

**Vicarious Traumatization:
Survey of Front Line Workers at a Child Welfare Agency**

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Abstract

This was a survey of frontline workers in a child welfare agency ($N = 60$) to explore: (a) whether they experienced vicarious traumatization, and (b) whether the degree of trauma was related to the number of years in this work. Measures used were the Professional Quality of Life Scale (ProQOL) and the Secondary Trauma Stress Scale (STSS); scores obtained were compared with results of other professional groups reported in external studies. Significant evidence of trauma was found for the workers in this study: secondary traumatic stress subscores (ProQOL) were significantly higher than those reported for a sample of certified professionals in other social service fields. Also, 28.6% of study subjects were in the “Severe STS” category (STSS), and the total score was significantly higher than that reported for an external sample of professionals working with adult victims of family violence or sexual assault. Though burnout subscores (ProQOL) were related to years in current position, the correlation was only of borderline statistical significance. Workers’ reported strategies for coping with the negative effects of this work included self-care, debriefing with colleagues and supervisors and limiting caseloads. It is recommended that agencies focus more on sensitizing workers to vicarious traumatization and educating them on methods of self-care. New strategies (e.g., a meditation zone, yoga, group therapy, team support) might also be helpful in dealing with this problem.

Résumé

La présente étude est un sondage auprès de travailleurs en première ligne dans une agence de protection de l'enfance (N=60) avec deux buts principaux: 1. d'explorer si ces travailleurs étaient atteints par du traumatisme vicariant dans leur travail et (2) si ce traumatisme vicariant était en corrélation avec le nombre de leurs années de service en première ligne. Le Professional Quality of Life Scale (ProQOL) et le Secondary Trauma Stress Scale (STSS) sont les deux mesures employées dans cette étude. Les résultats ont été comparés avec ceux obtenus dans des études externes sur d'autres groupes professionnels. Cette étude a trouvé des preuves significatives de trauma chez les travailleurs participants. Les résultats de STS (ProQOL) étaient à un haut niveau significatif en comparaison avec les résultats d'un échantillon de professionnels diplômés dans d'autres domaines de service social. De plus, 28.6 % tombaient dans la catégorie "STS Sévère" du STSS et, le résultat final était d'un niveau significatif au-dessus du résultat obtenu par un échantillon externe de travailleurs avec des victimes de violence familiale et d'attentat à la pudeur. Bien que les résultats quant à épuisement professionnel aient révélé une relation directe avec le nombre d'années dans le poste actuel, la corrélation entre les deux n'a montré qu'une signification statistique limitée. Les travailleurs ont annoncé plusieurs stratégies pour faire face aux effets néfastes de ce type de travail, soit : des soins personnels (self-care), le debriefing entre collègues et avec des superviseurs et, une limite à leur nombre de cas assignés. Les résultats de cette étude indiquent que les employeurs devraient s'engager à sensibiliser les employés au traumatisme vicariant et aux méthodes de soins personnels. D'autres stratégies (zone de méditation, le yoga, thérapie en groupe et entraide pourraient également aider à cette problématique.

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1. INTRODUCTION

1.1 Problem

Working in child welfare is a stressful job. While child welfare workers are perceived as powerful given that their mandate can include the removal of children from their homes, workers often feel powerless given the bureaucracies and lack of both support and resources in the community. This situation can cause a lot of emotional stress on the child welfare workers (Morrison, 1992).

The other factor that contributes to the stress in child welfare are the clientele they are dealing with. The majority of children in the child welfare system were subjected to sexual, physical or emotional abuse. Child welfare workers engage with children who have experienced these traumas on a daily basis. The responsibilities of child welfare workers include, but not exclusively: interviewing child victims about the abuse they experienced, reading case files that substantiate the abusive acts, and listening to the child's traumatic experience repeated by different parties that are involved in the case. To gather all the information and complete a thorough assessment of the situation or develop an effective intervention plan, the child welfare worker needs to establish an empathetic engagement with the child. The more successful the rapport between the worker and the child, the more at risk the worker may be to feeling emotionally impacted by the disclosure of the trauma material (Nelson-Gardell & Harris, 2003). Continued empathetic engagement with clients' trauma stories can lead workers to feel increased anxiety, anger, distrust and ultimately changes the ability of the worker to intervene effectively.

1.2 Defining traumatization

There are risks for interveners working with traumatized clients (Arvay, 2001; Buchanan, Anderson, Uhlmann & Horwitz, 2006; Figley, 2002; Harrison & Westwood, 2009; Pearlman & Mac Ian, 1995). The term *compassion fatigue*, *countertransference*, *burnout*, *secondary traumatic stress disorder* or *vicarious trauma* are usually used to describe this occupational hazard. Although these terms are often used interchangeably, there are differences in their definitions.

The concept of vicarious traumatization was first discussed by McCann and Pearlman (1990). Based on a constructivist self-development theory, vicarious traumatization considers both how the intervener's characteristics can impact on the intervention towards traumatic events or clients and that the symptoms are observed in a certain context (Pearlman & Saakvitne, 1995). The combination of these factors distinguished vicarious traumatization from other above mentioned terms. According to Dunkley and Whelan (2006), vicarious traumatization is "the transformation that is thought to take place within the counselor as a result of empathic engagement with trauma clients" (p.108). McCann and Pearlman (1990) believed that the intervener can have changes in their "cognitive schemas and imagery system of memory" (p.146) as a result of long term exposure to the clients' traumatic experiences. In McCann and Pearlman's opinion, vicarious traumatization is a normal reaction to the work itself rather than being a result of any particular therapeutic approach. Vicarious traumatization is also very unique to each and every intervener (Best Start Resource Centre, 2012).

Compassion fatigue generally describes one's suffering from serving in a helping profession. Figley (1995) described it as a result of the helper being exposed to a client's experience and his/her empathy for the client. Compassion fatigue is often seen among people who work with trauma survivors (Gentry, Baranowsky & Dunning, 1997). Figley believed that the amount of a helper's empathy towards the traumatized individual plays an important role in the forming of compassion fatigue.

Countertransference refers to the phenomenon that the intervener's feelings towards his/her own unresolved issues are triggered by working with traumatized clients. Thoughts and emotions, body sensations, mental images and behaviors are all important indicators to identify countertransference (Rothschild & Rand, 2006).

Burnout applies to the accumulated result of working with a difficult population and often refers to a state of fatigue or apathy (Dunkley & Whelan, 2006; Figley, 1995; McCann & Pearlman, 1990). Rothschild and Rand (2006) noted that burnout refers to the overload of one's work leading to a change in one's health or outlook on life in a negative way. Consequently, one can show "symptoms of depression, cynicism, boredom, discouragement, emotional exhaustion, depersonalization, loss of compassion, and reduced feelings of accomplishment" as a result of burnout (Dunkley & Whelan, 2006, p.108). Literature suggested that burnout can be caused by "professional isolation, the emotional drain of always being empathetic, ambiguous successes, lack of therapeutic success, nonreciprocated giving and attentiveness"; and "failure to live up to one's own (perhaps unrealistic) expectations, leading to feelings of inadequacy or incompetence" (McCann & Pearlman, 1990, p. 133).

It is often found among people who feel powerless and hopeless as they are in the position to help the victim, while they see the root cause of victimization as being influenced by larger social and political problems which are out of their control (McCann & Pearlman, 1990).

Secondary traumatic stress disorder can be applied not only to the therapist who works with individuals who experienced a traumatic event but also to the family members or close associates of the trauma victim. Figley (1995) described the terms as “the cost of caring for others in emotional pain” (p.1) and as a disorder that has similar symptoms of post-traumatic stress disorder.

Although these terms have their similarities, their emphasis is a bit different. Countertransference and compassion fatigue both reflect that an intervener’s characteristic plays an important role in the formation of the occupational trauma (McCann & Pearlman, 1990). Burnout portrays the fact that the intervener’s reaction is caused by the nature of the external contributing factors such as professional isolation. According to Nelson-Gardell and Harris (2003), “Burnout is often characterized as an organizational problem, not an individual problem” (p.9). It can occur as a result of working with any type of client. In particular to child welfare work, lack of organizational and community support can be the cause of burnout. Whereas symptoms of vicarious traumatization are developed as a result of being directly exposed to clients’ traumatic experience (Iliffe & Steed, 2000).

According to Arvay (2001), vicarious traumatization and secondary traumatic stress are the same term and can be used interchangeably. While both vicarious traumatization and secondary traumatic stress disorder describe the transformation of a belief system and cognitive structures

resulting from empathetic engagement with trauma victims and can have the same symptoms, secondary traumatic stress disorder focuses mainly on psychological symptoms; while vicarious traumatization focuses more on “meaning and adaptation” (Bride, Radey & Figley, 2007, Pearlman & Saakvitne, 1995) that changes professionals’ views of oneself, others and the world (Baird & Kracen, 2006).

