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**Proposal for A Formal Pediatric Abuse Screening Tool for the Emergency
Department**

by

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A project submitted to the faculty of Gardner-Webb University
Hunt School of Nursing in partial fulfillment
of the requirements for the
Master of Science in Nursing Degree

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Abstract

Implementation of a quick, reliable pediatric child abuse assessment tool for use in the emergency department is of great importance. A thorough assessment of all pediatric patients presenting to the emergency department (ED), regardless of complaint, should become second nature in order to recognize signs of child abuse. Because a tool of this nature is lacking in many EDs, the Escape Instrument is needed. This instrument is a successful, efficient screening tool that can be applied to all pediatric patients during triage in the emergency department. This tool will allow the emergency department staff to quickly identify children under the age of 18 who may be at increased risk for or are currently experiencing child abuse.

Keywords: child abuse, child abuse assessment tool, emergency department

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CHAPTER 1

Introduction

Child abuse (maltreatment) is defined by the World Health Organization (WHO) as “the abuse and neglect that occurs to children under 18 years of age. This includes all types of physical, emotional, or sexual abuse, neglect, negligence, or exploitation that results in actual or potential harm” (Becker, 2020 p.1). Child abuse is a global problem with many lifelong consequences. The physical and mental problems that may result from child abuse include impairment of the nervous and immune systems, depression, smoking, obesity, high-risk sexual behaviors, unintended pregnancy, alcohol and drug misuse, violence, and suicide (Becker, 2020). Screening for child abuse in the emergency departments has proven to increase the detection rate of child abuse; however, a formal instrument used for this screening is still lacking in many emergency departments. The Escape Instrument, a validated systematic screening tool (Louwers et al., 2013), can be used to improve the detection of child abuse if used during the triage stage of emergency department admission.

Problem Statement

Identifying and providing the intervention necessary to prevent pediatric abuse is important to prevent or reduce long-term effects. Is an assessment tool, such as the Escape Instrument, useful in helping the emergency department staff identify children at high risk for abuse? High volumes of patients plus time and pressure constraints on emergency department staff highlight the need for a quick, reliable screening tool, such as the Escape Tool. The aim of this paper was to discuss how this tool could be

proactively implemented and utilized in the emergency department to increase the detection of potential child abuse.

Significance

Emergency department nurses are well-positioned to detect non-accidental childhood abuse, hence reducing the rate of subsequent reinjury and death by implementing comprehensive child abuse screening programs in their facilities (Carson, 2018). Early intervention in childhood abuse is important to prevent or reduce long-term adverse effects. The significance of using a pediatric abuse assessment tool in the emergency department is to determine, during triage, if abuse is suspected. The Escape Instrument uses a 6-item checklist, assessing items that are not directly asked to the patient or parent. A head-to-toe assessment is completed during triage to ensure no injuries are missed. If one or more of the items on the checklist are present, the screen is considered positive and reported to the attending provider for further evaluation and appropriate referral.

A team of pediatricians and screening experts developed an instrument to screen for child abuse in the emergency departments (Louwers et al., 2013). This screening tool, the Escape Instrument, is a 6-item checklist assessing risk factors for child abuse. This instrument can be used on any child, no matter the reason for a visit. Figure 1.

Figure 1*“Escape Instrument” Screening Tool for Child Abuse in the Emergency Department*

1. Is the history consistent?	Yes	No
2. Was seeking medical help unnecessarily delayed?	Yes	No
3. Does the onset of the injury fit with the developmental level of the child?	Yes/N. A.	No
4. Is the behavior of the child, his or her carers and their interaction appropriate?	Yes	No
5. Are findings of the head-to-toe examination in accordance with the history?	Yes	No
6. Are there other signals that make you doubt the safety of the child or other family members? *If Yes describe the signals in the box ‘Other comments’ below.	Yes*	No
Other comments		

Note. If one or more answers in the dark boxes are selected, this may indicate the possibility of an increased risk of child abuse, and further action is recommended.

