THE USE OF SEXUAL ASSAULT NURSE EXAMINERS

IN THE EMERGENCY DEPARTMENT

by

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ABSTRACT

The statistics are staggering for SA victims. Rape is the fastest growing and most under reported crime. The significance of the problem resides in a lack of trained SANE within the emergency department (ED). The strong evidence presented is multifaceted and the literature supports the importance for a full time (FT) SANE program. For this QI project, the aim was to measure how many SA cases came in the ED between November 18, 2020 and December 31, 2020. Patients 14 years and older who presented to the ED during this time period were included in the data collection. A specific tool for the local hospital was created to track whether each SANE case was completed by a SANE or non-SANE, and whether they were pulled from the ED floor or they were on-call for SA exams. This data was successfully collected and one out of three, or 33% of SA cases were completed by a non-SANE, and one out of three cases required pulling a nurse from the ED floor. The end goal of the quality improvement (QI) project is to implement a policy change within the ED to create a functional SANE Program as part of the ED. The current model at the local hospital does not provide the gold standard of care for victims of SA in the community. The outcomes of the QI project along with the strong literature support the need to have a SANE completing all SA exams. The data collected during this QI project will be presented to stakeholders at the local hospital Summer 2021.

CHAPTER ONE

INTRODUCTION TO THE CLINICAL PRACTICE PROBLEM

Background on Sexual Assault Nurse Examiner Training

Many hospitals throughout the United States have specific programs to serve the sexual assault population who present for care at their facility (Lanthier et al., 2018). These hospitals have a Sexual Assault Nurse Examiner (SANE), who completes a minimum of a 40 hour training curriculum. This training encompasses the forensic interview, evidence collection including pictures and swabs, being compassionate, providing trauma-informed care, and gaining knowledge about the prosecution process in order to provide expert testimony in Sexual Assault (SA) cases (Office of Victims of Crime (OVC), 2010). Once the nurse completes this 40-hour training curriculum in evidence collection, he/she is now considered a SANE. Larger hospitals provide the patient population for a SANE to acquire enough hours to become certified (SANE-C). Certification requires passing a board exam, along with a minimum of 300 hours of in person patient care of SA patients, on-call hours and didactic training (OVC, 2010).

What Happens When a SANE Is Not Available

Hospitals that do not have a SANE on staff, use Emergency Department (ED) staff nurses to complete the sexual assault kit, with minimal or no training in evidence collection or trauma informed care. Smaller hospitals who do not have the ability to provide this evidence collection service, are required to transfer their patient to the closest hospital that can

complete the SA exam (Montana Coalition against Domestic and Sexual Violence, 2020). Not having a SANE complete the SA evidence collection kit puts the success of the prosecution process at risk (Sievers, et al., 2003). Having a SANE to complete the evidence collection of SA cases should be the gold standard for treating all SA patients (Du Mont et al., 2018).

Background and Significance of the Problem

Significance within the United States

The statistics are staggering for SA victims. "Rape is the fastest growing and most under reported crime; it is estimated over one-third of all women will be sexually assaulted in their lifetime" (Domestic Violence, n.d.). Nationwide "nearly 1 in 5 women (18.3%) and 1 in 71 men (1.4%) in the United States (US) have been raped at some time in their lives which includes completed forced penetration, attempted forced penetration, or alcohol/drug facilitated completed penetration (National Sexual Violence Resource Center (NSVRC), 2010). Also, 79.6% of female victims of completed rape experienced their first rape before the age of 25 and 27.8% of male victims of rape experienced their first rape when they were 10 years old or younger (NSRVC, 2010). In addition, NSRVC (2018) published the self-reported incidence of rape increased from 2010 to 2018 from 1.4 victimizations per 1,000 individuals age 12 and older up to 2.7 per 1,000. This means the incidence of an individual experiencing a sexual assault is only increasing, and thus having nursing staff who are trained to care for this at risk patient population is crucial. In 2015, there were "243,800 female sexual assaults in the US, of which 90% presented to the hospital for care; unfortunately care and services for women who have experienced SA are inconsistent" (Nielson et al., 2015, p. 137).

Significance of the Problem in Montana

In Montana, according to the Department of Public Health and Human Services (DPHHS) (n.d.) in 2016 9.3% of Montanans reported a person attempted to have sex with them without their consent; 8.9% were victims of a completed a sexual act without the consent The number of rape crimes has increased by 34.55% between 2010 and 2016 (DPHHS, n.d). Based on personal communication with surrounding cities, many rural towns in Montana do not have the trained staff and resources to provide appropriate care for victims of SA. The facilities that do not have a SANE program are required to refer their patients to the closest facility that has trained staff available to complete the SA kits. Based on a general web inquiry, in addition to phone conversations with SANE directors around the state, the following towns have a SANE program available in Montana: Kalispell, Missoula, Billings, Great Falls, and Bozeman. Although there are domestic violence and sexual assault services in many counties across the state, this does not indicate the use of SANE programs within the domestic violence services offered in the other hospitals (Montana Coalition against Domestic and Sexual Violence, 2020).

The significance of the problem is due to a lack of SANEs within the local hospital setting. A study from Nielson et al. (2015) provides evidence that ED nurses who are not SANE trained, may benefit from education regarding appropriate treatment for patients who have been sexually assaulted. The Joint Commission who is responsible for accreditation for many healthcare organizations states "nurses must provide competent care to all patients and therefore SANE training needs to be available for ED nurses who care for patients who have been sexually assaulted" (Nielson et al., 2015, p. 137). According to Sievers et al. (2003), when comparing evidence collection kits collected by SANEs versus non-SANE trained

nurses, those completed by SANEs are overall more accurate and complete. Adams & Hulton (2016), found the primary role of a SANE when caring for a SA victim is to focus on a "comprehensive examination with extensive forensic evidence collection…" (p. 217). The ability to put all of one's focus on the evidence collection process and physical exam is crucial and should be the responsibility of a SANE.

Scope of the Problem at Project Site

Currently Lewis and Clark County has approximately 41 cases per year based on Electronic Medical Record (EMR) data from the local hospital. Campbell, Patterson and Bybee (2012) found a differentiation of completeness and accuracy of SA kits being completed by SANEs versus non-SANE trained nurses in the ED. This correlates to the local hospital in Lewis and Clark County, as there is currently no SANE coverage for the ED, presenting a gap in patient care. This could be rectified by implementing a SANE program and providing a SANE for every SA case that presents to the ED at the local facility. In addition, Lewis and Clark County is the only region of its size in the state to not have a SANE program for patients presenting to the ED (Montana Coalition against Domestic and Sexual Violence, 2020). Based on local hospital survey monkey results completed Fall 2020, there is an overwhelming agreement by the current nursing staff in the local ED for the need to have a SANE on-call 24/7. The rationales for needing a full-time (FT) 24/7 SANE program were as follows: when there is no SANE on-call, this leaves the ED short staffed for up to five hours at a time while the exam is being completed; there is a high probability of the exam being completed by a non-SANE. Having a SANE to complete the evidence collection kits of SA cases should be the gold standard for treating SA patients (Du Mont et al., 2018). The general

consensus based on local survey monkey results from Fall 2020, when a SA comes into the ED and a floor nurse is pulled from the current staffing in the ED to complete the SA case, this has the potential to create longer patient dwelling times both in the waiting room and when being worked up in the ED due to the decrease in nursing staff on the ED floor.

Proposed Project and Planned Practice Change

The end goal of the proposal is to implement a policy change within the ED to create a functional SANE Program as part of the ED. To advocate for this, the data collected through two different PDSA cycles during November and December 2020 is going to be presented to the stakeholders in Spring 2020. The SANE program would provide enough nurse positions to cover 24/7 on-call coverage with a program manager. Mirroring another position within the local hospital, the program would require a minimum of four SANEs to cover the 24/7 on-call coverage, one of those positions would be the program manager. The manger would be on-call during the day (7am-7pm) Monday through Friday. The SANEs would cover evening call during the week and weekend on-call coverage. The SANEs would have an obligation of week on and week off call coverage so they would be covering 12 hour call shifts for a seven day period. In addition to a 24 hour holiday rotation schedule between the four positions.

Congruence of DNP Project to Selected Organization's Mission, Goals, and Strategic Plan

Currently the local hospital's mission is to improve the health, wellness and quality of life of those that live within the community. The vision of the local hospital is to be the gold standard for health care in Montana. Based on current research from Du Mont et al. (2018)

having a SANE to complete the evidence collection kits of SA cases should be the gold standard for treating SA patients. A people first focus is integrated in the local hospital's vision of being the gold standard of health care in Montana. Having a SANE program within the ED would place a focus on providing a caring culture that nurtures this at risk patient population while also protecting the nurses completing these exams by assuring they have appropriate training to provide this care. As part of the strategic plan and forward-looking focus the hospital should consider having a FT 24/7 SANE program due to the number of SA cases increasing per year (DPHHS, n.d.). Another standard of the local hospital is operational excellence by having maximum efficiency and stewardship of resources. Having a SANE program for the ED would better utilize resources, alleviating the need to pull resources from the ED floor. With a FT 24/7 SANE program, the ED would be able to achieve high state of the art methods for SA evidence collection by having a SANE complete the exam (Du Mont et al., 2018). In addition to this, the SANE program would work towards achieving high quality evidence-based practice care for this at risk patient population improving quality outcomes for these patients. Lastly, to achieve a healthier community, the local hospital has the goal to have a meaningful impact on the health and well being of our community members; by providing 24/7 SANE coverage for the ED, this would significantly improve the impact of care for SA patients presenting to the ED.

The local hospital's goal is to achieve the vision of being the gold standard in healthcare by 2025. The hospital has created performance goals for each department, which align with the core values of: service, quality, safety, accountability and collaboration. Implementing this policy change and having a FT 24/7 SANE program for the ED would greatly improve the service being provided to this specific patient population. In addition, with the nurses being

trained in SA evidence collection, they are more likely to assemble the evidence correctly, (Du Mont et al., 2018) which speaks to both quality and safety performance goals. Finally, the SANE program would help the hospital reach their vision by increasing and improving access to care for this high-risk vulnerable patient population.

This chapter has reviewed crucial information in regards to the current clinical practice problem, across the US, and within Montana with regards to SA cases. In addition, it has laid out the existing problems within the current practice, while explaining the suggested practice change at the local hospital. The local hospital's vision for the future aligns with the current DNP project proposal in becoming the gold standard of healthcare.

