Supporting Staff at Risk for Compassion Fatigue

Prepared for Region of Peel Public Health

Elizabeth Walker, RN BScN, CCHN(C)
Cheryl Morin, RN, BScN
Nicole Labrie, RN, BScN, CCHN(C)

October 1, 2012

Region of Peel
Working for you

Table of Contents

Key Take Home Messages

- Staff working in the Healthy Babies Healthy Children program are reporting increases in work-related stress, including compassion fatigue.

- Current strategies to reduce compassion fatigue, including reflective practice and self-care, may be insufficient.

- Identifying milestones encountered when working with families, and describing situations where boundary violations can occur, may encourage staff to seek support at these key times.

- Providing support and guidance to staff dealing with complex issues can help them transform these experiences which can enhance resilience.

- Increasing efforts to address compassion fatigue among all staff in HBHC could result in less direct service in the short-term but reduced work-related stress and less sick-time in the longer term.

Executive Summary

Issue and Context:

Staff members employed in the Healthy Babies Healthy Children (HBHC) program at Peel Public Health are experiencing increasing stress as they work with parents of young children who are at high risk for poor child development. Despite continuing efforts to help staff deal with work-related stress through specialized training, reflective practice, professional consultations, and self-care activities, many are experiencing its negative impact. In 2011, an HBHC Workload Management Group identified compassion fatigue as a contributor to workload stress. The working group requested a literature review to inform their planning of strategies to reduce compassion fatigue. The negative aspect of "helping" work is referred to as "compassion fatigue". This term was first used in relation to burnout among nurses but now embraces both burnout and "secondary traumatic stress" (1). Secondary traumatic stress (or vicarious trauma) results from the work-related exposure to stories of extremely stressful events that happen to other people (2). The terms compassion fatigue and secondary traumatic stress (or vicarious trauma) are often used interchangeably.

Research Question:

What strategies are effective in preventing or minimizing compassion fatigue among public health practitioners?

Literature Review:

Systematic searches of OVID Medline and CINAHL for the period January, 1990 – November, 2011 and OVID Medline in March 2012, identified 85 potentially relevant articles. Of these 12 were reviewed in full text. After applying exclusion criteria, six relevant reviews remained for critical appraisal. Four reviews were rated "weak" and excluded, leaving two "moderate" quality reviews to inform the current rapid review.

Synthesis of Findings:

The two included reviews are narrative syntheses of literature which outline work-related stressors experienced by nurses; describe coping strategies utilized; and the effectiveness of these strategies. Although the study population for both reviews was primarily nurses, some allied health disciplines are also included. No reviews were found which were directly comparable to the Family Visitor role.

The first review concludes that work-related stress can be reduced by helping nurses to: establish and maintain personal and professional boundaries; reflect on their practice; and engage in self-care. The second review identifies support from team members, and professional experience as **coping factors**; dealing with milestones in their work, use of coping strategies, and maintaining boundaries as **coping processes**; and development of resilience as a way of **overcoming negative circumstances**.

Conclusions and Recommendations:

A representative group of HBHC staff and management met to discuss the applicability and transferability of the findings to Peel's HBHC program staff. They conclude that:

- Reducing compassion fatigue among staff will likely lead to better client service.
- Taking additional time to build resilience or reduce compassion fatigue could result in less direct service in the short term, but less sick-time in the longer term.
- A number of strategies to address compassion fatigue, which have been introduced in the past, may need to be modified to enhance their effectiveness.
- The orientation program for new staff, plus team and supervisory meetings, provide opportunities for introducing new interventions to all staff disciplines.
- Family Visitors may be at increased risk for compassion fatigue as they bring varied academic background and experience to their positions.

The findings of this rapid review will be used by the HBHC Workload Management Committee in developing plans for increasing support to HBHC staff and management in order to build resilience and reduce compassion fatigue.

1 Issue

Parents participating in the Healthy Babies Healthy Children (HBHC) home visiting program face complex challenges which affect their ability to parent young children. In 2009, when Public Health Nurses reviewed their current cases, nearly 40% of mothers had mental health concerns; 40% had financial concerns; 20% had experienced family violence; 19% had children with difficult behaviours/temperament and 42% were isolated. For home visiting staff, comprised of Public Health Nurses and Family Visitors, every family is at high risk for poor child development. Working with HBHC clients exposes staff to life circumstances which can be disturbing. Despite ongoing efforts to help staff deal with the stress of their work, many are experiencing its negative impact and recognizing it in their colleagues.

In 2011, a group of HBHC staff and management was assembled to develop a comprehensive strategy to help HBHC staff manage workload stress. They identified three contributors to workload stress:

1. caseload targets and management of daily work
2. use of computer technology for documentation
3. compassion fatigue/vicarious trauma.

The working group requested a rapid review to identify effective strategies to help staff deal with the emotional burden of working with high risk families, which can lead to compassion fatigue.

Anecdotes:

Two members of the working group provided the following reflections on their work:

In a perfect world, (the birth of a child) would be the happiest time for parents; however, we rarely see this in our jobs. The majority of the families we see are dealing with too many crises to see this as a happy time. (Reflection by a Family Visitor)

Visiting complex clients in their homes can be emotionally exhausting, overwhelming, isolating and unpredictable. We can find ourselves paralleling the client's emotional turmoil; unable to help the client feel hope. How does a compassionate, caring nurse conclude a visit knowing the client has little food, is a victim of multigenerational financial, emotional and physical abuse, is unable to meet her own or her children's basic needs, and has no insight into how to improve her mental health? How can we leave this client? We must leave – because the next client is waiting. (Reflection by Public Health Nurse)

While strategies have been put in place to help staff deal with the emotions they experience through their client work there is a desire to identify additional evidence-based, effective strategies to reduce compassion fatigue.

2 Context

A number of strategies have been introduced over the past decade to assist staff who work in the HBHC program. These include:

- Specialized training on a variety of topics to help them develop/increase skills for working effectively with high risk families.
- Reflective practice, including monthly meetings with their team supervisor, and collaborative case reviews at team meetings to help staff find meaning in their work.
- Professional consultation with infant development specialists, nutritionists and mental health specialists to help staff deal with complex child health issues.
- Policies and guidelines regarding service delivery to assist with management of specific client and staff situations.
- Self-care activities[1] practiced during team meetings.

In spite of these efforts, staff express continuing concern about the level of stress in their daily lives related to work, client, and personal environments.

Work Environment

Healthy Babies Healthy Children is a large program (given the size of the annual birth cohort in Peel Region) employing 82 FTE[2]. Staff members represent a wide range of ages and experience. Over 50% of the Public Health Nurses have been with the program since its inception in 1998. The majority of Family Visitors have worked in HBHC for10 years or longer, partially due to the limited opportunity to transfer their skill set to other positions within the Region of Peel.

[1] Activities, adapted from a number of authoritative sources, include relaxation, reframing experiences, self-assessment using the ProQOL tool, and strategies for transitioning into and out of client home visits.
[2] There are more than 40 PHNs, 24 Family Visitors, 2 managers, 7 supervisors, and 9 administrative support staff.

Caseloads for home-visiting staff vary in size ranging from 30-35 client families per Public Health Nurse and 20-25 per Family Visitor. In 2008 realistic but challenging performance targets for both Public Health Nurses and Family Visitors were introduced [3]. Many Family Visitors report that striving to achieve their target number of visits is a source of stress.

An electronic client case-management documentation system exists in HBHC. Staff members are pleased with the option of documenting electronically from home, which increases timeliness, and reduces travel to and from the office. However, documenting from home reduces face-to-face contact with colleagues and decreases informal opportunities to debrief stressful client situations and to celebrate client successes.

Client Environment

To be eligible for the home-visiting program, all clients must be high risk. Nurses reported an increase in risk factors among client families served by the HBHC home visiting program between 2007 and 2009[4]. On average 16% of the families in the HBHC home visiting program are also clients of Peel Children's Aid Society (CAS). All staff members are aware of the duty to report suspected child protection concerns; however, loss of objectivity and blurring of interpersonal boundaries between client and helper (PHN or FV) can result in failure to report suspected child protection concerns in a timely manner. Staff have commented that "our stories and our client stories become intertwined".