Intervener’s psychological problems are often associated with burnout and retention issues at an agency level. It is also important to consider the psychological impact of vicarious traumatization on clinical work. According to trauma theory, interveners might “adaptively deny the feelings that arise in exposure” (Horwitz, 1998, p.3) to handle the assigned tasks, however, once the tasks are done, the effects, including recurring images and feelings related to their work will surface and they can “compromise subsequent workplace functioning and general well-being (Horwitz, 1998, p.3).

Blair and Ramones (1996) pointed out that the professionals who experience vicarious traumatization can “begin to suffer anxiety, irritability, increased stress, and decreased coping abilities” (p.24). One may become “cynical or angry, or feel helpless and impotent about ‘the system’ and life in general”. This experience may lead to one being “over- or underinvestment in patients, and may result in therapeutic incompetence”. “Helplessness, rage, isolation, depression, and disillusionment” are also commonly experienced by those who suffer from vicarious traumatization (Blair & Ramones, 1996, p.24).

McCann and Pearlman (1990) stated that the transformation in forming vicarious traumatization in an intervener is long lasting; vicarious

traumatization has a huge impact on one's feelings, relationships and beliefs. The cumulative effects of vicarious traumatization include an altered worldview and changes in psychological and emotional needs, trust and dependence, control, intimacy, self-esteem, altered beliefs and cognitions, and sense of safety that parallel those of post-traumatic stress disorder (PTSD) (Dunkley & Whelan, 2006; Hernandez, Gangsei & Engstrom, 2007; Salston & Figley, 2003; VanDeusen & Way, 2006). Blair and Ramones (1996) suggested that those who experience vicarious traumatization may have a disruption in their cognitive schemas that is similar to those who experience post-traumatic stress disorder: "that the world is benign, the self is worthy, people are basically trustworthy, and the world is orderly and meaningful" (Taylor & Brown, 1988, p.194-197). The disruption in the trust/mistrust schema can make the intervener become suspicious, distrustful, cynically question others' motivation and honesty (Blair & Ramones, 1996, p.27). When the safety/fear schema is disrupted, the intervener "may experience feelings of professional de-skilling, increased personal vulnerability, and cognitive or affective paralysis" (Blair & Ramones, 1996, p.27). If an intervener's generalized pessimism is activated by vicarious traumatization, it may lead one to view human beings as disgusting or evil and may lead to paranoia. One may also experience isolation, viewing one's clinical work as "repulsive and undesirable" which may involve into avoidance and inflexibility (Blair & Ramones, 1996, p.27). It is not unusual for interveners to experience "violent, disturbing dreams; to become paranoid, hyper-vigilant, and overconcerned with their safety"; or "experience severely disruptive symptoms such as intrusive thoughts, sleep disturbances, phobias, aversions, and dissociative reactions" (Blair & Ramones, 1996, p.24-25).

When exploring the challenges that child welfare workers experience, the literatures pointed out that chronic stress, inadequate pay, lack of recognition, increased job demands and other negative job characteristics were reasons for increased worker turnover (Drake and Yadama, 1996, Ellett, 2007, Scannapieco & Connell-Carrick, 2003, 2007). Researchers have yet to specifically investigate vicarious traumatization or secondary traumatic stress among child welfare professionals and its impact on workers' productivity.

Helping professionals have reported that they felt more vulnerable when dealing with a child victim (Beaton & Murphy, 1995). Literature supported the claim that child welfare workers are particularly at risk of developing secondary traumatic stress symptoms as they are in constant empathic contact with physically, sexually and/ or emotionally abused children on a daily basis (Bell, Kulkarni & Dalton, 2003; Bride, Jones & MacMaster, 2007; Horwitz, 1998; Nelson-Gardell & Harris, 2003).

Limited studies have been done to examine the effect of secondary traumatic stress on the child welfare worker, however, the results of these few studies all pointed to the significance of post secondary traumatic stress experienced by the worker. Cornille and Meyers (1999) and Meyers and Cornille (2002) found that the amount of secondary traumatic stress experienced by child welfare workers was much greater than the general population and to those who work with outpatient mental health clients. Their studies also concluded that the longer the child welfare worker had worked in the field, the higher the level of secondary traumatic stress experienced. Nelson-Gardell and Harris (2003) found that the child welfare worker who had a personal history of childhood trauma was at greater risk of developing secondary traumatic stress. Furthermore, the worker who

experienced more than one type of childhood trauma was the most probable to develop secondary traumatic stress, especially if one experienced emotional abuse or neglect as a child. A review of literature generally supported the notion that child welfare workers experience high levels of burnout (Coulthard et al., 2001; Zlotnik, DePanfilis, Daining & Lane, 2005).

1.3 Measuring traumatization

Several tools have been used to measure vicarious traumatization. For a complete assessment, the tools need to explore all the aspects of the self which includes self capacities, ego resources, identity, world view and spirituality, psychological needs and trauma symptoms (McCann & Pearlman, 1990; Pearlman, 2001; Saakvitne, Gamble, Pearlman & Lev, 2000).

- The Trauma and Attachment Belief Scale (TABS) focuses on individual's relationship history and is used to assess psychological needs (Pearlman, 2003).
- The Inner Experience Questionnaire has three subscales to assess affect tolerance, self worth and inner connection. It has been used to assess self capacities, in particular to assess disrupted self capacities (Pearlman & Mac Ian, 1995, Brock, Pearlman & Varra, 2006).
- Inventory of Altered Self-Capacities (IASC) is a standardized tool to measure disturbed functioning in relation to the self and others. It is a psychometric tool that was often been used to identify personality disorder (Briere & Runtz, 2002).

- PTSD Checklist (PCL) is a tool that can be used to screen individuals for Post Trauma Stress Disorder (PTSD) diagnosing PTSD or monitoring symptom change during and after treatment (Blanchard, Jones-Alexander, Buckley & Forneris, 1996).
- The civilian version (PCL-C) poses questions about symptoms in relations to a “stressful experience” and it can be used with any population (Blanchard et al., 1996).
- Impact of Events Scale (IES) is a tool used to measure stress reactions after traumatic events and detect individuals who would require treatment (Horowitz, Wilner & Alvarez, 1979).
- Compared with IES, Impact of Events Scale-Revised (IES-R) is also a screening tool but better able to capture the DSM-IV criteria for PTSD (Weiss & Marmar, 1997). This tool assesses individual levels of intrusion, avoidance and hyperarousal (Christianson & Marren, 2013).
- Trauma Symptom Inventory (TSI) is a measure that is used to evaluate posttraumatic symptoms as well as intrapersonal and interpersonal difficulties that are associated with more chronic psychological trauma (Briere, 1995).
- Detailed Assessment of Posttraumatic Stress (DAPS) is used to assess pre-traumatic and posttraumatic symptoms and associated features related to a specific traumatic event. It can be used to diagnose PTSD or acute stress disorder. The measure includes three aspects of PTSD symptoms: reexperiencing, avoidance and hyperarousal and three associated features of PTSD: trauma-specific dissociation, suicidality and substance abuse (Briere, 2001).

- World Assumption Scale (WAS) is a tool that has been used to assess four subscales of world assumptions: the meaningfulness of explicability of events, the worthiness of the self, and the benevolence of the world and people in general (Kaler et al, 2008).
- Professional Quality of Life Scale (ProQOL) is the most commonly used to measure the negative and positive effects on individuals in the helping profession (Stamm, 2010).
- Secondary Traumatic Stress Scale (STSS) is designed to measure work-related secondary traumatic stress in helping professionals (Bride, Robinson, Yegidis, & Figley, 2004). It is a self-report questionnaire to reflect on the respondents' experience in the past seven days.

Except WAS, ProQOL and STSS, the other above mentioned measures are more used to assess PTSD symptoms or a primary trauma impact. Although WAS can be helpful in assessing vicarious traumatization, the scale should be used for a study that is designed to compare before and after effects to better reflect the impact of vicarious traumatization over a period of time.

Although literature has explored how child welfare workers experience symptoms of secondary traumatic stress, there is a distinction between secondary traumatic stress and vicarious traumatization, and therefore it is necessary to understand the workers' experience of vicarious traumatization. Studies have indicated that quantitative studies on compassion fatigue, secondary traumatic stress and vicarious traumatization are lacking (Sabin-Ferrell & Turpin, 2003). There is no one instrument that has been developed to measure vicarious traumatization.

1.4 Prevention and Intervention

Bell et al. (2003) pointed out that a supportive organizational culture helps to prevent vicarious traumatization. They suggest that the agency should acknowledge that workers are inevitably affected by the trauma that they are exposed to during work, allow staff to take time off for illness as well as for vacations, encourage workers to continue educational activities, vary workers' caseloads, and most importantly, make staff self-care a part of the agency's mission statement. These authors argue that "effective supervision is an essential component of the prevention and healing of vicarious trauma" (p.467).

