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# An Educational Intervention to Increase Emergency Department Nurse's Knowledge and Confidence in Recognizing Victims of Human Trafficking
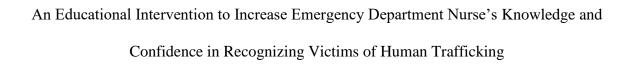
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An Educational Intervention to Increase Emergency Department Nurse's Knowledge and

Confidence in Recognizing Victims of Human Trafficking

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Regis University

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**Abstract**

Objective/Purpose: To provide an educational intervention to Registered Nurses (RNs) in the Emergency Department (ED) to increase their knowledge and confidence in recognizing/identifying victims of human trafficking (HT).

Methods:  A quantitative study using a presurvey, pretest-posttest design to collect information on ED RNs knowledge, awareness and confidence in identifying HT victims.  The study used a ten-question survey and ten-question pre and post-test, developed in collaboration with other researchers, based on the evidence identified in the literature.

Results: The paired sample t test results did not show a statistically significant change from pretest to posttest mean scores (t = -1.797, p = .074), suggesting the educational intervention did not make a significant impact on improving the ED RNs knowledge, likely the participants entered the project with the knowledge necessary to score well on the pre and posttest.

Conclusion: HT victims interact with EDs every day and the victims continue to go unnoticed. Providing proper education for ED RNs in Pennsylvania, specifically Montgomery County, the ED becomes a safe place, or more importantly a place for healing for victims.  The screening tool aimed at identifying HT victims will contribute to improving outcomes for them and is the only way to fight the criminal construct of HT.  Raising the knowledge and confidence of the RNs in the Eds, and building a rapport with the victim are the necessary steps to assist in ending HT.

Key words: DNP Project, Human Trafficking, EmergencyDepartment, education, sex trafficking, labor trafficking.

**Executive Summary**

Modern day slavery exists in the form of human trafficking (HT) in the United States. Today, the **problem** is that, approximately, 27 million people are living in "slavery." The following collection and summation of data will answer the question (P) for Emergency Department (ED) nurses in a level one facility, will (I) education specific to the topic of HT as compared to (C) before the education session demonstrate an increase in the (O) nurses' confidence and knowledge in relation to recognizing victims of HT?

In most health care organizations, the ED is the portal of entry and the ED RNs are the first touch point for patients. The **purpose** of this project highlights that healthcare providers hold a key role in identifying and assisting victims of HT, but most are not adequately educated in the recognition or treatment of these patients. The **goal** was to provide ED nurses a more robust, trauma-informed, culturally sensitive, and evidence-based program that assists in identifying HT victims. The **objectives** of this project were to educate ED RNs and adapt a screening tool to assist with identifying HT victims.

The **plan** included providing a pre-survey, pre-test, and post-test educational program. Project **outcomes** were measured using paired-sample t-tests, and Pearson's correlation . The educational intervention **results** of this project yielded ($t = -1.797$, $p = .074$). Although there was a slight improvement in the mean scores, it was not effective in statistically improving the mean score, but educating the ED RNs proved to be very beneficial.

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**Problem Recognition/Definition**

In 2020, it seems unthinkable that slavery exists in the United States, yet this modern day slavery exists in the form of human trafficking (HT) (Breuer & Daiber, 2019). HT is identified as labor or sex trafficking. "Modern day slavery" is a human being's daily reality that does not discriminate against age or gender. It crosses over every demographic in the United States. Trafficking occurs in all 50 states, with an estimated 100,000 to 300,000 of American youths at risk of being exploited yearly (Egyud, et. al., 2017). Today, there are approximately 27 million people living in slavery (Ohio nurses review, 2018, p.21). This number is a rough estimate largely because it is so covert and mostly goes unnoticed. HT yields 150 billion dollars a year, and is considered the third most lucrative criminal industry (Lamb-Susca & Clemens, 2018). Pennsylvania is not immune to the horrible crime of human trafficking. In 2018, Pennsylvania ranked third in the nation for number of new cases with a total of 11, same for active cases. Pennsylvania had 42 criminal human trafficking cases active in 2018, ranking it 5th in the nation for number of active cases. Of these active cases, 92.9% were sex trafficking cases while 7.1% were labor trafficking cases (Trafficking Matters, 2018). "Although it is widely believed that healthcare providers could hold a key role in identifying and assisting victims of HT, most are not adequately educated in the recognition or treatment of these patients" (Breuer & Daiber, 2019, p.3.). The lack of education certainly contributes to the failure to identify HT victims, due to many care providers are unaware of the problem (Dols, Beckman-Mendez, McDow, Walker & Moon, 2019). Dols, et. al. (2019) states, to combat HT, health care providers need to be educated on how to identify victims, how to approach suspected victims, and what actions to take once a victim is identified, especially in regions where HT is rampant (p. 623).

A criminal conctruct of such magnitude, carries an overwhelming significance, today, according to the National Human Trafficking Hotline (2019), Pennsylvania ranked ninth of fifty-three states, in the number of human trafficking cases reported. Montgomery County is the third most populous county in Pennsylvania; it is the second wealthiest county in Pennsylvania, fifty-first wealthiest in the United States.  It has the largest number of hotels, motels, and massage parlors in Pennsylvania.  Human trafficking is growing in Pennsylvania, as "Pennsylvania is a source, destination and pass-through state for trafficking in persons." (MCAT, n.d.). Pennsylvania is halfway between New York City and Washington D.C., resulting in continuously increasing cases of HT in Pennsylvania (MCAT, n.d.).

It is important that Registered Nurses (RNs) in the Emergency Department (ED) are able to recognize the indicators of labor trafficking which include musculoskeletal injuries, malnutrition, lack of routine or preventative care, poor dental hygiene, and vision complaints. Physical indicators of sex trafficking includes multiple sexually transmitted infections (STIs), abnormally high numbers of sexual partners, trauma to vaginal or rectal area, signs of physical trauma, and suspicious tattoos or branding.  Along with the physical indicators, there are behavioral indicators.  Some behaviors exhibited are anxiety/panic attacks, conflicting reports, poor personal health historian, paranoia, poor independent decision making, aversion to speak without an interpreter, and irritability.  Both physical and behavioral indicators can resemble labor trafficking, but can include frequent emergency care visits, conflicting stories, and signs of drug and alcohol abuse (National Human Trafficking Resource Center [NHTRC], 2016).