In a study evaluating emergency department paper-based child abuse screening tools, screenings were more likely to succeed if the tool is integrated into the electronic health record (Smith et al., 2018). In this study, 68% of the 17,163 eligible children under the age of 18 received an electronic health record child abuse screen in a diverse hospital system emergency department (Rumball-Smith et al., 2018). Around 1.9% of these screens were positive and reported to the appropriate Child Protective Services representative (Rumball-Smith et al., 2018). This study added that a child abuse screen embedded into the electronic health record in emergency departments can increase detection and reporting of suspected abuse.

Purpose

The purpose of this project was to develop education for implementation for a formal, quick, efficient child abuse assessment tool for use in the emergency department. Routine child abuse screening is an approach to identify child abuse, in order to prevent or reduce long-term adverse effects. Emergency department nurses are at the forefront and positioned to improve detection of child abuse by implementing and using an electronic screening tool, such as the Escape Instrument, on every pediatric patient under the age of 18 triaged through the department.

Theoretical Framework

Jean Watson's Theory of Human Caring supports core concepts of caring, building relationships with patients, and using 10 caritative factors to enable the expression of both positive and negative feelings while creating a healing environment (Watson, 1997). The Theory of Human Caring was developed while Watson was teaching at the University of Colorado between 1975 and 1979 (Watson, 1997). The basis for this theory was to bring focus to nursing as an emerging discipline with its own unique values, knowledge, and practices.

Watson's Theory of Human Caring is made up of 10 carative factors including the practice of loving-kindness and equanimity within the context of caring consciousness, instilling faith, cultivation of spiritual self, helping and trusting relationships, promoting, and accepting feelings whether negative or positive, problem-solving, engaging in teaching and learning, creating a healing environment, assisting with human needs, and believing in miracles (Watson, 1997). This nursing theory can help guide the implementation and use of a formal pediatric child abuse screen for the emergency

department. Cultivating a caring environment in emergency department nursing will likely increase awareness and intervention in cases where child abuse is suspected. Nurses possess the ability to care and advocate for pediatric patients, which are important traits in nursing. These important traits foster meaningful nurse-to-patient relationships.

Definition of Terms

For clarity and consistency, the following terms related to this paper require further explanation and definition. Child abuse (maltreatment) is defined by the World Health Organization, as “the abuse and neglect that occurs to children under 18 years of age. This includes all types of physical, emotional, or sexual abuse, neglect, negligence, or exploitation that results in actual or potential harm” (Becker, 2020, p.1). The ability to relate to others and function daily may be affected by these conditions. The experiences can be different for individuals even if the diagnosis is the same. A child abuse assessment tool refers to an instrument used to detect the maltreatment of a child under the age of 18. This tool can be electronic or paper-based. The child abuse assessment tool indicators are used to provide information to the medical provider regarding suspected abuse, in order for the referral to proper authorities. The emergency department is an area of the hospital where the care of acutely ill patients takes place. This department can offer first aid, laboratory and radiological services, and care for life-threatening illnesses and injuries.

CHAPTER II

Literature Review

A review of the literature was performed using several online nursing databases to gain an understanding of the definition of child abuse and the need for a formal screening tool in the emergency department. The keywords entered into the databases included the following: pediatric abuse assessment tool, emergency department child abuse assessment tool, and the Escape Instrument. The results led to a limited number of scholarly articles on the Escape Instrument specifically, however, a fair number of articles were found on child abuse and pediatric assessment tools.

