reported within the low to moderate range of burnout while none of the D-SLIs endorsed burnout within a clinical range of concern.

Table 2. *Mean, Standard Deviation, Clinical Cut-off, and Percentage in Clinical Range of ProQOL STS, Compassion Satisfaction and Burnout Compared with Daly and Chovaz (2020)*

Variable	Mean	Standard Deviation	Clinical Cut-off	Percentage D-SLIs in Clinical Range	Daly and Chovaz (2020) Percentage of ND-SLIs in Clinical Range
STS	37	13.4	≥38	32.7	30
Compassion Satisfaction[b]	46	41.2	≤22	2.1	2.1
Burnout	22	3.9	≥43	0	100 (Low-moderate range)

Note: Compassion satisfaction is inversely scored such that a lower score means lower compassion satisfaction.

Research Question 2: What is the Effect of STS on D-SLI's Professional Quality of Life?

To further investigate the relationships between STS and compassion satisfaction and burnout, we replicated the research design of Daly and Chovaz (2020), and split the STS into three subscales: avoidance, intrusion, and arousal. The mean scores and standard deviations per summed items were as follows: avoidance 17.3 (7); intrusion 9.4 (4.0); and arousal 17.3 (4.8).

A correlational analysis was conducted to determine the relations between the variables. (Table 3). The analysis indicated a moderate, negative correlation between compassion satisfaction and burnout, r (47) = -.56, P< 0.1. This indicated that D-SLIs with higher compassion satisfaction reported fewer symptoms of burnout (note: none reached clinical significance for burnout). There was a small, positive correlation between avoidance and burnout, r (47)n=.36, P<0.5 indicating that D-SLIs with more symptoms of avoidance endorsed more symptoms of burnout. There was a similar small, positive correlation between burnout and arousal r (47)n=.36, P<0.5 indicating that as symptoms of burnout increased, higher arousal scores were likewise reported. These were similar to the correlations reported in Daly and Chovaz (2020) regarding ND-SLIs. It is of interest to note however that Daly and Chovaz (2020 reported significantly more correlations between avoidance and compassion satisfaction, arousal and burnout, and intrusion and burnout.

Table 3. *Correlations Among Secondary Traumatic Stress (STS), Compassion Satisfaction (CS), Burnout, Age, Avoidance, Intrusion, and Arousal*

	STS	**CS**	**Burnout**	**Age**	**Avoidance**	**Intrusion**	**Arousal**
STS	1						
CS	-0.13	1					
Burnout	.40	-.56**	1				
Age	0.01	-0.06	-.30*	1			
Avoidance	0.01	-0.09	.36*	0.11	1		
Intrusion	0.02	-0.13	.32*	-0.02	.58**	1	
Arousal	0.04	-0.13	.32*	-0.11	.53**	.66**	1

**Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

RESEARCH QUESTION 3: WHAT IS THE RELATIONSHIP BETWEEN SECONDARY TRAUMATIC STRESS, ANXIETY AND SATISFACTION WITH LIFE?

Choosing to go further than Daly and Chovaz (2020), we sought to explore the well-being of the D-SLI participants within the context of focus groups (see Table 4). The D-SLIs' experience of STS, anxiety (BAI), and satisfaction with life (SWLS) are summarized in Table 4. The results indicate that a third of this sample experienced clinically significant STS, yet none reported more than minimal anxiety. Furthermore, only 2.1% were extremely dissatisfied with their lives while 28% reported extreme satisfaction.

A correlational matrix was conducted to understand the relationships between these variables. These results indicated a strong, positive, and significant correlation between STS and anxiety (r (46) = .68, p < .001). This indicates that as D-SLIs experienced STS, they endorsed more symptoms of anxiety. There was a nonsignificant correlation between STS and satisfaction with life indicating that even the one third of D-SLIs who reported STS at clinical levels still reported satisfaction with their lives.