In most health care organizations, the ED is the portal of entry and the RNs in the ED are the first touch point for the patients.  In response to this monumental issue that exists in

Montgomery County, PA, RNs in the ED require appropriate education, both initially and ongoing, to close the knowledge gap, as well as bring the necessary awareness.  The following question must be answered (P) for ED nurses in a level one facility: will (I) an educational intervention specific to the topic of human trafficking as compared to (C) before the education session demonstrate an increase in the (O) nurses' knowledge and confidence in relation to recognizing victims of human trafficking?  According to Reap (2019), the concept of trafficking is being introduced to health care providers to increase awareness of this growing threat to public health, to promote identification of these patients,  to rescue victims, and to treat the potential health problems associated with them.

**Theoretical Foundation**

This capstone project will be framed by multiple theories:  Jean Watsons' Theory of Human Caring/Caring Science, Roger Lippit's change theory, Albert Bandura's social-cognitive theory (specifically the component of self-efficacy), and Malcolm Knowles' Adult Learner theory.  Jean Watson is one of the few nursing theorists who consideres both the people being cared for, and the care giver.  The core concepts of her theory are (a) the carative factors, (b) the transpersonal caring relationship, and (c) the caring occasion/caring moment (Watson Caring Science Institute, 2010).  Watson's (2001, p. 347) translation of the carative factors into clinical caritas processes are the following:

1. Practice of loving-kindness and equanimity within context of caring consciousness.
2. Being authentically present, and enabling and sustaining the deep belief system and subjective life world of self and one-being-cared-for.

3. Cultivation of one's own spiritual practices and transpersonal self, going beyond ego self.

4. Developing and sustaining a helping-trusting, authentic caring relationship.

5. Being present to, and supportive of the expression of positive and negative feelings as a connection with deeper spirit of self and the one-being-cared-for.

6. Creative use of self and all ways of knowing as of the caring process; to engage in artistry of caring-healing practices.

7. Engaging in genuine teaching-learning experience that attends to unity of being and meaning attempting to stay within other's frame of reference.

8. Creating healing environment at all levels, physical as well as non-physical, subtle environment of energy, and consciousness, whereby wholeness, beauty, comfort, dignity, and peace are potentiated.

9. Assisting with basic needs, with an intentional caring consciousness, administering "human care essentials," which potentiate alignment of mind-body-spirit, wholeness, and unit of being in all aspects of care tending to both embodied spirit and evolving spiritual emergence.

10. Opening and attending to spiritual-mysterious, and existential dimensions of one's own life-death; soul care for self, and the one-being-cared-for.

The transpersonal caring relationship describes how the nurse goes beyond an objective assessment, showing concerns toward the person's subjective and deeper meaning regarding their own health care situation.  The nurses caring consciousness becomes essential for the connection and understanding of the other person's perspective (Watson, Caring Science Institute, 2010).  The Theory of Human Caring supports a relationship between both the

identified HT victim, and the ED nurse who is caring for them. When a HT victim is identified, both the cared for and the care giver require a significant amount of emotional support, especially due to the the RNs in the ED limited exposure and intimidation that accompanies treating these patients.  These nurses need to develop a trusting and caring relationship with the victim in order to set the stage for how to proceed with care.

Lippit's change theory uses similar language to the nursing process with these patients.  It consists of seven phases:

Phase 1: project management begins and provides a framework.

Phase 2: motivation and capacity for change are assessed.

Phase 3: assesses change agent's motivation and resources.

Phase 4: broad change strategies are considered, empirical-rational, power coercive or normative-re-educative.

Phase 5: focuses on choosing an appropriate role for the change agent.

Phase 6: is maintaining the change.  Change agents need to use their interpersonal skills to inspire change and having an understanding of motivation theory can support this

Phase 7: terminating the helping process and withdrawal of the change agent. (Mitchell, 2013, p. 36).

Mitchell (2013) suggests using a framework, such as Lippit's, proactively rather than retrospectively which can help eliminate some of the potential problems, and can address and act on others.  Assuming all nurses are open to adopting the change, the normative-re-educative

seems to be the best strategy. Lippits' theory outlines the benefit of the definite need for change with how the RNs in the ED screen their patients, and how vital it is for these nurses to become change agents to support their colleagues and HT victims they encounter in the ED.

According to Bandura (1977), self-efficacy beliefs lie at the core of human functioning. It is not enough for individuals to possess the requisite knowledge and skills to perform the required behavior(s) under typical and importantly, under challenging circumstances.  "People fear and tend to avoid threatening situations they believe exceed their coping skills, whereas they get involved in activities and behave assuredly when they judge themselves capable of handling situations that would otherwise be intimidating" (Bandura, 1977, p.194.).  Bandura (2019) states, it is of limited value to motivate people for change if they lack the resources and environmental supports to realize those changes.  This theory is paramount because, identifying victims of HT in the ED, when victims do not voluntarily identify themselves, are challenging and potentially intimidating circumstances.

According to Knowles (1980), the Adult Learner has a deep psychological need to be self-directing or guided by oneself, especially as an independent agent (The Free Dictionary, 2020) of the learning.  When it comes to "education" or "training" they become dependent and want to be taught, because of their preconception of what education is. There is still much to be learned about how to help people acquire the concepts, attitudes, and skills required for effective self-directed learning.  Knowles (1980) states, when more complex human performances are involved, especially those requiring judgment, insight, creativity, planning, problem solving, self-confidence, then self-directed learning is appropriate.  Using an adult learning theory creates a goal of integrating adult learning theory within a practice development strategy as a means of

systematically creating a learning culture in the ED.  RNs in the ED meet all of Knowles'

assumptions; they need to be self-directive, possess a broad-range of experiences, demonstrate a

readiness to learn, and offer problem-centered orientation to learning (Ward & McCormack,

2000, p. 262).  They will need internal motivators, and will want to understand the reason for

new learning (Curran, 2014, p. 235).  The ED nurse will need to be open-minded and committed

to learning how to identify and care for victims of HT.

<center>**Review of Evidence**</center>

**Background of the Problem**

HT is not only a global issue, but a local one as well.  It is considered a public health

issue and nurses are likely not aware of what HT looks like and doubt it is happening in their

community.  Long and Dowdell (2018) state, 87.8% of human trafficking survivors had been in

contact with a healthcare providers in some capacity while being trafficked.  Of those survivors,

68.3% had received an evaluation in the ED.  Egyud, et. al. (2017) conducted a study on

educating ED nurses and found that formal education and screening is necessary to identify true

victims of HT because they can resemble victims of other crimes, including prostitution,

domestic violence, abuse, addiction and assault.  According to Murray & Smith (2019), despite

advanced skill and training in assessment and evaluation, RNs in the ED caring for victims can

miss opportunities to properly identify those who are trafficked when they seek care.  Victims

who encounter healthcare may have language barriers that make it difficult to communicate with

providers, and they may experience fear and shame while seeking medical care (Bauer, Brown,

Cannon & Southard, 2019) this can also create a disconnect between the RNs and the victim.

