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The Just Culture, Second Victimization and Clinician Support: An Educational/Awareness Program

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The Just Culture, Second Victimization & Clinician Support:

An Educational/Awareness Program

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College of Nursing

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Abstract

Due to the continued numbers of medical errors and unexpected patient outcomes, the student project manager identified the collateral damage that health care providers involved in the patient care events experienced while acting as a risk manager at one medical center. This concept is referred to as "second victimization". The patient and/or family are the primary victims of errors and unexpected outcomes, but the close second is that of the clinician caring for the patient. As a result of this, the concern for the needs of these second victims was considered. A review of the literature was conducted. The review supported the concept of organizational support systems that provide the second victims with emotional and professional support during these challenging times. Medically Induced Trauma Support Services (MITSS) created an evidence based toolkit for initiating a clinician support program at any facility. The literature and the MITSS toolkit were utilized to create a plan, budget, evaluation and timeframe for a pilot program educating and making clinicians aware of the need for a clinician support program at Massachusetts General Hospital in Boston. Twenty potential participants were identified by a nomination process and invited to participate. Eleven completed the program in its entirety (pre-survey, educational program, and post-survey). Each member (100%) reported their knowledge increasing on second victimization and just culture as a result of the program. A significant number reported their interest in being part of a future peer support program. It is the hope of the student project manager that this pilot serves as a foundation for a future clinician support program.

Keywords: second victims, provider support programs

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Provider Support Awareness Program

Problem Statement

Patients experience medical errors at an alarming rate. This is despite the 1999 landmark report by the Institute of Medicine (IOM) stating that approximately 98,000 patients die each year due to medical error (IOM, 1999). Over 10 years later, preventable medical harm still accounts for more than 100,000 deaths each year despite countless programs and extensive funding to improve patient safety (Safe Patient Project, 2009). Medical errors are traumatic for those closest to the event. Patients and/or their families are the primary victims who suffer the consequences of these events for obvious reasons. However, the involved providers may experience trauma as well and this is much less known and much less discussed. This phenomenon is known as "second victimization". Clancy (2012) reports that clinicians can be so wounded by the event themselves that it can manifest as anxiety, depression and shame.

Background and Significance

To promote a culture of safety, punitive measures should be avoided with hardworking professionals that show promising potential for the future and did not show blatant disregard for patient safety, but were involved in an unintentional human error (Steeffel, 2008). Steefel (2008) supports counseling for inadvertent human error through a slip or lapse, and to punish only when there was a conscious disregard of unreasonable risk. A "complete understanding of this phenomenon is essential to design and test supportive interventions that achieve a healthy recovery" (Scott et al., 2009, p. 325).

The University of Missouri reported that 1 in 7 staff members involved in a patient safety error within the previous year experienced personal problems related to the error (Scott, 2011).

These caregivers report experiencing feelings of failing the patient, questioning their own clinical skills and abilities, as well as doubting their career choice (Scott et al., 2009). Scott et al. (2009) suggest that these providers benefit from support. This support can be in the form of an institutionalized provider support program also referred to as a "care for the caregiver" program.

Medically Induced Trauma Support Services (MITSS) is a non-profit organization started by a patient and the physician who were involved in an error in the patient's medical care. Their mission is to support patients, families and providers. MITSS recommends that although programs may take many forms, "clinician and staff support should be part of each institution's operational response to adverse events" (Carr, 2009, p. 2). Denham (2007) purports that second victims are owed 5 rights (just treatment, respect, compassion, support and transparency). (See Appendix A for further detail). Scott et al. (2009) report the need for the facility's response plan to establish not only an institutional support network that will rescue those second victims who need peer support, but also those who need more than peer/colleague support.

The purpose of this project is to lay the foundation for implementation of an institutional support plan that will provide emotional first aid and professional guidance and evaluate the impact on provider retention and satisfaction in a hospital/health system setting. The first steps of this process include increasing institutional awareness and identifying potential future staff who can be supporters via this pilot program. The pilot included implementing an educational and awareness pilot to a group of staff members that could also be future supporters. To follow includes the detail surrounding the research utilized to complete this project.

Review of Literature Search Methods

The following online databases were used to search for the literature utilized in this review:

(a) Cumulative Index to Nursing and Allied Health Literature (CINAHL), (b) CINAHL Complete, (c) PubMed, (d) PubMed Central, and (e) Google Scholar. The key words/MesH terms searched were: second victims of adverse events, providers as second victims in health care adverse events, provider support programs for second victims, peer support programs for second victims, clinician support programs and health care adverse event second victims. See more details noted below in both general and specific results.

General Results

A total of 53 articles were reviewed for quality, strength of evidence, applicability and being current. Seventeen were used for this literature review and matrix (see Appendix B). The remainder was not used because they were duplicates of studies already included, lacked strength of evidence or lacked applicability. Studies older than 8 years were excluded with the goal of maintaining the most recent studies on this subject. It was necessary in some circumstances to add the word/s "health care/healthcare" in some searches because the concept of the second victim applies beyond health care adverse events (i.e. the second victimization of rape victims) as was noted above in the key terms. Exclusion criteria were limited because the results yielded were less by comparison to more well established topics. The goal was to gather all potential sources to see where research may have been done or where it may have been lacking. If the search resulted in an unrelated topic, such as the second victimization of rape victims noted above, then it was eliminated. If the article focused more on the legal aspects of a medical adverse event as opposed to provider impact, this was excluded. If the article did not include

research, did not include significant expert opinion or was more of an editorial article, it was excluded for literature review purposes, but had potential for inclusion in the discussion section.

High quality research articles were sought out for the literature review. These included systematic reviews and original research when they were available. Both qualitative and quantitative research articles were searched for and included. Studies published in English from both inside and outside the United States were included. Expert opinion articles, literature reviews, a doctoral dissertation, case studies and conference proceedings were also included as this is becoming a more common topic among the experts and at professional conferences.

Specific Results

The search of CINAHL and CINAHL Complete yielded 4 results total (the same 4 for each one). All of them were used in this review. All 4 of the abstracts were reviewed prior to inclusion. The PubMed search results included 17 articles. All 17 articles' abstracts were reviewed. Five of the 17 were included in this analysis. The others were excluded due to lack of applicability: 1) more related to a legal discussion, 2) a focus on ethical duties owed to the patient, or 3) on how to prevent the medical error in the future. PubMed Central yielded a total of 99 articles. Only 1 of the abstracts was reviewed and included in the analysis as the others were obviously not applicable due to the title of the article. These papers were unrelated to this subject matter. They were focused on post traumatic stress unrelated to medical events, substance abuse or other medical error issues unrelated to this subject matter. Google Scholar included total results of 261,000. Only the first 31 results were even remotely related to the topic at hand made evident by title. All 31 abstracts were reviewed to evaluate if they related to the subject matter. Seven of the 31 were relevant to the topic and were used for purposes of this literature review.

The other 24 were excluded because they were either over 8 years old, were more focused on the cause of medical error or how to prevent it or were about post traumatic stress disorder in an unrelated cause.

The total number of studies synthesized for the literature review was 17. Other articles were included for discussion purposes only throughout the paper. Collected data on the 17 studies are included in a matrix table for easier review. See Appendix B for the literature review matrix. The John Hopkins Research and Non-Research Evidence Based Practice Appraisal (JHNEBP) were utilized for evaluating the evidence.

Literature Review Findings

The articles included vary from original research to systematic reviews to expert opinions and were organized by thematic analysis. The three primary areas of focus of the research are arranged according to 1) identifying the effects that adverse medical events have on providers, 2) the need for institutional emotional support programs and 3) the varied approaches to support (i.e. peer support, professional support) and discipline specific studies (i.e. nurses only). Some studies may have included information on more than 1 of the above areas. As a result, a decision was made to include them in 1 area as opposed to the other based on whether their discussion and findings focused more on the effects of being a second victim (#1) or how to support clinicians or how to implement a program (#2). See Appendix B for an evidence table with detail on each study included in the literature review portion of this proposal.