Table 4. *D-SLI's experience of STS, Anxiety (BAI) and Satisfaction with Life (SWLS)*

Variable	Mean	Standard Deviation	Clinical Cut-off	Percentage in Clinical Range
STS	37	13.4	$\geq$38	32.7
BAI	5.54	5.54	Minimal $\leq$7 Mild 8-15 Moderate 16-25 Severe 30-63	100 0 0 0
SWSL	27	36.34	Extremely satisfied 31-35 Extremely dissatisfied 5-9	27.6 2.1

PROCEDURE FOR FOCUS GROUPS

When the quantitative data collection was complete, the research team then gathered qualitative data by recruiting three focus groups with D-SLIs who participated in the first phase of the study. The focus groups were facilitated by two members of the research team, both native users of ASL and working as D-SLIs. The focus groups were held virtually using Zoom and were recorded for analysis. Each focus group was completed in 60 to 80 minutes. All participants used ASL to communicate throughout the conversation. Participants, via Zoom, confirmed permission for recording prior to the meeting proceeding. The questions were designed to explore the participants' experiences as D-SLIs and explored themes of vicarious trauma and strategies to cope with the challenges that emerged in their work.

Of the original sample of 46 participants, 17 individuals agreed to participate in the focus groups (*M*=6, *F*=11). The participants' age range was 24 to 59 years old, and the number of years of interpreting experience ranged from 9 years to 40 years. Two participants reported fluency in other signed languages including BSL and LSQ. Ten participants were Caucasian and seven were members of the Indigenous, Black, People of Colour (IBPOC) communities. Each reported interpreting work as not only community-based assignments (government, social series, leave, medical, mental health, etc.) but also conference and media work.

DATA ANALYSIS APPROACH: QUALITATIVE

Focus groups were transcribed and analyzed using content and thematic analysis (Krippendorf, 2004), examining the content and themes as well as quantifying the responses. There were no predetermined categories, but rather the data were searched for segments of text to generate and illustrate categories of meaning, which may lead to further revision as the analysis proceeds (Marshal & Rossman, 2006). Ultimately, we engaged in a six-stage process of analysis: (1) becoming familiar with the data, (2) generating initial codes, (3) searching for themes among the codes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the final report (Braun & Clarke, 2006)**.** For the purposes of this study, each informant has been given a pseudonym.

FINDINGS: QUALITATIVE

Across the 17 informants, there were points of difference that are included in the findings here. For example, one D-SLI reported that they had never experienced any vicarious trauma or compassion fatigue in their 40 years of experience, while others expressed that they had experienced vicarious trauma in specific work settings with which when they did not cope effectively, leading to compassion fatigue.

Six major themes were identified:

WHAT'S IN A LABEL?

The label of "Deaf Interpreter" (D-SLI) was viewed as contributing to the nature of vicarious trauma and dividing the interpreting team in ways that are artificial. Interpreters who are Deaf reported that they are often left to defend the reason they are there and what skills they bring that the hearing interpreters may not have. Some shared that they had also experienced resistance from hearing colleagues and from the Deaf community. Several participants indicated that these experiences of resistance are deflating and contribute to feelings of alienation from the profession.

> Is the label helpful? Deaf Interpreters – the Deaf community can be resistant to DIs – hearing interpreters can be resistant, too – Is it just interpreting? (Alex, D-SLI)
>
> Wish we didn't use the frame Deaf Interpreter and we just talked about an interpreter. Why are we contextualizing it to say Deaf Interpreter - maybe just an interpreter and that would lower the resistance - I am tired of having to explain what I bring to the assignment and what I do.... (Tony, D-SLI)

TRAINING? WHAT TRAINING?

Training about vicarious trauma and/or compassion fatigue appears to be a rare experience in the field of interpreting and the lack of training may contribute to interpreters either denying the experiences of VT/STS or not recognizing the impact of vicarious trauma on their interpreting work. Three participants who had other career training, for example as a teacher or a mental health worker, had exposure to the concepts of vicarious trauma and compassion fatigue; however, the other participants reported no initial training in this area.

> I had never even heard about vicarious trauma or compassion fatigue until I took some domestic violence training — it was eye opening for me. I think the basic training for DIs should include this information as it can keep us healthy… (Pat, D-SLI).

> I remember when I started, we would work for an entire day on our own — talk about fatigue! I wonder if being exhausted also increased my sensitivity to things that would cause trauma — like a full day rape trial…how did interpreting about that awful experience affect me? I never had any training till a few years ago when I did some specific training for mental health. (Sam, D-SLI)

THE ELEPHANT IN THE ROOM.