CHAPTER TWO

INTRODUCTION OF LITERATURE REVIEW

When searching for evidence-based research, there were a variety of sites used to include in the matrix of articles included in Appendix A. There was a notable theme regarding how SANEs play a role in SA cases and law enforcement involvement. In addition, there is a multitude of research in patient's satisfaction with their experience during the SA exam when comparing research between SA cases completed by SANEs and non-SANEs. There is a great deal of information on the benefits of having a FT 24/7 SANE program.

Search Methods

The following were research databases used to acquire articles: Web of Science, CINAHL Complete, PubMed, Academic Search Complete, and PsychInfo. The databases were accessed through the Montana State University Library search engine. The Search terms used were: Sexual Assault, Emergency Department, SANE, Sexual Assault Nurse Examiner program, International Association of Forensic Nursing (IAFN) and Sexual Assault Response Team. The Journal of Forensic Nursing was searched, in addition to reviewing references of the systematic reviews that were included in the literature review. The inclusion criteria included: time frame of articles from 2008 to present; the incorporation of SANE programs; the use of SANEs and collaboration with law enforcement. A total of 14 articles were used in the development of this project proposal. In addition to the research databases, national domestic violence and sexual assault online resource websites were referenced, along with local state resources for victims of violence and sexual assault. The exclusion criteria for articles were any articles not focused

specifically on SANEs and their impact on the surrounding environment; if there were additional factors such as alcohol when looking at SA cases the article was excluded. There were a handful of adolescent focus articles on SA, which did not specifically look at SANE involvement and thus were excluded. See Appendix G for PRISMA diagram

Synthesis of Evidence

Caring for a Sexual Assault Patient

The review of the literature provided a great deal of insight into the current practices of SANE programs. A significant difference in attitudes toward patients who present for SA exams has been noticed, when comparing care given between SANE emergency nurses and those without non-SANE trained (Nielson et al., 2015). In addition, this same study noted 35.5% of hospitals included in the study did not have SANE services available, furthermore 85.5% of the nurses who cared for the SA patients, were not SANE trained (Nielson et al., 2015). The care the patient receives reflects the patients' views of the nurses that cared for them post-sexual assault. According to Reeves & Humphreys (2017), there is a high importance of comprehensive trauma history screening during health assessments, in addition to the development of a trusting and mutually respectful provider–patient relationship. Reeves & Humphreys (2017) also encouraged provider-training programs focused on trauma-informed care practices, which is a big portion of SANE training for nurses. Part of being a SANE is being able to conduct a comprehensive trauma history screening during health assessments (Denis et al., 2016). Furthermore, the development of trust and mutually respectful nurse–patient relationships are necessary for caring for post-sexual assault patients (Denis et al., 2016).

SANEs Ability to Care for Sexual Assault Patients

Adding a SANE program allows for the focus of the SA patient's care to be on trauma-informed care practices, which enhances patient's experiences who present to the ED for a SA exam (Denis et al., 2016). The high uptake and positive evaluation of services provided by Ontario's Sexual Assault/Domestic Violence Treatment Centre programs confirms the value of nursing-led, hospital-based care in the aftermath of sexual assault and domestic violence (Du Mont et al., 2014). Physicians who are the first medical provider to see a patient after a SA often fail to meet patients' expectations, particularly with regards to psychological support (Denis et al., 2016). Whereas care received by SANE trained nurses provided forensic support, trauma centered care, and psychological support (Du Mont et al. 2018).

Another study completed by Campbell et al. (2008), evaluated how SANEs were able to engage in empowering behaviors throughout the exam process. Participants stated the SANEs engaged in all eight of the behaviors being tracked throughout their entire visit (Campbell et al., 2008). The behaviors included: the nurse explains what was going to happen next in the exam, the nurse asks if you had questions, you have a chance to help with the exam if you wanted to, the nurse tells you how parts of the exam might feel before they were done, the nurse takes your needs and concerns seriously, the nurse listened to you, you feel you could take a break during the exam or say no to any part of the exam, and the nurse explains why each part of the exam was important (Campbell et al., 2008). They also reviewed the following in another questionnaire post SA visit for those taken care of by a SANE: how much care and compassion did you feel that the nurse showed, how much control did you feel that you had during the exam, how informed did you feel about what was happening in the exam, how clear were the nurses instructions about the medications, how informed did you feel about where to go for follow-up

medical care, how much pressure did you feel from the nurse to go through with prosecution, how likely will you be to contact the nurse if you have a problem, how likely will you be to attend counseling, how informed did you feel by the nurse (Campbell et al., 2008). Again, the responses were overwhelming in support of the care they received by the SANE.

The next study completed by Fehler-Cabral, Campbell, and Patterson (2011), was a qualitative study that reviewed twenty rape survivors' experiences with SANEs. Results suggested that SANEs provided survivors with care and compassion, clear explanations, and choices, which led to the patient's feeling humanized (Fehler-Cabral et al., 2011). A study completed by Campbell et al. (2013), examined 20 adolescent survivors in the Midwest looking into if they felt they had a positive experience with their SANE nurse. The study focused on the three aspects that were identified by the adolescents and their experience: the nurses were sensitive to their patients' physical and emotional needs, the nurses were compassionate, caring and personable, and the nurses believed and validated their accounts of the assault (Campbell et al., 2013).

Adolescents and Sexual Assault

Adolescents were less likely than young adult victims to have used many of the acute care services available (Du Mont, Macdonald, Kosa, & Brown, 2016). Adolescent girls may not be receiving the care they need because they may decline services more often than adult women due to the resistance that often characterizes adolescents' interactions with adult authority figures (Du Mont, et al., 2016). With that said, adolescent girls cared for by a SANE were more likely to pursue testing and evaluation (Du Mont et al., 2016). One study did an audit of 515 SA kits that were collected during a 3-year period; 279 kits completed by SANEs; 236 completed by

non-SANEs (Sievers et al. 2003). Research showed evidence kits collected by SANEs are overall more accurate and complete (Sievers et al. 2003). When a SANE cares for a SA patient, they "address survivors psychological needs, SANEs strive to preserve victims dignity, ensure that they are not re-traumatized by the exam and assist them in regaining control by letting them make decisions through the evidence- collection process" (Campbell et al. 2005, p. 317).

Link between SANE Cases and Law Enforcement

The following paragraph demonstrates the strong link between SA cases completed in the medical setting by a SANE resulting in positive outcomes within the law enforcement process. When victims had medical forensic exams, law enforcement was more likely to reach out to other professionals for consultation regarding the case (Campbell, et al., 2012). Another review of research completed by Campbell, Bybee, Kelley, Dworkin, & Patterson (2012), indicated more survivors of SA who received treatment in a SANE program reported the assault to the police than prior to the SANE program being launched in that community. In addition, this same study noted more evidence collection kits were completed when individuals were seen under a SANE program versus a general ED without a SANE program (Campbell et al. 2012). When reviewing the research, Campbell et al. (2012) also noted cases "were significantly more likely to progress through the criminal justice system, resulting in guilty pleas and trial convictions" (p. 171). In patients that pursued prosecution, case progression through the criminal justice system significantly increased to the conviction part of a trial when comparing cases prior to using SANEs to cases after the use of SANEs were implemented (Campbell, Greeson, & Fehler-Cabral, 2013). Another study by Campbell, Bybee, Townsend, Shaw, Karim, & Markowitz (2014), looked at six SANE programs (two rural, two urban, and two mid-size communities),

individually the data was not significant pre and post SANE programs with regards to the SA being reported to police or prosecutions taking place, however "when data was aggregated across sites and thereby increasing statistical power, there was a significant effect where cases were more likely to be prosecuted post-SANE as compared to pre-SANE" (p. 617-618).

Campbell et al. (2014) completed a study focusing on younger victims, ages 13 to 15 were more likely to have their Sexual Assault Kit (SAK) submitted to the crime lab for analysis versus older victims, age 16 to 17. In addition, Campbell et al. (2014), noted assaults with more than one perpetrator with fewer injuries were less likely to be submitted to the crime lab. On the other hand, cases with a higher number of assault acts and more injuries were more likely to be submitted (Campbell et al., 2014). The research done by Campbell et al. (2014), also stated more cases were moving further through the system, reaching higher levels of case disposition when a SANE cared for the patient. Also, with regards to physician or non-SANE evidence collection was shown to be less thorough and had more errors than SANE-collected kits (Campbell et al. 2005).

Aim of Adding a SANE Program

The aim of having a SANE program is to increase effective trauma-informed care for patients presenting to the ED for a SA. Part of having a SANE program, and the SANE coordinator's position will be to increase collaborative practice between healthcare professionals and expand knowledge with the purpose of improving care for patients who have been sexually assaulted. As a result of having SANEs, healthcare providers are able to fully appreciate SANEs specific roles of caring for patients who have been sexually assaulted (Reeves, and Humphreys, 2018).

Narrative Synthesis of Literature

The current literature on SANE programs has minimal empirical studies that have tested the effectiveness of SANE programs in multiple domains and consists of mostly case studies (Campbell et al., 2017). Patients responded positively when they were provided a clear and thorough explanation of the exam process and findings, given choices during the exam, and treated with care and compassion (Campbell et al., 2012). SANEs were sensitive to the patient's physical and emotional needs, were compassionate, caring, and personable, were helpful and healing to the patient, and believed and validated their accounts of the assault (Shaw, and Campbell, 2013).

In relation to patient-centered care "developing understanding of survivors' actual healthcare experiences and needs, and their engagement in healthcare, could support more efficient and collaborative implementation of trauma-informed practices" (Reeves and Humphreys, 2018, p. 1171). This can be achieved with a SANE performing the SA exam. There is an overwhelming amount of evidence presented by multiple studies by Campbell et al. (2012; 2014) that link a drastic increase in positive outcomes between the use of SANEs and more evidence kits being collected, more of those kits being submitted for prosecution, and more kits resulting in convictions when completed by a SANE.

What Is Missing in the Literature

With regards to SANEs working with groups in the community such as SART (Sexual Assault Response Teams), more research is needed. In addition, further research needs to be done on SANEs' impact on patient outcomes versus the ER nurse's role when there is no SANE staff available (Adams, and Hulton, 2016). Research is also needed to evaluate if immediate

improvements in knowledge and skills among general ED staff is beneficial when a SANE is not available; focusing on post-training positively impact clinical practice, inter-professional collaboration, and victims/survivor outcomes over the longer-term (Du Mont et al., 2018).