Effects of Adverse Medical Events on Providers

Six of the 17 studies had a primary focus of reviewing the actual effects that these medical events have on providers. They relayed stories of personal problems, psychological

problems and a lack of institutional support. One study even noted that clinicians in other countries experience similar emotions (Seys et al., 2013). They further note that that second victims are owed rights, are entitled to a standardized process post-event dependent on circumstances, and that each clinician will experience 6 predictable stages post-event.

A study at the University of Missouri found that 1 in 7 staff members involved in a patient safety error within the previous year experienced personal problems related to the error (Scott, 2011). These "personal problems" included things like anxiety and depression. They also reported that 68% reported not receiving any support whatsoever (Scott, 2011).

Denham (2007) completed cross-sectional interviews of national patient safety experts regarding second victimization. Denham (2007) purports that second victims are due 5 rights (just treatment, respect, compassion, support and transparency). (See Appendix A for further detail as noted above). The common theme was that effective support programs need to be put in place in the same manner that programs are for patients as part of the 5 rights. The respondents are nationally recognized experts who have experience interacting with second victims as well conducting their own research on the issue.

As a result of the IOM request to the National Council of State Boards of Nursing to develop and design standardized processes to better distinguish human error from reckless and intentional misconduct, a group of experts collaborated to determine how to manage nurses who are involved in adverse medical events (Steefel, 2008). Steefel (2008) supports consoling for inadvertent human error through a slip or lapse, for example, and to punish only when there was a conscious disregard of unreasonable risk.

Seys et al. (2013) completed a systematic review of the literature surrounding second victims and found that this phenomenon has an impact on not only clinicians and colleagues, but also subsequent patients. It was based on 32 research articles and 9 non-research articles (Seys et al., 2013). They further supported the findings of the other previously mentioned articles that it is critical to have programs in place that support not just the patient and/or family, but also the provider (Seys et al., 2013). The review reports themes of sleeplessness, remorse, coping strategies, just to name a few issues that the providers experienced and that are mentioned in the articles synthesized (Seys et al., 2013). Sixty percent of physicians who reported an error also screened positively for depression (Seys et al., 2013). Seys et al., (2013) report this phenomenon also occurs in Norway, Scotland, England, Germany, and Israel.

Sirriyeh, Lawton, Gardner and Armitage (2010) also conducted a systematic review regarding coping with medical errors. Twenty-four studies were included in this review. "Psychological repercussions may include negative states such as shame, self doubt, anxiety and guilt" (Sirriyeh et al., 2010, p. 1). This review was based on fewer articles than the Seys et al. systematic review, but still has significance. Due to the fact that this review culminated in a finding that second victimization is destructive and warrants supportive measures reinforces this and other studies with similar findings. The authors do however acknowledge the need for further literature around coping and support strategies (Sirriyeh, et al., 2010).

Scott et al. (2009) conducted semi-structured interviews of 31 second victims. The findings of this study purported that the post-event trajectory is largely predictable and typically progresses through six stages (chaos, reflections, integrity restoration, enduring inquisitions, obtaining emotional support, and moving on) and that institutional support systems could be developed to screen at-risk providers and support them through the stages (Scott et al., 2009).

This is a small sample size ($n = 31$) and is therefore less generalizable and less reliable, but it does support the findings of other research on the same issue and it does measure what it set to measure (needs). It is applicable to other settings since it supports similar findings with regard to post event trajectory and need for institutional support.

It is evident that clinician self-reports of feelings of shame, doubt, depression and other negative emotional consequences are genuine and a real concern. Expecting clinicians to be infallible and emotionally unattached is unrealistic and not healthy for them as individuals and not healthy for the institution as a whole. One study noted above reported that this has an effect on the subsequent patients cared for (Seys et al., 2013). Ultimately, these natural emotions must be acknowledged and addressed as to promote optimal well-being and morale of the clinician.

The Need for Implementing Institutional Support Programs

Six of the 17 articles had the main focus as the need for institutional support programs. The general recommendation was that it was irresponsible on the part of the institution to allow these affected providers to continue practicing without acknowledgement, the ability to process what occurred, and without colleague and/or professional support. It is not only good practice for the care of the individual provider, but also for the future patients being cared for by these second victims. Feelings of inadequacy and lack of appropriate supports may lead the promising and potentially successful clinician to leave the profession meaning that patients do not receive the benefit of that provider's care (Carr, 2009). It may also leave them vulnerable to make subsequent errors that could hurt patients (Carr, 2009). As a result of the overall concern that this may have on the general patient population, one might consider whether supporting second victims (along with primary patient victims) as a vital public health matter.

Medically Induced Trauma Support Services (MITSS) is a non-profit organization started by a patient and a physician. van Pelt's article about this process is discussed here. The founding physician was involved in an error in a patient's (founding member) medical care. The MITSS mission is to support patients, families and providers. MITSS discovered that although programs may take many forms, clinician support should be an automatic part of each institution's operational response to adverse medical events (Carr, 2009). This report was the culmination of conference proceedings and an invitational forum composed of experts in the field organized by MITSS. Furthermore, MITSS has a toolkit for implementing a provider support program at the institutional level. See Appendix C for toolkit details.

A survey of 898 workers at the University of Missouri revealed that 30% of staff have experienced a patient event within the past year that caused personal problems like anxiety, depression, and grief (Hall and Scott, 2012). The distress caused by errors in care may occur to providers from any health profession (Hall and Scott, 2012). This study supported the predictable path of 6 stages reported in the earlier study (Scott et al., 2009). Scott et al. (2009) also reported that although providers typically progress through 6 stages, they also follow 1 of 3 trajectories: regaining perspective, coping, but maintaining a level of sadness, or dropping out of their role completely (Hall and Scott, 2012). This study was based on a larger sample size (n = 898) than the previous study and therefore is more generalizable and its evidence can apply to other groups. Ultimately, Hall and Scott (2012) recommend the need for a 3 tiered approach to support (1st: unit responders, 2nd: institutional experts and 3rd: professional counseling services).

In Edrees, Paine, Feroli and Wu's (2011) study, a survey was administered to 350 people across health professions at the Johns Hopkins institutions. They acknowledged the attention being paid to patients of medical errors, but noticed it was not being provided to the affected

providers. They drew from a moderate sample size (n = 350) which helps to make the results more generalizable and reliable. Their findings support the findings of the other studies in that they also recommend that support programs are needed (Edrees et al., 2011).

The ECRI Institute disseminates the newsletter for the Healthcare Risk Control System. In their February 2013 report, they reviewed several expert opinions regarding institutional support. The report supports the concept of Scott's (2009) 6 stages during recovery after adverse medical events, Denham's (2007) second victims' rights (see Appendix A) and Scott's (2010) three tiered need for support.

A qualitative study included interviews (n=21) of healthcare professionals at a Swedish university hospital (Ullstrom, Sachs, Hansson, Ovretveit and Brommels, 2014). It addresses the gap between the second victim's need for organizational support and the actual support available. The findings confirmed earlier studies showing that emotional distress follows from medical adverse events. The impact on the healthcare professional was related to the organization's response to the event. Most informants lacked organizational support or they received support that was unstructured and disorganized. This supports the other findings in the United States and beyond signifying that this is an international issue (Ullstrom et al., 2013).

van Pelt (2008) reviewed a real life case study of the adverse medical event that he as the physician was involved in. Of interest, this is the event that triggered the development of MITSS mentioned earlier. The patient who experienced the event caused by Dr. van Pelt's error started MITSS as a result. Dr. van Pelt worked with the patient to start this group. Dr. van Pelt has since become an expert in the area and was on the founding board of MITSS. His real life experience supports the validity of this study. van Pelt (2008) described the case study, and the aftermath of

the event in detail. van Pelt supports the concept of peer supporters and provides guidelines for the peers, training, education and promotion and next steps. van Pelt recommends that the long term goal of health care institutions should be to have comprehensive emotional support programs for patients, families and clinicians (van Pelt, 2008).