[3] Public Health Nurses assess at least 5 new "at risk" families, and complete at least 15 additional home visits per month. For Family Visitors the target is 35 completed home visits per month. Public Health Nurses on the telephone assessment team make up to 20 calls to clients and complete 3-5 assessments per day.
[4] This data was gathered to support a request for additional government funding for the HBHC program.

Increasing risk is also reflected in the number of incidents with families on the HBHC program (or former clients) that have resulted in criminal investigations. Public Health Nurses and Family Visitors may be interviewed by the police, and the client record reviewed as part of the investigation. Although staff are supported through the process by their supervisor and by legal counsel, this can be a very stressful experience for staff members.

Personal Environment

Working with high risk families who are difficult to engage, slow to show positive changes, have frequent crises, and resist suggestions, can result in burnout and lost time from work. The stress experienced by HBHC staff in the course of their work with high risk families is perceived by staff and management to be increasing.

Conceptual Framework

A theoretical model of Compassion Satisfaction and Compassion Fatigue, developed by Dr. Beth Hudnall-Stamm, was adopted for this review (See Appendix A, p. 1). Ten stakeholders[5] met to review and comment on the conceptual model. They identified many factors which, in their experience, contribute to compassion satisfaction and to compassion fatigue. Following a review of the factors, themes were extracted and are included in a second model (see Appendix A, p. 2).

[5] Stakeholders included 2 managers, 2 Family Visitors, 3 PHNs and 1 administrative support person from the HBHC program, and 1 PHN from the Family Health Contact Centre.

Literature Review Question

This review sought to identify effective strategies to support HBHC staff and management at risk for, or experiencing, compassion fatigue and to build resilience.

The question is:

What strategies are effective in preventing or minimizing compassion fatigue among public health practitioners?

Using PICO format assists with identifying search terms.

P – health professionals, allied health professionals, administrative support

I – any intervention

C – none

O – decrease in: stress, vicarious trauma, burnout, compassion fatigue, illness, extended absence; or increase in: compassion satisfaction or resilience.

3 Literature Search

Searches of OVID Medline and CINAHL were performed by a librarian for the time period 1990 - November, 2011. A supplemental search of OVID Medline, run in March, 2012 yielded no additional relevant articles (See Appendix B for search strategies). Thirteen websites were searched for guidelines addressing vicarious trauma, compassion fatigue or compassion satisfaction. No relevant guidelines were found.

Relevance Assessment

Prior to searching, the following criteria were established for determining relevance of literature:

Inclusion Criteria	Exclusion Criteria
Guidelines or reviews Focus on compassion fatigue or compassion satisfaction or resilience Any intervention Health professionals or allied health professionals working with women and children	Psychiatrists or psychologists or emergency workers Responding to survivors of disasters (natural or man made) Focus primarily on palliative care Language other than English Single studies

Search Results

Research in the area of compassion fatigue is limited due to the short time interval (less than 20 years) since the phenomenon was first described (1). A total of 85 articles were identified from the searches of OVID Medline and CINAHL. After removal of 5 duplicates, 80 titles and abstracts were independently assessed for relevance by two reviewers. Of these, 68 were found to be not relevant, leaving 12 for full text review. After reading the full papers, 6 were excluded because they described the wrong population (2 articles), or focused on survivors or workers in disaster settings (4 articles). Six relevant systematic reviews were critically appraised.

Critical Appraisal

Two reviewers independently rated each of the 6 relevant reviews using the Quality Assessment Tool for Review Articles retrieved from health-evidence.ca. Following independent appraisal, ratings were shared and any discrepancies resolved through discussion. Four syntheses were rated weak and excluded from further analysis (3-6). Two moderate quality syntheses were retained (7, 8). (See Appendix C – Search Results.)

Description of Included Studies:

The 2 included reviews are narrative syntheses of literature which outline work-related stressors experienced by nurses, describe coping strategies utilized and the effectiveness of these strategies.

Zander and Hutton (2009) sought to identify effective strategies used by nurses in dealing with work related stressors in paediatric oncology settings (7). Their search covering the period 2002-2007 resulted in 18 studies conducted in a variety of developed countries. They appraised all studies using quality criteria developed by Taylor, Kermode & Roberts[6]. The methodology for each included study was reported to be strong. Eight studies are oriented to oncology nursing (2 of these focusing on paediatric oncology); 10 are related to other nursing specialties or to nursing in general. Only 1 study (n=77 participants) includes allied health disciplines; a second study includes oncologists as well as nurses. Small sample sizes (≤ 50 subjects) was a limitation in 9 studies. Seven studies used qualitative methodology, 7 used quantitative and 4 used mixed methods. Due to the variety in study designs, the researchers completed a thematic analysis.

[6] Taylor, Kermode & Roberts in *Research in Nursing and Health Care: Evidence for Practice* (3rd edition) Melbourne: Thomson, p. 86-92

In 2010, Zander, Hutton and King published a second review focused on coping, resilience and burnout prevention among paediatric oncology nurses (8). They included 24 articles published over a 15 year period, 6 of which were duplicates from their 2009 review. Half of the studies were conducted in the USA and the remainder in other developed countries. The study settings included oncology inpatient and outpatient services for paediatric patients, community and hospice. Seventeen of the studies included solely nurses, nearly all in oncology settings. Five studies included oncologists and 2 studies included allied health disciplines, along with nurses.

Study designs employed either quantitative or qualitative methods (13 quantitative; 11 qualitative studies). Mixed methods studies were assigned to the category which was most predominant in the study report. All studies were assessed for quality using tools appropriate to the study design. The quantitative studies were reported to be "generally weaker" and the qualitative studies were reported to be "strong". Generalizability was said to be limited for 5 of the quantitative studies due to small sample size (3 studies), use of untested tools (1 study), or findings which were inconsistent with the model being tested (1 study). However, these 5 studies were combined with other stronger studies when conducting a thematic analysis. See Appendix D – Data Extraction table for further details of the two included reviews.

Synthesis of Findings

Two systematic reviews (Zander, 2009, 2010) aimed to identify effective ways to assist nurses and other healthcare workers in coping with work-related stress. Intervening to reduce stress or to assist with coping may prevent burnout, an element of compassion fatigue. While the population of interest in both reviews was paediatric oncology nurses, several of the included

studies were of nurses practising in other areas, and 2 studies included other health disciplines, which increases the generalizability of the findings.

Zander (2009) looked at how paediatric oncology nurses deal with stressors and how managers and colleagues could enhance nurses' coping strategies. From their analysis, three themes were identified, namely *meaning, interventions and strategies* and *commitment.* The theme *meaning* refers to establishing the meaning of work which impacts on professional relationships and boundaries. *Interventions* include workshops designed to teach stress reduction and self-care practices. Coping *strategies* refer to those behaviours which are feasible for nurses to use in dealing with work-related stress. *Commitment* to the profession, the team, and to oneself was the third theme.

Using evidence from 18 studies, Zander (2009) concludes that work-related stress can be reduced by helping nurses to:

- establish and maintain personal and professional boundaries
- reflect on their practice and
- engage in self-care.

Three small studies discussed professional **boundaries** between healthcare practitioners and clients/families. Establishing boundaries helps practitioners balance being emotionally close or distant with clients. Observing boundaries can limit practitioner's distress, for example by maintaining emotional distance from troubling situations. No further detail or examples of boundary setting were provided.

Reflecting on practice was identified as a coping technique useful in overcoming negative events in nurses' work. Nurses reflect on their work by talking with colleagues. One study (n= 103) found that sharing experiences with colleagues allowed nurses to see similarities in their stories, develop a greater appreciation for one another, and develop greater commitment to the team and organization.