Grace, et. al. (2014) found that although ED providers are trained to recognize victims of child

abuse and domestic violence, they are not routinely educated about the recognition of the common health problems of HT victims.   An educational intervention was effective in increasing the ED provider's ability to recognize potential victims of HT.

**Systematic Review of the Literature**

A systematic review of the literature was performed utilizing CINAHL, Medline, and Google Scholar, searching the following terms; adult learning, human trafficking, sex trafficking, labor trafficking, health care, education, trauma-informed, educational theory, emergency department, victims.  Thirty three articles were reviewed and tiered based on their level of evidence (Appendix A).  After a thoughtful review, the articles were narrowed to 12 with the emerging theme of providing a trauma-informed educational program to healthcare providers, but specifically ED RNs, and efficient screening in the ED.  "Nurses in the ED are in a unique position to intervene on behalf of HT victims while they are in captivity" (Donahue, Schwein & LaVallee, 2019, p.21).  Long and Dowdell (2018) state, it is important for the ED nurses to pay attention to non-verbal body language when screening for abuse or HT. ED RNs are not routinely educated, but HT victims do present for healthcare and largely go undetected. The need for adequate and valid screening cannot be overemphasized, especially for ED RNs (Bauer, et. al., 2019).  Education and building skills for ED RNs enhances timely, responsive and compassionate care to HT vicitms.   HT is a critical global problem and the greatest risk that prevents rescuing victims is identification (Murray & Smith, 2019).  Since ED RNs have a limited understanding or awareness of HT and the associated characteristics, introducing a screening tool is a critical first step to promote more efficient identification of victims.  ED RNs could potentially increase the number of victims identified, when performing physical and

emotional assessments, utilizing a screening tool (Breuer & Daiber, 2019).  Formal education

and screening is necessary to identify true HT victims because victims of violence and victims of

HT present in similar ways, there are some patterns of presentations that can be helpful in

differentiating the two scenarios, including behavioral and medical factors, that may not be

evident to the treating ED RNs.

## Project Plan and Evaluation

### Market/Risk Analysis

There are several competitive health care organizations in Montgomery County and in the

neighboring Bucks County.  There are eight in Montgomery County that are part of four larger

health systems, with two that remain independent.  There are two independent organizations in

Bucks County.  One of the strengths of the healthcare organizations with several hosptials in

their network, is their size; it allows for an increase in the ability to cover more ground with

spreading awareness of HT in the region.  An identified weakness of the competitors can also be

their size.  At times, size can be overwhelming or maybe even insurmountable to get the

education down to all of the front-line ED nurse's.  According to Vogel (2017), although

trafficking is usually associated with poverty, it is often the wealthier countries that create the

demand for victims for their sex industries. To fully understand and combat sex trafficking it is

important to identify what is meant by "the demand" and to define and characterize each

component so that policies and laws can be created to address it. There are four components that

make-up the demand: (1) the men and women who buy commercial sex acts, (2) the exploiters

who make up the sex industry, (3) the states that are destination countries, and (4) the culture that

tolerates or promotes sexual exploitation.  Dignity Health in San Francisco, and the National

Human Trafficking Training and Technical Assistance Center. SOAR (n.d.), is providing on-line

training for professionals, but, there are no programs like this project in the immediate region.

The project plan will be to breakdown obstacles and make sure RNs in the ED are given the time

to participate in the education that allows them to make the conscious decision to get involved

and not ignore the red flags and organizational vulnerabilities and to possibly prevent the

potential violence associated with HT.  The project was developed in such a way as to change the

mind of the ED RNs, because most do not believe HT is a problem in their organization, or in the

community.

**Strengths Weaknesses Opportunities Threats (SWOT) Analysis**

A SWOT analysis (Table 2) was performed at a small community hospital in

Montgomery County, Pennsylvania.

| SWOT Analysis | |
|---|---|
| **Strengths** | **Weaknesses** |
| 1. Small Community Hospital.<br>2. Leadership Commitment.<br>3. Community Outreach.<br>4. Mission to improve lives.<br>5. Vision to reimagine health, education, and discovery to create unparalleled value.<br>6. Values of putting people first, being bold and thinking differently, and doing the right thing.<br>7. Competent educator and relationship builder performing the education and research. | 1. Notable gaps in awareness and education associated with HT in ED.<br><br>2. The ED mentality of "getting patients out of the ED" and victims not identified while under their care.<br><br>3. Standardized screening tool does not exist in the ED to identify victims of HT.<br><br>4. Identified discomfort of the ED staff with asking questions, if HT is suspected.<br><br>**5.** Annual education for RNs in the ED to identify HT red flags |

| | |
|---|---|
| 8. Educational content, that is evidence-based, trauma-informed and culturally-sensitive. | 6. Inexperienced nurses who have not completed the education, victims remain unidentified. |
| **Opportunities**<br><br>1. Identifying "the demand" for sex trafficking in the immediate and surrounding counties.<br>2. Developing a collaborative partnership with community resources to create a seamless program for HT victims.<br><br>**3.** Close the gap of resource availability for victims.<br><br>9. History of successful improvement in knowledge and increased confidence of the nurses, with recognizing HT victims in the ED where the research has been performed. | **Threats**<br><br>1. Obstacles or violence presented by the victim or trafficker.<br>2. Healthcare organizations in Montgomery and Bucks County PA do not believe it is a problem in their community.<br>3. Victims of HT will remain hidden or invisible and will return to the life of being trafficked. |

Table 2: SWOT Analysis

The strengths of the organizational analyses are, leadership commitment, and significant community outreach.   The mission of the organization is to improve lives.  The vision is, reimagining health, education, and discovery to create unparalleled value.  The values completely support the need for this project because they, put people first, are encouraging the employees to be bold and think differently, and do the right thing Abington Jefferson Health, 2020).  Weaknesses captured are notable gaps in awareness and education with HT in the ED. There has always been the belief that the ED culture is to "get the patient out of the ED," this type of thinking needs to slow down, to allow for more thoughtful assessment and screening. The development of a screening tool did not previously exist in the ED, however, a simplified screening tool consisting of only seven questions was adapted and introduced (Figure 1) to the ED RNs.  It was recognized that the ED RNs were uncomfortable asking the screening questions

necessary to identify HT victims.  Realizing there is not an annual comprehensive education for

ED RNs; the lack of resource availability for victims established or provided by the ED RNs,

potentially prevents the victim from receiving additional support once identified.  Opportunities

identified is to develop collaborative partnerships with community resources to create a seamless

program for HT victims, creating a reliable process to identify HT victim's, and close the gap in

resource availability once a victim is identified.  Finally, the external threats that have been

identified are important to address because, hospitals that do not believe HT is an issue in their

community, only contribute to the problem.  This is a local issue and education can bring it to the

forefront.  One aspect of mitigating the threat is by understanding the ED RNs remain in a

position of trust and can connect with the victim, especially, if they apply the education to their

care (Breuer & Daiber, 2019).