Why Proposed Practice Change Is Necessary

The current model at the local hospital does not provide the gold standard of care for victims of SA in the community, is variable based on availability of a SANE, and can be very time consuming for the ED charge nurse, straining valuable resources. See Appendix D for current process flow map. Based on the research, in order for Lewis and Clark County to succeed in providing care for this specific patient population some changes need to occur; (a) developing a clinical practice guideline specific to the care given to sexual assault patients, in addition to updating the recently developed protocol and policy: (b) creating specific positions for SANEs to be able to cover 24/7 on call 365 days a year, as consistency of care to this delicate population is key to encourage individuals to come to the ED for evaluation and completion of the sexual assault kit; (c) providing trauma-informed training for healthcare providers that will be involved in the care of the sexual assault patients; (d) finally, advocating for this program by presenting the data collected between November 2020 and December 2020 to help quantify the current issue at the local hospital. See appendix C and D for proposed policy and process change.

Strengths of the Literature

There is strong evidence to create a link between the use of SANEs and the quality of evidence that is collected (Campbell et al., 2014), in addition to how far the evidence in the kit makes it in the prosecution process (Campbell et al., 2013). Research shows more SA cases lead

to conviction when a SANE performed the evidence collection versus a non-SANE (Sievers et al., 2013). Furthermore, collaboration increased when victims had medical forensic exams, as law enforcement was more likely to reach out to other professionals for consultation regarding the case (Campbell et al., 2012). There is also evidence showing patients were provided a clear and thorough explanation of the exam process, findings, they were given choices during the exam and they were treated with care and compassion when cared for by a SANE versus non-SANE (Fehler-Cabral, Campbell, & Patterson, 2011). Additionally, Campbell et al. (2013) showed SANEs were sensitive to the patient's physical and emotional needs, were compassionate, caring, and personable, were helpful and healing to the patient, while also believing and validating their accounts of the assault.

Limitations of the Literature

Limitations of the current research include needing more research in regard to the collaboration between SANEs and SARTs and how this correlates with care of SA survivors (Adams and Hulton, 2016). Further research is also needed on SANEs impact on patient outcome versus when there is no SANE or SART individual available in the ED for SA cases (Adams and Hulton, 2016). The current literature on SANE programs consists primarily of case study reports, with few empirical studies that have tested the effectiveness of SANE programs in multiple domains (Campbell et al., 2005). Additional research is needed to explore and define the integrated forensic nursing role in addition to the nurse-doctor relationships with regards to patients presenting for SA care (Ekroos, 2016). The Campbell et al. (2013) study noted that teens' key concerns about seeking help included: confusion, shame, self-blame, judgment, and the risk of punishment. Thus having "community outreach efforts that directly address these

concerns may be particularly helpful in linking this vulnerable population to needed post-assault services" in conjunction with the local SANE program (Campbell et al., 2013, p. 74).

CHAPTER THREE

QUALITY IMPROVEMENT (QI) FRAMEWORK

Why This Framework?

The use of the Plan, Do, Study, Act (PDSA) Cycle was a great tool when implementing this practice change within the ED. It allowed the program to be continually evaluated and improved. This is crucial to creating a policy change to be able to assess the change and be able to act on the change, especially within a quick turnaround time in settings like the ED. It is also important, as the change needs to happen as close to real time as possible. The PDSA cycle allows for the quick evaluation of function and process with the ability to make changes and restart the cycle to assess new changes.

What Is the Fit with The Project and Facility?

The Plan (P) part of the process included the team being recruited for the ED SANE Program including the ED Director, the ED Manager, and two ED SANE Registered Nurses (RNs). Briefly, the current process when a SA patient registers in the ED, the charge nurse looks to see if a SANE is on-call, since there is not currently 24/7 call coverage, a text is then sent out to see if a SANE trained nurse is available to come in to the ED to complete the exam. If the text is not responded to within 15 minutes, an ED floor RN is pulled from the ED to care for the patient and complete the exam, whether the nurse has been through the SANE training or not. As a result the ED is left short staffed for up to 5 hours and the exam may be completed by a non SANE trained nurse. The current problem and concern is the lack of available SANE trained

nurses on shift in the ED for SA cases when they present to the ED. According to a survey that was conducted via surveymonkey.com in the ED during Fall 2020, the issues that arise from not having a SANE on-call are: unsafe patient to RN ratios, long ED dwell times for patients, and patient's presenting to the ED for a SA case, not receiving the highest care possible from a SANE trained nurse (SPH ED Survey, 2020).

The Do (D) part of the cycle consisted of tracking SA cases aged 14 years and up that came through the ED from November 18, 2020 through December 31, 2020. Appendix E was used as the tracking tool. Bolded and highlighted items is the specific information that was tracked for this policy change. The other information on the tracking sheet is crucial to the long term success of building the SANE program. However, for the sake of not duplicating work, the focus was on the bolded items.

During the Study (S) phase, the tracking tool used to document SA cases coming into the ED was reviewed at the end of the data collection period. The information collected in the Study (S) phase on the tracking tool helped determine if an exam was completed by a non-SANE trained nurse, if the nurse who completed the SA exam was pulled from the ED floor staff and how long the patient waited before their SA kit process was started.

The information provided in the Study (S) phase aided in determining what improvements need to occur during the Act (A) phase. During the Act phase of the cycle, we will compile data from the Study (S) phase to present in Spring 2020 on how many SA cases are being completed by non-SANE trained nurses. See Appendix F.

The second PDSA cycle that was run concurrently had the same Plan (P), and Do (D) sections, but the Study (S) phase tracked whether the nurse was pulled from the ED floor or was

called in. And thus the Act (A) phase focused on compiling data on how many SA exams required the charge nurse to pull from the ED floor staffing due to not having a SANE on-call. See Appendix H for layout of PDSA cycles.

Agency Description

The hospital is located in Helena, Montana and services include but are not limited to a 99-bed acute care hospital with an ED, inpatient units (ICU, Medical, Surgical, Oncology, OB and Pediatrics), physician clinics, cancer treatment center, 24-bed behavioral health unit, two urgent care clinics, home health and hospice care, dialysis center and ambulance services (SPH, 2020). There has been a recent change in administrative staffing in the past few years, and the individuals listed as stakeholders for this policy change are supporters of refocusing the hospital to serve the local community in a more holistic manner.

Setting

The ED is the primary setting for this evaluation. The ED consists of 18 beds, and a varying RN staff who work 12 hour shifts. Four RN's start at 0600, an additional RN coming on-shift at 0930, 1100, 1200, and 1400. If fully staffed there is a max of eight RN's on staff throughout the day. Once the 0930 shift comes on, one of the floor ED nurses transitions their patients to another floor nurse and becomes the triage nurse. Once the 1100 nurse comes onto shift, the ED charge nurse transitions their patients to the floor nurses. When the ED is fully staffed and all 18 beds are occupied, each floor nurse, minus the charge nurse and the triage nurse are on a 4:1 patient to RN ratio. This ratio is evolving depending if a trauma or a code

comes in that requires more hands on deck, the ratio then shifts and nurses take on more patients. There are also four overflow hallway beds, and thus a nurse could have

Target Population

The target population is any patient who registered in the ED who is 14 years or older for a SA exam. In addition, we looked at if the nurse completing the SA exams were SANE trained or non-SANE trained. Finally, if they were pulled from the ED floor to complete the exam or were on-call and came in from home to complete the exam.

Description of Stakeholders

The stakeholders associated with this project are: ED Director due to the SANE program being a sub-department of the ED, the ED director, ED physicians and ED RN's all need to be involved within the process of the project. The Administration including the: President Chief Medical Officer (CMO), Chief Nursing and Patient Experience Officer (CNO), Chief Executive Officer (CEO), and Chief Financial Officer (CFO) all are crucial in the SANE program being approved as a branch from the ED. Without the upper administration support, the SANE project will be unable to be fully implemented due to the inability to get additional positions created for the SANE program. Each of the above stakeholders holds a key role approving the long-term goals of this project.

Site-Specific Facilitators and Barriers to Implementation-SWOT

Currently there is not one specific person that is in-house 24/7 who can follow the SA cases and therefore the ED staff relies on communication via text when an SA case comes into the ED. If there is no SANE trained nurse on-call a mass text goes out to all SANE trained nurses

to see if one can come in to perform the evidence collection kit. Also, since this is occurring in the ED setting, a parallel process is occurring, thus ensuring we share communication and work together to better the long-term project goals and care for SA patients. The Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis starts by assessing the strengths of the program to be implemented. In this instance the strengths of a SANE program are: support from ED staff, ED director, and CNO; sexual assault (SA) kits and toxicology kits provided from the state crime lab free of charge; and dedicated SANE leader and currently SANE trained staff. These align with the hospital mission statement of providing exceptional and compassionate care to the community. Weaknesses include: potential lack of volume of SA cases to warrant having someone on-call specifically for SANE 24/7; not all ED staff are SANE trained even though it is within the job description to perform these cases; inability to get current SANEs certified due to needing over 300 hours required to sit for certification exam; and not likely to be a “money maker” for the hospital. Next in the SWOT analysis is Opportunities which could include: the hospital has the opportunity to increase the quality of care this patient population is currently receiving; strong grant funding available for SANE programs; reimbursement is available for the exam, tests, and medications provided. Finally, threats to the program could include: obtaining hospital board approval to initiate the program; sustaining funding for this program when volumes are unpredictable; needing continued support of ED Director and board members; and keeping SANE trained nurses with low patient volumes. See Appendix B for SWOT Diagram.

Project Design – Quality Improvement Project

Purpose

The purpose of this QI project is to help evaluate the need to implement a policy change within the ED to create a functional SANE program as part of the ED. Although this program would work out of the ED, it would be a separate program with enough positions to cover 24/7 on-call coverage with a full-time program manager. The manager would cover on-call during the day (0700-1800) Monday through Thursday; the other SANEs would cover evening on-call during the week and weekend on-call. The SANEs would be salaried on-call positions with time and a half pay if they get called into the ED for an SA. SANE staff would be on a rotational call schedule to cover weekends, in addition to a 24-hour holiday rotation schedule. The tracking tool in appendix E will be used to collect data from the PDSA cycles for the QI project.