Five studies looked at teaching **self-care** techniques through workshops designed to improve resourcefulness and coping (Zander, 2009). One intervention (n=17) included meditation, which, although effective, was of limited use due to the excessive time commitment required. One small study (n=30) found that mindfulness-based stress reduction led to less emotional exhaustion, an increase in personal accomplishment and increased ability to manage stressful events. A study of nurse managers (n=65) compared two different forms of relaxation training to a control group. In the short term, both cognitive and stretch relaxation were effective, but cognitive relaxation was more effective overall. A workshop designed for new graduate nurses (n=42) increased nurses' ability to deal with death and dying both personally and through supporting colleagues. No detail was provided regarding the strategies used in the workshop on coping with death. In one larger study (n=103), a self-care workshop was presented to nurses, most of whom had over five years experience in oncology. Use of reflective practice and (unspecified) self-care strategies taught during the workshop enhanced coping with the main stressors of working in oncology. Communication and empathy for both team members and patients/families was increased. Long-term effectiveness was established based on interviews with 20 workshop participants one year later.

The second review (Zander 2010) investigated coping and resilience in the management of work-related stressors. Three major themes were identified: a) *coping factors, b) the coping process* and *c) overcoming negative circumstances*.

a) Coping factors include social, team, and organization **support; personal views/attitudes; experience; and stressors.**

One factor which enhances coping is **support** from team members. The importance of a supportive team in providing a safe place for sharing stories and feelings about work with clients is noted in three studies. One small study found that when nurses are able to gain support from team members, there is a decreased need to seek the support of family and friends. Another single study found that lack of support from team members can contribute to burnout, an element of compassion fatigue.

Personal views/attitudes influence coping. Three studies found that insight and self-awareness can be a strong coping tool. Coping with workplace stress can be negatively impacted by personal difficulties outside the workplace (4 studies).

Experience is a third coping factor. Zander (2010) found that length of professional experience does not influence the perception of specific stressors (based on 3 studies) but positively influences the development of coping strategies (1 study). One small study found that nurses develop coping ability over years of experience and are at less risk for burnout. Experienced nurses know where to seek support (5 studies).

The frequency and intensity of **stressors** contributes to a feeling of loss of control (1 study). Having a close rapport with patients, while rewarding, can be a source of stress (2 studies).

b) The *coping process* was described by Zander (2010) as a personal process, employing diverse strategies, and as a balancing act (8 studies). Two studies reported that nurses feel that they have undergone a "rite of passage" when they have dealt with particular **milestones** in their work**.** Milestones are significant or important events in one's life. Nurses with greater self-awareness are able to identify when to seek assistance (1 study) and may do so when facing milestones. Commonly used coping strategies include spirituality/religion, social support, emotional expression, reflection, and problem-solving (8 studies). Withdrawing from others, avoiding discussion of stressors and substance abuse were identified as negative coping strategies (2 studies). Maintaining professional boundaries and investing in relationships with clients was seen as a balancing act (2 studies).

c) Overcoming negative circumstances in the workplace is the third theme identified by Zander (2010). **Resilience**, the ability to transform experiences (both positive and negative) to deal with and learn from stressors, was identified as a factor in overcoming negative circumstances in 6 studies. Transforming experiences occurs through reflecting on one's work, searching for meaning, and adjusting one's attitude.

Overall, the literature suggests that effective strategies to overcome work-related stress include having insight and self-awareness, reflecting on one's practice, engaging in self-care, the setting

of professional boundaries and seeking social support from colleagues. Coping strategies can be developed over time and with increased work experience.

4 Applicability and Transferability

The draft report and recommendations were reviewed by eight people employed in the HBHC program including Public Health Nurses, Family Visitors, (acting) Supervisors, Managers and an Administrative Assistant. They met with the report-writing team to discuss the findings and their applicability (feasibility) and transferability (generalizability) to Peel's HBHC program. The discussion is summarized below.

Political Acceptability:

Peel Public Health has identified "Developing our Workforce" as a strategic priority. Efforts to maintain and enhance skills and provide opportunities for growth among staff in HBHC would be supported[7]. Peel Region's Common Purpose begins with investing in employees in order to inspire client satisfaction and instill trust and confidence in our community. Reducing compassion fatigue among employees will likely lead to better service for our HBHC clients and increased client satisfaction. Any messages to the public (e.g. Reports to Regional Council) about staff responses to the intensity of their work with high risk clients will need to be carefully crafted to avoid stigmatizing the clients we serve.

Social Acceptability:

A number of strategies to assist staff members with the stress of working with high risk families are already in place. Staff members are familiar with reflective practice, self-care and boundary-

[7] Region of Peel Public Health. Staying Ahead of the Curve 2009-19. Peel Public Health's 10-year Strategic Plan. 2009.

setting, although positive practices may have waned over time. For the past two years, team building activities have replaced self-care strategies on the agenda at monthly team meetings. The academic preparation for Public Health Nurses is a baccalaureate degree in nursing which fosters the development of knowledge, skill and ability to work effectively with clients. Family Visitors bring more varied academic backgrounds and experience which may increase their risk for experiencing compassion fatigue, vicarious trauma, and boundary violations, particularly when trying to engage clients who are hard to reach.

Staff in other Regional programs who serve the same client population (e.g. Ontario Works and Families First) may also be interested in reviewing the recommended interventions.

Personnel and Financial Resources:

The recommendations reinforce strategies already practiced within HBHC during monthly meetings with team members and with supervisors. During 1:1 meetings, supervisors use a discussion guide to support reflective practice. The guide could be adjusted to include topics such as challenges faced in maintaining boundaries with clients. A modest increase in meeting time could support a renewed focus on self-care. Discussion with new staff, of plans to manage individual responses to typical milestones, could be incorporated into existing orientation sessions. Extending the 6 month orientation period would result in increased staff time for consultation, especially if peer mentorship were introduced.

Current caseloads and service targets are impacted by chronic underfunding of Peel's HBHC program. Taking any additional time for interventions designed to build resilience or reduce compassion fatigue could, in the short term, result in less direct service to clients. In the longer

term, healthier staff could result in reduced sick time, increasing time available for service delivery.

Recognizing that staff members need professional support to help them cope when critical incidents occur with their client families, the HBHC Program budget now includes funding for EAP and legal counsel.[8]

HBHC has purchased the services of a Mental Health Specialist to support Public Health Nurses by providing 1:1 client case consultation as well as group counselling on managing clients with complex mental health issues. The contractual relationship was completed in December, 2011.

HBHC is collaborating with the Families First Team (within the Chronic Disease and Injury Prevention Division) to hire an external vendor to provide mental health consultant services in 2013. The work for this contractual position could be expanded to include support for staff experiencing compassion fatigue.

Collaboration across Divisions to include staff working in Ontario Works and Families First could defray costs of any additional staff education, training and support.

Organizational Expertise and Capacity:

A multidisciplinary committee is currently working to develop a comprehensive strategy to assist HBHC staff in managing workload stress. This group commissioned the current rapid review and will use the recommendations to inform planning. Internal Client Services is providing expertise regarding measurement of the impact of interventions.

The Professional Quality of Life Scale (ProQOL)[9] is a valid and reliable tool for assessing compassion satisfaction, burnout and secondary traumatic stress. When used to date, individuals

[8] For 2013, $5,000 – 10,000 has been allocated.

working in HBHC calculated their own scores and interpreted their results. In future, completed scales (without any identifiers and with informed consent) could be sent to the developer of the tool, Dr. B. Hudnall Stamm for analysis and summary reporting of results at the group level.

Transferability of the Findings

Magnitude of the Health Issue:

While we have no data about the prevalence and magnitude of compassion fatigue among HBHC staff and management in Peel, we do know that the average incidental sick days (<10 days per year per person) is similar to the rest of the Family Health Division. Since 2003, staff have had access to the ProQOL scale and may be aware of how their own level of compassion fatigue has varied over their years of employment in HBHC.

Magnitude of the Reach and Effectiveness of Interventions:

All HBHC staff and management are organized by teams with distinct roles and geographical service areas. The well established orientation program and pattern of monthly team and supervisory meetings could facilitate the implementation of interventions with all staff disciplines. Implementation of a variety of interventions to build resilience and reduce compassion fatigue could result in reduced sick time. A renewed effort at addressing boundaries could result in fewer boundary violations.