**Driving and Restraining Forces**

The driving, restraining, and sustaining forces for this project are; HT victims are often

invisible to society, ED's may be a victim's only possible entry point into a safety net, and ED's

are strategic places in which to identify, treat and assist victims (Chisolm-Straker, Richardson &

Cossio, 2012, p.981).  Most HT victims are lured into this life by traffickers who use charm,

deception, the promise of a better life and opportunities to make money.  Victims are usually

young and come from vulnerable populations.  Traffickers do not always present as threatening

and at times can be friendly.  Most victims suffer horrible forms of violence and exploitation,

that the victims basic human rights become unrecogizable to them.  ED RNs can make a

difference in a victims life, provided they have the tools necessary to assess and identify

potential HT victims.

**Stakeholder and Project Team**

The supporting stakeholders are as follows: capstone project lead, senior leadership, ED leadership, ED registered nurses, ED Physicians/APP's and case management/social work. The project team will consist of,    Kelly Cummings, RN, MJ, Susan G. Smith, RN, Clinical Mentor, Michael Rogozinski, RN, ED Director and Steven Fisher, MD, ED Medical Director.

**Cost-Benefit Analysis**

The cost associated with this project seem minimal when the benefits are considered (Table 3). Some of those costs are the salaries of the RNs who participate in the project, the development of the education platform and creating supporting documents, such as a list of community resources available, and the development of the screening tool. All of which will assist with increasing the ED RNs ability to recognize possible HT, decrease the knowledge gap, enhance their ability to screen patients in the ED and potentially provide better outcomes for victims. This provided resource will prove to be invaluable to the RN as well as the patient, because it will promote referrals to the experts that are not within the organization and will potentially assist the HT victim to a better life.   The cost considered to replicate this project is exhibited in (Appendix B).

| Cost | Benefit |
|---|---|
| Salaries paid to the participating RN's in the project.  (33-35 RN's) at $35-$52 per hour. | Decreased knowledge gap related to HT. This is a relatively inexpensive way to train the ED RNs. |

| | |
|---|---|
| Printing of materials to provide the training. Production of resource tools ($100 for printing of materials) | Increased recognition of potential HT victims. Resource material available for the ED RNs. |
| Development of a standardized screening tool. ($0 as it was adapted in collaboration with Dignity Health). | Introduced to the ED RNs to begin utilizing the standardized screening tool to potentially increase the number of HT victims identified. |
| Community Partner Liaison ($0, done by DNP Student) to make the necessary connections with the community partners. | Improved partnership and engagement with the community resources to increase referrals |
| Evaluation of education with the staff who participated. ($0 done by DNP student). | Potentially better outcomes for the HT victim |

Table 3: Cost-benefit analysis

**Mission/Vision/Goals**

The Mission of this project is to create educational content that informs and promotes identification of HT victims. The vison is to put into action through this educational program and commitment of the ED RNs, a robust trauma-informed program that assists in identifying HT victims and referring them to specialized community resources for assistance.  The goals of the project are:

1. To educate one hundred percent of the ED RNs to increase their knowledge and confidence in identifying HT victims.

2. To adapt a screening tool to assist with identifying HT victims.

**Project Objectives**

Project processes and outcomes were initiated with the ED RNs being provided a pre-survey, pre-test to establish baseline knowledge and level of confidence in assessing patients for HT.  Second, education was provided to the ED RNs on the definition of HT, incidence, safety considerations, reporting, role of health care providers and community and national resources.  Finally, the ED RNs were provided a post-test to look for improvement in knowledge and level of confidence in identifying victims of HT.  As part of the education, a simplified screening tool consisting of seven questions (Figure 1) was introduced to

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Screening Questions to Identify Trafficking Victims

- ☐ Is anyone forcing you to do something you don't want to do?
- ☐ Have you ever been forced to have sex to pay off a debt or for any other reason?
- ☐ Is anyone stopping you from coming and going as you wish?
- ☐ Does anyone hold your documents of identification for you?
- ☐ Has anyone lied to you about the type of work you would be doing?
- ☐ Is anyone threatening you or forcing you to stay at your job or at your home?
- ☐ Were you ever threatened with deportation or jail if you tried to leave your situation?

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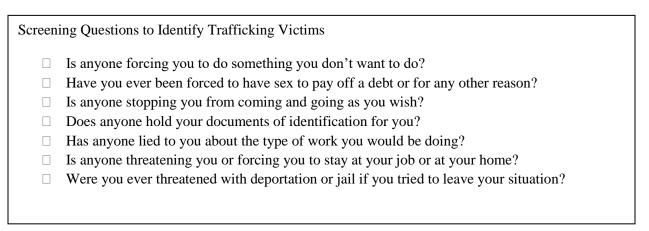Figure 1: Screening Questions [Source: Adapted from Schwartz et al., (2016) and Dignity Health, (2017)].

the RNs.  According to Bauer, Brown, Cannon and Southard (2019), the need for adequate screening or a valid screening tool cannot be overlooked.  This is especially true for the ED, where staff often attend to the victim and are far more likely than the general population to interact with HT victims.