SMART Goals (short/mid/long term goals)

When looking at SMART (Specific, Measurable, Attainable, Relevant, and Timed) goals, thinking short-term for the project, mid-term goals for the Spring, and long-term goals for the program as a whole in the next year is essential to the success of the program and serving this specific patient population. The specific short-term goal is to text out for SANE staff help on 100% of SA that comes into the ED. The specific long-term goal is to have FT 24/7 365 days a year on-call SANE coverage for the ED. The tracking form allowed us to track whether a text went out to call a nurse in, or the nurse was on-call, or one was pulled from the ED floor which will answer our short term and long term goals. In addition, the “what’s app” is used for texting out needs for the department, and this was correlated with the tracking sheet to ensure a text was

sent out for help if there was no SANE on-call, which meets the measurable criteria. Moving into attainable, re-evaluated after each SA case that came into the ED during the data collection period, thus were able to continue to adjust our short-term goals and ensure they were attainable. The PDSA cycle also allowed us to continue to make the goals relevant to the development of the SANE program. Each short-term goal is timed out to align with the PDSA cycle and when SA cases register in the ED. In addition, the long-term goal is set for Summer 2021 to have enough evidence to present to the stakeholders enabling implementation of a FT 24/7 SANE program as a branch from the ED.

Project Methods

When looking at methods of administration of the QI project, the ethical aspects of this project include Institutional Review Board (IRB) approval or exemption from Montana State University (MSU). All patient information was redacted for the purpose of the project, thus the reviewer was not aware of any patient identifiers. Since there is not a program in place currently, all associated costs would be considered start up costs. Funding would be acquired through grants, donations, and upfront money established within the annual ED budget, in addition to billing and reimbursement via Forensic Rape Examination Payment Program (FREPP), and Crime Victims with the state. Initial purchase of equipment will be included in the start up costs. Equipment that will need to be purchased includes: colposcope or video camera system, swab box/dryer, and locking refrigerator for temporary storage of evidence. Disposable evidence includes: gloves, speculums, lubricant, toluidine blue dye, paper bags for evidence, swabs, and rulers. Additionally, medications for prophylactic sexually transmitted diseases, and HIV prophylactic medications should be considered in the budget. Another cost to be included should

be training of SANEs, which includes initial 40-hour a week course, continuing education, and travel, lodging and per diem for the above training.

Direct and Indirect Cost (Resources)

Direct costs would be considered staffing, manager salary pay, both full and part time positions and on-call hours. According to Leger & Dunham-Taylor (2018), direct costs are considered to be costs that will not fluctuate with volume. Some of the start up costs could be considered direct costs as they will only be purchased once ideally, such as the colposcope, swab box/dryer, and the locking refrigerator. Indirect costs for the program would be very similar to what is already provided in the ED. Just as the quality improvement, risk management and infection control would be similar measures already taken in the ED. There would be special attention to each of those categories individually due to the sensitive population and evidence collection, but the costs associated with this would not cause a significant increase in costs for the ED.

Description of Project/Evidence-Based Intervention

The start of the process is initiated with the registration of a SA patient. If a SANE nurse is on-call, that nurse is called in for the exam. If there is not a SANE nurse on-call, then a text is sent out to all SANEs to see if anyone is available to come in for the SA exam. If no SANE replied to this text, the next step is if there is a SANE staffed on the ED floor. If a SANE is in the ED, then a text is sent out to the general RN ED group to see if any staff are able to come in and help cover the ED while the SANE trained nurse is off the floor for the SA exam. Finally, if there is no SANE on call, and no SANE currently working in the ED, then the charge nurse sees if any of the current floor nurses who are not SANE trained would be willing to complete the SA

exam as it is currently part of the ED job description. Thus, the intervention is to track whether a SANE trained nurse completed the exam and whether the nurse that completed the exam was called in or pulled off the ED floor to complete the exam.

Measures and Instruments

The measurement tool is new and was created specifically for the local ED to include the Lewis and Clark County resources that are available to the ED for SA patients. The tracking tool is filled out by hand by the nurse completing the SA exam. This tracking tool is kept locked in the SA cart in room 18 which is designated for SA cases. In order to get the key for the tracking book, the RN has to login to the Omnicell to pull the key out. This way the access is tracked. All SA exams for patient's 14 years and older were completed in the ED and were included in the tracking and PDSA cycle process. This will be done by the nurse completing a checklist when they complete the exam that states: the examiner's name, whether they were called in or were on shift, whether they are SANE trained or non-SANE trained, what county the SA occurred in, if law enforcement was notified, if friendship center was notified, were the FREPP forms filled out, was the evidence collection kit completed, was the kit entered into Department of Justice (DOJ) tracking, was there a pediatric or adult doctor consult on the SA case. Although a majority of this information is not necessary for the PDSA cycle(s), the information that was utilized for the PDSA cycle run(s) is bolded on the tracking form. The remaining information will be utilized for the long-term reassessment of the SANE program and collaboration with the new SART team and other community resources. Validity incorporates content validity focusing on having a tool that measures all aspects of the idea of interest (Kim & Mallory, 2017). Reliability will be proven through each PDSA cycle as it will tell us if the tool can consistently measure whether a

nurse was called in or pulled from the floor to do the SA exam; in addition to if the nurse completing the exam was a SANE or a non-SANE trained nurse (Kim & Mallory, 2017). Due to this being a new instrument for this specific hospital, the validity will be discussed and evaluated in the results section after. See appendix E for tracking tool information.

Procedures/Implementation Plan

The start of the process begins when the front registration desk in the ED will register the patient. The registration staff calls to the back to inform the Charge Nurse a SA patient is registering. The triage nurse will triage the patient to insure they are within the 5-day time frame for evidence collection, in addition to ensuring they do not have any immediate medical concerns the ED provider would need to address. The triage nurse also finds out if the patient knows if they would like to get the police involved, if so, they ask where the assault occurred (city or county) to notify the correct police or sheriff department. The charge nurse will reference the SANE binder to see if anyone is on-call. If there is a Registered Nurse (RN) on-call, they will call that staff member in to do the exam. If there is not a SANE on-call, the charge nurse will send out a mass-text to all SANE trained nurses to see if anyone is available to come in to do the SA exam. The charge nurse will allow 15 minutes to pass, prior to looking at current ED staffing to see if there is a SANE currently working in the ED. If there is more than one SANE on staff, the charge nurse will discuss with them if one of them wants to volunteer for the SA exam. Once an RN is assigned to the SA case, he/she will distribute their current patient load to the other nurses on the ED floor with the help of the charge nurse. If there is not a SANE trained nurse on-shift, then the charge nurse will ask the nurses on staff who is willing to perform the SA exam. Depending on current ED staffing and patient flow, if the ED is full, the charge nurse will send

out a mass text to see if someone can come help cover the ED while the staff nurse is pulled from the ED floor to complete the SA exam. While all of this staffing arranging is going on, the Health Unit Coordinator (HUC) in the ED notifies the Friendship Center that we have an SA case in the ED. They will currently be video called in due to COVID19 and visitors being restricted at the hospital. In addition the HUC prints out 60 patient labels and places these on the chart. The charge nurse places the SANE order set so the pharmacy can start compiling all the medications that are given in the visit. The nurse caring for the SA patient then starts the forensic interview process and evidence collection process. Once this nurse opens the evidence collection kit, they are unable to leave the patient room, due to concerns for evidence tampering and chain of custody. Thus, if the nurse needs any additional supplies, medications, etc. they call the HUC for additional assistance.

Data Collection

The nurse caring for the SA patient starts the forensic interview process and evidence collection process. Once this nurse opens the evidence collection kit, they are unable to leave the patient room, due to concerns for evidence tampering and chain of custody. Thus, if the nurse needs any additional supplies, medications, etc. they call the HUC for additional assistance.

The nurse caring for the SA patient filled out the tracking tool located in the locked SANE cart. This occurred for each SA exam for patients 14 years and older completed in the ED between November 18, 2020 and December 31, 2020.

Data Analysis Plan

For this QI project the data analysis will be performed by analyzing data and inputting the data from the tracking tool into two histogram charts. One chart will focus on how many

exams were completed by SANE versus non-SANE trained nurses. The second histogram chart will be comparing how many exams were completed by a nurse who was on-call, called in for the exam versus a nurse pulled from the ED floor to complete the SA exam. The challenge will be being able "to interpret the findings and apply them in the context of the clinical questions as outcomes" (Moran et al., 2020, p. 178). Being able to transform the data to deliver the implications of the findings will be critical to gain stakeholder buy in.

Timeline of Project

The information was compiled in Fall 2020 to fill out the application for the Institutional Review Board (IRB). The IRB application was submitted on November 16, 2020 and was approved on November 17, 2020, marked as exempt from requirement of IRB review. Data collection was run from November 18, 2020 to December 31, 2020. The PDSA cycles were run through this six-week time frame, and adjusted after each SA case that registered. Data analysis was compiled from the QI project between January 1, 2021 to January 31, 2021 into their respective histogram charts. The project proposal will be expanded on and submitted for final approval by April 9, 2021. The project will then be proposed to the stakeholders in May 2021.

Feasibility and Plan for Sustainability

Ensuring this policy change and FT SANE Program is successful and sustainable is crucial to being able to expand the current services available to this high-risk patient population. Although SA cases are not known as "money makers" for the hospital, there are other sources to ensure the funding of this program continues to be available. Applying for specific grants within Victims of Crime Act (VOCA), Montana Board of Crime Control, and the hospital foundation. Grants would help assist with initial supply costs in addition to staffing if needed. After

completion of the policy change proposal, in Summer 2021 would be the ideal time to apply for grants as many of the available grants have deadlines in the Fall. There is a supportive network within the state of Montana the available resources just need to be accessed for this program to be extraordinary and feasible.

Summary of Project Change

The proposed process change that will come April 2021, after data collection and analysis from the PDSA cycles. In chapter four, the review of data collected will be discussed collected from the tracking tool to assess how many exams are being completed by non-SANE trained nurses; if the nurse was pulled from the ED floor, or if the nurse was on-call. Appendix D goes over the potential flow-map change if there is a SANE on-call, versus appendix C that outlines the current process. Appendix E is the tracking tool that was used during both PDSA cycles located in Appendix F and Appendix G.

CHAPTER FOUR

SMART GOALS REVIEWED

When reviewing the SMART goals created for this QI project, the short-term goal for the project was for the charge nurse to send a text out for SANE staff help on 100% of SA that comes into the ED. The tracking form located in Appendix E allowed us to track whether a text went out to call a nurse in, or the nurse was on-call, or one was pulled from the ED floor which answered our short-term and long-term goals. In addition, the "what's app" is used for texting out needs for the department, and this was correlated with the tracking sheet to ensure a text was sent out for help if there was no SANE on-call, which meets the measurable criteria. Moving into attainable, short-term goals were re-evaluated after each SA case that came into the ED during the data collection period to ensure they were attainable. The PDSA cycle also allowed us to continue to make the goals relevant to the development of the SANE program. Each short-term goal is timed out to align with the PDSA cycle and when SA cases registered in the ED. In addition, the long-term goal is set for Summer 2021 to have enough evidence to present to the stakeholders enabling implementation of a FT 24/7 SANE program as a branch from the ED.