D-SLIs reported being impacted by vicarious trauma and compassion fatigue, yet they may be reluctant to debrief about it with colleagues and/or seek professional support.

> I worked once with a person who ultimately was deported out of the country and I struggled knowing that he would return to a country where he would have no rights, no support, and probably ended up dying. His stories of persecution were haunting, and I did have bad dreams for a while. Eventually I got better, but I never talked with anyone about it… (Sandy, D-SLI).

> I experienced trauma from my own life — death of my best friend, break up with a partner and that really affected my ability to cope with the hard mental health assignments I was doing. I knew something was wrong, but I didn't talk to my teamers or mentors — eventually I went for counselling (Lee, D-SLI)

BEARING WITNESS: THE OPPRESSION OF MARGINALIZED COMMUNITIES:

Immigrants and DeafBlind people may experience greater discrimination and/or oppression, which is then witnessed by the D-SLIs working in those contexts. Singular or repeated exposure to these kinds of experiences, especially for interpreters who may share some of the same experiences such as being an immigrant themselves, may contribute to vicarious trauma and compassion fatigue.

> I work often with people who are DeafBlind, where there is often no funding for the work and I feel like I must accept it because there are so few qualified interpreters who will work with this part of our community. After several years of that I felt like I was really experiencing compassion fatigue. I moved out of that community, and I am working less in my new community and finding it easier to maintain different boundaries. I notice my mental health is way better now…(Sandy, D-SLI).

> I moved with my Deaf parents and so I know what it is like to be a newcomer without lots of community support and how it feels to have hearing people make negative comments on your home country, or your skin colour, or your education and training from a non-US country…sometimes it really triggers me. But I feel like I must accept those jobs because I DO understand more than interpreters born here. It's tough… (Tom, D-SLI)

COPING STRATEGIES EXIST:

Coping strategies, when used, can protect interpreters from the effects of vicarious trauma and compassion fatigue. The participants identified several strategies that they use to keep themselves healthy and reduce the risks:

- Ensuring they have a complete understanding of the demands of the assignment prior to accepting the work. For example, some of the participants reported that they now decline assignments they know will be triggering or traumatic for them.
- Choosing their ND-SLI so that they go into the assignment knowing there will be mutual respect and support.
- Debriefing with interpreters and building a support network.
- Practicing self-care, especially after difficult assignments.
- Refining ethical decision-making processes to identify strategies for getting support and setting boundaries.

In the words of some participants:

> It is so important to accept feedback — people told me I was needing help. I couldn't see it at the time, but they were so right… (Jo, D-SLI)
>
> Everything happens in a community, and for Black and POC interpreters, what happened to George Floyd affected us hugely, and we needed to draw in both credentialed and non-credentialed DIs into the conversations about that. There was so much pressure to accept the work at that time and so much of it was people talking about all the Black Lives Matter (BLM) issues and trauma associated with the killing. We needed to support each other and know when to step back and not work as we were experiencing vicarious trauma in a huge, huge way…. (Lynn, D-SLI)

HEY, CO-INTERPRETER!

This theme relates to the ways that ND-SLIs co-interpreters may contribute to the vicarious trauma experienced by D-SLIs. For example, when hearing interpreters are not supportive of working with D-SLIs, won't act when the interpreters see discrimination, are defensive about receiving feedback from the D-SLI, and/or won't take the time to debrief as a team after a difficult assignment, the working relationship is affected in significant ways.

What I hate is always hiding behind the Code of Ethics — enough! We are BOTH accountable and sometimes that means taking action…I feel very dismissed when the hearing interpreter is like - not our job, don't say that etc. What are you — my mother? When we see injustices, we need to do something about it. When we don't, what happens? Vicarious trauma to me! My trust is broken with several hearing interpreters—during COVID the hearing interpreter went to the agency and told them not to use DIs on TV. If you have feedback bring that to me but to tell the agency to remove the DIs—felt like power over me. Our work is hard enough don't make it worse between us as interpreters. (Chris, D-SLI)

I've noticed that the older interpreters are good at supporting the DIs, but the younger interpreters are the ones that are resistant to any feedback, or this is the way I do it and this is the way it must be done, it's harder for me to relate to the newer interpreters than it is to the older interpreters… (Taylor, D-SLI)

These six themes illuminate some of the lived experiences of the D-SLIs. The themes further highlighted the lack of learning opportunities about vicarious trauma and compassion fatigue early in one's career, the ways in which personal experiences with trauma can merge into one's professional interpreting work, and strategies that interpreters have used to promote their well-being. In the next section we discuss the implications of both the quantitative and qualitative findings.