**Evaluation Plan**

**Logic Model**

The logic model (Appendix C) maps the steps in the process that highlights the resources needed, activities, outputs, short and long term outcomes, as well as the impact the project will have on the participants, potential victims, and the impact the improved partnerships with the social service providers in the community.  Program activities included, development of the pre-survey, pretest, educational program and posttest.  A concept model of a (Appendix D), three-step approach was developed, Step 1: the participants took a pre-survey (Appendix E) and pre-test (Appendix F), each had a unique link that was sent through email.  Step 2: each participant was sent a unique link that took them to an educational video that was created utilizing YouTube power point presentation (Appendix G), and Step 3: the participants were sent a unique link that took them to the post-test (Appendix F), which included the same questions as the pretest, to look for improvement in the score.  Each survey and test was created in survey monkey.  Each step of the project was provided to the ED RNs through email and allowed them to participate at their leisure. The following topics were included in the educational video; joint commission recommendations, definition of human trafficking, risk factors associated with victims of HT, role of the health care provider in caring for victims, safety considerations for both the ED nurses as well as the victim, reporting requirements, assessment tool orientation, and identification of community and national resources.  The time frame in which this project was deployed and collection of data took approximately three months (Appendix H).

Project outputs will reflect the number of educated ED RNs, an adapted and simplified screening tool that will assist in identifying HT victims, which was adapted from Schwartz, et.al, (2016) and Dignity Health (2017).  Dignity Health developed their tool not to determine if a

person is a victim of HT but to determine if there are concerns of HT (Dignity Health, 2017, p.18).  Other activities were to identify additional community resources, share short and long-term outcomes and establishment of a collaborative relationship with those identified community resources.  While this is not included in this project, a long-term goal for the ED would be for the RNs to refrain from judgement and move to advocacy for patients they suspect may be victims of HT.

## Population and Sampling Parameters

A quasi-experimental, non-randomized, pre-survey, pretest-posttest design was used to measure knowledge and confidence of the ED RNs at a small community hospital.  A convenience sampling size of approximately 35 to 39 RN's voluntarily participated, in an attempt to include 100 percent of the ED RNs.

## Design Methodology and Measurement

This quantitative quality improvement project used a presurvey, pretest-posttest design to collect information on ED RNs knowledge, awareness and confidence in identifying HT victims. The study used a ten question survey developed in collaboration with other researchers, based on the evidence identified in the literature.  The survey focused on the age of the RNs, the number of years working in an ED, if they received any formal education about HT, and if they ever provided care to a HT victim.  To assess for awareness the RNs were asked if they thought HT was a problem in the area.  Response options were developed on a 5-point likert scale of strongly agree to strongly disagree.  To assess for confidence the RNs were asked how confident they were in their ability to provide community resources to HT victims.  The pretest-posttest design is more sensitive to internal validity problems due to interaction between factors such as

selection (all ED nurses) and pretesting (Dimitrov & Rumrill, 2003).   The pretest-posttest

design, allowed the participants to remain in their natural environment,  which allowed for a

higher degree of external validity (Dimitrov & Rumrill, 2003).  The the pre-survey and the pre

and post test are exhibited in (Appendix E & F).  The pretest-posttest consisted of ten questions

utilizing a mixed model of multiple choice and true/false questions.  The educational intervention

was developed using the YouTube platform, it was a 33 minute video delivered by way of a

voice over education, the objectives of the project were reviewed, along with the background of

HT, red flags, recognizing the signs and symptoms of HT and how to report if HT is suspected,

see (Appendix G) for examples of the slides included in the intervention. The RNs were sent

weekly email reminders to complete each step of the process.  Some challenges encountered

associated with this approach was the loss of ED RNs who participated in the presurvey, pretest

portion, but were lost for the posttest portion, which led to missing data.

A sample pre-survey question (Appendix E):  On a scale of 1 to 5, with one being "not

confident at all" and five being "very confident," how confident are you in identifying a human

trafficking victim. (Donahue, Schwien, & LaVelle, 2019).  Most human trafficking cases relate

to women and girls being tricked and forced into a range of sex industries; True or False

(Appendix F), [Adapted from: Hansen, et. al. (2018) & ProProf Quizzes, (2016)].

**Protection of Human Rights**

Institution Review Board (IRB) approval as a quality improvement project was obtained

prior to deploying the pre-survey, pre-test and post-test.  The IRB determined this project did not

meet the definition of human subject research under the purview of the IRB according to federal

regulations (Appendix I). The survey and tests were deployed using an on-line product, Survey

Monkey®. Participants in the pre-survey, pretest and posttest were informed it was voluntary, however viewing the educational video was strongly encouraged, and denoted voluntary participation, which was also completed at the RNs convenience. The participants remained anonymous, since Survey Monkey® did not collect any personal data only demographic data (Table 4). Since this project was not deemed a human subject review and a performance improvement project, the data collected will be kept secure for several years as to meet the rules established by the Office for Human Research Protections (OHRP) (n.d.).

**Instrumentation Reliability/Validation**

The tool was developed based on extensive research which provided content validity and in order to establish face validity, it was sent out to an external expert associated with the Montgomery County Anti Human Trafficking Coalition (MCAT) to make sure the questions and content selected was appropriate to ensure the outcomes to be achieved. Other challenges of the pretest-posttest approach was the loss of ED nurses who participated in the pretest portion and were lost for the posttest part which led to missing data.

<div align="center">

**Project Findings and Results**

</div>

**Description of the Sample**

Thirty-eight of 39 possible ED RNs (97%) participated in the presurvey, 26 out of 39 (67%) participated in the pretest and educational intervention, and 17 out of 39 (44%) participated in the posttest or all three steps in the process.

| Demographic Data | | |
|---|---|---|
| Age | | |
| Data Descriptor | Data Collected | N=38 |

| (1) | 20-29 years | 8 |
|---|---|---|
| (2) | 30-39 years | 5 |
| (3) | 40-49 years | 13 |
| (4) | 50-59 years | 10 |
| (5) | 60-69 years | 2 |
| (6) | >70 | 0 |
| | | |
| # of Years working in the Emergency Department | | |
| Data Descriptor | Data Collected | N= 38 |
| (1) | 1-5 years | 11 |
| (2) | 5.1-10 years | 2 |
| (3) | 10.1-15 years | 10 |
| (4) | 15.1 -20 years | 8 |
| (5) | 20.1-25 years | 3 |
| (6) | 25.1-30 years | 3 |
| (7) | >30 years | 1 |

Table 4: Demographic Data collected through Survey Monkey®

Data was entered into SPSS version 23.  Descriptive statistics were used to analyze the

demographic information collected, the awareness and confidence questions, as well as the mean

scores of the pre and post tests .  A correlational analysis was performed to determind whether

there was a relationship between two of the demographic variables and the presurvey confidence

questions (Table 5). Reliability analysis of the pre and post test was conducted.  Finally, a paired

sample t test was calculated to compare mean scores of the pre and post aggregate data.