Discipline and Support-Type Specific Studies

Five of the 17 articles address either a specific discipline (i.e. nurse or physician) or addresses how to support providers over time. Once an institution embraces the need and concept of creating an institutional response to adverse medical events, how to do so is the next step. Some believe it is important to have peer supporters available and others address the idea of professional psychological support availability. A contingent of experts addressed nurses as second victims specifically. Yet others focus solely on physicians. There is also a discussion of stages; immediate post-event, middle stage and long term. There are potential widespread and long term effects.

Cox, Hirschinger, and Scott (2008) focus on the effects of nurse second victimization specifically. Upon review, Cox et al. was not able to identify any previously existing studies that were solely based on nurses' experiences after adverse events (2008). Interviews with "thought evoking" questions were conducted to nurses identified as possible second victims over the course of 2003-2007. Cox et al. (2008) support the concept of a support program. "Every day, second victims are walking our hallways in various clinical settings" (Cox et al., 2008, p. 4). The study is generalizable as it occurred over a 4 year timeframe meaning it was more inclusive and represents a longer period than some other studies.

Lewis (2012) studied the concept of nurse second victims as a dissertation topic. Lewis (2012) conducted a literature review where the evidence was assessed for nurse experience of medical error, and also conducted a preliminary study using qualitative content analysis to evaluate narrative staff responses (n=477) from a medical center. This study provided context on error and event reporting. Lewis reported that adverse medical events were each related to higher emotional exhaustion and depersonalization (Lewis, 2012).

The majority of the literature purports a need for institutional support programs (MITSS, 2014, van Pelt, 2013, Scott et al., 2009, Carr, 2009). How to implement a program varies among authors/researchers; however they are consistent in agreement regarding the need. One program enlisted the three tier approach similar to that noted in Hall and Scott above (2012), but with further detail (MITSS, 2014). The first tier consists of unit/departmental support; Scott estimates that about 60% will find adequate support here (Scott et al., 2010). The second tier consists of trained peer supporters; about 30% will require this tier of support (Scott et al., 2010). The final tier is for staff that needs more professional type counseling and Scott estimates that about 10% will require this level (Scott et al., 2010).

Yue-Yung, H. et al. (2011) conducted a 56 item survey that was administered to a convenience sample (n=108) of resident and attending physicians at an academic hospital. The goal was to measure the likelihood of seeking support, perceived barriers, awareness of available services, sources of support, and experience with stress. Despite the strong desire for support among physicians, the existing services were found to be underused. This study advocated for peer support as the most effective way to manage second victims (Yue-Yung et al., 2011).

Seys et al. (2013) also conducted a literature review. The goal of this literature review was to identify specific supportive interventional strategies for second victims. Twenty-one

research articles and 10 non-research articles were analyzed. Ultimately, support programs need to include support provided immediately post adverse event as well as in the middle stage and the long term basis too (Seys et al., 2013). This review supported the findings of the other studies that institutional support programs are needed. The authors also provided specific needs based on time that has passed since the time of the event.

Public Health Impact

Providing clinician support is a matter of public health because healthy clinicians with positive emotional well-being, who work in an environment with high morale ultimately, have positive effects on the institution, the patients and the community. When clinicians are unhappy or depressed, it affects their patients too. “It has an impact on their patients; they feel it, they know it and they don't get [the kind of care] they need. Ultimately, patients' health suffers from it” (Gamble, 2011, para 11). When considering physicians specifically, Gamble (2011) notes that more than 65% of physicians report that personal stress and burnout has increased in the past three years and only 15% believe their organizations provide resources in overcoming these anxieties. “One respondent even noted that administrations often don't listen to physicians about stress, which hurts physician retention” (Gamble, 2011, para 16). Promoting healthy environments through infrastructure with staff support improves retention, satisfaction and positive patient outcomes, which is a matter of public health and health outcomes.

Theoretical Framework

"Knowledge translation theories are needed to guide implementation of research-based interventions into practice" (White & Dudley-Brown, 2012, p. 29). Roger's Theory of Diffusion of Innovation is one of these translation theories. "[T]he diffusion of innovation refers to the

process that occurs as people adopt a new idea, product, practice, philosophy, and so on" (Kaminski, 2011, para 2). The goal is that over time the innovative idea becomes diffused in the population until a saturation point is achieved (Kaminski, 2011). Rogers 5 step process includes knowledge, persuasion, decision, implementation, and confirmation (Kaminski, 2011). Rogers also identifies 5 different categories of adopters of any change: innovators, early adopters, early majority, late majority and laggards (Kaminski, 2011). (See Appendix D for a theory graphic).

The *innovation* in this project is the education and awareness of the concept of second victims and the need for support programs for clinicians affected by adverse patient events. This innovation was originally discovered as the student project manager's research and actual experience began to identify this as a concerning issue that affects providers and patient care. It became a topic at professional conferences (knowledge). The need for it and the results of existing programs was then researched further and a favorable attitude was formed (persuasion). Discussion among the leaders and relevant groups (i.e. patient quality and safety and clinical staff) was had and the need to implement this program was agreed upon (decision). These early adopters were and will continue to be capitalized upon and used to promote the program and encourage "buy-in". The next goal is that of designing the educational modules of the program along with enlisting the appropriate staff that will be educated on these concepts (implementation). After implementation was completed, the survey results were analyzed, whether to continue it or not was evaluated (confirmation) via the results of the pre- and post-survey. For purposes of a clinician support program, Rogers Theory of Diffusion of Innovation fit well. Rogers's model stages accurately addressed the stages of clinicians' adoption of workplace innovations.

Goals & Objectives

The primary goal of the program was to educate and make Registered Nurses (RNs) and Nurse Practitioners (NPs) aware of the serious nature of second victimization and how it affects not only the involved providers, but the patients, the peers the institution as a whole and function of healthcare systems. Furthermore, the goal was to elucidate how important implementing a group of trained individuals to serve as peer supporters is. Additionally, this goal was to create a culture of support at the facility and one that clinician providers feel is conducive to their emotional and professional well-being (measured by improvement in survey responses). The long-term goal is to ingrain in the culture that leadership supports the providers during times of need. One objective was to make a group of RNs/NPs more aware and more educated about second victimization and the need for support programs at the medical facility for a period of 4 months. The objectives also include implementation of portions (specifically elements 2 and 4 where they promote identifying key staff to be supporters as well develop a second victim awareness strategy) of the MITSS Toolkit for building a staff support program. (See Appendix C for steps from the MITSS toolkit).

Project Setting Description

The setting for this program was Massachusetts General Hospital (MGH) in Boston, Massachusetts. MGH is a 999 bed acute care academic medical center with multiple specialties. MGH, in existence consistently since 1811, is the third oldest general hospital in the United States and the oldest and largest hospital in New England. It has consistently placed among the top hospitals on the *U.S. News & World Report* Best Hospitals Honor Roll since the survey began in 1990. In 2014, MGH was named #2 in the nation and #1 in New England based on

quality of care, patient safety and reputation in 16 clinical specialties (Massachusetts General Hospital, 2015).