DISCUSSION

Our aim was to compare secondary trauma and related variables with the results of the ND-SLI study conducted by Daly and Chovaz (2020). Although the profiles of the participants in the two studies were qualitatively different given the first study examined ND-SLIs (no native signers) who all had completed some measure of formal training whereas the second study examined D-SLI who all had native fluency and lived Deaf experience, the construct of secondary trauma is salient to both groups.

The results of the present study indicated that the majority of D-SLIs were not experiencing clinical levels of STS, anxiety, or burnout, however it is important to note that a third were experiencing clinically significant STS. Comparing study results, the D-SLIs showed comparable levels of STS and compassion satisfaction but less burnout than the ND-SLIs. Both samples showed a positive correlation with the STS subscale for avoidance and burnout, but this was to a lesser degree for the D-SLIs than the ND-SLIs. Relationships between the STS subscales intrusion and arousal with burnout were evident in the ND-SLIs but not the D-SLIs. Overall, the most compelling similarity between the samples was that roughly one-third of each group experienced clinical degrees of secondary trauma with the greatest difference being that the ND-SLIs were additionally reporting burnout.

In terms of burnout, it may be that protective factors are afforded to the D-SLI by virtue of being Deaf in terms of transnational understanding of their consumers' experiences. The D-SLIs have likely experienced many of the same negative and marginalized life experiences, resulting perhaps in some type of resilience or protection that is also supporting them in their professional careers as interpreters. A seminal study on lived experiences of Deaf Canadians (Chovaz et al., 2022) discussed their findings within this lens highlighting the important role of resilience, but future study is needed to better understand this concept in Deaf individuals.

When looking to the qualitative data, it is notable that one of the themes regarding professional identity is similar to the findings reported by Russell (2018) where D-SLIs described the extra emotional labour (Brunson, 2010) they bore in helping others understand what they do, how they do it, and why a team of two is required for an assignment. This is not something that ND-SLIs typically must do since the booking of one interpreter is straightforward and often does not generate the same questions. The constant "having to justify" why the D-SLI is needed can create stress for the Deaf interpreter even before the assignment begins. However, the quantitative results reveal that the D-SLI are equally satisfied with their professional quality of life career, so while having to justify their work, it does not appear to contribute in a significant way to burnout or a lack of desire to continue working as a D-SLI.

Conjectures for this may be that employment is more difficult for a Deaf individual than a hearing individual to secure and therefore the Deaf individual expresses less dissatisfaction. Any employment might be better than no employment. However, one wonders over time if this too may be a negative factor contributing to burnout in D-SLIs. This may be an area for professional dialogue among all SLIs, deaf and nondeaf, and interpreter referral services that are often the first point of contact with hearing consumers. SLIs, Deaf and nondeaf, share common characteristics, although the D-SLIs natively possess DELK (Forestal, 2005) and sophisticated linguistic strategies that many ND-SLIs do not possess. It is important to explain this concept well to those booking SLIs although as of, yet this is an area that will benefit from significant improvements. This however could serve to reduce the stress placed on D-SLIs as well as improve the working partnership between interpreters.

In addition to the theme expressed by the D-SLIs of having to repeatedly justify their role to those booking the interpreters, the potential fragility of the working relationship between the D-SLI and ND-SLI became apparent. Although equitable working partnerships were described in some settings, some D-SLIs described the significant frustration or distrust expressed by ND-SLIs regarding their presence. We wonder again if the natural lived experiences of the D-SLIs in addition to their training and abilities (DELK) is a reason the ND-SLIs are not supportive of working with their Deaf colleagues and/or are defensive about receiving feedback. This could then potentially result in a divide between the two groups in this shared profession. Is this reluctance and/or defensiveness based perhaps on ND- SLIs recognizing that they do not and will never possess DELK and may lack many of the sophisticated strategies that D-SLIs bring to the work? Could there possibly be any resentment from the D-SLIs that acquisition of formal interpreter training has not been equitable? Although the quantitative data clearly showed that a third of the D-SLI sample were experiencing secondary trauma, one wonders if the source of this may indeed be witnessing emotionally traumatic client content but perhaps is also shaped by the ongoing negative behaviours (i.e., resentment, frustration, defensiveness) expressed by interactions with the ND-SLIs. This is an aspect that could be explored in further studies, especially since it was an unexpected finding.