The pre and post test tool consisted of ten items and was found to have a respectable

reliability score based on  Chronbach's Alpha score (.444).  Pearson's correlation revealed 13

correlations between experience, education and confidence (Table 5).  Question one had a

positive moderate correlation to Question two based on the results ($r = 0.574$, $p = 0.032$), see

(Appendix L) for full correlation.

| Experience | Education | Variable 1 | Variable 2 | P-Value | Pearson |
|---|---|---|---|---|---|
| 1 | | Q1 | Q2 | 0.032 | 0.574 |

| 2 | Q1 | Q3 | 0.008 | 0.528 |
|---|---|---|---|---|

Table 5: Correlation Analysis of variables (1= yes, 2= no, Q1= confidence question 1).

The Chronbach's Alpha score is lower because the tool was homemade, using evidence-based research, in order to strengthen the score, continued testing of the tool could be done or it could be sent to other HT experts to refine and review the content of the tool.  The paired sample t test results did not show a statistically significant change from pretest to posttest mean scores (t = -1.797, p = .074), suggesting the educational intervention did not make a significant impact on improving the ED RNs knowledge.

**Discussion**

While the data collected did not prove the need for ED RNs to be educated about HT with only a slight change in the mean scores, this signifies that the participants likely entered the project with the knowledge necessary to score well on the pre and post test.  Ultimately, this evidence-based project was successful in accomplishing the designated goals of educating the ED RNs to increase their knowledge and confidence in identifying HT victims.  By educating the ED RNs to the red flags, indicators of HT and providing a standardized screening tool, can only benefit both the RNs and the victims.  This study also proved that ED RNs who had more experience and education felt more confident in identifying and caring for victims of HT.  For those RNs with less experience working in the ED, they needed more education to increase their awareness and confidence.

**Limitations, Recommendations, Implications for Change**

**Limitations to this study**

It was recognized that the participants entered the project already educated about HT and knew enough to do well on the pre and post tests.  While the participant's scores only shifted slightly, more information would be given around the weakest areas.  The study was performed in one ED at a small community hospital.  The study was initiated with a small sample size which can reduce the statistical power of the study and could increase the chance of an error.  Because of the loss of the RNs from the pretest to the posttest portion of the study, that lead to missing data, that can also reduce the statistical power of a study and can affect the outcomes.  If this study is to be done again in the future, it would require a larger sample to look for a more statistically significant outcome.  The findings are difficult to generalize, but given the specific geographic location, the ED was chosen because of where it was located in the County.  The convenience sample and lower post-test response rate and collection of data dependent on one person, led to additional limitations.  Challenges of a pretest-posttest study are the potential loss of ED nurses who participated in the pre-survey, pre-test portion and are lost for the post-test part, which lead to missing or incomplete data.

**Recommendations identified**

This quality improvement project should be redone in the same community hospital, with the focus on the weakest areas learned from the outcome data.  This study should also be performed in another similar community hospital, where there has not been any  pre-education about HT.  ED RNs work in a unique role and can make a difference in the public health issue of HT, but the only way that can happen is to have a standardized approach to the issue.  There has to be policies and procedures that address screening in the ED, next steps when a victim is identified, and options of referral resources both internal and external to the organization.  While

this project focused on ED RNs, other health care providers must receive education on

identification, recognition of needs, and knowledge of resources (Berishaj, Bach, & Glembocki,

2019).  According to Berishaj, Bach, and Glembocki (2019), continuing education and

evaluation of outcome attainment is one way that nurses, researchers, and educators can take an

active role in addressing the HT epidemic (p. 272).  The ED RNs must be able to identify the

signs and symptoms of HT and provide care to this vulnerable population that is sensitive and

can ultimately lead to recovery (Murray & Smith, 2019).  Greenbaum et. al., (2018) states,

multidisciplinary collaboration can help expand the reach of education efforts, strengthen

legislative efforts, and promote innovative research.

**Implications for change**

Murray and Smith (2019) states, when a person is trapped in HT, the average life

expectancy is approximately seven years with the leading cause of death being attack, abuse,

STIs, such as HIV, overdose, suicide and malnutrition.  The necessary approach to identifying

HT victims will be accomplished by using a standardized screening tool in the ED.

### Conclusion

HT victims interact with health care organizations every day, especially EDs and they

continue to go unnoticed, providing proper education for ED RNs in Pennsylvania, the ED

becomes a safe place, or more importantly a place for healing for victims.  The screening tool

aimed at identifying HT victims will contribute to improving outcomes for them and is the only

way to fight the crime of HT.  Raising the ED RNs knowledge and confidence and building a

rapport with the victim are the necessary steps to assist in ending HT.

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**Appendices/Acknowledgments**

Appendix A: Systematic Review of the Literature

| Level of Evidence | Number of Articles |
|---|---|
| 1 | 3 |
| 4 | 3 |
| 5 | 7 |
| 6 | 7 |
| 7 | 13 |
| Total | 33 |

Major Articles:

Human Trafficking Awareness in the Emergency Care Setting. (Breuer & Daiber, 2019).
Educating ED Staff on the Identification and Treatment of HT victims. (Donahue, Schwien, & LaVelle, 2019).
Implementation of HT Education and Treatment Algorithm in the ED. (Egyud et al., 2017).
Development and Assessment of an Online Training for the Medical Response to Sex Trafficking of Minor. (Hansen et al., 2018).
Intersection of HT and the ED. (Lamb-Susca & Clements, 2018).
Training US health care professionals on HT: where do we go from here? (Powell, Dickins & Stoklosa, 2017).

Appendix B: Budget and Resources

| Resources Needed | Cost |
| --- | --- |
| Salaries of RNs (35-39) at $39 to $52 per hour (2 hours to complete). | $1360- $1800 |
| Materials created and printed | $200 |
| Additional Resources | |
| Time to develop      screening tool ($80 per hour) | $160 |
| Student to help with development of educational platform YouTube | $100 |
| Evaluation of program from the participants (15 minutes or less to complete) | $400 |
| Total Cost | $2200-$2660 |

Appendix C: Logic Model

**Resources**
- Education Facilitator
- Technical Support
- Budget
- Printed Materials
- Educational program created

**Activities**
- Development of educational program
- Development of Pre-survey, Pre and Posttest evaluation
- Developed adapted screening tool that will assist in identifying

**Outputs**
- Educated ED staff
- Increased Community resources
- Increase use of HT identification screening tool

**Short & Long Term Outcomes**
- Short Term:
  - Emergency Department staff awareness/knowledge gap closed
  - Learning culture established
  - Attitude shift from judgement to recognition
  - Identification of at-risk population

- Long Term:
  - Hypervigilance of the ED staff to identify potential victims
  - Increased human trafficking knowledge in the community
  - Collaborative support from Community Resources
  - Case Management Involvement
  - Development of a collaborative relationship with

**Impact**
- Significant changes in the ED related to awareness/knowledge
- Decreased knowledge gap in our community partners and over time the whole community
- Identification of potential victims of HT and referral to support services
- Culture change in the overall organization from judgement to advocacy
- Enhanced relationships with our

Appendix D: Concept Model

ED RN | Pre-Survey/ Pre-Test →  ED RN | EDUCATION →  ED RN | POST-TEST →

Appendix E:  Pre-Survey [Adapted from Donahue, Schwien, & LaVallee (2019); Hansen, et.al.