Various other studies have provided advice on reducing the impact of vicarious traumatization. Social support is generally considered important in managing trauma reaction (Regehr, Hill & Glancy, 2000). Personal supports and interests outside of work can reduce secondary trauma (Hesse, 2002; Ortlepp & Friedman, 2002; Regehr & Cadell, 1999). Harrison and Westwood (2009) suggested that "countering isolation; developing mindful self-awareness; consciously expanding perspective to embrace complexity; active optimism; holistic self-care; maintaining clear boundaries and honoring limits; exquisite empathy; professional satisfaction; and creating meaning" can effectively be used in dealing with secondary or vicarious trauma (p.207).

1.5 Purpose of this study

The purpose of this study was to explore whether child welfare workers were experiencing vicarious traumatization. The specific hypotheses to be tested were that:

1. Front line workers in a child welfare agency experience higher levels of vicarious traumatization than workers in other fields of social service.
2. A higher level of vicarious traumatization is associated with more years in child welfare.

2. METHOD

2.1 Design

The study was a survey, using a self-selected convenience sample of front line workers from a child welfare agency in Montreal. The collected data were analyzed to explore whether the workers experienced vicarious trauma by examining whether they had experienced the symptoms of secondary traumatic stress. Subjects' scores on standardized scales were compared with external published norms to determine the degree of secondary traumatic stress that these frontline workers were experiencing.

2.2 Sample

Permission was obtained to distribute the survey to all the human relations agents and educators ($N=106$) in the agency's Application of Measures and Family Preservation department. Questionnaire packages were distributed to these workers; a total of 60 completed questionnaires were returned, which constituted a 56.6% response rate. It was not possible to analyze the characteristics of non-respondents, as only limited personal information was collected to avoid identifying subjects.

The agency is located in Montreal, Quebec where the population is approximately 1,649,619. Ethnically, Montreal is very culturally and linguistically diverse. Individuals whose mother tongue is neither English nor French number approximately 536, 560 (Census Canada, 2011).

2.3 Measures

Given that there is a lack of assessment tools to measure vicarious traumatization, for the purpose of this study, the measurements for secondary traumatic stress were used as they share the same symptoms. Three instruments were used in the study: the Personal Information Survey (Appendix 1), the Professional Quality of Life Scale (Appendix 2) and the Secondary Traumatic Stress Scale (Appendix 3).

In the Personal Information Survey questionnaire designed for this study, a series of questions were aimed at identifying personal and professional characteristics. Because the study was carried out in the department where I work, there was a risk of identifying the correspondents. To ensure confidentiality, the demographic information requested only included gender, position, years at the agency and years in current position.

The Professional Quality of Life Scale 5 (ProQOL) is a 30-item self report measure with three sub-scales: Compassion Satisfaction, Burn Out and Secondary Traumatic Stress. It is used to assess the potential of compassion satisfaction, risk of burnout and risk of secondary traumatic stress (Stamm, 2010).

The Secondary Traumatic Stress Scale (STSS) is a 17-item self report measure to assess the frequency of negative effects resulting from exposure to traumatic events through clinical work with traumatized populations. Each item on the STSS corresponds to the 17 PTSD symptoms described in the Diagnostic and Statistical Manual of Mental Disorder (4th ed., text version) (DSM-IV-TR) (APA, 2000). There are three subscales: Intrusion, Avoidance and Arousal. Although the STSS only asks the participant to reflect on their experience in the past seven days, the

respondents in this study were not given a time frame to obtain their reflections on their overall experience (Bride et al., 2004).

2.4 Administration

Originally, workers who had direct client contact from different points of service in the child welfare agency in Montreal were desired. The cross division survey was not feasible, as the approval of all the coordinators across the different divisions could not be obtained. However, the Application of Measures and Family Preservation department was approached and packages containing the study information and copies of the survey questionnaires were sent to the division coordinator, the department coordinators, the managers and the Department of Professional Service. Approval was given by all parties.

Ethics approval was obtained from the child welfare agency, and from the Research Ethics Board of McGill University before the distribution of surveys and data collection.

Copies of the three instruments, consent form and a return envelope were personally delivered to each agreed participant's mail box. Prospective respondents were given the month of September 2013 to complete the instruments, which were then mailed to me through internal mail. The participants were not asked to return signed consent forms: it was understood that their returned questionnaires indicated agreement to participate in the study.

2.5 Analysis

The Statistical Package for the Social Sciences (SPSS version 20) was used for statistical analyses. Data from all the packages of questionnaires were entered as an SPSS data set. The following statistical procedures were used:

- Frequency distributions were produced for all categorical variables.
- ProQOL and STSS scores were computed (see Appendixes 4 & 5).
- Intercorrelations were calculated between all demographic variables and ProQOL and STSS scores (Spearman's *rho* for ordinal variables, Pearson's *r* for all others).
- SPSS Descriptives procedure was used to obtain the means and standard deviations for ProQOL and STSS scores and subscores.
- Independent sample *t*-tests were calculated to compare the ProQOL subscores by gender.

The scores for the study sample of front line child welfare workers were compared to published scores for groups of professionals in other fields of practice:

ProQOL scale:

Sprang, Clark and Whitt-Woosley (2007) reported scores for a sample made up of certified professionals, including psychologists, psychiatrists, social workers, marriage and family therapists, professional counselors, and drug and alcohol counselors.

STSS scale:

1. Bride, Jones and MacMaster (2007) reported scores for a child welfare sample made up of 81.9% case managers and 18.1% supervisors.
2. Choi (2011) reported scores for a sample of social workers working with adult victims of family violence, sexual assault or elder abuse.
3. Bride (2007) reported scores for a random sample of licensed masters-level social workers in a southern U.S. state ($N = 282$). The respondents reported a range of fields of practice, more than half in mental health/substance abuse, and only 7.2% in child welfare.

In these comparisons, the following procedures were used:

- Independent samples *t*-tests were hand calculated to compare study scores with scores reported for the external samples (Appendix 6).
- A one-sample chi-square test was computed to test the fit of stress category frequencies with published percentiles.

3. FINDINGS

3.1 Description of sample

Sixty questionnaire packages were returned. Information from the Personal Information Survey is summarized in Table 1. The majority of the participants were female, and were Human Relation Agents, responsible for evaluating cases, and acting as case managers to ensure that the Youth Court ordered measures or voluntary measures were carried out. A minority of participants were educators, whose main role was to support parents and help families to increase the likelihood that children could remain at home. The majority of the participants had more than four years working experience at the agency, however, only half of them held the current position for more than four years. Although the majority of the participants reported having experienced both positive and negative effects from working in the field of child welfare, their overall experience tended to be positive. This could explain why half of the respondents continue to work in their current position. More than half of the participants considered self-care techniques, debriefing with colleagues and supervisors, and limiting their caseloads as the most effective measures to address the negative impact experiencing from work.

Although 15 respondents reported that their work had an overall negative effect (Question 7), a greater number, 25, reported that they had taken a leave as a result of “this” negative effect (Question 8). This discrepancy was puzzling.

Only 14 participants responded to the open-ended question (# 10) Response categories are shown in Table 2.

Table 1: Description of Sample (*N* = 60)

Question	<i>N</i>	%
1 Gender		
Male	12	20.0
Female	48	80.0
2 Years of Experience in child welfare		
Less than 1	2	3.3
1-3	15	25.0
4-9	14	23.3
10 and more	28	46.7
Missing	1	-
3 Job title		
Human Relation Agent	47	78.3
Educator	13	21.7
4 Years in current position		
Less than 1	7	11.7
1-3	21	35.0
4-9	19	31.7
10 and more	13	21.7
5 Positive effect from working in child welfare		
Yes	51	85.0
No	9	15.0
6 Negative effect from working in child welfare		
Yes	47	78.3
No	12	20.0
Missing	1	-
7 Overall effect from working in child welfare		
Positive	45	75.0
Negative	15	25.0
8 Taking leave because of negative effect		
Yes	9	15.0
No	16	26.7
N/A	35	58.3
9 Strategy used to address negative effect:		
Self care—limited overtime, hobbies, leisure, physical activity, etc.	46	76.7
Therapy training course to increase self-awareness	10	16.7
Debriefing with colleagues and supervisors	35	58.3
Limited caseload	36	60.0
Professional education and training about new concepts of trauma	16	26.7
Sabbaticals for training and research	8	13.3
Keeping balance of empathy and distance from client	15	25.0
Employee Assistance Program for professional help	16	26.7

Table 2: Responses to Question 10: “Is there anything else you would like to say?” (*n* = 14)

Response Categories	<i>N</i>	%
Importance of supervision in dealing with stress related to work	4	28.6
Appropriate professional training	3	21.4
Enjoy current job	3	21.4
The burden and responsibility of the job creates worry and anxiety	2	14.3
Short term leaves can prevent burn out and long term leave	2	14.3
Different type of cases assignment to prevent dealing with the same type of cases by one worker	1	7.1
The gap between the expectations and the available means	1	7.1
Lack of standardization of leadership and clinical guidance at managerial level	1	7.1

Most frequently mentioned themes were the importance of supervision and appropriate professional training. There was no clear relationship between these response categories and worker demographics.