[9] Cronbach's alpha for the three subscales are Compassion Satisfaction 0.87; Burn Out 0.72; Secondary Traumatic Stress 0.80. The ProQOL Manual. Idaho State University: Institute of Rural Health. From http://www.compassionfatigue.org/pages/ProQOLManualOct05.pdf (accessed July 19, 2012) All reported coefficients are above 70% the level considered to be "acceptable". SPSS FAQ: What does Cronbach's alpha mean? UCLA: Academic Technology Services. From http://www.ats.ucla.edu/stat/mult_pkg/faq/general/citingats.htm (accessed July 19, 2012)

Target Population Characteristics:

The study population for the two systematic reviews (Zander, 2009; Zander, 2010) is almost exclusively nurses working in a variety of settings and countries. While the focus was on paediatric oncology nurses, many studies included nurses and some allied health disciplines working in other areas. No reviews were found which were comparable to the Family Visitor role in HBHC. However, Public Health Nurses and Family Visitors work in partnership to provide service to the same client families resulting in similar exposure to client situations. The impact of learning details of client stories on administrative support staff (as they enter referral data and prepare letters to CAS) requires further exploration.

At the management level, supervisors also hear disturbing information about client situations from team members without benefit of seeing, first-hand, when situations resolve or improve. HBHC staff may find maintaining the separation between work and home life challenging, particularly when working from a home base. Since the ISCIS database is accessible to staff 24/7, staff may continue charting beyond the usual hours of work. Further exploration of the impact of staff completing electronic documentation from home could be undertaken by the HBHC Workload Management Committee.

Recommendations arising from the literature review and informed by discussion at the A&T meeting are outlined below.

5 Recommendations

1. Provide opportunities for staff to **reflect** on their work by sharing their responses to client stories with supportive colleagues, including team members and supervisors.

2. Promote establishment and maintenance of professional **boundarie**s with clients, as a strategy to limit practitioner distress, by describing situations where boundary violations may occur and developing plans for dealing with these situations

3. Promote the practice of **self-care** among all staff within the HBHC program including Family Visitors, Public Health Nurses, administrative staff and management.

4. Identify **milestones**, typically encountered in the course of working with high risk families, which staff will find challenging. Offer support and guidance to assist staff in transforming these experiences, in order to enhance staff resilience.

5. Assist new staff to **explore meaning** of their work experiences, beyond the current six month preceptorship period, through reflective practice with supervisors, team mates and mentors. The addition of mentors recognizes that individuals who are self-aware can personally determine when to seek support and which people provide the best support.

"Strategies need to be flexible, diverse and acknowledge the personal nature of coping and resilience." (Zander 2010)

Decisions:

This report, its findings and recommendations, will be used by the HBHC Workload Management Committee in developing plans for increasing support to HBHC staff and management in order to build resilience and reduce compassion fatigue. The level of compassion fatigue experienced by Family Visitors, Public Health Nurses, administrative staff and management, could be monitored (at the group level) in order to estimate the impact of initiatives to address compassion fatigue.

References

(1) Coetzee S, Klopper H. Compassion fatigue within nursing practice: A concept analysis. Nurs Health Sci 2010;12(2):235-243.

(2) Stamm BH. The Concise ProQOL Manual, 2nd Ed. Pocatello, ID: ProQOL.org 2010; Available at: http://proqol.org/, 2011.

(3) Grafton E, Gillespie B, Henderson S. Resilience: The power within. Oncol Nurs Forum 2010 11;37(6):698-705.

(4) Baird K, Kracen A. Vicarious traumatization and secondary traumatic stress: a research synthesis. Couns Psycol Q 2006;19(2):181-188.

(5) Beck C. Secondary traumatic stress in nurses: a systematic review. Arch Psychiatr Nurs 2011 Feb;25(1):1-10.

(6) Jackson D, Firtko A, Edenborough M. Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. J Adv Nurs 2007 Oct;60(1):1-9.

(7) Zander M, Hutton A. Paediatric oncology nursing: working and coping when kids have cancer - a thematic review. Neonat Paediatr Child Health Nurs 2009;12(3):15-27.

(8) Zander M, Hutton A, King L. Coping and resilience factors in pediatric oncology nurses. J Pediatr Oncol Nurs 2010;27(2):94-108.

(9) Infant Mental Health Promotion Task Force. Vicarious Trauma in the workplace: Supporting practitioner effectiveness with young children in high-risk families. March, 2004, rev. 2011:1-12.