(2018)]

**Human Trafficking Education in the Emergency Department Pre-survey**
**1. Please state your age category w0**

○  20-29 years
○  30-39 years
○  40-49 years
○  50-59 years
○  60-69 year
○  Over 70 years

**2. How many years have you worked in the Emergency Department? w0**

○  1-5 years
○  5.1- 10 years
○  10.1 - 15 years
○  15.1 - 20 years
◉  20.1 - 25 years
○  25.1 - 30 years
○  > 30.1 years

**3. Have you ever had any formal education on human trafficking? w0**

○  Yes
○  No

**4. In your experience, have you ever provided care for a victim of human trafficking? w0**

○  Yes
○  No

**5. Human Trafficking (HT) is a big problem in our area. w0**

☐  Strongly agree
☐  Agree
☐  Neither agree nor disagree
☐  Disagree
☐  Strongly disagree

**6. I have a comprehensive understanding of what HT is. w0**

☐  Strongly agree
☐  Agree
☐  Neither agree nor disagree

☐ Disagree

☐ Strongly disagree

**7. How confident are you in identifying a HT victim? w0**

☐ Extremely confident

☐ Very confident

☐ Somewhat confident

☐ Not so confident

☐ Not at all confident

**8. If you suspect a patient is a victim of HT, how confident are you in addressing and discussing this topic with the patient? w0**

☐ Extremely confident

☐ Very confident

☐ Somewhat confident

☐ Not so confident

☐ Not at all confident

**9. How confident are you in treating and caring for a HT victim? w0**

○ Extremely confident

○ Very confident

○ Somewhat confident

○ Not so confident

○ Not at all confident

**10. How confident are you in your ability to provide community resources to potential victims of HT? w0**

☐ Extremely confident

☐ Very confident

☐ Somewhat confident

☐ Not so confident

☐ Not at all confident

Appendix F:  Pre and Post Test [Adapted from: Hansen, et. al., (2018) & ProProf Quizzes, 2016.)].

## Human Trafficking Education in the Emergency Department- Pre- test/Post-test

**1. A trafficking victim might be free to go places, appear happy, and even advertise for more customers. w0**

○ True
○ False

**2. A woman who agrees to engage in prostitution can still be a victim of human trafficking. w0**

○ True
○ False

**3. If a girl is 16 and she has willingly decided to work for a pimp that does not use force, fraud or coercion in any way, she is a child prostitute and cannot be considered a victim of human trafficking. w0**

○ True
○ False

**4. Victims of human trafficking will always immediately identify themselves as victims to potential rescuers and are desperate to escape w0**

○ True
○ False

**5. What potential factors are most relevant to recruiting and keeping a trafficked person in servitude? w0**

○ Debt
○ Deception
○ Emotional and physical threats
○ All of the above

**6. Most human trafficking cases relate to women and girls being tricked and forced into a range of sex industries w0**

○ True
○ False

**7. Most trafficking victims are sold for: w0**

○ Military Service (Child Soldiers)

○ Sexual exploitation

○ Illegal adoption

○ Agriculture labor

**8. What percentage of the women and girls who are trafficking in the United States are American citizens? w0**

○ 20%

○ 40%

○ 60%

○ 80%

**Question Title**

**9. What is the average age of women being trafficked in the sex industry in the United States? w0**

○ 20- 25 years

○ 18-23 years

○ 12-17 years

○ 25-30 years

**10. What do we know for sure about the number of people living in slavery today? w0**

○ 5 million

○ 27 million

○ More than at any other time in human history

○ 37 million

Appendix G: Sample slides from the YouTube Educational Presentation

## IMPORTANCE OF HEALTHCARE TRAINING

- Oftentimes, health care providers are the only field to have contact with a victim during their time being trafficked
- Healthcare providers play a unique and crucial role in identification
- Many healthcare providers do not believe human trafficking is an issue
- Due to lack of education and awareness, many victims will never be identified

*According to studies:*

- 88% of survivors reported having some type of contact with the healthcare system while they were being trafficked

- Only 6% of healthcare workers report treating a victim of human trafficking at some point in their career

- 71% of trafficking victims reported at least one pregnancy while being trafficked while 21% reported five or more pregnancies

## HUMAN TRAFFICKING IN PENNSYLVANIA

- Victims and traffickers have reported to law enforcement that PA is a 'Hub' for human trafficking (Montgomery County specifically)

- Factors affecting human trafficking in PA;
    - Central location
    - Interstate 95
    - Numerous rest stops, truck stops, bus stations
    - Proximity to international airports
    - Proximity to train stations
    - Host of many large conventions and sporting events
    - Gambling establishments
    - Adjacent areas of poverty and wealth
    - General lack of awareness

## THE ROLE OF HEALTHCARE PROVIDERS

- Stay informed and educated about the topic of human trafficking
- Recognize signs and symptoms
- Identify victims
- Provide psychological and physical care
- Provide resources and give referrals
- Report known or suspected human trafficking, if able (see "Reporting" slides)

*Healthcare providers play a crucial role in the identification of human trafficking victims*

Appendix H:  Time Frame of Project Rollout and Data Collection

Time Frame- 3 months

Pre-survey and Pre-test deployed December 10, 2019

Education deployed January 12, 2020

Post-test deployed on January 26, 2020

Weekly follow up email reminders to the participants with links to each step attached.