Table 3 shows intercorrelations between variables. The correlation between the negative overall effect from working in child welfare (Question 7) and taking leave because of the negative effect (Question 8) was highly significant, but this correlation is of questionable importance because of the small numbers reported and the discrepancy mentioned on page 18.

Table 3: Intercorrelations Between Variables – Pearson's *r*

Questionnaire	Variables	1	2	3	4	5	6	7	8	9	10
Personal Information	1 Years in current position	–									
	2 Overall effect ^a	.14	–								
	3 Taking leave ^b	-.23	-.70**	–							
ProQOL Scores	4 Compassion Satisfaction	-.27*	-.45**	.42**	–						
	5 Burn Out	.26*	.58**	-.55**	-.70**	–					
	6 Secondary Traumatic Stress	.13	.56**	-.42**	-.29*	.70**	–				
STSS Scores	7 Intrusion	.05	.42**	-.37**	-.37**	.67**	.75**	–			
	8 Avoidance	.17	.45**	-.40**	-.46**	.73**	.77**	.78**	–		
	9 Arousal	-.09	.43**	-.40**	-.35**	.65**	.73**	.78**	.82**	–	
	10 Total score	.07	.46**	-.42**	-.45**	.73**	.82**	.90**	.95**	.93**	–

^a Negative overall effect of working in child welfare (Question 7)

^b Taking leave because of a negative effect (Question 8, *n* = 25; *n.a.* = 35)

p* < .05, *p* < .01

3.2 Professional Quality of Life Scale (ProQOL)

ProQOL subscale scores for the study sample are shown in Table 4. The male and female scores on the three subscales were quite similar; independent samples *t*-tests showed no statistically significant differences by gender.

Table 4: ProQOL Scores by Sample

Subscale	Study		Sprang et al. (2007)	
	Male (N = 12)	Female (N = 48)	Male (N = 321)	Female (N = 737)
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Compassion Satisfaction	36.5 (8.0)	37.6 (5.6)	39.6 (7.1)	39.2 (6.9)
Burn Out	24.3 (5.7)	23.2 (5.7)	25.2 (4.2)	26.5 (4.6)
Secondary Traumatic Stress	21.2 (5.8)	21.4 (6.6)	9.8 (6.1)	11.0 (6.5)

The correlations between ProQOL scores and demographic variables, and the levels of statistical significance, are shown in Table 3. There were highly significant correlations between worker ratings of the overall effect of working in child welfare and all the subscores. Workers' reports of taking a leave because of a negative overall effect were also significantly correlated with all the subscores.

There were also significant correlations between years in current position and both Compassion Satisfaction and Burn Out scores. However, using Pearson's *r* here might be questionable, since years in current position was an ordinal scale with unequal categories. Values of Spearman's *rho* did not quite reach significance.

Comparison with Sprang et al. (2007):

Table 4 also shows the comparison with the actual scores reported in an external sample (Sprang et al., 2007). The Secondary Traumatic Stress subscores for both males and females in the study sample were much higher than those reported for the external sample. These differences are shown graphically in Figure 1, and were highly statistically significant.

3.3 Secondary Traumatic Stress Scale (STSS)

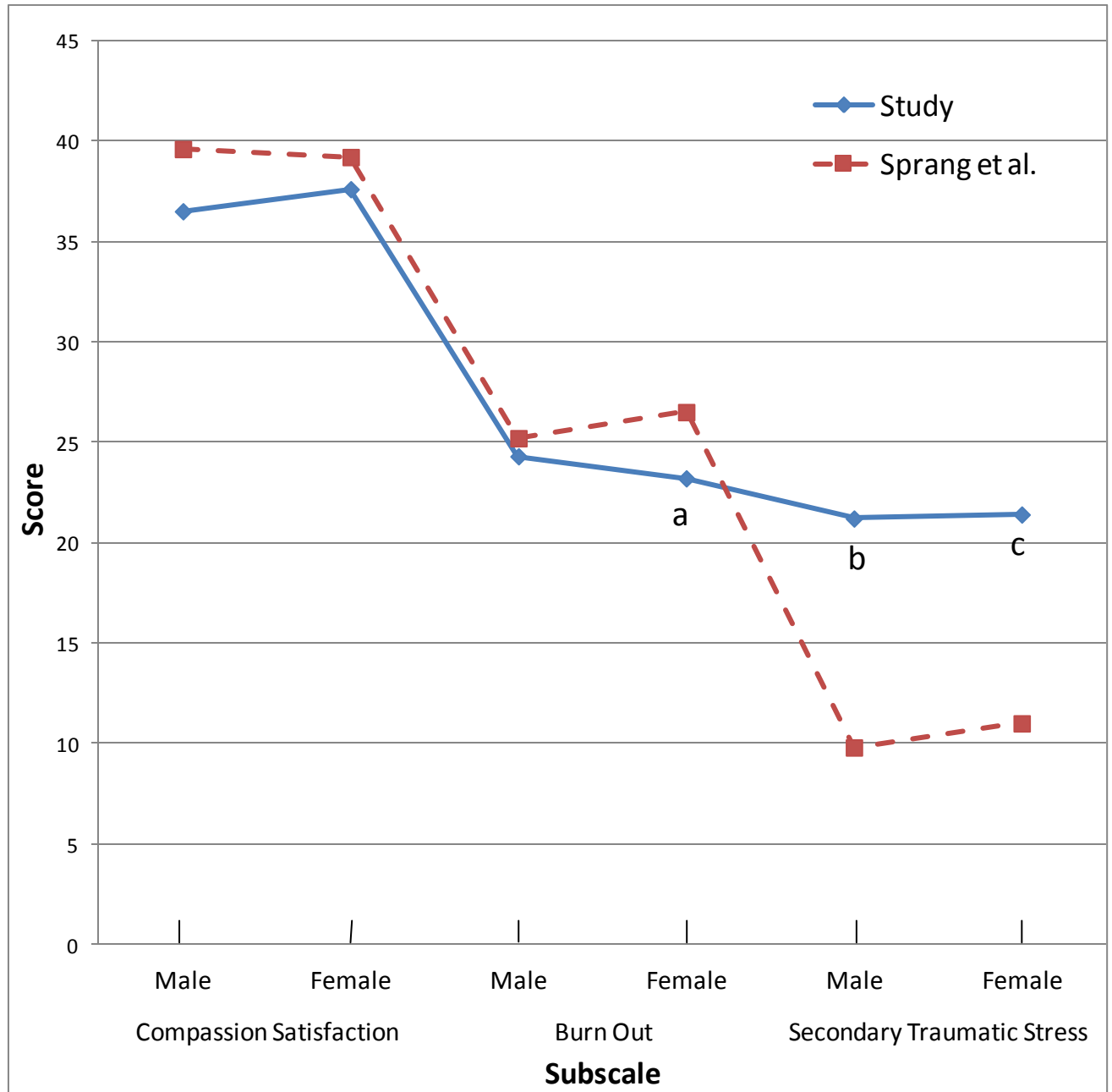
Table 5 shows STSS subscale scores for the study sample.

Table 5: STSS Scores by Sample

Subscale	Study			Bride et al. (2007) (N = 187)	
	N	M	SD	M	SD
Intrusion	59	12.15	3.26	10.97	4.07
Avoidance	58	16.5	5.5	15.64	5.98
Arousal	58	12.45	3.96	11.58	4.22
Total score	56	40.8	11.95	38.2	13.38

The correlations between STSS scores and demographic variables and the level of statistic significance are shown in Table 3. There were highly statistically significant correlations between worker ratings of the overall effect of working in child welfare and all the subscores as well as the total score. Workers' reports of taking a leave because of negative

Figure 1: ProQOL Scores: Study Sample vs. Sprang et al. (2007)



Note: Significant differences between samples:

a: $t(783) = 3.93, p < .001$; b: $t(331) = 6.67, p < .001$; c: $t(783) = 10.59, p < .001$

overall effect were also significantly correlated with all the subscores as well as the total score.

All STSS and ProQOL subscores were strongly intercorrelated. The correlations of the other subscores with Compassion Satisfaction were negative, as higher scores for Compassion Satisfaction were favorable.