In 2013, MGH was also re-designated a Magnet hospital, the highest honor for nursing excellence awarded by the American Nurses Credentialing Center. The medical center located in the heart of Boston, Massachusetts and offers sophisticated diagnostic and therapeutic care in virtually every specialty and subspecialty of medicine and surgery. High-quality care and services in four health centers are offered in the metropolitan Boston area. The hospital also holds concurrent Level 1 verification for adult and pediatric trauma and burn care. It includes five multidisciplinary care centers – known worldwide for innovations in cancer, digestive disorders, heart disease, transplantation and vascular medicine. “In addition, through MassGeneral Hospital *for Children*, they provide a full range of pediatric health care services, from primary care to leading-edge treatments of complex and rare disorders” (Massachusetts General Hospital, 2015, para 6). At the main Boston campus and four health centers in Charlestown, Chelsea, Revere and the North End, MGH annually:

- Admits approximately 48,000 inpatients
- Handles nearly 1.5 million outpatient visits
- Records more than 100,000 emergency room visits
- Performs more than 42,000 operations
- Delivers more than 3,600 babies
- Reported 58 total serious reportable events (SREs) in 2013
- Of the 58 SREs noted above, this included: 4 wrong side procedures, 1 wrong surgical procedure, 5 retained foreign bodies, 1 device air embolism, 8 medication events, 18 falls with injury, among others (Massachusetts General Hospital, 2014, para 10)

Sample

The Capstone project was provided to a sample of RNs and NPs at MGH. Twenty RNs/NPs from medical units were invited to be part of the awareness and educational program

on second victimization and the need for second victim support programs. The number of twenty was chosen because this is typical of small pilots previously used at the institution. These 20 RNs/NPs were selected based on a nomination from the student project manager and quality and safety staff specialist. The nomination included either RNs/NPs who currently are employed on the medical unit or ones who have previously worked on that unit. These RNs/NPs were selected based on being perceived as having certain necessary qualities (i.e. being compassionate, personable nature, good listener, emotionally intelligent) that would be helpful in a peer support program. The experts at the MITSS annual professional conference held November 13, 2014 suggested a leadership/colleague nomination technique be used for these purposes. The staff on the units and their designated quality and safety staff are in an optimal position to identify qualities of those deemed to be able to provide compassionate support to their peers during these stressful events. Exclusion criteria included RNs/NPs who were not considered to have those qualities and therefore were not nominated. The RNs/NPs may or may not be second victims themselves. They were not being identified based on that fact, but were asked about that in their pre-survey. These are potential “early adopters” or “champions” of the *innovation* in the ‘implementation’ phase of Rogers’ theory of diffusion of innovation.

Resources

Education, awareness and some training to the staff that will potentially be providing support in a future provider support program implementation was a sustaining goal. In order to complete this project, the student project manager's time, a computer with access to the facility's safety reporting system, and surveymonkey (for the participant surveys) was needed. Safety report system access enabled the student project manager to identify adverse events/unexpected outcomes incidence and occurrence to use in the educational materials provided to the staff. The

quality and safety staff specialist was passionate about this project and dedicated weekly time to work on the project (along with other key leadership mentioned in the upcoming stakeholder and plan segments of this proposal) and assisted the student project manager with facility needs and resources.

Barriers

With any new initiative that targets individuals in a vulnerable state (needing to change), some resistance is to be expected (Jamal, 2011). The only barriers to obtaining participants to complete the program were lack of incentive and time. Healthcare clinicians are busy people who work long shifts and are asked to complete many different surveys and programs to maintain their licenses and employment status. In order to facilitate a program that was easily accessible and more likely to be completed, it was designed as an online educational program that they could complete in increments and do at home. The nurse directors were not able to allow for time away from the unit and staff does not typically want to come in to the hospital on a day off, so this increased the likelihood of participation. Of the twenty invited, 13 completed the pre-survey and 11 completed the post-survey (see below for a more detailed discussion on response rates and results) and the ones who were unable to complete it merely reported being “too busy” to finish. Providing a program on non-work time without incentive is a barrier and challenge.

Key Stakeholders

The key stakeholders were the clinician providers, the patients, the facility, the risk management and quality and safety departments, the malpractice insurer, malpractice attorneys, the professional licensing boards, the staff as a whole and the community in general. The

leadership of the facility was and is particularly invested in this program as they want to promote and support providers as part of their mission. Supporting providers promotes patient safety and satisfaction by having emotionally healthy providers caring for the patients. Staff satisfaction and retention can also promote continuity of care with fewer turnovers of care providers. While the program focuses on providers, it ultimately positively affects overall patient safety and a just culture.

Methods/Implementation

This was a pilot built purposefully to test replication, building for future programs and for sustainability. A convenience sample of 20 RNs/NPs was recruited to participate in the program. These RNs/NPs were selected based on being perceived as having certain necessary qualities noted earlier (i.e. being compassionate, personable nature, good listener, emotionally intelligent) that would be ideal for peer supporters. This nomination process was based on the expert advice of those at the 2013 MITSS annual conference. Participants were surveyed for their understanding at baseline (via a pre-survey) and following completion of online educational modules (via post-survey) including elements of the MITSS toolkit for building an institutional clinician support program. The final pilot included all RNs/NPs who agreed to participate out of the 20 invited as was discussed in the sample section. The pre- and post-survey (see Appendix E) was designed to compare the participant findings before and after the educational sessions and some of the questions included in the pre-survey were:

- Are you aware of what a second victim is (related to health care)?
- Are you aware of the just culture concept (as related to health care)? Y/N
- Is the institution generally supportive of clinicians during challenging patient events or medical errors?
- Who would you go to (title, not names) in time of a stressful patient event or if you made a medical error?

- Have you experienced a patient safety event within the past year that caused personal problems such as anxiety, depression, or concerns about your ability to perform your job? Y/N
- Do you consider yourself supportive to other staff during challenging patient events?
- Is there a peer support program for staff available when stressful patient events occur at the institution that you are aware of?

They were also asked to provide demographic data such as age, years in practice, and shifts worked. In the post-survey, they were asked similar questions and whether the program increased their knowledge. These questions were:

- Do you feel as though you better understand the concept of second victimization now?
- Do you feel as though you better understand the just culture concept now?
- Now that you know more about second victims, do you still feel/not feel the institution generally supportive of clinicians during challenging patient events or medical errors (comparison based on what you answered in the pre-survey)?
- Who would you go to in time of a stressful patient event or if you made a medical error (the same as in the pre-survey)?
- Do you still consider yourself supportive/not supportive to other staff during challenging patient events? Y/N
- If there were a peer support program implemented, would you have an interest in being one of the peer supporters available to other clinicians in their time of need?
- Provide general commentary on the program (free text).

They first agreed/disagreed and then completed the pre-survey if they agreed. The pre-survey was sent out March 6, 2015. They then were provided access to the online educational modules and were required to complete them by March 23, 2015 (see Appendix F for educational program agenda). The modules included information on the just culture, what second victims are and what clinician support does for providers and institutions. Making an error or being involved in an unexpected outcome was covered in the material. Including these providers in support programs can enhance their understanding that they are not alone (if they have been

involved in an event) and that many of their respected and most competent peers may have been in similar situations before.

They were sent out March 8, 2015 in order to give over 2 weeks time for completion including 2 weekends to accommodate different schedules and availability. See Appendix F for the step by step agenda of the program provided to the participants. Once they confirmed completion of the program, they were provided with the post-survey and asked to complete it by March 30, 2015. This group of 20 RNs/NPs which included 17 RNs and 3 NPs, was selected as the first test of change because it was the goal of the institution and the student project manager that RNs/NPs become actively engaged and involved in the second victim support future program. They were also selected as those who were identified to have the necessary support type qualities.

Design and Methods

For purposes of research translation, this was a quality improvement project. This quality improvement project followed the *Plan-Do-Study-Act* (PDSA) model. PDSA is a simple, yet powerful tool (AHRQ, 2013). The PDSA model links with the theoretical framework; Rogers Diffusion of Innovation Theory. The innovation (education on second victimization and just culture) is planned in the ‘plan’ stage, it was implemented (‘do’ stage) and it was studied in the ‘study’ phase (via the previously mentioned comparison of the surveys). The ‘act’ then occurred when the analysis determined successes, lessons learned and next steps.