Descriptive Statistics

There was a total of four SA cases that registered within the data collection period of November 18, 2020 and December 31, 2020, unfortunately one was under the age of 14 and thus was not included in the data collection. All three of the SA cases included in data collection occurred in November. The first patient, a text was not sent out due to there being a SANE on-call, thus the patient was cared for by a SANE nurse who was not pulled from the ED floor. The

second patient in the data collection period was also seen by a SANE, there was no SANE on-call, so the ED Charge Nurse sent out a text on the what's app to see if there were any SANE nurses available. No response occurred, another text was sent out to the general ED staff to see if someone could come help cover the floor while one of the SANE nurses on-shift could perform the evidence collection. The charge RN called a SANE to see if they could come in to do the exam as the ER was very busy that afternoon. The SANE did come in from home for the SA exam, but this RN was not on-call for SANE. The third patient presented during the data collection period came at the end of November, a couple hours before shift change around 0400 and there was no SANE on-call. A text went out to all SANEs via the what's app to see if someone could come in, no reply occurred, the charge nurse then sent out a text to the general ED RN staff to see if an RN could come help cover the floor while an RN was pulled from the current ED staffing to complete the exam. This request was not fulfilled, and thus the ED was short staffed during this SA exam. The start of this exam did not take place till after shift change at 0630am, and the exam was completed by a non-SANE trained nurse. The patient had over a two-hour wait till their evidence collection process was started, due to trying to find qualified staff to complete the exam, and shift change occurred. After this patient, wait time was also added to the tracking sheet, unfortunately with regards to data collection purposes we did not have any other patients register for SA during the specified data collection time frame.

In summary, one out of three, or 33% of SA cases were completed by a non-SANE, and one out of three cases required pulling a nurse from the ED floor. This means two out of the three cases were completed by a SANE. Of the three cases, one case the RN was on-call for SANE, one SA case the RN came in from home, but was not technically on-call for SANE and

one case an RN was pulled from the ED floor. This concludes the three PDSA cycles being tracked during the data collection.

Structure Measures

In regards to structure measures, the hospital's ability to provide SANE for all SA cases presenting to the ED is a major deficit to the local community. The lack of available SANE trained staff was the focus of this project. In order to provide evidence-based care for the SA population, one needs to be trained in forensic specimen collection and trauma-informed care. In addition, developing a clinical practice guideline specific to the care given to sexual assault patients.

Process Measures

For this QI project, the aim was to measure how many SA cases came in the ED between November 18, 2020 and December 31, 2020. Specifically, the tracking tool in Appendix E was utilized to track whether each SANE case was completed by SANE or non-SANE, and whether they were pulled from the ED floor or they were on-call for Sexual Assaults. This data was successfully collected and presented in Appendix I.

CHAPTER FIVE

DISCUSSION OF RESULTS IN RELATION TO RELEVANT LITERATURE AND/OR FRAMEWORK

The standard of care for every SA patient presenting to the ED should be met by providing qualified nurses to care for this high-risk patient population. As mentioned previously, patient's presenting to the ED for a SA case, not receiving the highest care possible from a SANE was a concern noted in the local ED survey taken in Fall 2020. (SPH ED Survey, 2020). Originally the PDSA cycles were going to be run twice throughout the 6 weeks. Instead, aspects of the tracking tool and patient care were adapted after each SA case, as it seemed this to be more beneficial to the data collection process. This helped aid in the data collection, and the addition of patient wait time, which is crucial to track, as SA patients should be triaged as a high priority, for example the same as a chest pain patient. This is due to the time sensitivity of the evidence collection (Campbell et al. 2014). If a SA case registers, and waits hours before the data collection has started, this can have a negative impact on the evidence collected; this is due to the timeline restriction on the evidence collection process. Certain items in the sexual assault kit have a 12-hour time limit from the assault and other items within the kit have a 120-hour time limit from the assault. This is why SA patients should be given priority in the ED. "This includes a prompt medical screening exam. Recognize that every minute patients spend waiting to be examined may cause loss of evidence and undue trauma. Individuals disclosing a recent sexual assault should be quickly transported to the exam site, promptly evaluated, treated for serious injuries, and offered a medical forensic exam" (US Department of Justice, 2013, p. 29).

Although two of the SA cases completed in this data collection period were completed by SANEs, one case the RN came in from home to complete the exam. This exam had the potential of also being done by a non-SANE and the RN being pulled from the ED floor. In addition to this, due to the ER being very busy that afternoon, the patient waited a little over an hour and a half till her evidence collection process started. One out of the three patients waited over two hours prior to their evidence collection due to no SANE being on-call, and shift change occurring within a few hours of the patient's arrival. This case ended up being one out of three completed by a non-SANE.

The other concern this links into with non-SANEs completing SA exams is the inability to ensure data was collected correctly. There is currently no oversight of this data collection process when patients are cared for by non-SANEs. The RN follows a step-by-step guide created by a SANE for the data collection, but this does not guarantee the data is collected, dried or packaged in the correct manner. As discussed earlier, research demonstrates the link between cases completed by SANEs and increase in their prosecution rate (Campbell et al., 2014). When reviewing the research, Campbell et al. (2012) also noted SA cases "were significantly more likely to progress through the criminal justice system, resulting in guilty pleas and trial convictions" (p. 171).

Challenges Encountered and How These Were Addressed

Due to the limited number of patients who presented for SA within the data collection period this limited the number of PDSA cycles that were done. Originally, the plan was for the PDSA cycles to be run twice within the data collection period. This changed to making adjustments after each SA case presented. Another challenge that occurred was not having the

patient wait time on the tracking sheet from the start. The individual evaluating these tracking sheets was able to go back for two out of the three cases to determine how long the patient waited till evidence collection started. In addition, reminding individuals to complete the tracking sheet was difficult due to variability of when SA cases come into the ED and not having a coordinator to have daily hands on tracking and communication with staff.

Limitations

Limitations of this project include a time restraint that was on data collection. Although, there have been additional SA cases since the end of data collection on December 31, 2020 these were not included in the results of this QI project but will be looked at as a whole when presenting to the stakeholders at the local hospital. Also when considering limitations in relation to the amount of SA cases that presented to the ED during the data collection period, factors that need to be considered include but are not limited to: the COVID-19 pandemic, the short data collection period, the age of patients included in the study, inability for follow up with RNs completing the evidence collection due to the SA cases occurring at all hours of the day and night and variable RN schedules.

Recommendations for Future Work

The strong evidence presented is multifaceted, the literature discussed in detail in previous chapters supports the importance for a FT SANE program, and backs the results presented to support the need for a FT SANE program at the local hospital. The ability to compile additional tracking sheet information from the remainder of Winter and Spring 2021 to would be very advantageous in showing the need for a FT SANE program at the local hospital.

This additional information should be added to the presentation to the stakeholders. This would provide a better picture of patient flow in addition to problems that arise when a SA case registers in the ED and there is no SANE on-call. Having either the ED manager or the ED director monitor the tracking sheet daily and correlating this tracking sheet with the What's App for requesting help for a SA case would help with the data collection. More importantly, the further collaboration and dedication of the local hospital to building a FT SANE program would greatly benefit this patient population, by providing a SANE for every SA that comes into the ED.

Project Work as Related to DNP Essentials

With regards to the eight essentials of doctoral education for advanced nursing practice, this project aligns essential number six which focuses on the interprofessional collaboration for improving patient and population health outcomes (AACN, 2006). The collaboration of the local hospital's current administration and three of the SANE's in the ED has been substantial in moving this quality improvement project forward. The end goal of having a functional FT SANE program would greatly improve population health outcomes by having nurses trained to care for them in their delicate circumstance when presenting to the ED for a SA. Based on current research from Du Mont et al. (2018) having a SANE to complete the evidence collection kits of SA cases should be the gold standard for treating SA patients. A people first focus is integrated in the local hospital's vision of being the gold standard of health care in Montana and aligns with the development of a FT SANE program.

Feasibility and Plan for Sustainability

In regards to sustainability, having a smaller number of nurses who need to keep up on training and up to date with evidence based practice education would help for the long term success of this program. There are currently 12 staff that have taken the SANE training course at some point, which does not necessarily mean they have completed a SANE exam within the last year, two or even three years. The ED has 45 RN's total and the turnover rate year to date (YTD) is 6.45% for RN's. Currently, it is $500 per person to attend the SANE training and this does not account for CE training each year. The International Association of Forensic Nurses (IAFN) offers online CE's through a membership. The cost is $129 per person for a membership which will provide 50 hours of CE's. Keeping in mind the hospital will pay each of the RNs to attend the training as well. It is a 41-hour class outside of their regularly scheduled shift. Accounting for all ED RNs to take the training and remain current with CE's, there may be great benefit to paying an on-call salary and only training a select few. If the hospital went this route, they would need four positions with a 0.8 Full-time equivalent (FTE) to cover the call needs with a full-time exempt coordinator position.

The local hospital did recently pair with Billings Clinic and University of Montana in Missoula, Montana in a statewide approach for Montana that focuses on building sexual assault programs for hospitals who do not currently have one, in addition to building a Montana SANE coalition to increase collaboration and resources for SA patients across the state. This group will be known as the Montana SANE consortium. This grant is through Health Resource and Service Administration (HRSA) and is offering significant support for the startup and sustainability of SANE programs. Additional grants and funding will need to be secured for future years when the

HRSA grant is no longer available to assist with funding for the long-term success of the FT SANE program.