Comparison with Bride, Jones and MacMaster (2007):

Table 5 also shows the comparison with Bride et al. (2007) for a sample of case managers and supervisors in child welfare. Though the study scores are visibly higher than scores for the external sample (Figure 2), these differences were not statistically significant.

Comparison with Choi (2011):

Choi (2011) did not provide subscale scores for his study, only STSS total scores ($N = 154$, $M = 32.07$, $SD = 10.9$). The mean of the study sample ($M = 40.8$, $SD = 11.95$, see Table 5) was considerably higher than Choi's mean. An independent samples t -test was hand calculated; the difference was highly significant, $t(208) = 4.79$, $p < .001$.

Comparison with Bride (2007):

For the third external sample (Bride, 2007), the author calculated the range of scores for five STS categories, corresponding to sample percentiles as shown in Table 6.

Figure 2: STSS Subscale Scores: Study Sample vs. Bride et al. (2007)

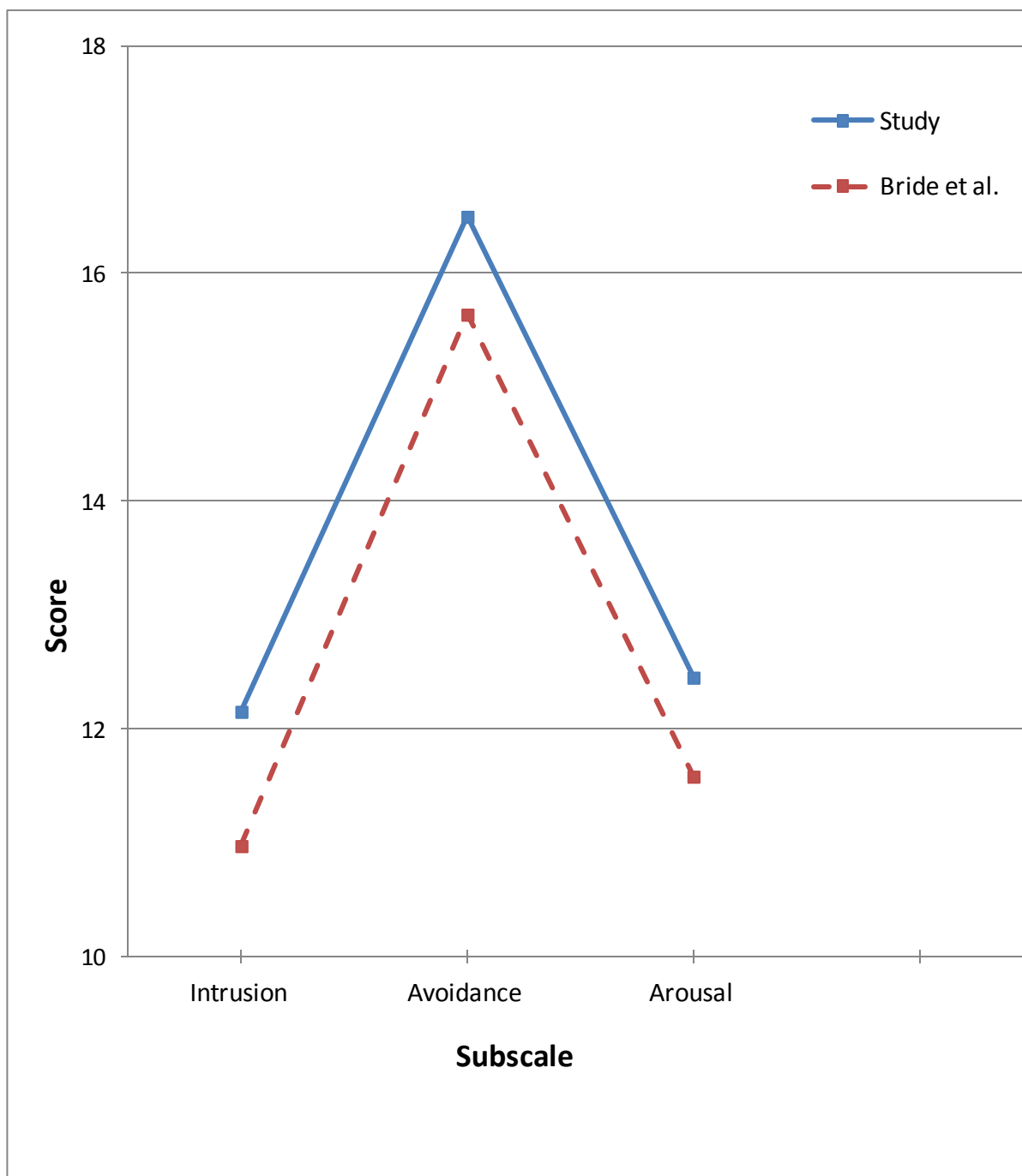
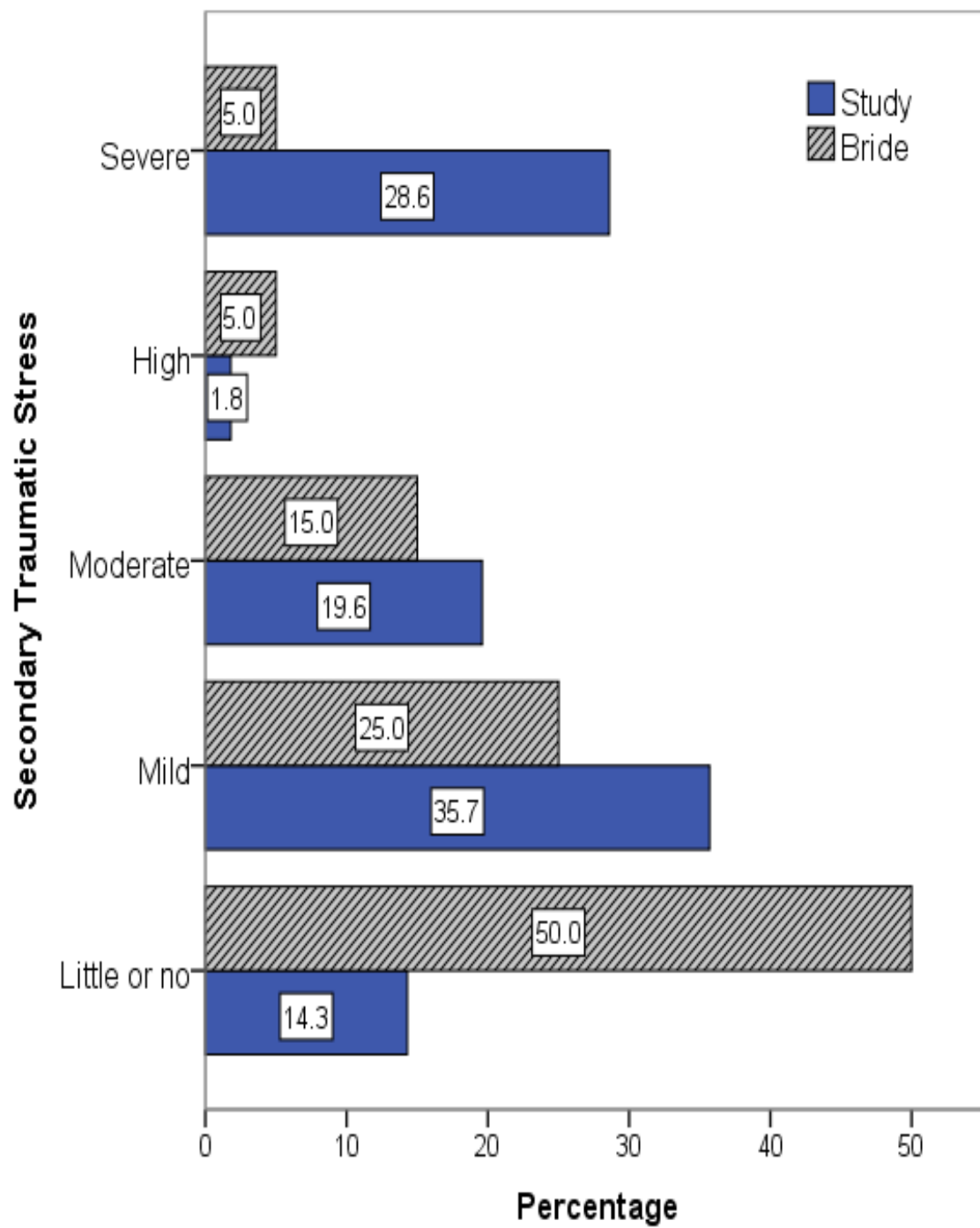


Table 6: STS Category, Total Score Range and Percentile (Bride, 2007)

STS Category	Total Score Range	Percentile
Little or no	< 28	<= 50
Mild	28 - 37	51 - 75
Moderate	38 - 43	76 - 90
High	44 - 48	91 - 95
Severe	> 48	> 95

Figure 3 shows the frequency distributions of STSS total scores for the study sample and this external sample. For the study sample, this figure shows that the frequencies for the lowest four categories approximate a normal distribution, while a high proportion of cases (28.6%) is in the severe STS category. Unfortunately, the demographic information obtained for the study could not provide an explanation for the high scores for this group. It is clear from this figure that the workers in the study sample experienced significantly higher levels of secondary traumatic stress than the social workers in the external sample. The difference was highly statistically significant; one-sample $\chi^2 (4, N = 56) = 81.05, p < .001$.