Plan, Do, Study and Act

During the "plan" stage, evidence and practice change are identified and the protocol is developed (the innovation) (Institute for Healthcare Improvement [IHI], 2014). In the "do"

phase, the analysis of data is completed and compared to predictions (IHI, 2014). The literature is in agreement that the concept of "the second victim phenomenon [after an adverse/unexpected event] has a significant impact on clinicians..." and that institutional support programs are necessary (Seys et al., p. 135). This protocol included educating staff members who can potentially be specially trained to serve as supporters for the second victims. The training occurred on a small scale as a test of change. The responses to the program participant pre- and post-surveys were used to assess effectiveness. The program was designed to allow staff to become more aware of the concept of second victimization as well as be interested in being supportive of their peers in times of future traumatic patient events.

In the "study" phase, outcome data are studied, analyzed and interpreted (Roche, 2014). In the "act" phase, determining what modifications need to be made based on the study to the change and plan if prepared for the next test of change (IHI, 2014). Collecting the survey results was completed, analyzed and interpreted. Finally, feedback regarding the program was considered (intervention group report improvement in understanding second victimization and a need for support programs), changes to the program will be made based on the findings and areas identified to be improved and it will restart on a small scale or roll out to a larger pilot and will be reevaluated again via PDSA.

Method of Evaluation

Descriptive statistics were used to analyze the change in perceptions and awareness following the educational pilot program. The measurable outcome indicators were process measures. The percentages of certain responses on participant surveys before implementation of the project were compared with the results after implementation. During evaluation, if the

percentage of increase in knowledge were to increase and be statistically significant, this would be considered to have led to a correlation meaning the project could have had a positive effect among providers. If the percentage of knowledge decreased and was statistically significant, this would have indicated lack of increased awareness regarding second victims and the just culture. It was also planned to be taken into consideration that it was a pilot and a small sample size. This pilot was purposefully designed this way to include non-random clinicians who will derive a benefit from the program as well as be potential supporters. As a pilot, it was designed purposefully, will be conducted again in the future on a larger scale and will be evaluated for replicability.

Data Collection

The participant survey was completed electronically and anonymously via surveymonkey. There was no way to track it to the employee. The participants were able to answer on their own terms and the results could not be connected to the individual. See Appendix E for the statement responses that were analyzed. The responses to statements were considered. The responses to the survey were compared pre/post implementation of the educational program.

Plan

When planning an intervention, it is necessary to determine an appropriate and realistic timeframe and budget. Resources, time and costs are integral to any plan. This organization was invested and therefore was willing to put some of the necessary resources towards it. There was designated space, a computer, internet access and necessary software access. The student project manager's time did not cost the organization. The student project manager created the online

educational modules and sent them to the participants via email with a link to access them. The participants completed the pre-survey via surveymonkey, reviewed the materials and then completed the post-survey via surveymonkey. For purposes of the Capstone project, the services were provided pro bono. The actual costs of a future pilot (along with this pilot) are included in Appendix G. There were at least monthly meetings of designated individuals (quality and safety, nurse director, clinical staff) and this was considered part of their responsibility. The quality and safety staff specialist dedicated time weekly for what was needed as noted previously.

Return on Investment

While the pilot project itself was not able to determine a monetary value that can be attributed to the institution, there is still value to be had. Dr. Sue Scott, the premiere clinician support expert, believes that reducing and preventing high turnover is one said value. When implementing a clinician support program at the University of Missouri, Dr. Scott was able to explicitly determine a return on the investment of designing the program. On two separate occasions, there were nurses who had already planned on resigning immediately prior to the peer supporter reaching out to them to start initial contact of support after they had been involved in a traumatic patient event. One nurse even had the resignation letter in her purse and changed her mind once introduction with the peer supporter commenced. Turnover is extremely expensive for institutions. If clinician support programs can prevent turnover then their value does equate monetarily and this may be demonstrative as a “business case”. “Organizations are always looking for retention strategies to lower the cost of nursing turnover” (Dion & Smolenski, 2008, para 8). According to Jones and Gates (2007) several studies purport nurse turnover to cost anywhere from \$22,000 to \$64,000. Preventing just one nurse from resigning has the potential to

save an institution \$22,000 at a minimum. Implementing a program can be one way to promote retention and reduce costly turnover to institutions, so the return on investment is evident.

Protection of Human Subjects & Ethical Considerations

Institutional Review Board (IRB) approval was not needed for University or institutional purposes in concordance with the University of Massachusetts IRB and MGH IRB. Research is "a systematic investigation designed to develop or contribute to generalizable knowledge" (University of Massachusetts IRB, 2013, para 3). This project is research translation; an educational program and a quality improvement project, but not research. It was site specific. While the information yielded was useful, it is not generalizable. This project included human subjects and human subject protections (respect for persons, beneficence, justice and informed consent rules) were adhered to (CITI, 2015). There was minimal risk to project participants. Their inclusion in the program was kept anonymous.

It did not involve the providers who were actually involved in adverse events, but instead those identified as possible future peer supporters available at the institution. Since they themselves were not involved in an adverse event that this student project manager was aware of, the breach of confidentiality risk was low. Breach of confidentiality was a risk to subjects as in any project and all safeguards were taken. The surveys were anonymous and unable to be traced back to the respondent. The participant survey results were evaluated pre/post-implementation of the project to see if staff identified feeling more aware and more willing to be supportive of their peers after the program implementation than before, but there was no individual data collected; the surveys were anonymous.

Timeline

The timeframe stage was over a 4 month period. Part 1 occurred for 2 months, and included designing the educational modules, inviting the RNs/NPs via email to participate and disseminating the pre-survey to those who agreed. Part 2 occurred for 2.5 months and was devoted to providing access to the participants to the online educational modules via email with step by step directions (Appendix F) and reminding them to complete the pre-survey before completing the modules. Part 2 also included the results of the pre-survey being analyzed. Part 3 occurred for 1 month and included evaluating what went well and what did not and post-survey results being compared to pre-survey results. Some of these parts overlapped as time constraints occurred due to having to rely on the participants to complete the surveys in a timely fashion that corresponded to the project timelines. Lastly, next steps were discussed upon completion. This discussion included surprises, what could be done differently next time, what went well and next steps. This will be discussed next in the analysis section (See Appendix H for a detailed).

Results

Of the 20 nominated individuals (RNs and NPs from medical units) invited to participate, 13 completed the pre-survey (11 RNs and 2 NPs) and 11 completed the post-survey (10 RNs and 1 NP). Since there is no way to know who or why they did not complete the post-survey and whether that means they did or did not complete the educational/awareness program, for these purposes, the n=11 primarily (an exception to this is when the pre-survey results are discussed specifically when the n=13). There was a 55% response rate. The age range of participants was 28-49. All respondents were female. Years in practice ranged from 1.5 to 34. Mean experience years was 14 and the mean age of respondents was 35. These are mid-level experienced

clinicians and are relatively young given the age of nurses in the workforce currently. According to the American Association of Colleges of Nursing (2014), the average age of nurses is 47.

Seventy three % of respondents work full time.

Pre-Survey Results

Not one single participant (0%) reported having knowledge of the concept of second victimization in advance of the program. Only 7.7% (1 participant) reported having knowledge of the just culture concept before completing the program. When questioned whether the institution was generally supportive of staff during stressful patient events, 8 reported in the affirmative (61.5%), 1 reported “no” (7.7%), and 4 reported being unsure (30.8%). When asked if they had experienced a patient event in the past year that caused them anxiety, depression or other stress, 4 reported “yes” (30.8%) and 9 reported “no” (69.2%). An inquiry was made whether they considered themselves to be supportive of their colleagues during challenging patient events. This was 100% across the board; all 13 participants answered affirmatively. When asked if they were aware of an existing peer support program already in place at the institution, 5 answered “yes” (38.5%), 4 responded “no” (30.8%) and 4 answered as “unsure” (30.8%). When questioned about who they would turn to in times of stress, the answers varied from director to manager to staff RN to trusted colleague to employee assistance to clinical nurse specialist to reporting physician. This was a free text box so their options as to what to write in were somewhat unlimited.