Appendices

Appendix A: Concept Model

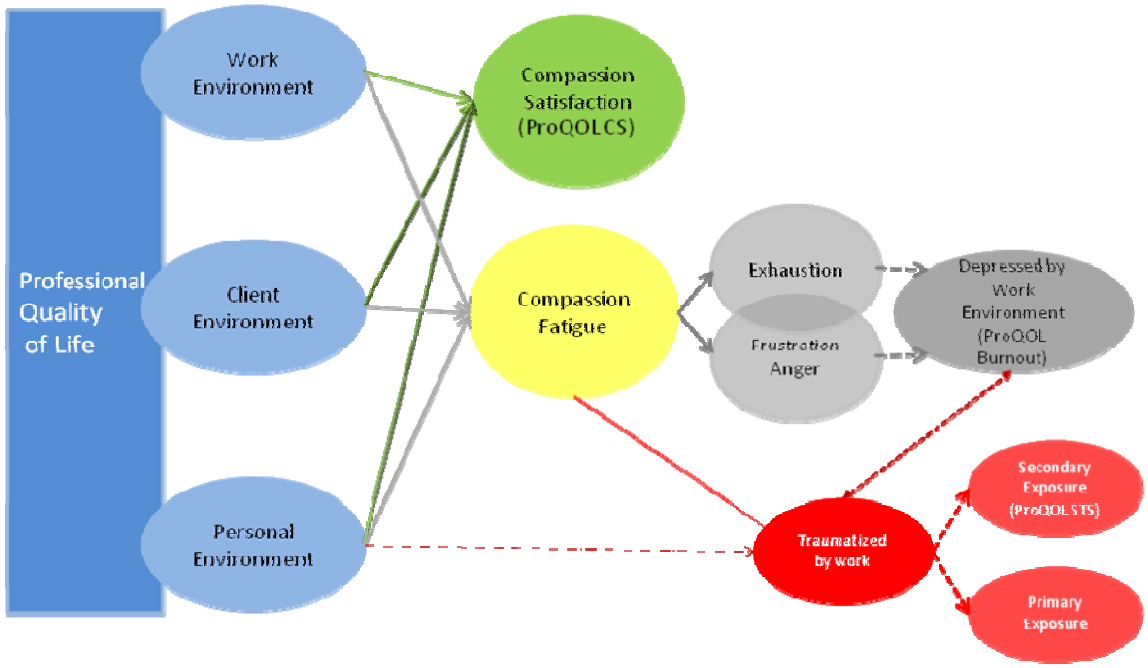
Appendix B: Search Strategy

Appendix C: Literature Search Flowchart

Appendix D: Data Extraction Tables

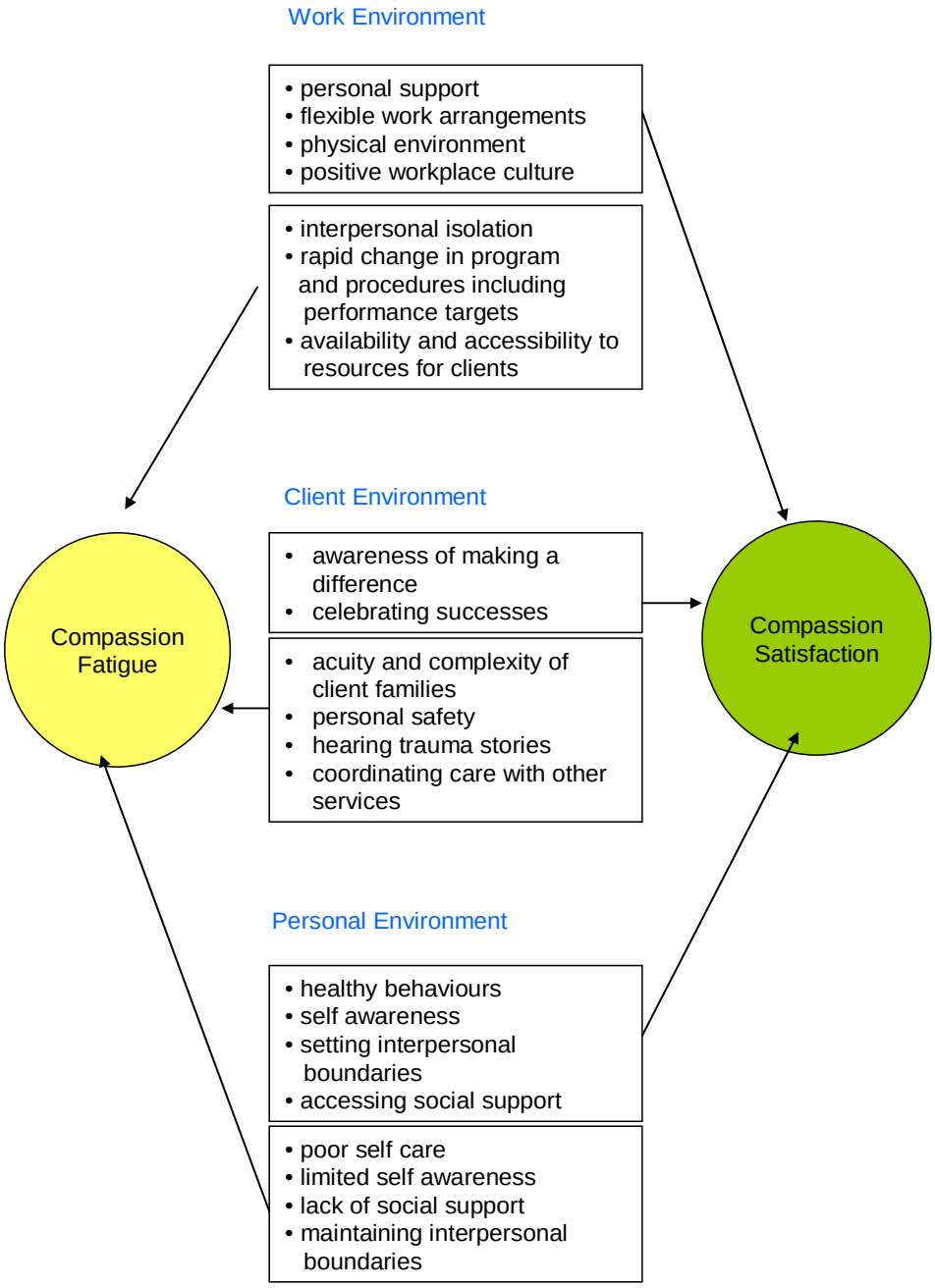
Appendix A: Concept Model

Compassion Satisfaction & Compassion Fatigue Model by Stamm, BH.



Note: This model illustrates the relationships between concepts measured in the Professional Quality of Life Scale (ProQOL) which includes three subscales, Compassion Satisfaction, Burnout and Compassion Fatigue (Secondary Traumatic Stress). ProQOL was first used by HBHC staff in October, 2003 and annually thereafter as one of the self-care activities completed during team meetings. Staff members calculate their own scores and review suggestions for follow up as necessary. The current version of the tool is available through www.isu.edu/~bhstamm .
The concept of work related trauma includes both primary exposure to traumatic events during the course of work, and secondary exposure from hearing disturbing stories about what happened to one's clients. Primary exposure is out of scope for the current rapid review.

Appendix A:
Expansion of the Conceptual Model -
Contributors to Compassion Fatigue and Compassion Satisfaction



Appendix B: Search Strategy

P. 1: Overview of the Search Process - OVID Medline

Database: EBM Reviews - Cochrane Database of Systematic Reviews <2005 to October 2011>, EBM Reviews - ACP Journal Club <1991 to October 2011>, EBM Reviews - Database of Abstracts of Reviews of Effects <4th Quarter 2011>, EBM Reviews - Cochrane Central Register of Controlled Trials <4th Quarter 2011>, EBM Reviews - Cochrane Methodology Register <4th Quarter 2011>, EBM Reviews - Health Technology Assessment <4th Quarter 2011>, EBM Reviews - NHS Economic Evaluation Database <4th Quarter 2011>, Global Health <1973 to October 2011>, Ovid MEDLINE(R) <1948 to November Week 1 2011>, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations <November 10, 2011>, PsycINFO <1987 to November Week 2 2011>
Search Strategy:

---

1 ("compassion fatigue" or "compassion satisfaction").tw. (507)
2 "compassion".id. (598)
3 "vicarious trauma".tw. (160)
4 resilien*.tw. (19185)
5 stress, psychological.sh. (77585)
6 occupational stress.sh. (11382)
7 5 or 6 (88967)
8 ((workplace or occupational) adj3 stress).tw. (4453)
9 4 and 7 (806)
10 4 and 8 (49)
11 1 or 2 or 3 or 9 or 10 (1863)
12 meta-analysis.mp,pt. (86964)
13 (search or systematic review or medline).tw. (255690)
14 cochrane database of systematic reviews.jn. (15242)
15 12 or 13 or 14 (303786)
16 exp guideline/ (34547)
17 (practice guideline or guideline).pt. (21936)
18 16 or 17 (34575)
19 15 or 18 (336848)
20 (comment or letter or editorial or note or erratum or short survey or news or newspaper article or patient education handout or case report or historical article).pt. (1573209)
21 19 not 20 (327604)
22 11 and 21 (26)

Appendix B, p. 2: Overview of the Search Process - CINAHL

Tuesday, November 15, 2011 9:15:25 AM

#	Query	Limiters/Expanders	Last Run Via	Results
S15	S11 and S14	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	29
S14	S12 or S13	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	28507
S13		Limiters - Publication Type: Meta Analysis, Practice Guidelines, Systematic Review Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	0
S12		Limiters - Publication Type: Meta Analysis, Practice Guidelines, Systematic Review Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	0
S11	S1 or S6 or S10	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	1663
S10	S3 and S4	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	587

S9	S4 and S8	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	585
S8	S2 or S7	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	26122
S7	DE "STRESS (Psychology)" OR DE "ANXIETY" OR DE "BURDEN of care" OR DE "BURNOUT (Psychology)" OR DE "CROWDING stress" OR DE "FINANCIAL stress" OR DE "HOLIDAY stress" OR DE "JOB stress" OR DE "POST-traumatic stress" OR DE "POST-traumatic stress disorder" OR DE "STRESS tolerance (Psychology)" OR DE "TIME pressure" OR DE "VOICE -- Psychological stress analysis"	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	15683
S6	TX "compassion fatigue" OR TX "compassion satisfaction" OR TX "vicarious trauma"	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	1044
S5	S3 and S4	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search	587

			Database - CINAHL with Full Text;Health Business Elite	
S4	TX resilien*	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	25232
S3	TX occupational stress OR TX workplace stress	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	13912
S2	(MH "Stress, Occupational+")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	10666
S1	DE "COMPASSION"	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text;Health Business Elite	76

Appendix B, p. 5 .