Literature Related to Statement of Purpose

Evidence has determined exposure to childhood abuse at any stage of development can have long-lasting consequences. The consequences can include many different psychiatric and medical disorders such as depression, substance abuse, antisocial and borderline personality disorders, and eating disorders (Lippard & Nemeroff, 2020). It is estimated that one in four children will experience child abuse or neglect at some point in their lifetime (US Department of Health and Human Services, 2018). In 2016, 676,000 children were reported to child protective services in the United States and were identified as victims of child abuse or neglect (Lippard & Nemeroff, 2020). A review by Lippard and Nemeroff (2020), focused on investigating childhood maltreatment interactions with the risk for mood disorders, disease onset, and emerging data suggesting modifiable mechanisms that could be targeted for early intervention and prevention strategies (Lippard & Nemeroff, 2020). A reduction in childhood maltreatment would cause a decrease in the burden of these issues.

In a review of literature conducted by Hoft and Haddad (2017), identifying screening tools currently available to screen for abuse and neglect was of great importance. The goal of this review was to search for articles that describe a screening instrument for healthcare providers to screen children under the age of 17 for abuse or neglect at point of care. Multiple sources were searched using the terms “child abuse screening”, “child abuse screening instruments”, and “child abuse detection” (Hoft & Haddad, 2017). A total of nine abuse screening instruments were identified in the search. The Escape Instrument was notable with a sensitivity of 0.80, with >1 item positive indicating some form of potential abuse (Hoft & Haddad, 2017). This tool primarily identifies children with physical abuse and neglect, with limitations being that 3% of abused children in the general population have experienced other forms of abuse (Hoft & Haddad, 2017). Other abuse screenings noted in this study included sexual abuse, neglect, and polysubstance abuse. No study was found for psychological abuse. It was found that the Escape Instrument is primarily designed to identify physical abuse and neglect in the emergency department, and fails to screen for sexual and psychological abuse.

The current literature on the need for a formal pediatric assessment tool for use in the emergency department is growing. According to Louwers et al. (2013), although screening for child abuse in emergency departments increases the detection rate of potential child abuse, an accurate instrument to do so is often lacking. A study to measure the accuracy of a 6-item instrument, the Escape Instrument, for child abuse was developed and implemented by a team of pediatricians and screening experts for use in three Dutch emergency departments over an 18-month period (Louwers et al., 2013). ED nurses completed this tool during the triage of each child under the age of 18. If one or

more items on the instrument were selected, the screening was considered positive and the ED provider was notified. When it was clear that the child had been abused, or if the provider remained concerned about the safety of the child, the case was referred to the hospital's child abuse team for further investigation (Louwers et al., 2013). Data from all Escape Instruments completed over the 18-month period was used to measure the accuracy of this screening instrument for child abuse in the emergency departments. Chi-squared tests were used to compare categorical variables if children who classified as potential cases of child abuse and those who did not. (Appendix A)

In a prospective diagnostic accuracy study performed on children under the age of 16 who presented to an emergency department in Iran between 2011 and 2014, the accuracy of the Escape Instrument was tested (Dinpanah & Akbarzadeh, 2017). The aim of this study was to evaluate the accuracy of this tool in screening children at risk of child abuse. Personal data was confidential at all stages of the study. Children under the age of 16 who presented to the ED were triaged and enrolled using convenience sampling. Triage of these children was done by trained nursing staff, and if abuse was suspected, the child was re-examined by the hospital's child abuse team including a pediatrician, a social worker, and a forensic physician (Dinpanah & Akbarzadeh, 2017). Of the 6,120 children who were screened, 137 were suspected victims of child abuse, and 35 of those were actual child abuse victims. Based on the findings of this study, the Escape Instrument has high sensitivity and specificity in identifying potential child abuse cases presented in the emergency department with an accuracy rate of 99.2% (Dinpanah & Akbarzadeh, 2017). In conclusion, the Escape Instrument is a suitable screening tool for

the detection of at-risk cases of child abuse presenting to the emergency department of an acute care facility.