The focus group data described debriefing, or the lack thereof, as a key aspect of professional dialogue. When ND-SLIs are not engaging in post-assignment discussions with D-SLIs as a regular part of their practice, this may contribute to the lack of trust that develops among some D-SLIs working with ND-SLIs. Debriefing is a crucial element of practice for all SLIs as it can also be a place where difficult work contexts are processed so that the interpreters can move forward in a healthy state of being, and when this is not done or not done well, D-SLIs are left to make sense of situations on their own. This may lead to another finding where D-SLIs are reluctant to acknowledge that they may experience a situation leading to STS and/or burnout. Given how few qualified D-SLIs there are in Canada, it is possible the D-SLIs feel obligated as members of the Deaf community to serve and to appear “fine” no matter what, whereas the United States has a larger pool of D-SLIs that may allow D-SLIs to decline work if they experience symptoms of STS and/or burnout.

The D-SLIs reported several strategies that help them cope with stressful work assignments including choosing their co-interpreter, and working with co-interpreters who are willing to debrief, accept feedback, and engage in professional dialogue to support effective practice. This is consistent with the findings of Stone and Russell (2013) emphasizing the need for D-SLIs to have the ability to choose their co-interpreters depending on the assignment factors and that putting two interpreters together who have never worked together before or don't work well together is not the way agencies should deploy interpreter services.

A consistent theme among the participants was the need for ongoing education of SLIs, both Deaf and nondeaf, about STS, burnout, and strategies to support effective interpreting practice.

RECOMMENDATIONS

Based on the findings from both the qualitative and quantitative data sets, the following recommendations are proposed:

1. Develop consistent training pathways for D-SLIs, which may include the development of a specialized learning track that reflects the unique skills D-SLIs bring to the field and the necessary skill sets that may not be adequately addressed in interpreter programs (which are primarily designed for L2 users of ASL).
2. Provide training in the following areas: secondary trauma, including prevention and self-care strategies, for all SLIs, the ways in which ND-SLIs may be unknowingly contributing to the secondary trauma of D-SLIs, effective co-interpreting strategies that can support healthy work practices and debriefing strategies, for all SLIs.
3. Develop processes for structured debriefing/supervision conversations to assist interpreters in dealing with difficult assignments and feedback.

LIMITATIONS OF THE STUDY

This study contributes to our understanding of how D-SLIs report experiences of secondary trauma. While this study drew upon mixed methods, it is possible the respondents gave socially appropriate answers on the standardized quantitative instruments and may be either underestimating the impact of STS or not recognizing the symptoms of STS. This is hopefully mitigated though given our chosen measures are valid i.e., have been tested to measure what they ask. It is also noted that the sample draws on U.S. and Canada interpreters and may not be representative of the entire population of D-SLIs in other countries. A further limitation is that most respondents identified as Caucasian, with a smaller number from the BIPOC communities. A larger study of interpreters in countries outside of North America may yield different results and serve as an international comparison, given how many countries are embracing D-SLIs in their service delivery models (Stone & Russell, 2022). Finally, future research may wish to explore how the number of hours an interpreter works can then impact the interpreter's levels of STS.

SUMMARY

This study sought to address a gap in the literature by exploring the effect of STS on the general well-being of D-SLIs in Canada and the U.S. The study replicated the work of Daly and Chovaz (2020) and added to their findings by supplementing the methodology with focus groups. The study explored the ways in which D-SLIs may be affected by STS through the nature of their interpreting work as well as working relationships. Further, the study examined whether the experience of STS affected their professional quality of life, which was measured through both compassion satisfaction scores and burnout scores. The data were triangulated through focus groups, allowing participants to explore the ways in which being Deaf and working as an interpreter may be a more complicated process than for ND-SLIs, and the factors that may be contributing to their resilience.

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