Database: EBM Reviews - Cochrane Database of Systematic Reviews <2005 to March 2012>, EBM Reviews - ACP Journal Club <1991 to March 2012>, EBM Reviews - Database of Abstracts of Reviews of Effects <1st Quarter 2012>, EBM Reviews - Cochrane Central Register of Controlled Trials <April 2012>, EBM Reviews - Cochrane Methodology Register <1st Quarter 2012>, EBM Reviews - Health Technology Assessment <1st Quarter 2012>, EBM Reviews - NHS Economic Evaluation Database <1st Quarter 2012>, Global Health <1973 to March 2012>, Ovid MEDLINE(R) <1946 to March Week 4 2012>, Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations <April 06, 2012>, PsycINFO <1987 to April Week 1 2012>

Search Strategy:

----

1 Counseling/ (39200)

2 exp Counseling/ (73313)

3 ((counselor* or counsellor*) and (lay or peer)).ti,ab. (1376)

4 ("compassion fatigue" or "compassion satisfaction").tw. (522)

5 "compassion".id. (644)

6 "vicarious trauma".tw. (165)

7 resilien*.tw. (20158)

8 stress, psychological.sh. (77781)

9 occupational stress.sh. (11728)

10 8 or 9 (89509)

11 ((workplace or occupational) adj3 stress).tw. (4612)

12 7 and 10 (840)

13 7 and 11 (53)

14 4 or 5 or 6 or 12 or 13 (1951)

15 meta-analysis.mp,pt. (90889)

16 (search or systematic review or medline).tw. (264188)

17 cochrane database of systematic reviews.jn. (15708)

18 15 or 16 or 17 (313940)

19 exp guideline/ (35730)

20 (practice guideline or guideline).pt. (22220)

21 19 or 20 (35758)

22 18 or 21 (348152)

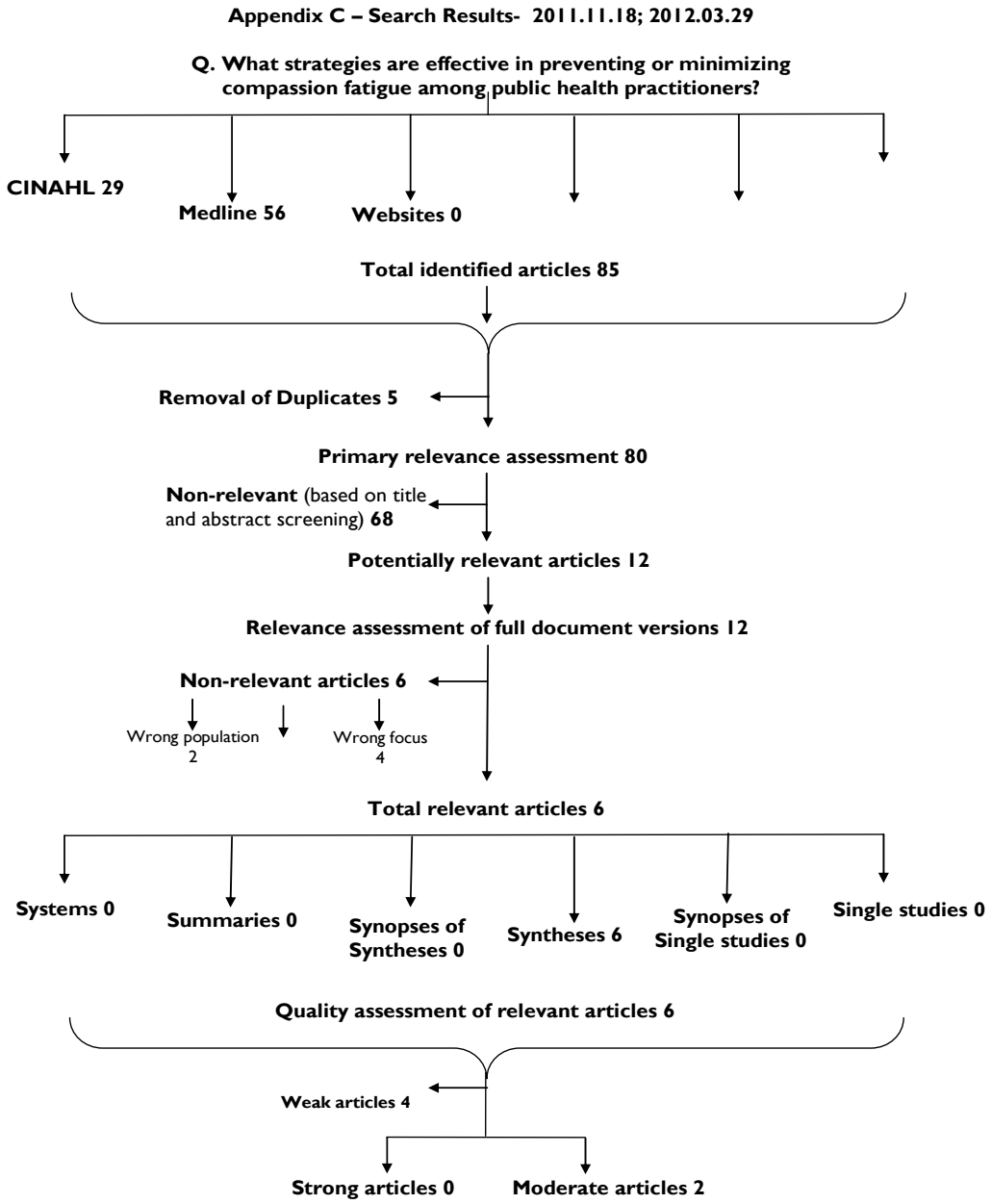
23 (comment or letter or editorial or note or erratum or short survey or news or newspaper article or patient education handout or case report or historical article).pt. (1600787)

24 22 not 23 (338645)

25 14 and 24 (33)

26 remove duplicates from 25 (30)

Appendix C: Literature Search Flowchart



Source: Health-evidence.ca. *Keeping Track of Search Results: A Flowchart.* [Retrieved January 13, 2010]

Appendix D: Data Extraction Tables for Two Systematic Reviews

General Information and Quality Rating for Review #1	
Author(s), Date & Country	Zander, Melissa and Hutton, Alison. 2009. Australia.
Title	Paediatric oncology nursing: working and coping when kids have cancer – a thematic review
Quality Rating	Quality Rating Moderate (6) Using health-evidence.ca Quality Assessment Tool for Review Articles
Objectives of Review	To identify effective internal mechanisms for dealing with stressors associated with working in paediatric oncology and methods for managers and colleagues to enhance paediatric oncology nurses' coping strategies.
Generalisablity to local population	All but two of the included studies sampled nurses exclusively. One included 14 oncologists; the other (with a sample of 77) included allied health disciplines. After combining the samples of all included studies, 20% (700/3450) of the total number of nurses studied worked in oncology, 25% (876/3450) worked in other hospital settings; the workplace was not specified for the remaining 55% (1874/3450).
Details of Review #1	
Databases searched	OVID Medline and CINAHL; MediText (which indexes Australian and New Zealand health and medical literature not included in Medline)
Search Period	Retrieved articles dated 2002-2007
Inclusion and Exclusion Criteria	Inclusion criteria: English language; nurses as the main population of study; primary research studies. Exclusion criteria: nurses teaching self-care techniques to patients; articles discussing issues of little relevance to paediatric oncology nurses
Number of Primary Studies Included	18 articles included: 8 related to oncology nursing; 10 general nursing (6 of these articles also included in Zander et al, 2010). Studies were conducted in developed countries including Australia, Canada, China, Greece, Hong Kong, Sweden, and the U.K.
Settings	Inpatient units, Bone Marrow Transplant units, hospice and palliative care services, acute care settings offering paediatric oncology services, paediatric services working with children with chronic conditions. Acute care hospitals.
Reported quality appraisal of included studies	Authors used criteria by Taylor, Kermode & Roberts[10] to appraise rigour and validity of included studies and noted imitations for each study. The methodology of all included articles was reported to be strong, which the authors used as an indication of validity or trustworthiness. Sample size: 9 studies had 50 or fewer subjects; 4 studies had 50-100 subjects; 4 studies had 300-500 subjects; 1 had >1300 subjects. Small sample size was a concern for some of the quantitative studies.
Limitations	Small sample sizes in half (9/18) of the included studies. Only two studies focussed on paediatric oncology nurses, the population of interest to the reviewers.