In a qualitative study on healthcare professionals, it was concluded there is a need to provide more comprehensive and specific training to healthcare professionals in the emergency department regarding child abuse and neglect, regardless of their status (Jamaludin et al., 2018). In this study, 30 participants were recruited and interviewed from three hospitals. These participants included physicians, nurses, and medical assistants with more than 2 years of experience working in the emergency department. The interviews lasted between 45 minutes to 1 hour. The participants were asked questions regarding determination factors on whether a child is suspected of being abused or not when presenting to the ED. Many of the participants reported depending on the physical signs to detect abuse (Jamaludin et al., 2018). They did not use any type of screening tool or documentation instrument at the time of the interview. One medical provider noted that the most reliable sign of child abuse was inconsistency in the history and physical. Another noted that delay in medical care could be a red flag for abuse. Most of the participants interviewed were not aware of any child abuse detection tools available in the hospital, specifically in the emergency department. The only tool referenced in this part of the study was the standard operating procedure (SOP) used in the hospital once abuse has already been detected (Jamaludin et al., 2018). This study also found most healthcare professionals interviewed were not aware of child abuse screening tools were available and being used worldwide. These participants all agreed having a standardized child abuse screening tool would assist them greatly in identifying children who are at potential risk for abuse or neglect.

Because routine child abuse screening is an approach to early detection of child abuse, questions arise if electronic screening into the health record is more likely to succeed, rather than paper-based screening tools. In a study conducted in children less than thirteen years of age at one of 13 emergency departments within the University of Pittsburgh Medical Center Health System, it was determined that screening is more likely to succeed if the tool is integrated into the electronic health record (Rumball-Smith et al., 2018). The Escape Instrument child abuse screening tool was implemented into the health system's electronic medical record system. The screening rate, rate of positive screens, and the number of reports to child protective services (CPS) were evaluated. Of the 17,163 eligible children, 68% were screened, and 1.9% of these were positive for possible abuse (Rumball-Smith et al., 2018). The rate of CPS referral was higher among children who were screened, with younger children more likely to be screened and present with positive results (Rumball-smith et al., 2018). Children were excluded from this study if they were over the age of 13, presented with peer-on-peer assault, suspected of sexual abuse, or if they had attempted suicide, as these children needed to be evaluated as a part of standard clinical care (Louwers et al., 2013). This study concluded that a child abuse screening tool integrated into the electronic health record is associated with an increased number of child abuse detection and reporting to CPS agencies (Rumball-Smith et al., 2018).

Literature Related to Theoretical Framework

Watson (n.d.) describes the Theory of Human Caring as a caring science grounded in relationships and connectedness. Caring relationships are authentic and intentional. This caring model is sometimes considered the foundational framework of

the profession of nursing (Watson, n.d.). According to Watson, caring is transpersonal and moves beyond the ego-self and reaches deeper connections into the spirit to detect the other person's condition of being. Caring can also be inclusive to self, others, as well as to patients and their families. Human caring is all about understanding the patient, illness, and issues, and respecting their life experiences, culture, and beliefs in order to promote healing through difficult times and situations. Caring relationships can promote healing and positive patient outcomes.

CHAPTER III

Needs Assessment

Target Population

A hospital with an active emergency department in southern North Carolina will be selected as the target hospital for this project. The target population for this project will include all children under the age of 18 presenting to the emergency department regardless of the reason for treatment. The education-related to this project will be provided to all emergency department nursing and medical staff, as well as emergency department clinical coordinators and education directors.

Target Setting

The target setting is the emergency department. The ED serves patients in the local county, as well as surrounding counties and geographic locations. This hospital has an outstanding reputation in the community and serves as many as 200 patients per day, ranging from newborns to geriatric patients. The training and education provided will take place in the conference room of the ED using didactic, visual arts, as well as through the hospital online education system.

Sponsors and Stakeholders

The project sponsor is the Director of Education of the emergency department. The director is responsible for leading the department's education and implementation of this pediatric assessment tool. An additional sponsor includes the department director, as she is the immediate supervisor of the Director of Education for the ED. The project stakeholders consist of the Chief Nursing Officer, the Chief Financial Officer, the emergency department medical director, and the Board of Directors for the Hospital

System. Additional stakeholders include lead nurses, the simulation lab operator, nursing department secretaries, as well as the children and families of the surrounding community.