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APPENDICES

APPENDIX A

EVIDENCE TABLE

Citation: (i.e., author(s), date of publication, & title)	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied and Their Definitions	Measurement of Major Variables	Data Analysis	Study Findings	Strength of the Evidence (i.e., level of evidence + quality [study strengths and weaknesses])
Nielson, H. M., Strong, L., and Stewart, G. J. (2015)	none	survey	N=1503	SANE; ED	IV: SANE training DV: attitude of emergency department nurses toward sexual assault survivors	5-point Likert-type scale; Cronbach's alpha; Descriptive variables	a significant difference in attitudes toward the patients between SANE-trained emergency nurses and those without training.	Level IV qualitative study
Adams, P., & Hulton, L. (2016)	None	Systematic Review	582 articles between 2004 and 2014 in Pubmed, CINAHL, Scopus and PsycINFO. # of articles	SANE; SART	Used levels of evidence to grade articles that were reviewed	Lit Review	More research is needed in regards to the collaboration between SANEs and SARTs. Further research is also needed on SANEs impact on patient outcome and ER nurses role when there is no SANE or SART individual	Level 1- Systematic Review

			12.				available.	
Du Mont, J., Solomon, S., Kosa, S. D., & Macdonald, S. (2018)	None	Questionnaire	A total of 1564 staff from 76 EDs in acute care hospitals across Ontario participated in either on-site (n = 828 staff) or online (n = 736 staff); Data were collected during the in-person sessions from Jan 2014 to Nov	(SA/DVTCs); ED	16 self-reported measures of competence	paired t-tests; Mann-Whitney U test.	Training led to immediate improvements in ED staff perceived understanding and ability to address the needs of victims/survivors of sexual assault, - advantages to the in-person training. Research is needed to evaluate whether immediate improvements in knowledge and skills among ED staff post-training positively impact clinical practice, inter-professional collaboration, and victims/survivor outcomes over the longer-term.	

			2015 & online April 2015 to April 2016					
Campbell, R., Patterson, D., & Lichty, L. F. (2005)	None	Focused literature review	(a) promoting the psychological recovery of survivors, (b) providing comprehen-sive and consistent postrape medical care (c) documenting the forensic evidence	SANE IAFN; ED	Used levels of effectiveness to measure a-e	Lit review	The current literature on SANE programs consists primarily of case study reports, with few empirical studies that have tested the effectiveness of SANE programs in multiple domains.	Level II- qualitative study- meaning/process questions

			of the crime completely and accurately, (d) improving the prosecution of sexual assault cases by providing better forensics and expert testimony, & (e) creating community change by bringing multiple service providers together to					

			provide comprehensive care to rape survivors.					
Campbell, R., Patterson, D., Adams, A. E., Diegel, R., & Coats, S. (2008)	Participatory evaluation model	Crosssectional Survey	52 sexual assault victims	(SANE);	IV: SANE empowering care logic model DV: patient's psychological well-being	6 step process for planning and conducting program evaluations	Patient's reported positive psychological well-being after implementing the empowering care philosophy	Level III-Survey
Fehler-Cabral, G., Campbell, R., & Patterson, D. (2011)	none	semi-structured interview-	adult female sexual assault survivors -18 years of age or older at the time of the assault; (b) were victimize	(SANE);	IV: SANE nurse providing care DV: Patient feeling "humanized"	Open coding and pattern coding	Patients were provided a clear and thorough explanation of the exam process and findings; (b) they were given choices during the exam; and they were treated with care and compassion.	Level IV-Qualitative study

			d in the focal county; & received an exam by the SANE program between 09/1999-06/2007. 20 participants					
Campbell, R., Bybee, D., Kelley, K. D., Dworkin, E. R., & Patterson, D. (2012)	Multilevel random intercept model	Mediational analysis	343 police reports of adult sexual assault cases in 3 midwestern law enforcement agencies between 01/1994 and	(SANE); (ED);	IV: Use of a SANE program; forensic examination; SANE conducted suspect exam; law enforcement consulted SANE about; whether any member of the police team investigating	Multilevel logistic regression	when victims had medical forensic exams, law enforcement was more likely to reach out to other professionals for consultation regarding the case.	Level V-Case Report review

			12/2005		the case had participated in sexual assault training conducted by the focal SANE program DV: case referred for prosecution			
Campbell, R., Patterson, D., & Bybee, D. (2012)	Comparative research design	quasi-experimental, nonequivalent comparison group cohort design	01/1994 - 08/1999: comparison group N=156; 09/1999 - 12/2005: the intervention group N=137.	(SANE); (ED); (SART); intraclass correlation coefficient (ICC)	IV: law enforcement agency that handled case; forensic DNA findings were positive; time/month case processed; whether case was handled during the prosecutor reelection yr; whether the case was pre-SANE or post-	longitudinal multilevel ordinal regression; Somer's d	case progression through the criminal justice system significantly increased pre- to post-SANE: more cases reached the "final" stages of prosecution (i.e., conviction at trial and/or guilty plea bargains) post-SANE.	Level II-quasi-experimental design

					SANE DV: Case outcome			
Campbell, R., Greeson, M., & Fehler-Cabral, G. (2013)	none	Interview	20 sexual assault patients between the ages 14-17	(SANE);	IV: quality of the emotional/interpersonal Care DV: aspects of Sexual Assault Nurse Examiner nursing practice that were helpful and healing.	“data reduction,” three analysts independently read the transcripts	SANEs were sensitive to the patient’s physical and emotional needs, were compassionate, caring, and personable, were helpful and healing to the patient, believed and validated their accounts of the assault	Level IV: Qualitative interview
Campbell, R., Bybee, D., Townsend, S. M., Shaw, J., Karim, N., & Markowitz, J.	none	multisite replication study	stratified random sampling to identify six SANE programs (two rural, two midsized	Sexual (SANE); National Sexual Violence Resource Center (NSVRC); intraclass correlation coefficient	IV: use of SANE program DV: extent of progression through the system	multilevel ordinal regression; intraclass correlation coefficient (ICC)	Post-SANE more cases were moving further through the system, reaching higher levels of case disposition	

(2014)			, two urban) that had organizational readiness to participate in program evaluation from 06/1995-09/2009	(ICC)				
Du Mont, J., Macdonald, S., White, M., Turner, L., White, D., Kaplan, S., & Smith, T. (2014)	none	survey	30 sexual assault/domestic violence treatment centres N=1484	(SANE);	IV: SANE program use DV: client satisfaction	Descriptive analyses	The high uptake and positive evaluation of services provided by Ontario’s Sexual Assault/Domestic Violence Treatment Centre programs confirms the value of nursing-led, hospital-based care in the aftermath of sexual assault and domestic violence. Ongoing evaluation of such services will ensure the best	Level III-Survey

							care possible for this patient population.	
Reeves, E. A., & Humphreys, J. C. (2018)	none	individual interviews and qualitative description methods.	N=14; women between the ages of 22-63	Intimate partner violence (IPV)	IV: navigating difficult healthcare experiences, healthcare interactions and the healthcare system. DV: survivors' healthcare experiences	Content analysis	importance of comprehensive trauma history screening during health assessments, development of trusting and mutually respectful provider–patient relationships and provider training programmes focused on trauma-informed care practices.	Level III-Survey
Denis, C., Seyller, M., & Chariot, P. (2016)	none	prospective observational study	N=232 age 10 and up in Paris, France 05/2010-12/2012	none	IV: patient's who received medical care DV: their expectations of the care	t tests, (Kruskal–Wallis) one-way analysis of variance, Mann–Whitney U tests, Fisher's and χ2	Physicians who are the first medical provider to see a patient after a sexual assault often fail to meet patients' expectations, particularly with regard to psychological support. Care	Level III-prospective observational study

						tests,	received was perceived as best when physicians provided both forensic support and trauma care, psychological support or gyn care.	
Sievers, V., Murphy, S., and Miller, J. J. (2003)	None- (Grey Lit search	Audits of sexual assault kits BETWEEN OCT 1999 & April 2002	515 audits by crime lab analysts on sexual assault evidence kits submitted to the Colorado Bureau of Investeigation between 10/1999 and 04/2002	Kits completed by SANEs vs Kits completed by Non-SANEs	Comparative percentage values for each question examined	Cross-tabulations; pearson; chi-square	279 kits completed by SANEs; 236 completed by non-SANEs. Evidence kits collected by SANEs are overall more accurate and complete.	Level V-Case Report review