[10] Taylor, Kermode & Roberts in *Research in Nursing and Health Care: Evidence for Practice* (3rd edition) Melbourne: Thomson, p. 86-92

Appendix D Data Extraction Table for Systematic Review #1 Zander, 2009 cont'd

Details of Review #1	
Types of Studies & Methods • 7 qualitative • 7 quantitative • 4 mixed methods (n=sample size)	*Qualitative studies–* Researchers used either Phenomenology[11] or Grounded Theory [12] designs, gathering data through focus groups, interviews, and written reflections. Credibility of the results was enhanced through triangulation of methods of data collection. One study (n=77) described how healthcare professionals handle personally demanding events in oncology settings by using intuition to balance being close or distant from patients/families. A second study (n=15) investigated coping mechanisms among oncology and palliative care nurses. Roles and boundaries were used to define and manage stress. A third study (n=28) explored how new graduate nurses cope with caring for the dying in acute care settings. They created a web of support consisting of: relationships; multiple strategies, including boundaries; learning through reflection; maintaining a balance between emotional involvements and distancing; measuring goal achievement; and reflecting on personal beliefs about what makes a good death. A fourth study (n=392) investigated the impact that caring for patients with cancer have on nurses' practice, by analysing nurses' written reflections. Both positive and negative impacts on practice were identified emphasizing the need for nurses to strengthen their own resources to improve self care and care for patients. A fifth study (n=9) of paediatric cardiac/renal nurses explored nurses' understanding of parental participation in decision-making about their child's care. Nurses experience moral distress when parents disagree with the best interests of the child or are unwilling to provide care for their child. A sixth study (n=12; 7 intervention, 5 control) investigated whether practicing a particular Eight Point Program (which includes meditation) could reduce nurses' stress. Nurses found meditation to be powerful but time consuming, limiting its usefulness. A seventh study (n=15) looked at coping processes of oncology nurses caring for terminally ill patients. Defining personal and professional identity was found to contribute to coping. The importance of role definition in working with a multidisciplinary team was noted.

[11] Phenomenology is a research design that answers the question "What is it like to have a certain experience?"
[12] Grounded theory focuses on searching to identify the core social processes in a given social situation (Letts)

Appendix D Data Extraction Table for Systematic Review #1 Zander, 2009 cont'd

Details of Review #1	
Types of Studies & Methods cont'd • 7 qualitative • 7 quantitative • 4 mixed methods (n=sample size)	*Quantitative studies–* One study (n=30; 16 intervention, 14 control) tested mindfulness-based stress reduction in hospital nurses, and used multiple scales to measure the effect. Participants in the intervention group had less emotional exhaustion, and increases in personal accomplishment, ability to mange stressful events, wellbeing, satisfaction with life, and ability to relax than controls, in the short-term. No measure of long-term effects. Another (n=65; 35 intervention, 30 control) compared nurse mangers receiving cognitive relaxation training (n=18) or stretch relaxation training (n=17) to a control group. Cognitive intervention more effective, overall but stretch relaxation also effective. No measure of long-term effects The remaining studies reported on stressors, coping strategies and risk of burnout using data gathered through self-completed questionnaires (including a variety of scales). Correlation and regression analyses were performed in most studies. *Studies employing Mixed Methods –* One study (n=42; 26 intervention, 16 control) looked at the impact of a workshop on graduate nurses' coping with anxiety about death (of a patient). Those who took the workshop found more effective methods of dealing with death and dying both personally and through increased ability to support others. Control group had lower death anxiety scores related to professional detachment. A second study (n=30) compared paediatric oncology nurses' (n=16) and oncologists' (n=14) experiences of caring for children dying of cancer using interviews and ranking of stressors. Nurses grieved the loss of the relationship with the child, and received social support from colleagues. A third study (n=46) looked at stress and coping in perioperative nurses using the Impact of Event Scale. Participants described a recent event, rated it using the IES and described how they coped with the event. More females used avoidance. Most used social support, usually a work colleague. Just over 50% would consider using a formalised debriefing service. Newer/less experienced staff felt greatest impact from the described event. The fourth study (n=103) looked at the short and long term impact of a self-care workshop on experienced oncology nurses' internal mechanisms for dealing with job stressors. Stressors included death and dying, lack of staffing/ equipment/support, workload, interaction with other staff/disciplines, emotional issues linked with illness/cancer, grief and loss, dealing with families and patients, and work/life balance. Sharing experiences allowed nurses to see their similarities, develop greater appreciation of one another, and greater commitment to the team and organization. Questionnaires and interviews were used in two studies. The Impact of Event Scale was used in one study and a ranking of ten stressors combined with interviews, was used in another study. Three of the four studies used more than one method for data gathering, indicating triangulation, which can increase confidence in the findings.

Appendix D Data Extraction Table for Systematic Review #1 Zander, 2009 cont'd

Major Themes	Findings
Meaning relates to the establishment of meaning, its impact upon personal and professional relationships, and boundaries. 17/18 articles addressed meaning; • 7 qualitative • 6 quantitative • 4 mixed methods	• Nurses reflect on their work to determine what is meaningful. • Nurses reflect on their work by sharing stories and incidents. • Newer nurses (i.e. more recent graduates) are more vulnerable since they have limited experience from which they can develop meaning. • Greater meaning and self-awareness increases nurses' capacity to deal with challenges. • Nurses establish personal and professional boundaries. Setting appropriate boundaries can limit distress. • Nurses are at risk of experiencing greater stress where there is lack of meaning, identity or boundaries
Interventions & strategies which are feasible for dealing with stressors and their effectiveness. 14/18 articles discussed interventions and strategies • 9 studies looked at *coping strategies* • 4 qualitative • 4 quantitative • 2 mixed methods • 5 articles reported on *workshops* • 1 qualitative • 2 quantitative • 2 mixed methods	In 9 studies, nurses selected which *coping strategies* they would use and described their effectiveness: • Being organized helps with coping (4 studies) • Distraction and humour provides short term relief (2 studies) • Age & experience can impact effectiveness of same strategy (1 study) • Use of coping strategies does not always equate to effective coping. Ineffective strategies include: • labelling families as "difficult to work with" • keeping everything to oneself i.e. not disclosing distress • avoidance of stressors. *Workshops* reported on training in stress reduction techniques and self-care practices. • *Techniques* taught included mindfulness-based stress reduction, spiritual meditation, and two forms of relaxation training (either visualisation or stretching). • *Self care practices* improved: resourcefulness and coping; ability to provide care to patients and their families, colleagues and the nurses' own friends and family. *Limitations of workshops***:** Studies were descriptive or quasi-experimental with small sample size**.**
Commitment 18 articles address commitment to the profession (n=9), the team (n=8), to self (n=5) or relationships (n=5) • 8 qualitative • 6 quantitative • 4 mixed methods	• *The organization or workplace* influences the volume of stress experienced and nurse's ability to cope. Workload, amount of conflict faced, and provision of resources and equipment by the organization can affect stress. • *Professional commitment* i.e. length of time in a specialty can be associated with effective coping (2 studies). However, nurses in management positions may experience greater stress levels than the general nursing population (1 study) • *Team morale* and support from colleagues can influence coping mechanisms (7 studies). • *Over commitment* can increase perception of stress and lead to inability to cope (2 studies). • *Resilience* comes from nurses remaining true to who they are, trusting their own judgements, and making and believing in their own decisions (3 studies).

Appendix D Data Extraction Table for Systematic Review #1 Zander, 2009 cont'd

Summary	The authors constructed a model in which meaning, interventions and strategies and commitment all contribute individually and collaboratively to effective coping. Coping strategies among nurses may be similar regardless of differences in culture or speciality. Effective interventions include those that support nurses: to reflect on their practice; to implement or maintain personal and professional boundaries to engage in self-care The authors suggest offering additional support to nurses with limited experience, and those who have a limited range of useful strategies to increase the nurses' resourcefulness.