Project concluded March 15, 2020

Data Downloaded and Analyzed April, 2020

Appendix I: IRB Approval

# REGIS UNIVERSITY

REGIS.EDU

## Institutional Review Board

DATE:                September 10, 2019

TO:                  Kelly Cummings
FROM:                Regis University Human Subjects IRB

PROJECT TITLE:       [1483904-1] Registered Nurses identifying victims of human trafficking in the
                     Emergency Department.
SUBMISSION TYPE:     New Project

ACTION:              DETERMINATION OF NOT RESEARCH
DECISION DATE:       September 10, 2019

Thank you for your submission of New Project materials for this project. The Regis University Human
Subjects IRB has determined this project does not meet the definition of human subject research under
the purview of the IRB according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact the Institutional Review Board at irb@regis.edu. Please include
your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Regis University
Human Subjects IRB's records.

**Abington**
**Jefferson Health**

Institutional Review Board
**G. Chris Christensen, III, D.O., Chairman**
**(215) 481-7467**

September 12, 2019

Kelly Cummings, MJ, RNC
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Abington-Lansdale Hospital- Jefferson Health
100 Medical Campus Drive
Lansdale, PA 19446

**LETTER OF EXEMPTION**

Re: Re: Study #19-051- Registered Nurses Identifying Victims of Human Trafficking in the
Emergency Room

Institutional Assurance #: FWA00004123 (renewal date:  May 16, 2023)

Dear Investigator:

The above named study is exempt research involving the collection or study of existing data,
documents, records, pathological specimens, or diagnostic specimens where the information will
be recorded de-identified under 45 CFR 46.104(4) as determined by the Chairman of the
Institutional Review Board on **September 12, 2019**.

No further review and approval by the Board will be required if the study is to be conducted as
proposed.

Any proposed revision in this protocol will necessitate submission of an OHR-12 to the IRB for
further consideration prior to final implementation.

**Please notify the IRB by letter when the study has been completed.**

Sincerely,

G. Chris Christensen, III, DO, FACP, FCCP
Chairman, Institutional Review Board

GCC/anp

cc: Deno Gualtiere, DO

AJH IRB Approval date: September 12, 2019

Appendix J: CITI Training Certificate

This is to certify that:

**Kelly Cummings**

Has completed the following CITI Program course:

| | |
|---|---|
| **Human Research** | (Curriculum Group) |
| **Social Behavioral Research Investigators** | (Course Learner Group) |
| **1 - Basic Course** | (Stage) |

Completion Date  10-Feb-2019
Expiration Date  09-Feb-2022
Record ID      30530401

Under requirements set by:

**Regis University**

Verify at www.citiprogram.org/verify/?w0ddf107b-7d07-4981-9b02-710f3235f3d6-30530401

Appendix K: Organizational Letter of Agreement

**Abington**
**Jefferson Health**®

Abington – Lansdale Hospital
100 Medical Campus Drive
Lansdale, PA 19446

Abington-Lansdale Hospital, Jefferson Health

100 Medical Campus Drive

Lansdale, PA 19446

Letter of Agreement

July 1, 2019

To Regis University Institutional Review Board (IRB):

I am familiar with Kelly Cummings's research project entitled Educating Nurses in the Emergency
Department to identify Human Trafficking (HT) Victims. I understand Abington-Lansdale Hospital's
involvement to educate the ED nurses by giving a pretest providing an education session and a posttest
to look for increased knowledge and confidence in identifying HT victims.

I understand that this research will be carried out following sound ethical principles and that participant
involvement in this research project is strictly voluntary and provides confidentiality of research data, as
described in the proposal.

Therefore, as a representative of Abington-Lansdale Hospital, I agree that Kelly Cummings's research
project may be conducted at our agency/institution.

Sincerely,

Katie Farrell, MBA

Chief Administrative Officer

Abington-Lansdale Hospital

215-361-4407

HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

**Abington**
**Jefferson Health.**

Abington – Lansdale Hospital
100 Medical Campus Drive
Lansdale, PA 19446

Abington-Lansdale Hospital, Jefferson Health

100 Medical Campus Drive

Lansdale, PA 19446

Letter of Agreement

August 19, 2019

To Abington Jefferson Health Institutional Review Board (IRB):

I am familiar with Kelly Cummings's Quality Improvement project, entitled Educating Nurses in the Emergency Department to identify Human Trafficking (HT) Victims. I understand Abington-Lansdale Hospital's involvement to educate the ED nurses by giving a pretest providing an education session and a posttest to look for increased knowledge and confidence in identifying HT victims.

I understand that this Quality Improvement will be carried out following sound ethical principles and that participant involvement in this research project is strictly voluntary and provides confidentiality of research data, as described in the proposal.

Therefore, as a representative of Abington-Lansdale Hospital, I agree that Kelly Cummings's research project may be conducted at our agency/institution.

Sincerely,

Annmarie Chavarria DNP, MSN, RN, NEA-BC

SVP Patient Care Services and CNO

Abington Hospital Jefferson Health

215-481-2130

Appendix L: Analysis of Experience and Education and Confidence Survey

| Experience | Education | Variable 1 | Variable 2 | P-Value | Pearson |
|---|---|---|---|---|---|
| 1 | | Q1 | Q2 | 0.032 | 0.574 |
| | | Q1 | Q4 | 0.013 | 0.644 |
| | | Q2 | Q3 | 0.015 | 0.632 |
| | | Q2 | Q4 | 0.009 | 0.668 |
| | | Q3 | Q4 | 0.003 | 0.740 |
| 2 | | Q1 | Q3 | 0.008 | 0.528 |
| | | Q2 | Q3 | 0.027 | 0.451 |
| | | Q3 | Q4 | 0.018 | 0.480 |
| | 1 | Q1 | Q3 | 0.004 | 0.712 |
| | | Q1 | Q4 | 0.032 | 0.573 |
| | | Q2 | Q3 | 0.004 | 0.712 |
| | | Q2 | Q4 | 0.000 | 0.873 |
| | | Q3 | Q4 | 0.000 | 0.835 |
| | 2 | No correlation | | | |

1= yes, 2 = no

Line 1 indicates that Q1 had a positive moderate correlation to Q2 based on the results (r= 0.574, p= 0.032). Experience 1= yes   2= no, In your experience have you ever provided care for a victim of HT? Education 1=  yes   2= no, Have you had any formal education on HT?

Variable 1 Question

Variable 2 Question

p value- A p-value less than 0.05 (typically ≤ 0.05) is statistically significant.

Pearson Correlation- The test statistics that measures the statistical relationship, or association, between two continuous variables.

Q1- How confident are you in identifying a HT victim?

Q2- If you suspect a patient is a victim of HT, how confident are you in addressing and discussing this topic with the patient?

Q3- How confident are you in treating and caring for a HT victim?

Q4- How confident are you in your ability to provide community resources to potential victims of HT?