Post-Survey Results

All participants (n=11) of the post-survey reported having a better understanding of the concept of both second victimization and the just culture (100%) after undergoing the

educational program. When questioned whether they still believed the institution to be supportive of clinicians (after they have completed the educational program), 7 reported “yes” (63.6%), 2 reported “no” (18.2%) and 2 reported being “unsure” (18.2%). When asked whether they still considered themselves to be supportive of colleagues during stressful patient events (after learning more about it), 9 reported “yes” (81.8%) and 2 reported “no” (18.2%). They were queried whether they would be interested in being a part of a future clinician support program and 8 of them responded affirmatively (72.7%), while 2 responded as not interested in participating (27.3%). The majority of the respondents reporting that they would consult the same person that they noted (via free text) in the pre-survey should they find themselves needing support after a traumatic patient event.

There was also an opportunity to “free text” in comments, thoughts or concerns at the end of the program in the post-survey. This section represents qualitative data. One respondent said “very powerful” and another stated “very thought provoking”. Two respondents specifically noted not having been familiar with second victims before. One explicitly stated that they enjoyed the blended learning approach to the program including slide sets, videos and articles. One participant said that even though it is called a “safety report”, some still think of it as being “written up”. This topic was not discussed in detail in the program. Another respondent said to include all clinicians next time around because all are affected. It was unclear what this was in regards to because the videos and articles included information on both nurses and doctors, but the point will be taken into consideration since perhaps they considered other allied health professionals. See Appendix I for tables displaying these study findings.

Discussion

This was a pilot program and therefore a small sample was utilized and some important lessons were learned from the program results that can be transferred over and taken into consideration for a future larger sample size. All participants reported having a better understanding of the concepts (second victimization and just culture) exhibiting a positive correlation with the educational program. The program did what it set out to do; inform the participants and increase awareness.

While the literature supports a significant proportion of clinicians experiencing second victimization in their careers (1 out of 7 per Scott, 2011), 100% of respondents of the pre-survey reported having no knowledge of the concept of second victimization. This identified a learning opportunity. Similarly, only 7.7% (1 respondent) reported being familiar with the concept of the just culture. It is concerning that these staff members were not familiar with something that could be plaguing their colleagues and affecting the overall morale of the institution as well as patient care. All participants self reported being supportive of their colleagues in the pre-survey (100%). This is of particular interest due to potential bias and possible misunderstanding of what is needed in terms of support. They were not familiar with the just culture or second victims, so it is unclear if, at this stage, they understand what would be needed to be supportive of their peers or if they actually were genuinely supportive individuals since they were nominated originally due to being identified as having the necessary qualities to be a potential supporter (i.e. emotional intelligence, compassion, etcetera as noted earlier). Alternatively, on the post-survey, the percentage of those self reporting being supportive reduced to 81.8% (9) and 2 actually changed their response to “no” (18.9%) possibly indicating their increased understanding that a different level of support is needed after undergoing the educational/awareness modules.

When queried whether they believed the institution was generally supportive of their staff, the percentage remained essentially the same from the pre-survey versus the post-survey (61.5% pre and 63.6% post respectively). This was surprising given the general view in the literature that institutions are not providing enough support to their providers when they do not have formalized programs in place. This could be attributed to their lack of comprehending the true need for support or that their perception and experience actually *has* been that of a supportive institution or it could be something else completely. Additionally, their responses as to whether there was an existing support program were 38.4% (5 participants). Interestingly enough, there currently is no existing formalized clinician support program at MGH. These results may be because the respondents believe that the employee assistance program or other programs that they are familiar with or heard of are the same as clinician support programs. This question was not queried on the post-survey because it was merely to elicit what their perception of current available resources were and was not expected to change after the program since it was not discussed.

Four participants (30.8%) reported experiencing a patient event that caused stress in the past year. If this is indicative of the entire institution (which is not able to be gleaned affirmatively from this non-generalizable pilot), then there could be a benefit from a formalized institutional support program. However, focus groups could help to determine this prior to the next phase of the pilot. This would mean approximately 30% of staff were walking around as second victims and that is concerning. This group was not selected on the basis that they had been a second victim, but the question was asked based on the literature highlighting a moderate number of clinicians being affected by this. It was deemed to be important data to inquire about. A high percentage reported an interest in being a future peer supporter (72.7%, 8). This may

illustrate that the nomination process was successful and a good subset of individuals were selected via this process. Two respondents expressed disinterest in being part of the program.

Strengths

Using surveymonkey was a strength because it allowed for simplifying and managing small amounts of data. Having one student project manager leading the project independently with advice from an experienced PhD preceptor if needed maintained the ability to design the program and surveys, manage the data and steps easily. A moderate amount of participants expressed a desire to be part of a future program as noted above (72.7%). The program was also a mixed method of instruction that included voice over powerpoints, links to clips, videos and articles showing its strength as more than just slide sets to review independently. There was direction, guidance and supplemental materials.

Limitations

Being that it was a small sample, the generalizability of these results is limited. It also only included RNs and NPs. This limits the perceptions that physicians and other allied health care professionals might have. Physicians are sued and often more integrally involved with serious complications and adverse events so the fact may be that their perception and experience may be different if they were included in the original pilot. The respondents were 100% female. None of the 20 invited were male. This could be considered a flaw in the nomination process, but there are a very limited number of male nurses to consider. This may or may not have an ultimate effect on the results. Each of the RNs included worked rotating shifts, so a difference in perceptions from one shift to another for comparison purposes was not possible. The mean age was relatively young as noted above. All clinicians were from medical areas and not other

specialty areas, so it might be informative to see if there was a difference among work areas. A cross-section of all RNs, NPs, physicians and health providers might elicit different findings. Future studies and/or programs should be inclusive of all disciplines, include a larger sample size, include different ethnicities include different years of experience, include different work areas/specialties and include both genders.

Such methodological issues in evaluating should be addressed in future studies to determine the most effective strategies for building awareness among professional nurses. Ultimately, future research should examine the impact of such education on the individuals involved in the traumatic patient events and the culture of safety among RNs, NPs and other providers. See Appendix I for Tables 1 and 2 representing these data.

Summary

The experiences of provider second victims are legitimate and have potential for negative consequences to providers, their affected patients, the institution and the community. The review of the literature revealed that second victims may experience psychological harm similar to those of the patient victims (i.e. grief, anxiety, detachment). This requires a coordinated institutional response. The literature supported the concept of provider support programs or "care for the caregiver" programs to support those who are suffering after adverse or unexpected outcome patient events. The initial steps of implementing a provider program are identifying key staff to be involved and creating an awareness strategy.

MITSS has recognized the need to help organizations implement these programs and in turn, has developed a toolkit to assist in building the program. While each step might not be necessary for each institution depending on size, departmental structure, patient population and

culture, elements of it can be used to assist in the roll-out of any program. Components of this toolkit (particularly elements 2 and 4 identifying potential supporters and developing and awareness strategy) were used to develop the foundation by which a clinician support program can eventually be implemented at MGH. As a result of this pilot program, the need to create a larger more widespread awareness campaign of second victimization and the need for a clinician support program was identified. This pilot study demonstrated that knowledge of the just culture, second victimization, and clinician support following a traumatic patient event is limited among practicing RNs and NPs and an online educational program to increase awareness is feasible.