Appendix D Data Extraction Table for Systematic Review #2 Zander, 2010

General Information and Quality Rating for Review #2	
Author(s) and Date	Zander, Melissa, Hutton, Alison and King, Lindy (2010)
Title	Coping and Resilience Factors in Pediatric Oncology Nurses
Country	Australia
Quality Rating	Moderate rating: 5-6 using health-evidence .ca Quality Assessment Tool for Review Articles
Objectives of Review	To investigate coping and its relationship with resilience in assisting paediatric oncology nurses to manage work-related stressors.
Generalisablity to local population	17/24 of the included studies sampled nurses exclusively, nearly all in oncology settings. Five studies included oncologists; two included allied health disciplines. In total, 2250 nurses were sampled and nearly 500 oncologists.
Details of Review #2	
Databases searched	OVID searches of: Medline; CINAHL; and PsychINFO. Searched Cure4Kids (St Jude Children's Research Hospital, USA).
Search Period	Retrieved articles dated 1992-2007
Inclusion and Exclusion Criteria	Included primary research articles written in English, related to coping and resilience of staff, not patients with the sample predominantly nurses. Pediatric oncology nurses population of interest; oncologists included in 5 studies, and allied health staff in 2 studies. No exclusion criteria listed.
Number of primary Studies Included	24 studies included from the following countries: USA; Sweden; UK and Greece; Australia, Canada, Italy, Turkey and Germany. Six of the studies, totalling 258 subjects, were also included in Zander (2009). The overlap is <10% of the combined sample in Zander (2010).
Settings	Hospitals: inpatient, Bone Marrow Transplant unit, outpatient and day services for paediatric oncology patients. Cancer Centres, community, hospice, and members of Association of Pediatric Oncology Nurses.
Types of Studies	13 quantitative, 11 qualitative studies. (Mixed methods studies were assigned to the type which appeared most predominant in the reporting of the study.)
Reported quality appraisal of included studies	Quantitative studies were reported to be "generally weaker" (using 10 of 49 items adapted from the University of Salford Evaluation Tool for Quantitative Studies). The appropriateness of the sample sized for quantitative studies was checked and reported. All qualitative studies "passed most or all of the assessment criteria of the Critical Appraisal Skills Programme CASP qualitative appraisal tool".
Limitations	For quantitative studies: lack of generalizability due to: small sample sizes (3 studies); use of untested tools (1 study); and findings which did not support the model being tested (1 study). For qualitative studies: backgrounds of the researchers not discussed within the article, therefore unable to assess researcher bias (2 studies).

Appendix D Data Extraction Table for Systematic Review #2 Zander, 2010 cont'd

Details of Review #2	
Types of Studies & Methods • 13 quantitative • 11 qualitative (Mixed methods studies were assigned to the predominant method.)	*Quantitative studies*– 13 studies with a combined total of 2250 nurses plus 493 oncologists. Of the sample of nurses, 67 working in general paediatrics; 1872 in oncology; 352 of 1872 oncology nurses working in paediatric oncology) *Qualitative studies* – 11 studies with a combined total of 327 nurses, plus 14 oncologists and 77 members of allied health disciplines (including nurses).
Major Themes	**Findings**
Coping factors which promote effective coping 22 studies *Social, team and organizational support* – 14 studies *Personal views/ attitudes* – 9 studies *Experience* – 8 studies *Stressors* – 5 studies	*Social, team and organizational support* • Team members feel safe to express their emotions and share their stories with others when the team is supportive. (3 strong studies) • Nurses are more committed to their workplace (less likely to leave) where there is high group cohesion (1 weak study) • Nurses who are supported by team members have decreased need for support from family and friends. (1 study; weak; small sample size) • Lack of support from team members contributes to burnout. (1 strong study) *Personal views/ attitudes* • Insight and self-awareness can be a strong coping tool. (3 studies; 2 strong; 1 small sample size) • Personal difficulties outside one's professional life can lead to difficulty dealing with stressors in the workplace(4 strong studies) • (New) graduates, with a positive attitude toward themselves and their work, were more likely to continue in paediatric oncology after their first year (1 weak study). *Experience* • Length of professional experience does not influence the perception of specific stressors (3 strong studies) but does influence development of coping strategies (1 strong study) • Nurses develop coping ability over years of experience and are at less at risk for burnout. (1 weak study; small sample size) *Stressors* • The frequency and intensity of stressors faced by oncology nurses can lead them to feel like they have less control over them (1 strong study). • The rewards of the job (e.g. building close rapport with patients) can be the biggest stressor (2 strong studies) • Oncology nursing involves a greater level of emotional involvement compared to other specialties. (1 strong study)
The coping process the transformation that contributes to effective adaptation 17 studies *Coping as a personal process* – 8 studies	*Coping as a personal process* • The coping process is a personal responsibility (3 studies; 2 strong, 1 weak due to small sample size) • Nurses determine which people provide the best support (1 study; weak due to untested instrument) • Nurses have individual personal limit (3 strong studies) • Nurses feel they have undergone a rite of passage when they have dealt with particular milestones (2 strong studies) • Having greater self-awareness helps nurses to identify their own triggers and realize that when they need to, they will seek assistance (1 strong study).

Appendix D Data Extraction Table for Systematic Review #2 Zander, 2010 cont'd

Major Themes cont'd	Findings cont'd
Diversity of coping strategies – 8 studies *The balancing act* – 8 studies	*Diversity of coping strategies* • Nurses commonly use coping strategies including: spirituality and religion; social support; emotional expression; reflection; and problem solving. (8 studies; 6 strong, 2 weak) • Negative coping strategies include avoiding discussing stressors, withdrawing from others, considering alternative careers, and substance abuse. (2 strong studies) *The balancing act* • Nurses create balance between investing in patient relationships and maintaining professional boundaries (2 strong studies); balancing the rewards of nursing with the difficulties (3 strong studies) or maintaining work/life balance (1 strong, 1 weak study)
Overcoming negative circumstances in the workplace using coping factors and processes. *Factor and Process* - 6 studies	*Factor and Process* • Nurses overcome negative circumstances (or events) in their work by reflecting on their work, adjusting their attitude and searching for greater meaning (4 strong studies). • Being resilient (the ability to transform daily experiences, regardless of whether they are positive or negative, to deal with and learn from stressors) is a way of coping (3 strong studies) • Hardiness (being committed, feeling in control and having a positive view toward challenges) is a personality trait which increases a sense of personal accomplishment (1 strong study). • Being hardy may decrease the impact of emotional exhaustion or assist nurses in overcoming negative emotions (1 strong study)
Summary	The factors and processes nurses use in coping with work related challenges (faced in paediatric oncology practice settings) could form the basis for interventions to assist nurses in coping with their work. Suggestions include: • The need for support • A positive personal attitude • Experience • The ability to control situations • Having a personal process of coping • Resourcefulness • Having balance in life • The ability to overcome challenges in everyday clinical work Researchers conclude that strategies need to be flexible, diverse, and acknowledge the personal nature of coping and resilience.

Appendix D p. 9 Comparison of Studies Included in One or More Systematic Reviews

Primary Studies First Author, year	Qualitative Methods	Quantitative Methods	Mixed Methods	Review #1 Zander, 2009	Review #2 Zander 2010
Ablett, 2007	x				Included
Barrett, 2002		x			Included
Blomberg , 2007	x			Included	Included
Brisley, 2004			x	Included	
Bond, 1994		x			Included
Chang, 2006		x		Included	
Cohen, 1994	x				Included
Cohen, 1992	x				Included
Dixon, 2005		x			Included
Ekedahl, 2006	x			Included	Included
Fitch, 2006			x	Included	Included
Florio, 1998		x			Included
Gillespie, 2003			x	Included	
Herschbach, 1992		x			Included
Hinds, 1994	x				Included
Hinds, 1998		x			Included
Hinds, 2003		x		Included	Included
Hochwalder, 2007		x		Included	
Hopkinson, 2005	x			Included	
Isikahn, 2004		x			Included
Kash, 2000		x			Included
Kendall, 2006	x			Included	
Lambert, 2007		x		Included	
Lee, 2003		x		Included	
Mackenzie, 2006		x		Included	
Maytum, 2004	x				Included
Molassiotis, 1996		x			Included
Molassiotis, 1995		x			Included
O'Haire, 2005	x			Included	
Olson, 1998	x				Included
Papadatou, 1994		x			Included
Papadatou, 2002			x	Included	Included
Quattrin, 2006		x			Included
Richards, 2006	x			Included	
Wengstrom, 2006	x			Included	Included
Yung, 2004		x		Included	
Sub Totals	13	19	4	18	24