SWOT Analysis

A SWOT analysis was conducted to identify strengths, weaknesses, opportunities, and threats related to this project and include the following:

- Strengths include
 1. Nursing administration and staff are willing to participate in the project
 2. Ample space in the hospital education rooms to hold training
 3. A formal assessment tool already exists
 4. Support from the emergency department education director to initiate the project
 5. The hospital system is willing to extend the training to areas beyond the emergency department if the tool proves successful
- Weaknesses include
 1. Current lack of assessment tool knowledge among emergency department staff
 2. Staff may be extremely busy with high turnover rates and high patient acuity in the department
 3. Staff may not realize the importance of this tool for all patients under the age of 18
- Opportunities include

1. The opportunity to extend this tool into areas other than the emergency department, to include outpatient radiology, pediatrics, family medicine practices, and others within the organization
 2. Incentives and flexible scheduling for staff not interested or willing to participate in the training
- Threats include
 1. One hundred percent of nursing staff hesitant to participate in the training
 2. Timing of the implementation may be difficult related to number of available staff during times of increased high acuity patients and staff turnover

Available Resources

The needs assessment revealed the hospital emergency department selected for this project is well equipped to make the pediatric assessment tool training and implementation for the staff possible. Very few additional resources will be needed to initiate this project. Flexible scheduling and a possible incentive such as professional development hours awarded to each staff member attending may be needed for successful implementation. Use of the department education classroom with audiovisual equipment will also be needed. A hospital system information technology department staff member will be involved in order to assist with electronic health record implementation of the assessment tool.

Desired and Expected Outcomes

The benefit of this project will be to propose the need for a formal pediatric child abuse assessment tool for the emergency staff of a hospital emergency department. This tool will equip the staff with the knowledge needed to quickly assess and identify children under the age of 18 that may be experiencing child abuse. The desired outcomes for children that receive this assessment as a result of being screened at triage in the emergency department are as follows:

1. Preserve life when children are in danger of harm from others
2. Allowing children to receive timely help to prevent child abuse from becoming more harmful
3. Increase detection of child abuse
4. Increase screening guidelines on child abuse in the emergency department

The expected outcome for the facility and the staff participating in the pediatric assessment tool implementation will be to quickly recognize and assess for the signs and symptoms of child abuse while completing triage on all children presenting to the emergency department. This tool is not intended to teach staff to be child abuse experts, only to be able to quickly assess and report positive screening findings to the medical provider and child protective services.

Team Members

The project leader will be the education director in the emergency department. This leader will establish a training committee comprised of the department charge nurses, clinical care coordinators, an information technology staff member, lead secretary, and department medical director. This team will work together to ensure the

staff members accomplish the set goals through education and knowledge. This team will meet weekly until implementation to discuss the plans for educating the staff and implementing the electronic assessment tool. The project leader will act as the team leader during the planning stages of the tool implementation process.

Cost/Benefit Analysis

Proposal and implementation of the electronic pediatric assessment tool will not require a capital or equipment purchase by the participating hospital system. The hospital will use existing classroom space and an online education system to conduct the training for the emergency department staff members. This course will be provided at no cost to the facility by the department education director and designees.

CHAPTER IV

Project Design

Goal/Overall Purpose

Child abuse (maltreatment) is defined by the World Health Organization (WHO) as “the abuse and neglect that occurs to children under 18 years of age” (Becker, 2020, p.1). Child abuse is a global problem with many lifelong consequences, both physical and mental. Pediatric assessments tools, such as the Escape Instrument, can be used to improve the detection of child abuse if used during the triage stage of emergency department admission. The overall goal of this project was to equip emergency department staff with a quick, reliable, electronic assessment tool to improve the detection of child abuse.