Figure 3: STS Categories: Study Sample vs. Bride (2007)



4. DISCUSSION

4.1 Key findings

The purpose of this study was to examine whether front line workers in a child welfare agency experience vicarious traumatization by examining whether they present with secondary traumatic stress symptoms.

Hypothesis 1: Frontline workers in a child welfare agency experience higher levels of vicarious traumatization than workers in other fields of social service.

The study supported this hypothesis. For the Professional Quality of Life Scale (ProQOL), a very significant difference was found between the study sample and a sample of helping professionals in other fields of social service (Sprang et al., 2007). Subjects in this external sample were certified professionals, including psychologists, psychiatrists, social workers, marriage and family therapists, professional counselors and drug and alcohol counselors, while the study participants were front line child welfare workers.

For the Secondary Traumatic Stress Scale (STSS) scores for the study sample were higher than scores for a sample of child welfare case managers and supervisors (Bride et al., 2007) but this difference was not statistically significant. However, in other studies using STSS, differences were greater. Scores for the study sample were significantly higher than scores for samples of professionals working: (a) with adult victims of family violence, sexual assault or elder abuse (Choi, 2011), or (b) in various fields of social service, including only 7.2% in child welfare (Bride, 2007).

Hypothesis 2: A higher level of vicarious traumatization is associated with more years in child welfare.

Though there was some evidence to support this hypothesis, the correlation found between level of secondary traumatic stress and years working in child welfare was of only borderline significance.

4.2 Limitations

The lack of standardized measurement limited this study to measure symptoms of secondary traumatic stress instead of vicarious traumatization.

This study was only carried out in one department. The results cannot be generalized to either the entire population or frontline workers in the agency because of the limitation of the study sample. The study result could be biased because of the demographic difference between departments thus the results was not representative of the situation in the agency, but only a portrait of the studied department. Because of the existence of huge differences in demographics in different departments, the external validity of the study was questionable.

To protect confidentiality, certain information was not collected in the study such as age, ethnicity, marital status and highest degree. Potentially, this information could have provided more insight in examining their relationship with secondary traumatic stress symptoms. The demographic information collected was not able to provide more information as to why a fairly large group of people fell into severe STS group in the STSS testing.

Although the STSS questionnaire was worded to record only symptoms related to secondary trauma, respondents may also have answered certain questions based on their primary traumatic experience

inflicted by clients. There was also a risk of increased reporting as the participants might want the agency to pay attention to vicarious traumatization and take steps to address the issue, or under-reporting as the workers might not realize they were experiencing these symptoms.

4.3 Implications for practice

It is important to sensitize frontline child welfare workers about the concept of vicarious traumatization. Staff should be encouraged to gain knowledge on this topic and agencies should promote an openness for ongoing discussion on vicarious traumatization. The study certainly revealed that the staff of the analyzed departments were experiencing high level of secondary traumatic stress symptoms, and therefore more awareness should be brought to the staff so that preventative measures can be taken accordingly.

The results did not support the hypothesis that workers with more years working experience in the field experience higher levels of vicarious traumatization. It is possible that some of these senior workers who experienced higher levels of vicarious traumatization stopped working at the agency, while those who stayed are more resilient. It is important to continue to provide staff support in order to build resilience. As indicated in the participants' answers (Table 1), they believed that self care, debriefing and limited caseloads are the most desired measures to be implemented in order to counter a negative work experience. New strategies should be implemented in the agency to promote self care, such as a meditation zone or yoga to help staff regain psychological balance from work, group therapy to promote debriefing and reducing the isolation workers feel when dealing

with certain cases, and promoting a strong team support system to avoid feelings of isolation.

It is essential for new employees to learn about the importance of self care during their orientation and training sessions. Bell et al. (2003) suggest that inexperienced workers have not developed effective coping strategies for dealing with the effects of vicarious trauma and that trauma-specific education can reduce potential traumatization. Encouraging workers to take their vacation days, working flexible hours when possible and pursuing additional education/training if the employees are interested, can make all the difference. For seasoned employees, a review training session of self care skills can be very beneficial as well. For the agency to promote self-care and develop an ongoing dialogue about its importance, as opposed to viewing self-care as a lack of commitment to their work would be most beneficial to its employees. Trauma theory and self care strategies training can be incorporated into the annual "in house training" given at the agency. Workers with more years of experience should not be exempted from these activities as they tend to count on their current coping mechanism without addressing the issue more effectively. Self care literature should be disseminated and reviewed at team meetings to encourage discussion and raise awareness.

The agency has established a well maintained supervision system to make sure that employees receive the needed support from their managers. Bell et al. (2003) emphasize the importance of this continued support to minimize the stress that workers experience. When assigning cases, the nature of the cases assigned to one worker should be considered. How to maintain a reasonable and manageable caseload should also be studied, as opposed to just looking at the number of cases assigned. Frontline

workers can benefit from a varied caseload rather than repeatedly dealing many cases of a similar nature (i.e.: sexual abuse). As well, as indicated by the participants responses, consistent leadership and clinical guidance across different teams would help to eliminate stress.

When processing a leave from work with a staff member, it is important to differentiate whether it was caused by burn out or by vicarious traumatization. It is easier for staff to recover from burn out and return to work as opposed to vicarious traumatization, as it has a profound effect on a worker's belief and cognitive system. If more workers are taking leaves because of vicarious traumatization, a more effective system needs to be established in order to combat this problem and help the absent worker to recover and return to work. When staff take a leave because of vicarious trauma, the Human Resources Department should assist in helping them rather than confusing it with burn out and encouraging staff to come back to work prematurely. A peer support group or group counseling could be considered as a coping strategy to deal with the level of vicarious traumatization.

4.4 Implications for research

For future research, it could be useful to have newly hired employees at a child welfare agency to complete a Trauma and Attachment Belief Scale and World Assumption Scale as a baseline. This would allow for a before and after comparison study to further evaluate whether working in child welfare over time changes the cognitive schema of a worker.

To have a better picture of how workers are affected by vicarious traumatization, an agency wide study would be more appropriate in which all the staff who have direct client contact including reviewers, lawyers, and group home educators.

To protect confidentiality, not enough information was collected on demographics, thus it is not feasible to show the characteristics of the group of workers who experienced particularly severe secondary traumatic stress (28.6%). A further study on these workers would provide more insights and ideas in order to offer better support to them in their job. Likewise, a further study on workers who have more than 10 years working experience in the same position would help to understand why these workers are more resilient in child welfare so that the agency can promote their coping strategies and improve worker retention.

A comparison study carried out at another child welfare agency in Montreal can provide more insight as to whether vicarious traumatization is an issue to this particular agency or to workers in child welfare field in general and whether the difference in agency policies and culture have impact on the level of vicarious traumatization experienced by worker.

In this research, I could not find a better tool to measure vicarious traumatization. A tool to screen vicarious traumatization and measure how it affects workers' abilities to intervene with their clients should be developed to better identify the problem among different worker groups. The tool will hopefully help agencies in addressing the issue of worker turnover and worker absenteeism.

4.5 Conclusion

This study explored vicarious traumatization among one department at a child welfare agency and the results revealed that child welfare workers reported a high level of secondary traumatic stress symptoms. Given the lack of an effective tool to measure vicarious traumatization, the result certainly pointed to the high probability of development of vicarious traumatization among child welfare workers. The study results were compared with published norms and the study results again revealed a statistically significant higher level of secondary traumatic stress symptoms in child welfare than workers in other fields of social service. Self-care, debriefing with colleagues and supervisors and limiting caseloads were considered effective ways to counter negative impacts from this type of work. Emphasis on the importance of self-care and specific self-care methods should be highly encouraged among staff to prevent vicarious traumatization.