It is the position of the student project manager that it is unethical not to have a clinician support program as the evidence has supported the emotional toll that being a second victim takes on a clinician and then in turn, their patients as well. As a result of this and the findings from the pilot educational program, it was determined by the project manager and the PhD nurse preceptor to advance this project to the next phase ('plan'). Starting in the fall 2015, this pilot will be started on a larger scale and including a cross-section of clinicians from all areas and disciplines with limitations of this original pilot being taken into consideration. This resulted from the 'study' and 'act' phases of the PDSA cycle of our Rogers' theory innovation confirmation (project manager and preceptor determined project to be feasible and necessary on a larger scale based on analysis and evaluation findings). Next, the group will start over with the 2nd phase 'plan' of the innovation.

Once the awareness campaign has been completed, a clinician support program can be implemented and then hopefully embedded in the culture as a valued program necessary for providers. This program is one that can not only help the providers at one institution, but the overall health of all patients in the community. Supporting providers to be strong and efficient

caregivers promotes the public health of all. Healthy well adjusted providers are better equipped to care for their patients.

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Appendix A: Denham's Five Rights of Second Victims (TRUST)

TRUST

Treatment that is just: This includes a presumption that second victims' intentions were good and that they can depend on organizational leaders for integrity, fairness, just treatment, and shared accountability for outcomes.

Respect: Second victims deserve respect and common decency, and shouldn't be blamed and shamed for human fallibility.

Understanding and compassion: Leaders must understand the psychological emergency that occurs when a patient is unintentionally harmed. Second victims need compassion to grieve and heal.

Supportive Care: Second victims are entitled to psychological and support services delivered in a professional and organized way.

Transparency and opportunity to contribute: Second victims have a right to participate in the learning gathered by the organization about the error and to share in important causal information. Having an opportunity to contribute to prevention of future errors helps second victims to heal.

Adapted from:
Denham (2007). TRUST: The 5 rights of the second victim. *The Journal of*

Patient Safety, 3(2), 107-119

Appendix B: Evidence Table

Citation	Setting/ Sample	Type/Design	Outcomes/Results	Strength of Evidence*
Carr (2009)	Invitational Forum	Conference Proceedings from Experts	Support = automatic part of each institution's operational response	Level 5/Quality B
Cox, Hirschinger & Scott (2008)	Hospital/ 31	Qualitative Cross Sectional Interviews/Questionnaires 2nd victims recalled trauma from 2003-7	Focused on nursing and discussed the importance of building a second victim support program	Level 3/Quality B
Denham (2007)	Experts are the subjects	Qualitative Study Cross Sectional Interviews of national experts	Support for second victims should be organized the same as for patients	Level 3/Quality B
ECRI (2013)	Expert opinion	Expert opinion of the Healthcare Risk Control System	Agrees with Scott's 6 stages of grief and 3 tiers of support needed at the institutional level	Level 5/Quality B
Edrees et al. (2011)	Health System/350	Qualitative Study Cross Sectional Survey of health professionals	When there are adverse events, there are providers who feel effects and support programs are needed	Level 3/Quality A
Hall & Scott (2012)	University Hospital/898	Follow-up survey of 898 2nd victims	Agree with post event trajectory and suggest a 3 tiered approach to support systems	Level 3/Quality A
Lewis (2012)	Medical Center/477	Qualitative study & literature review	Adverse medical events each related to higher emotional exhaustion and depersonalization	Level 3/Quality A
Scott et al. (2009)	Hospital/3000	Qualitative study Cross Sectional Semi-structured interviews of 2nd victims	Each interviewee/2nd victim progresses through a typical 6 stages post event & requires support	Level 3/Quality A
Scott et al. (2010)	Academic Medical Center/ 5300	10 item Web based survey to all faculty and staff	Respite away from care environment for involved staff	Level 3/Quality A
Scott (2011)	Academic Medical Center/1160	Culture of Safety Survey (included specific questions)	1 in 7 reported a patient safety event that caused personal problems, 68% received no support	Level 3/Quality A
Seys et al. (2013)	Not one singular setting/41	Systematic Review	Supportive interventions must be put in place for providers for their sake and for the future patients	Level 4/Quality B
Seys et al. (2013)	Not one singular setting/31	Literature Review	Support needed immediately and long term	Level 5/Quality B
Sirriyeh et al. (2010)	Not one singular setting/24	Systematic Review	A medical error elicits a response to the provider, need more research	Level 4/Quality B
Steeffel	No subjects/expert opinions	Collaboration of patient safety expert opinions	Analyzing contributing factors of errors & philosophy that incorporates behavior into analysis is important to safety culture	Level 5/Quality B
Ullstrom et al. (2014)	Swedish University Hospital/21	Qualitative/professionals who experienced events were interviewed	Most informants lacked organizational support or they received support that was unstructured	Level 3/Quality B
van Pelt (2008)	Case Study & expert opinion	Case Study	A supportive and compassionate environment combined with systems thinking is needed	Level 5/Quality B
Yue-Yung et al. (2011)	Academic Hospital/108	56 item survey to a convenience sample of residents & attendings	Despite the need for support, established services are underused	Level 3/Quality B

* John Hopkins Research /Non-Research Evidence Based Practice Appraisal (JHNEBP) utilized for evaluating the evidence (Levels 1-5/Quality A-C) Retrieved: <http://www.nursingworld.org/documentvault/nursingpractice/research-toolkit/jhnebp-research-evidence-appraisal.pdf> & <http://www.nursingworld.org/DocumentVault/NursingPractice/Research-Toolkit/JHNEBP-Non-Research-Evidence-Appraisal.pdf>

Appendix C: MITSS Toolkit for Building a Clinician Support Program

There are a total of six sections within this worksheet that address necessary support elements needed for a clinician support response team deployment. Many of these activities can be addressed simultaneously. By completing each section, your institution will be prepared to deploy your own support team. These six sections (with their actions steps) include:

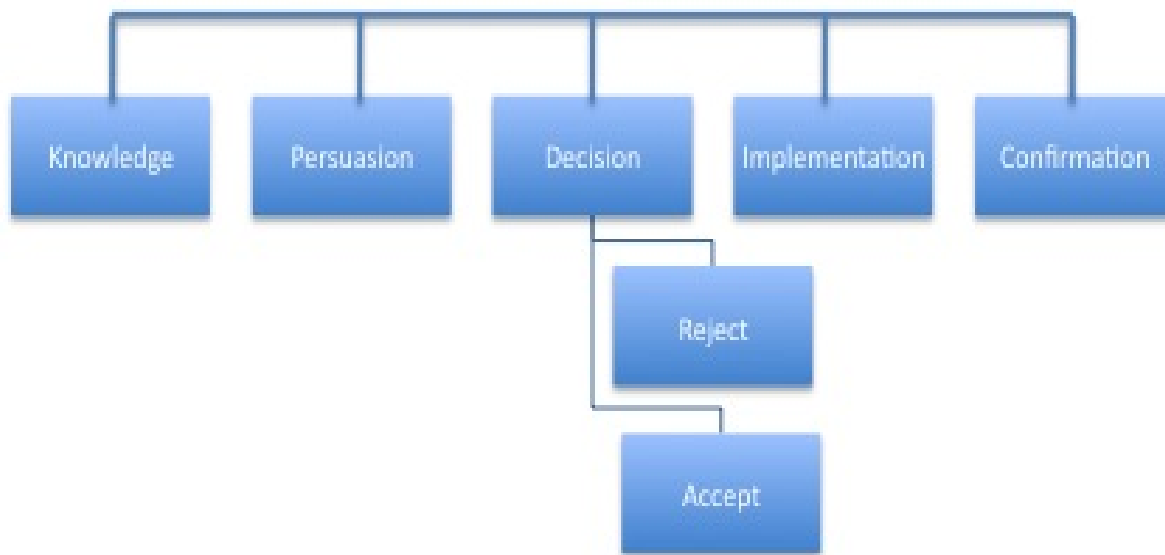
1. Internal Patient Safety Culture Preparedness
 - a) Adverse Safety Event Investigation Process Clearly Delineated
 - b) Reporting Culture
2. Identify Existing and Potential Second Victim Supporters
 - a) Identify key individuals who routinely assist others during times of crisis
 - b) Formalize the role of the second victim support project team lead.
 - c) Identify Executive Champion
 - d) Form a Multi-Disciplinary Advisory Group
3. Establish Team Infrastructure
 - a) Define a team structure
 - b) Determine mechanism for providing second victim support
 - c) Define activation guidelines
 - d) Develop an executive summary business plan & budget for implementation
 - e) Seek administrative approval
4. Develop Internal Marketing Campaign for Response Team
 - a) Develop second victim awareness strategy
 - b) Identify clinical areas
 - c) Identify high risk clinical team
 - d) Embed second victim surveillance
5. Establish Training Program for Second Victim Supporters
 - a) Identify internal resources
 - b) Develop reference tools to be used by members of support team
 - c) Design second victim support training
 - d) Develop a plan to address ongoing continuing education
6. Ensure Team Effectiveness
 - a) Develop an encounter form
 - b) Establish a dashboard overview
 - c) Develop an evaluation tool
 - d) Develop a team member satisfaction tool