Objectives

The overall objective of this project was to educate all emergency department medical providers, nursing staff, and collaborative care providers with appropriate knowledge about child abuse screening, prevention, and reporting, using an electronic medical record assessment instrument. The objectives of the Escape Instrument training are as follows:

1. By the end of the training session, participants will verbalize three signs and symptoms of child abuse, including physical and non-physical signs.
2. By the end of the training session, participants will verbalize proper use of the Escape Instrument for assessing pediatric abuse during triage of a patient.

3. By the end of the training session, participants will verbalize all steps for reporting possible child abuse to the medical provider/and or child protective service representative
4. By the end of the training session, participants will verbalize all steps necessary for a child abuse crisis until law enforcement and/or Department of Social Services personnel are available.

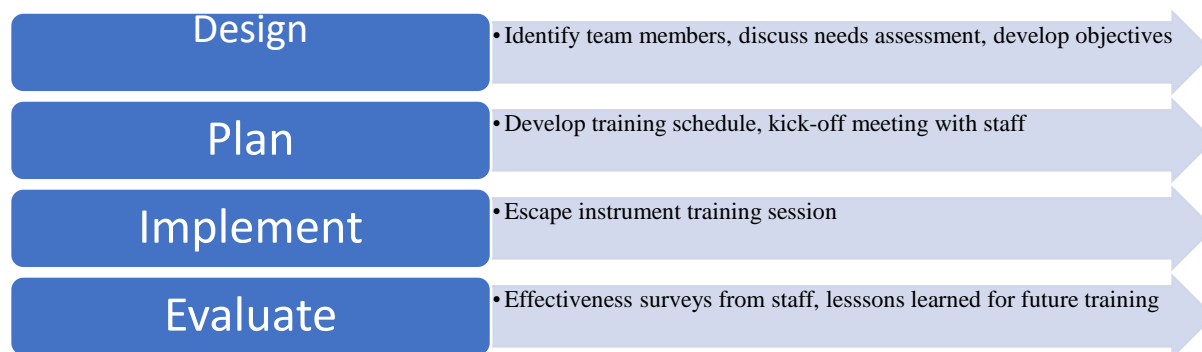
Plan and Material Development

The training and education for this pediatric assessment tool will be taught by the emergency department education director and or his/her designees in the department education classroom and via the hospital online education system. The course will be offered at several flexible times and dates to better accommodate all staff involved. All materials for the course, including the Escape Instrument chart, will be provided by the education director. The hospital information technology staff member will provide training materials regarding the location of the online tool in the electronic medical record system.

Timeline

Figure 2

Timeline for Escape Instrument Training



Note. Figure 2 outlines the timeline for the proposal, planning, implementation, and evaluation of the Escape Instrument for use in the emergency department. This timeline should take no more than 3-6 months from design to evaluation.

Budget

Proposal and implementation of this electronic pediatric assessment tool will not require a capital or equipment purchase by the hospital system. The hospital will use its existing classroom space and online education system to conduct the training for emergency department staff members. The course will be provided at no cost to the faculty by the department education director and his/her designees. Table 1 shows direct and indirect costs associated with this project implementation.

Table 1*Direct & Indirect Costs*

Direct Costs	Indirect Costs
<ul style="list-style-type: none"> • Labor- Nursing staff average hourly salary is \$28. Training session will last one hour, with fifteen registered nurses in attendance. • Social Worker average hourly salary is \$22. Training session will last 1 hour, with two social workers in attendance (Indeed, 2022). • Medical providers will be assigned online training, in lieu of in person training session. • Materials- 1 pack of 500/sheet copy paper for handouts \$4, 1 pack ink pens \$4 Copy machine ink cartridge \$22 (Office Depot, 2022). 	<ul style="list-style-type: none"> • Training session will take place in the emergency department conference room by reservation, no cost. • Daily internet service up to 200 Mbps \$1.66 (Spectrum Business, 2022). • Daily heating/cooling rate for the conference room \$1.69 per square foot for a twenty square foot room (IotaComm, 2020).