APPENDIX 1

PERSONAL INFORMATION SURVEY

Please read the following and respond by circling the number of the response that best describe your situation:

1. Your gender:
1) female 2) male
2. How many years have you been working with Batshaw Youth and Family Centres?
1) less than 1 year 2) 1-3 years 3) 4-9 years 4) 10 years and over
3. What is your current job function?
1) HRA 2) educator
4. How many years have you been working in your current position?
1) less than 1 year 2) 1-3 years 3) 4-9 years 4) 10 years and over
5. Do you think you are affected in a positive way by the work you do?
1) yes 2) no
6. Do you think you are affected in a negative way by the work you do?
1) yes 2) no
7. Overall, do you think your work has a more positive or negative effect on you?
1) positive 2) negative
8. If a negative effect, did this cause you to take any leave?
1) yes 2) no 3) N/A (a positive effect is chosen for question 7)
9. Please read the following items and circle the numbers of the three that you think would most help you to address the negative impact you experience from your work
 - 1) Self Care – limited overtime, make time for hobbies, leisure, family and friends, physical activities
 - 2) Therapy training course to increase therapeutic self-awareness to help self-examine the impact of vicarious traumatization
 - 3) Regular debriefing with colleagues and supervisors
 - 4) Limit caseloads
 - 5) Continuing professional education and training about new concepts in trauma including vicarious trauma
 - 6) Opportunities for research and training sabbaticals
 - 7) Keeping a balance between empathy and a proper professional distance to clients
 - 8) Access to Employee Assistance Plan to seek professional help
10. Is there anything else you would like to say about your experience (please write at the back if you don't find enough space here)

APPENDIX 2

PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

COMPASSION SATISFACTION AND COMPASSION FATIGUE

When you help people you have direct contact with their lives. As you may have found, your compassion for those you help can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a helper. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these feelings.

1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often

- _____ 1. I am happy.
- _____ 2. I am preoccupied with more than one person I help.
- _____ 3. I get satisfaction from being able to help people.
- _____ 4. I feel connected to others.
- _____ 5. I jump or am startled by unexpected sounds.
- _____ 6. I feel invigorated after working with those I help.
- _____ 7. I find it difficult to separate my personal life from my life as a helper.
- _____ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.
- _____ 9. I think that I might have been affected by the traumatic stress of those I help.
- _____ 10. I feel trapped by my job as a helper].
- _____ 11. Because of my helping, I have felt "on edge" about various things.
- _____ 12. I like my work as a helper.
- _____ 13. I feel depressed because of the traumatic experiences of the people I help.
- _____ 14. I feel as though I am experiencing the trauma of someone I have helped.
- _____ 15. I have beliefs that sustain me.
- _____ 16. I am pleased with how I am able to keep up with helping techniques and protocols.
- _____ 17. I am the person I always wanted to be.
- _____ 18. My work makes me feel satisfied.
- _____ 19. I feel worn out because of my work as a helper.
- _____ 20. I have happy thoughts and feelings about those I help and how I could help them.
- _____ 21. I feel overwhelmed because my case work load seems endless.
- _____ 22. I believe I can make a difference through my work.

APPENDIX 2-Continued

- _____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.
- _____ 24. I am proud of what I can do to help.
- _____ 25. As a result of my helping, I have intrusive, frightening thoughts.
- _____ 26. I feel "bogged down" by the system.
- _____ 27. I have thoughts that I am a "success" as a helper.
- _____ 28. I can't recall important parts of my work with trauma victims.
- _____ 29. I am a very caring person.
- _____ 30. I am happy that I chose to do this work.

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APPENDIX 3

SECONDARY TRAUMATIC STRESS SCALE

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement, then indicate how frequently the statement was true for you in the past by circling the corresponding number on the right.

	<i>Never</i>	<i>Rarely</i>	<i>Occasionally</i>	<i>Often</i>	<i>Very Often</i>
1. <i>I felt emotionally numb.</i>	1	2	3	4	5
2. <i>My heart started pounding when I thought about my work with clients.</i>	1	2	3	4	5
3. <i>It seemed as if I was reliving the trauma(s) experienced by my client(s).</i>	1	2	3	4	5
4. <i>I had trouble sleeping.</i>	1	2	3	4	5
5. <i>I felt discouraged about the future.</i>	1	2	3	4	5
6. <i>Reminders of my work with clients upset me.</i>	1	2	3	4	5
7. <i>I had little interest in being around others.</i>	1	2	3	4	5
8. <i>I felt jumpy.</i>	1	2	3	4	5
9. <i>I was less active than usual.</i>	1	2	3	4	5
10. <i>I thought about my work with clients when I didn't intend to.</i>	1	2	3	4	5
11. <i>I had trouble concentrating.</i>	1	2	3	4	5
12. <i>I avoided people, places, or things that reminded me of my work with clients.</i>	1	2	3	4	5
13. <i>I had disturbing dreams about my work with clients.</i>	1	2	3	4	5
14. <i>I wanted to avoid working with some clients.</i>	1	2	3	4	5
15. <i>I was easily annoyed.</i>	1	2	3	4	5
16. <i>I expected something bad to happen.</i>	1	2	3	4	5
17. <i>I noticed gaps in my memory about client sessions.</i>	1	2	3	4	5

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Bride, B.E., Robinson, M.R., Yegidis, B., & Figley, C.R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice*, 14, 27-35.

APPENDIX 4

PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

SCORE CALCULATION

The Professional Quality of Life Scale has three subscales: Compassion Satisfaction, Burn Out and Secondary Traumatic Stress (formerly named as Compassion Fatigue).

The scores were calculated as follows (Stamm, 2010):

- The codes for items 1, 4, 15, 17 and 29 were reversed;
- The score for the Compassion Satisfaction subscale was the sum of items 3, 6, 12, 16, 18, 20, 22, 24, 27 and 30; higher scores for this subscale indicate the respondent is experiencing better satisfaction with his or her ability to provide care;
- The score for the Burn Out subscale was the sum of items 1, 4, 8, 10, 15, 17, 19, 21, 26 and 29; higher scores for this subscale indicate the respondent is at risk of experiencing symptoms of burnout;
- The score for the Secondary Traumatic Stress subscale was the sum of items 2, 5, 7, 9, 11, 13, 14, 23, 25 and 28; higher scores for this subscale indicate the respondent is at higher risk for secondary traumatic stress.

APPENDIX 5
SECONDARY TRAUMATIC STRESS SCALE (STSS)
SCORE CALCULATION

The Secondary Traumatic Stress Scale has three subscales: Intrusion, Avoidance and Arousal. The scores were calculated as follows (Bride, 2007):

- The Intrusion subscale score was the sum of items 2, 3, 6, 10 and 13.
- The Avoidance subscale score was the sum of items 1, 5, 7, 9, 12, 14 and 17.
- The Arousal subscale score was the sum of items 4, 8, 11, 15 and 16.
- Total score was the sum of the three subscale scores.

In all cases, a higher score indicates more stress.

APPENDIX 6

INDEPENDENT *T*-TEST CALCULATION METHOD

The independent sample *t*-tests that were hand calculated used the following formulas:

To calculate the standard error of the difference:

$$SE_{M_1-M_2} = \sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}$$

To calculate *t*:

$$t = \frac{M_1 - M_2}{SE_{M_1-M_2}}$$

Loether and McTavish (1974, pp.169-174) provide a detailed explanation for the underlying reasons for the application of this formula.

REFERENCES

- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders (4th ed., text revision)*. Washington, DC: American Psychiatric Association.
- Arvay, M. J. (2001). Secondary traumatic stress among trauma counselors: What does the research say? *International Journal for the Advancement of Counseling*, 23, 283-293.
- Baird, K. & Kracen, A.C. (2006). Vicarious traumatization and secondary traumatic stress: A research synthesis. *Counseling psychology quarterly*, 19(2), 181-188.
- Beaton, R., & Murphy, S. (1995). Working with people in crisis. In C. Figley (Ed.), *Compassion fatigue* (pp. 51-81), New York: Brunner/Mazel.
- Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society*, 84, 463-470.
- Best Start Resource Centre. (2012). When Compassion Hurts: Burnout, Vicarious Trauma and Secondary Trauma in Prenatal and Early Childhood Service Providers. Toronto, Ontario, Canada: author. Retrieved from http://www.beststart.org/resources/howto/pdf/BSRC_Compassion_FINAL_Nov.pdf
- Blair, D. T., & Ramones, V. A., (1996). Understanding vicarious traumatization. *Journal of Psychosocial Nursing & Mental Health Services*, 34 (11), 24-30.
- Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD checklist (PCL). *Behavioral Research & Therapy*, 34, 669-673.
- Bride, B. E. (2007). Prevalence of secondary traumatic stress among social workers. *Social Work*, 52 (1), 63–70.
- Bride, B.E., Jones, J.L. & MacMaster, S.A., (2007). Correlates of secondary traumatic stress in child protective services workers. *Journal of evidence-based social work*. 4(3/4), 69-80.
- Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, 35(3), 155-163.