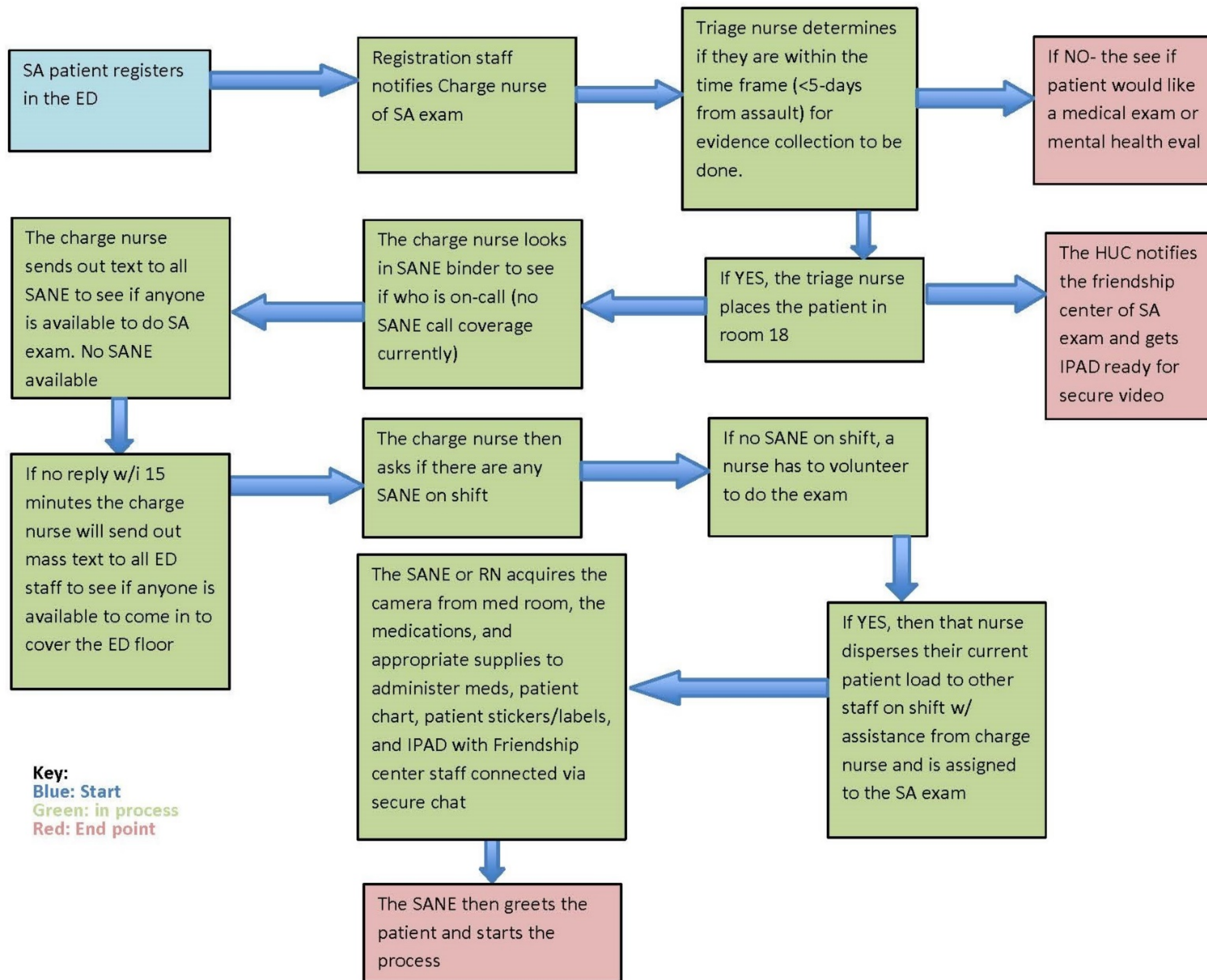
APPENDIX B

SWOT ANALYSIS

Strengths	Weaknesses	Opportunities	Threats
*24/7 call coverage for the ED by a SANE *Not short staffing the ED by pulling a nurse from the floor for a SA exam *Allowing for better patient to RN ratios when an SA comes into the ED *Bridging the gap in care for this special patient population *Working towards the gold standard of care	*Additional positions needed to cover 24/7 call *Not an immediate fix *Limited in-person training for SANE due to COVID19 *Limited training for court appearances	*Opportunities for online SANE training *Building with the community as we establish an adult SART (sexual assault response team). *Filling a potential gap in care in the community *Create more jobs opportunities within the community	*Monetary concerns with funding the program during COVID19 *Grand deadlines *Equipment *Continued training *Potential Lack of stakeholder support

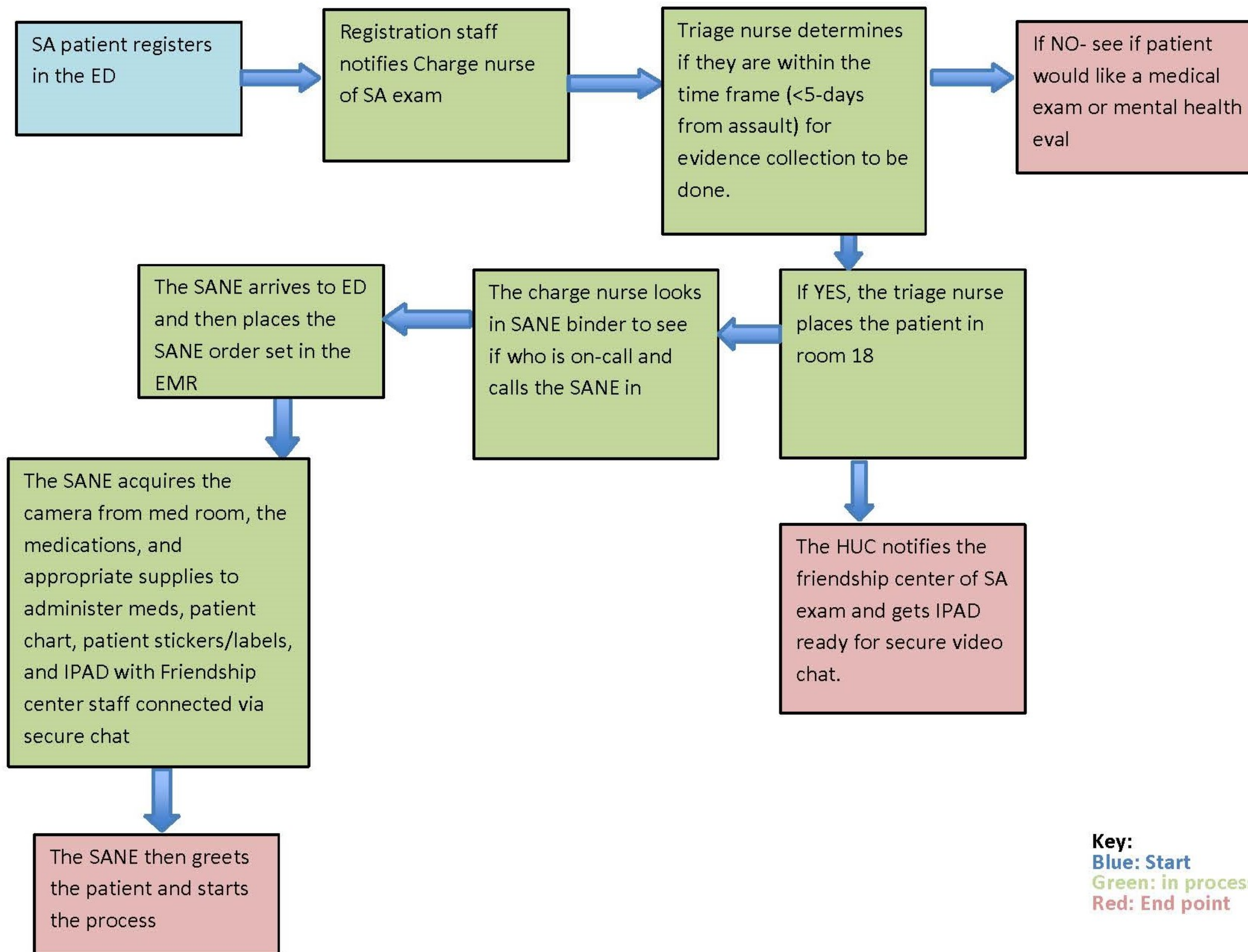
APPENDIX C

FLOW MAP OF CURRENT POLICY


SA patient registers in the ED
Registration staff notifies Charge nurse of SA exam
Triage nurse determines if they are within the time frame (<5-days from assault) for evidence collection to be done.
If NO- the see if patient would like a medical exam or mental health eval
If YES, the triage nurse places the patient in room 18
The HUC notifies the friendship center of SA exam and gets IPAD ready for secure video
The charge nurse looks in SANE binder to see if who is on-call (no SANE call coverage currently)
The charge nurse sends out text to all SANE to see if anyone is available to do SA exam. No SANE available
If no reply w/i 15 minutes the charge nurse will send out mass text to all ED staff to see if anyone is available to come in to cover the ED floor
The charge nurse then asks if there are any SANE on shift
If no SANE on shift, a nurse has to volunteer to do the exam
If YES, then that nurse disperses their current patient load to other staff on shift w/ assistance from charge nurse and is assigned to the SA exam
The SANE or RN acquires the camera from med room, the medications, and appropriate supplies to administer meds, patient chart, patient stickers/labels, and IPAD with Friendship center staff connected via secure chat
The SANE then greets the patient and starts the process
Key:
Blue: Start
Green: in process
Red: End point

APPENDIX D

FLOW MAP AFTER POLICY CHANGE


SA patient registers in the ED
Registration staff notifies Charge nurse of SA exam
Triage nurse determines if they are within the time frame (<5-days from assault) for evidence collection to be done.
If NO- see if patient would like a medical exam or mental health eval
If YES, the triage nurse places the patient in room 18
The charge nurse looks in SANE binder to see if who is on-call and calls the SANE in
The SANE arrives to ED and then places the SANE order set in the EMR
The SANE acquires the camera from med room, the medications, and appropriate supplies to administer meds, patient chart, patient stickers/labels, and IPAD with Friendship center staff connected via secure chat
The SANE then greets the patient and starts the process
The HUC notifies the friendship center of SA exam and gets IPAD ready for secure video chat.
Key:
Blue: Start
Green: in process
Red: End point

APPENDIX E

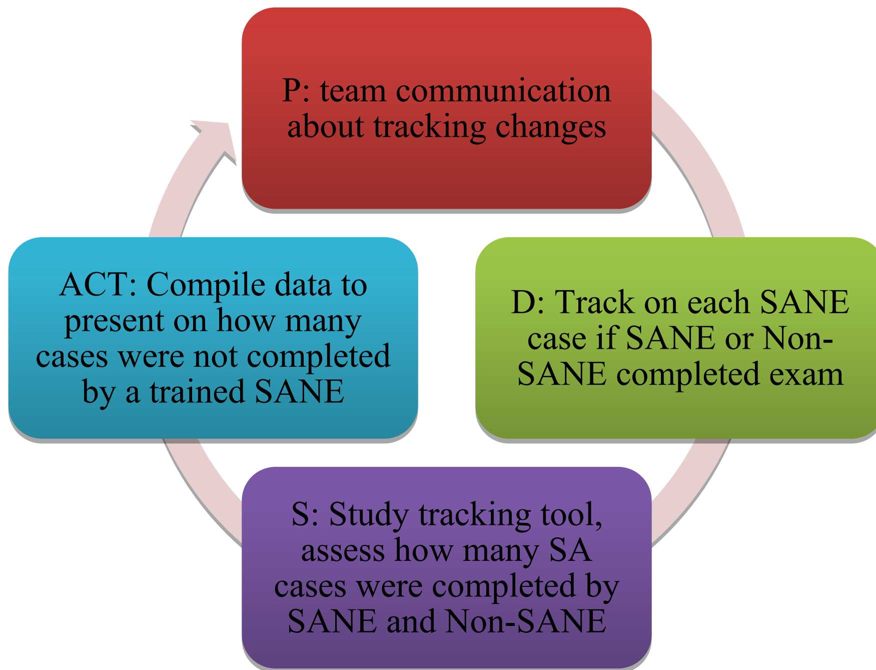
TRACKING TOOL

Patient label	Nurse examiner	Check list
WAIT TIME:___________	Print ____________ Sign ____________ ***Please circle one:*** ***ON-CALL** ***PULLED FROM ED FLOOR** ***Please circle one:*** **SANE Trained** **NON-SANE Trained**	Kit completed YES NO Declined Exam Form Signed YES NO FREPP YES NO NA Adult MD Consult YES NO NA Peds MD Consult YES NO NA HPD YES NO NA LCC Sheriff YES NO NA Friendship Ctr YES NO NA Online kit tracking YES NO NA
WAIT TIME:___________	Print ____________ Sign ____________ ***Please circle one:*** ***ON-CALL** ***PULLED FROM ED FLOOR** ***Please circle one:*** **SANE Trained** **NON-SANE Trained**	Kit completed YES NO Declined Exam Form Signed YES NO FREPP YES NO NA Adult MD Consult YES NO NA Peds MD Consult YES NO NA HPD YES NO NA LCC Sheriff YES NO NA Friendship Ctr YES NO NA Online kit tracking YES NO NA
WAIT TIME:___________	Print ____________ Sign ____________ ***Please circle one:*** ***ON-CALL** ***PULLED FROM ED FLOOR** ***Please circle one:*** **SANE Trained** **NON-SANE Trained**	Kit completed YES NO Declined Exam Form Signed YES NO FREPP YES NO NA Adult MD Consult YES NO NA Peds MD Consult YES NO NA HPD YES NO NA LCC Sheriff YES NO NA Friendship Ctr YES NO NA Online kit tracking YES NO NA