Adapted & Retrieved from

http://www.mitsstools.org/uploads/3/7/7/6/3776466/building_a_second_victim_support_program_december3.pdf

Appendix D: Rogers Diffusion of Innovation Theory

Five Stages in the Decision Innovation Process



Adapted from: Lee, T. (2004). Nurses' adoption of technology: Application of Rogers' innovation-diffusion model. *Applied Nursing Research*, 17(4), p. 231-8.

Appendix E: Pre- and Post-Survey Questions

Pre-Survey

- 1) Are you aware of what a second victim is (related to health care)? Y/N
- 2) Are you aware of the just culture concept (as related to health care)? Y/N
- 3) Is the institution generally supportive of clinicians during challenging patient events or medical errors? Y/N
- 4) Who would you go to (title, not names) in time of a stressful patient event or if you made a medical error?
- 5) Have you experienced a patient safety event within the past year that caused personal problems such as anxiety, depression, or concerns about your ability to perform your job? Y/N
- 6) Do you consider yourself supportive to other staff during challenging patient events? Y/N
- 7) Is there a peer support program for staff available when stressful patient events occur at the institution that you are aware of? Y/N
- 8) Demographic information: age, gender, years in practice, role

Post-Survey

- 1) Do you feel as though you better understand the concept of second victimization now? Y/N
- 2) Do you feel as though you better understand the just culture concept now? Y/N
- 3) Now that you know more about second victims, do you still feel/not feel the institution generally supportive of clinicians during challenging patient events or medical errors (comparison based on what you answered in the pre-survey)? Y/N
- 4) Who would you go to in time of a stressful patient event or if you made a medical error (the same as in the pre-survey)?
- 5) Do you still consider yourself supportive/not supportive to other staff during challenging patient events? Y/N
- 6) If there were a peer support program implemented, would you have an interest in being one of the peer supporters available to other clinicians in their time of need?
- 7) Provide general commentary on the program (free text).

Appendix F: Agenda Directions for Educational & Awareness Program

Just Culture:

- 1) Complete “Clinician Support Pre-Survey” via surveymonkey (this indicates your agreement to participate)
- 2) Review slides (voice over) (attached to email *Just Culture Presentation*) (approximately 7:00)
- 3) ANA Position Statement on the Just Culture (scan this document to see ANA’s adoption of the Just Culture) <http://nursingworld.org/psjustculture>
- 4) Sidney Dekker Just culture video <https://www.youtube.com/watch?v=t81sDiYjKUK> (3:41)
Sidney Dekker Why things go wrong
<https://www.youtube.com/watch?v=pYIEMNhqM4> (4:38)

Second Victims/Clinician Support:

- 5) Review slides (voice over) (attached to email *Clinician Support Presentation*) (14:18)
- 6) Link to video from video Sued: The Physician’s Journey:
<https://www.youtube.com/watch?v=pX0ofVpzI6A&feature=youtu.be> (18:45)
Healing the Healer Preview: <https://www.rm.harvard.edu/Clinician-Resources/Video/2010/Healing-the-Healer> (2:29)
Dr. Ring’s video <http://www.rmstrategies.com/Clinician-Resources/Podcast/2012/We-Blew-It> (9:07)
Link to video from MITSS https://www.youtube.com/watch?v=_vmakmmE4 (6:16)
Sidney Dekker on 2nd victims <https://www.youtube.com/watch?v=YeSvCEpg6ew> (6:17)
- 7) “Twin Tragedies” of medical error (nurse commits suicide, article)
<http://www.ismp.org/newsletters/acutecare/articles/20110714.asp> &
http://www.nbcnews.com/id/43529641/ns/health-health_care/t/nurses-suicide-highlights-twin-tragedies-medical-errors/#.VPaVHPnF_Yg
- 8) Slides on *Case Examples & Scenarios* (real life examples of systems issues)
- 9) Complete the “Clinician Support Post-Survey” via surveymonkey

***Please complete entire program 3/23/15 11:59pm. THANK YOU!

Appendix G: Budget

Item	Cost
Computer Information Systems	
Laptop (<i>Not needed to purchase for pilot</i>)	\$900
Telephone, email & internet accessibility (<i>Not needed</i>)	\$500
Materials& Mailing	
Copying/Printing/Ink & Toner (<i>not needed for pilot</i>)	\$75
Personnel	
DNP Student PhD Nurse Preceptor (<i>Volunteer for pilot</i>)	\$44/hour (150 hours) \$55/hour (60 hours) \$6,600+3,300=\$9,900 total
Transportation (public transportation to and from MGH)	
\$4 (bus & train) x 56 trips (to/from MGH)	\$224
Meetings/Presentations	
(2) Meetings with Refreshments for 25 attendees Snacks/beverages (<i>Not needed for pilot</i>)	\$300
Space (<i>Not needed for pilot</i>)	\$500
Total Estimated Cost	\$12,399
Total Estimated Cost for Pilot (services volunteered)	\$224 (for pilot)

Appendix H: Actual Timeframe

Task	January	February	March	April
Plan & Do: Design Materials and Surveys (Part 1)	X	X		
Do: Complete Pre- Survey & Educational Modules (Part 2)	X	X	X	
Do: Complete Post- Surveys & Evaluate (Part 2)			X	
Study & Act: Evaluate Results of Pre v. Post-Survey, Review & Write Up Findings (Part 3)			X	X
Act: Next Steps/Start Over				X

Appendix I: Table 1 and Table 2

Table 1 Characteristics of the Final Sample (Post-Survey, n=11)

Characteristic	Data	Descriptive Details
Response rate	55%	11/20 completed in entirety
Mean age	35	Range from 28-49 years of age
Mean years of experience	14	Range from 1.5 to 34 years
Gender	100% Female	No males invited
Full time	72.7%	Non full time = part time or per diem
Shift	90.9% Rotating	All RNs work rotating shifts (NPs work days exclusively)
Stressful Patient Event Experienced	30.8%	Timeframe = past year

Table 2 Change in Perception/Awareness/Interest Following Educational Program by Component

Educational Component/Interest	Pre-Survey (n=13)	Post-Survey (n=11)
Just Culture	1 (7.7%)	11 (100%)
Second Victimization	0 (0%)	11 (100%)
Awareness of Existing Support Program	5 (38%)	N/A*
Perception that institution is supportive of clinicians	8 (61.5%)	7 (63.6%)
Interest in being a future peer supporter	N/A	8 (72.7%)

*No formalized clinician support program currently exists, but clinicians may consider another resource similar to this (i.e. employee assistance program) mistakenly (not asked in post survey since there would be no expectation of difference of perception after the program as it was not covered, merely assessing awareness of current state)