Evaluation Plan

In the 1950s, University of Wisconsin Professor Donald Kirkpatrick developed the Kirkpatrick Model of Evaluation for evaluating training (Heydari et al., 2019). This uses a four-level approach to measuring the effectiveness of training programs (Heydari et al., 2019). The Kirkpatrick Evaluation Model is used to measure the effectiveness of the Escape Instrument training program. The self-assessment questionnaire will be modeled around this four-level model. Figure 3.

To evaluate the effectiveness of the Escape instrument training courses, the education director will distribute self-assessment questionnaires, process informal feedback from staff, conduct focus groups, and on-the-job observations. Key performance indicators (KPI) will be established during the planning stages of the

project. Evaluation questions using the 5-point Likert-type scale and open-ended questions are:

1. How effective was the training in helping you gain relevant knowledge and skills needed to confidently assess for child abuse? (Likert)
2. Were you able to apply what you learned to improve the performance/use of the newly implemented pediatric assessment tool? (Likert)
3. Name three signs and symptoms of child abuse. (open-ended)
4. What other benefits did the training achieve? (open-ended)
5. Are there any suggestions on how to make this training more useful in the future? (open-ended)

The Likert scale is a 5-point psychometric scale to specify the level of agreement, with 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree.

Figure 3*The Kirkpatrick Evaluation Model*

Note. Figure 3 outlines the four-level approach to the Kirkpatrick Evaluation Model

In regards to the pediatric assessment tool for use in the emergency department, level one, reaction, measures how learners reacted to the training, the relevance of the training, and the usefulness of the content. Surveys and questionnaires are used in level one. Level two, learning, measure the knowledge and skills gained as a result of the training. The evaluator will review actual assessments that were completed by staff during triage to determine any gaps in training content. Level three, behavior, will help the evaluator to understand how the training has impacted the learner's performance and attitude at work. Focus groups, on the job observation, actual KPI's, and patient comments and complaints are reviewed at this level. In level four, results, tangible results of training are measured. These results include number of incomplete assessments, number of positive assessments, and number of child abuse cases reported. Increasing

performance is the main goal of evaluation after a training session. Evaluating the effectiveness, reliability and validity of a training course is important in order to ensure the original objectives were achieved.

CHAPTER V

Dissemination

Dissemination Activity

The education director will formally present the project and the printed project poster to the Hospital Administration and the Emergency Department Director to discuss the need for a pediatric assessment tool for use during triage of all children under the age of 18 presenting to the ED for care. The purpose of this project was to support the need for this tool in the emergency department to assist with the detection of child abuse and to discuss the training and implementation with the ED staff.

Limitations

The current lack of assessment tool knowledge among emergency room staff may be a limitation of this assessment tool implementation. Nursing and medical staff may be extremely busy with high turnover and an increasing number of high acuity patients, decreased amounts of staff time to attend training sessions, and nursing staff burnout in the department. Nursing staff may also exhibit pushback related to adding an additional assessment tool to their already heavy workload. The implementation of a pediatric assessment tool will need to be evaluated on an ongoing basis, to prove effectiveness and reliability to support statistical data related to this project.

Implications for Nursing

Nursing administration should develop caring relationships with their staff by providing supportive care when implementing new assessment tools. Ensuring nurses have the knowledge and guidance they need to implement these tools are of great importance. The Escape Instrument provides a quick, proven reliable tool that can be

used to identify possible child abuse. For nursing, a tool of this type, when used accurately, will ensure at a 99.2% rate that cases of child abuse presenting to the ED will be detected and reported. Successful implementation of this tool can increase detection of child abuse within a hospital emergency department.

Recommendations

Implementation of a pediatric assessment tool for use in the emergency department of a hospital is recommended. Training of all medical providers, nursing, and supportive staff, such as social workers and case managers, will be needed to ensure all assessments are complete during the triage of children under the age of 18 presenting to the department for care. Additionally, the successful implementation of this tool in the ED could entice other departments, such as outpatient radiology and surgery to implement it in those areas as well.