***KEY: Bold and highlighted will be the information used for PDSA cycle(s)**

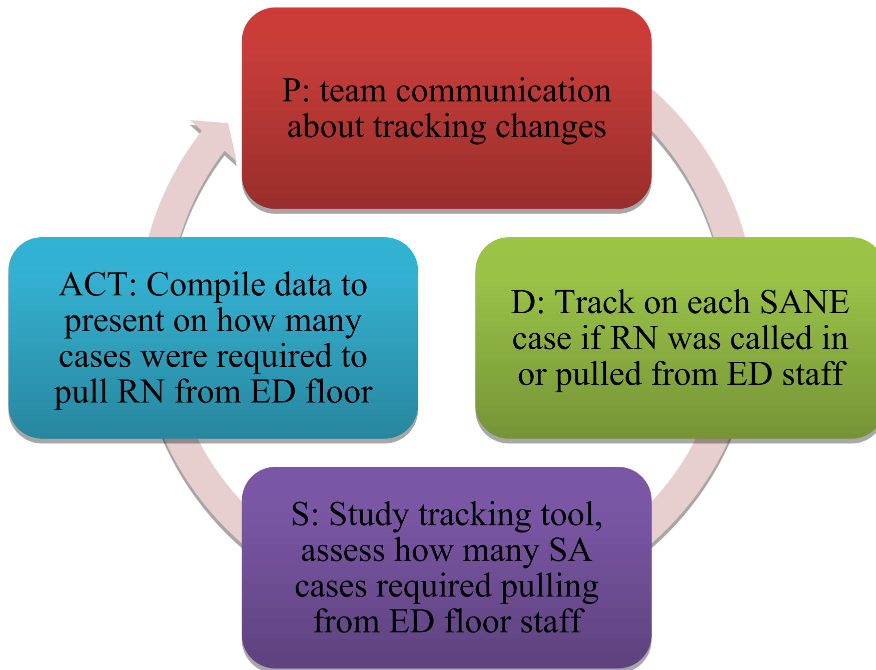
APPENDIX F

PDSA CYCLE FOR TRACKING IF SANE COMPLETED SA EXAM


P: team communication about tracking changes
D: Track on each SANE case if SANE or Non-SANE completed exam
S: Study tracking tool, assess how many SA cases were completed by SANE and Non-SANE
ACT: Compile data to present on how many cases were not completed by a trained SANE

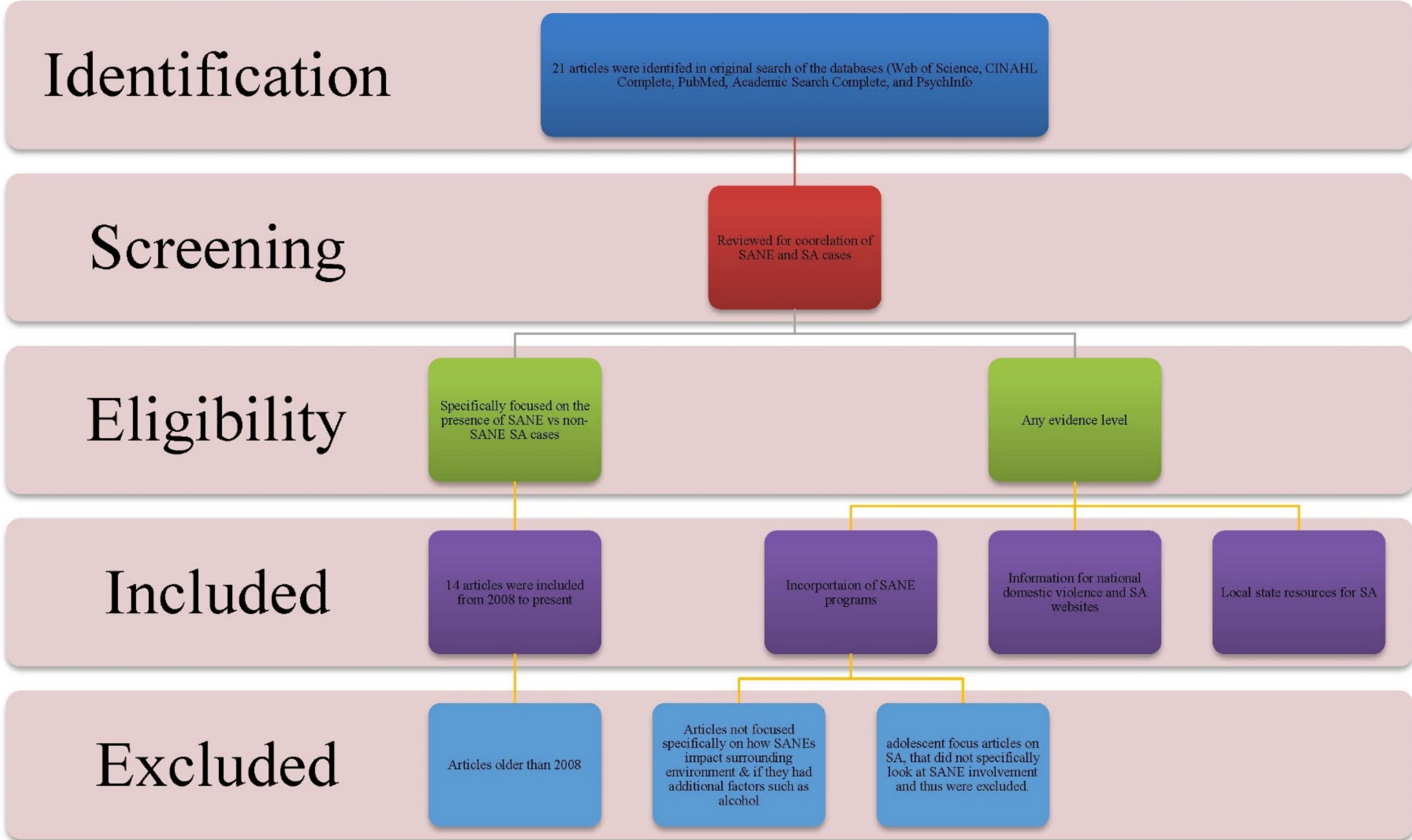
APPENDIX G

PDSA CYCLE ASSESSING IF STAFF WAS PULLED FROM ED FLOOR OR IF STAFF WAS CALLED IN FOR SA


P: team communication about tracking changes
D: Track on each SANE case if RN was called in or pulled from ED staff
S: Study tracking tool, assess how many SA cases required pulling from ED floor staff
ACT: Compile data to present on how many cases were required to pull RN from ED floor

APPENDIX H

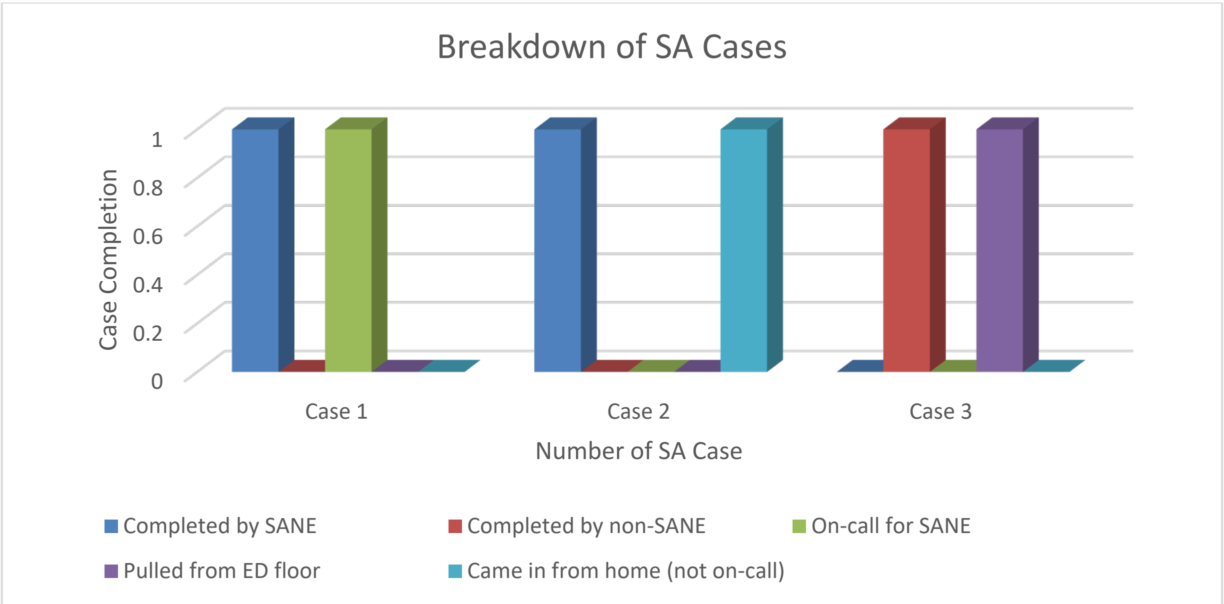
PRISM DIAGRAM



Identification
21 articles were identifed in original search of the databases (Web of Science, CINAHL Complete, PubMed, Academic Search Complete, and PsychInfo
Screening
Reviewed for coorelation of SANE and SA cases
Eligibility
Specifically focused on the presence of SANE vs non-SANE SA cases
Any evidence level
Included
14 articles were included from 2008 to present
Incorportaion of SANE programs
Information for national domestic violence and SA websites
Local state resources for SA
Excluded
Articles older than 2008
Articles not focused specifically on how SANEs impact surrounding environment & if they had additional factors such as alcohol
adolescent focus articles on SA, that did not specifically look at SANE involvement and thus were excluded

APPENDIX I

BREAKDOWN OF SA CASES



KEY:
YES=1