- Bride, B.E., Robinson, M.R., Yegidis, B., & Figley, C.R., (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14*, 27-35.
- Briere, J. (1995). Trauma Symptom Inventory professional manual. Odessa, FL: Psychological Assessment Resources.
- Briere, J. (2001). Detailed Assessment of Posttraumatic Stress (DAPS). Odessa, Florida: Psychological Assessment Resources.
- Briere, J. & Runtz, M. (2002). The Inventory of Altered Self-Capacities (IASC) A standardized measure of identity, affect regulation, and relationship disturbance. *Assessment, 9*(3), 230-239.
- Brock, K.J., Pearlman, L.A., & Varra, E.M. (2006). Child maltreatment, self capacities, and trauma symptoms. *Journal of Emotional Abuse, 6*(1), 103-125.
- Buchanan, M., Anderson, J.O., Uhelmann, M.R., & Horwitz, E. (2006). Secondary traumatic stress: An investigation of Canadian mental health workers. *Traumatology, 12*, 1-10.
- Census Canada (2011). 2011 Census Profile. Retrieved on February 1, 2014, from www.statcan.gc.ca.
- Choi, G.Y. (2011). Organizational impacts on the secondary traumatic stress of social workers assisting family violence or sexual assault survivors. *Administration in Social Work, 35*, 225-242.
- Christianson, S. & Marren, J. (2013). The Impact of Event Scale – Revised (IES-R). Try this: Best Practices in Nursing Care to Older Adults. 19. Retrieved from http://consultgerirn.org/uploads/File/trythis/try_this_19.pdf
- Cornille, T.A. & Myers, T.W. (1999). Secondary traumatic stress among child protective service workers: Prevalence, severity, and predictive factors. *Traumatology, 5*, 1-14.
- Coulthard, C., Duncan, K., Goranson, S., Hewson, L., Howe, P., Lee, K., Persad, S., McDonald, C., Raposa, C., & Schatia, D. (2001). Report on Staff Retention. Toronto Ontario, Canada: Children's Aid Society of Toronto.
- Drake, B. & Yadama, G.N. (1996). A structural equation model of burnout and job exit among child protective services workers. *Social Work Research, 20*, 179–187.

- Dunkley, J., & Whelan, T.A., (2006). Vicarious traumatization: current status and future directions. *British Journal of Guidance & Counselling*, 34(1), 107-116.
- Ellett, A. J. (2007). Linking self-efficacy beliefs to employee retention in child welfare. *Journal of Evidence-based social worker*, 4 (3/4), 39-68.
- Figley, C.R. (1995) *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. (pp. 1-20) New York. Brunner/Mazel.
- Figley, C.R. (Ed.). (2002). Treating compassion fatigue. New York: Brunner-Routledge.
- Gentry, E., Baranowsky, A., & Dunning, K. (1997). Accelerated recovery program for compassion fatigue. Presented at the: Thirteenth Annual International Society for Traumatic Stress Studies Conference, Queen Elizabeth Hotel Montreal, QB, CAN November 9, 1997, retrieved from http://www.tir.org/research_pub/research/compassion_fatigue.html
- Harrison, R.L. & Westwood, M.J. (2009). Preventing vicarious traumatization of mental health therapists: identifying protective practices. *Psychotherapy Theory, Research Practice, Training*, 46(2), 203-219.
- Hernandez, P., Gangsei, D., & Engstrom, D. (2007). Vicarious resilience: A new concept in work with those who survive trauma. *Family Process*, 46(2), 229-241.
- Hesse, A. (2002). Secondary trauma: How working with trauma survivors affects therapists. *Clinical Social Work Journal*, 30, 293 – 309.
- Horowitz, M., Wilner, M., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective stress. *Psychosomatic Medicine*, 41, 209-218.
- Horwitz, M. (1998). Social worker trauma: Building resilience in child protection social workers. *Smith College Studies in Social Work*, 68, 363-377.
- Kaler, M.E, Frazier, P.A., Anders, S.L., Tashiro, T., Tomich, P., Tennen, H., & Park, C. (2008). Assessing the psychometric properties of the World Assumptions Scale. *Journal of Traumatic Stress*, 21 (3), 326-332.

- Iliffe, G., & Steed, L. (2000). Exploring the counselor's experience of working with perpetrators of domestic violence. *Journal of Interpersonal Violence, 15*, 393-412.
- Loether, H.J., & McTavish, D.G. (1974). *Inferential statistics for sociologists: An introduction*. Boston: Allyn & Bacon.
- McCann, L., & Pearlman, L. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3*(1), 131-149.
- Morrison, T. (1992). The emotional effects of child protection work on the worker. *Practice, 4*, 253-271.
- Myers, T.W. & Cornille, T.A. (2002). The trauma of working with traumatized children. In C.R. Figley (Ed.), *Treating compassion fatigue* (pp. 39-55). New York: Brunner-Routledge.
- Nelson-Gardell, D. & Harris, D. (2003). Childhood abuse history, secondary traumatic stress, and child welfare workers. *Child Welfare, 82*, 5-26.
- Ortlepp, K. & Friedman, M. (2002). Prevalence and correlates of secondary traumatic stress in workplace lay trauma counselors. *Journal of Traumatic Stress, 15*, 213 – 222.
- Pearlman, L.A., & Mac Ian, P.S. (1995). Vicarious traumatization: an empirical study of the effects of trauma work on trauma therapists. *Professional Psychology: Research and Practice, 26*, 558-565.
- Pearlman, L.A. & Saakvitne, K.W. (1995). Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors. New York: W. W. Norton & Company.
- Pearlman, L.A. (2001). The treatment of persons with complex PTSD and other trauma-related disruptions of the self. In J.P. *Wilson, M.J. Friedman, & J.D. Lindy (Eds.), *Treating psychological trauma & PTSD*, (pp. 205–236). New York: Guilford Press.
- Pearlman, L.A. (2003). Trauma and Attachment Belief Scale. Los Angeles, CA: Western Psychological Services.
- Regehr, C. & Cadell, S. (1999). Secondary trauma in sexual assault crisis work: Implications for therapists and therapy. *Canadian Social Work, 1*, 56 – 63.
- Regehr, C., Hill, J., & Glancy, G. (2000). Individual predictors of traumatic reactions in firefighters. *Journal of Nervous and Mental Disease, 188*, 333–339.

- Rothschild, B. & Rand, M. (2006). Help for the helper: the psychophysiology of compassion fatigue and vicarious trauma. (pp. 12-21). New York: W. W. Norton & Company.
- Saakvitne, K. W., Gamble, S., Pearlman, L., & Lev, B. (2000). Risking connection: A training curriculum for working with survivors of childhood abuse. Lutherville, MD: Sidran Press.
- Salston, M., & Figley, C. (2003). Secondary Traumatic stress effects of working with survivors of criminal victimization. *Journal of Traumatic Stress*, 16(2), 167–174.
- Sabin-Ferrell, R., & Turpin, G. (2003). Vicarious traumatization: Implications for the mental health of workers. *Clinical Psychology Review* 23, 449-480.
- Scannapieco, M., & Connell-Carrick, K. (2003). Do collaborations with schools of social work make a difference for the field of child welfare: Practice, retention and curriculum. *Journal of Human Behavior in the Social Environment*, 7, 35–51.
- Scannapieco, M. & Connell-Carrick, K. (2007). Child welfare workforce: The state of the workforce and strategies to improve retention. *Child Welfare*, 86, 31–52.
- Sprang, G., Clark, J. J., & Whitt-Woosley, A. (2007). Compassion Fatigue, Compassion Satisfaction and Burnout: factors impacting a professional's quality of Life. *Journal of Loss and Trauma*, 12, 259-280.
- Stamm, B.H. (2009-2012). Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). Pocatello, ID: ProQOL.org. Retrieved from <http://www.proqol.org>
- Stamm, B.H. (2010) The Concise ProQOL Manual. Retrieved from <http://www.proqol.org>
- Taylor, S., & Brown, J.D. (1988). Illusions and well-being: A social-psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- VanDeusen, K., & Way, I. (2006). Vicarious trauma: An exploratory study of the impact of providing sexual abuse treatment on clinician's trust and intimacy. *Journal of Child Sexual Abuse*, 15(1), 107–116.
- Weiss, D.S. & Marmar, C.R. (1997). The Impact of Event Scale – Revised. In J.P. Wilson, & T.M.Keane (Eds), *Assessing psychological Trauma*

and PTSD: A Practitioner's Handbook (pp.399-411). New York: Guilford Press.

Zlotnik, J. L., DePanfilis, D., Daining, C., & Lane, M. M. (2005). Factors Influencing Retention of Child Welfare Staff: A Systematic Review of Research. Washington, DC: Institute for the Advancement of Social Work Research. Retrieved from <http://www.iaswresearch.org>