Conclusion

Child abuse is a global issue with many lifelong consequences. The physical and mental problems that may result from child abuse include impairment of the nervous and immune systems, depression, smoking, obesity, high-risk sexual behaviors, unintended pregnancy, alcohol and drug misuse, violence, and suicide (Becker, 2020). Screening in the emergency department for child abuse has proven to increase the detection rate of child abuse; however, a formal instrument used for this screening is still lacking in many EDs (Becker, 2020). The Escape Instrument is easily implemented and utilized by nursing staff. It can improve the detection of child abuse when used during the triage stage of emergency department admission.

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Appendix A

Children Screened and Not Screened

Characteristics of all emergency department (ED) visitors (aged ≤ 18 years) in three Dutch hospitals classified as to whether or not screened for child abuse with the Escape instrument and whether or not potentially abused.

Characteristics	Children screened for child abuse with Escape instrument			Children not screened for child abuse with Escape instrument		
	Potential child abuse <i>n</i> = 55	No potential child abuse <i>n</i> = 18,220	<i>p</i> -Value	Potential child abuse <i>n</i> = 29	No potential child abuse <i>n</i> = 19,832	<i>p</i> -Value
Age			0.002			0.08
0–4 years	44 (80%)	9,991 (55%)		18 (62%)	9,741 (49%)	
5–8 years	4 (7%)	3,533 (19%)		6 (21%)	3,451 (17%)	
9–12 years	2 (4%)	2,612 (14%)		5 (17%)	2,903 (15%)	
13–18 years	5 (9%)	2,084 (11%)		0	3,737 (19%)	
Sex (male)	24 (44%)	10,298 (57%)	0.054	11 (38%)	11,378 (57%)	0.03
Referrer			<0.001			0.22
Self-referral	31 (56%)	9,532 (52%)		16 (55%)	10,147 (51%)	
Ambulance	12 (22%)	1,060 (6%)		5 (17%)	1,188 (6%)	
General practitioner	7 (13%)	4,013 (22%)		4 (14%)	4,522 (23%)	
Other	3 (6%)	3,166 (17%)		3 (10%)	3,461 (17%)	
Missing	2 (4%)	449 (3%)		1 (3%)	514 (3%)	
Treating specialist			<0.001			0.15
Surgeon	28 (51%)	5,771 (32%)		16 (55%)	6,539 (33%)	
Pediatrician	19 (35%)	10,934 (60%)		11 (38%)	11,069 (56%)	
Other	8 (14%)	1,353 (7%)		2 (7%)	2,162 (11%)	
Missing	0	162 (1%)		0	62 (0.3%)	
Destination after ED visit			<0.001			0.001

Characteristics	Children screened for child abuse with Escape instrument			Children not screened for child abuse with Escape instrument		
	Potential child abuse <i>n</i> = 55	No potential child abuse <i>n</i> = 18,220	<i>p</i> -Value ^a	Potential child abuse <i>n</i> = 29	No potential child abuse <i>n</i> = 19,832	<i>p</i> -Value ^a
Home without control	16 (29%)	9,749 (54%)		8 (28%)	9,396 (47%)	
Hospital admission	16 (29%)	2,520 (14%)		5 (17%)	3,151 (16%)	
Outpatient clinic	12 (22%)	2,678 (15%)		6 (21%)	3,157 (16%)	
Other	7 (13%)	1,847 (10%)		8 (28%)	1,380 (7%)	
Missing	4 (7%)	985 (5%)		1 (3%)	1,371 (7%)	
General practitioner	0	441 (2%)		1 (3%)	1,377 (7%)	
Screening positive (≥1 item positive)	44 (80%)	376 (2%)	<0.001	0	0	NA
Number of positive items			<0.001			NA
≥2	22 (40%)	86 (0.5%)		0	0	
≥4	6 (11%)	19 (0.1%)		0	0	

*

Calculated with the Chi-square test. NA = not applicable.