

Assessing Emergency Department Nurses' Knowledge of Caring for Older Adults

Raysha Monel

Rutgers School of Nursing

DNP Chair: Amy B. Sweeney, Ed.D., MSN, RN, CNE

DNP Team Member(s): Beth Knox DNP, APN, AOCN

## Table of Contents

Background and Significance .....	5
Needs Assessment.....	5
Problem Statement .....	7
Clinical Question .....	7
Aims and Objectives .....	7
Literature Review.....	8
Theoretical Framework.....	11
Methodology .....	12
Setting.....	12
Study Population .....	13
Study Interventions .....	13
Outcome Measures .....	15
Benefits/Risks.....	15
Subject Recruitment .....	16
Consent Procedures .....	16
Subject Cost and Compensation.....	17
Project Timeline .....	17
Resources Needed/Economic Considerations.....	17
Evaluation Plan .....	17
Data Maintenance/Security .....	17
Data Analysis .....	18
Findings.....	18
Table 1 .....	19
<i>Figure 1</i> .....	20
<i>Figure 2</i> .....	21
<i>Figure 3</i> .....	22
<i>Figure 4</i> .....	24
<i>Figure 5</i> .....	25
Discussion .....	26
Appendix A.....	34

Appendix B .....	35
Appendix C .....	40
Appendix D .....	41
Appendix E .....	49
Appendix F .....	51
Appendix G .....	53
Appendix H .....	54
Appendix I .....	55
Appendix J .....	56
Appendix K .....	57
Appendix L .....	58
Appendix M .....	59

### Assessing Emergency Department Nurses' Knowledge of Caring for Older Adults

Today's largest growing population is the older adult. The baby boomers have reached the age bracket that considers them to be a part of the older adult population. Furthermore, due to great advancements in medicine, the average person has a longer life expectancy. Approximately 15% of the population are 65 and older in age (Jacobsen, Kent, Lee, & Mather, 2011). The population at hand is not expected to stop in growth, but rather continue to grow vigorously. Older adults will account for 20% of the population by the year 2030 (CDC, 2013). With the rapid growth in the older adult population in the United States, there is also a rapid growth in the emergency department elderly patient population. The emergency department is one of fast pace, high acuity patients, and limited time for the delivery of holistic care. Emergency departments are challenged to provide high quality care to the vulnerable population of older adults (McCusker, et. al., 2018). With the increase in the number of the elderly population and their percentile increase in the emergency department population, geriatric needs must be identified and addressed. The individuals who stand frontline in providing care to this population are the emergency department nurses. The gerontology skills and understanding of the aging process which emergency department nurses hold are vital in providing high quality care for this population. Emergency department nurses' knowledge and attitude towards caring for older adults contribute to the experience and outcomes of these patients (Deasey, Kable, & Jeong, 2014). This Doctor of Nursing Practice project will focus on evaluating and identifying the knowledge gap that emergency department nurses have in caring for older adults in the emergency department. The identified gap will be presented to the educational department of a community hospital to inform change and assist in future development of a teaching tool to improve both the nurses' skills and knowledge in caring for elderly patients.

### **Background and Significance**

Care of the older adult in an emergency department can be very complex. The emergency department is one that is fast paced, overly-crowded and chaotic at times (Kelley, Parke, Jokinen, Stones, & Renaud, 2011). Furthermore, the older adult patient is very complex in that their presenting symptoms and conditions often require special skill to identify (Deasey, et. al, 2014). For instance, an older adult who is suffering from an infection may present with confusion (Deasey, et. al, 2014). Studies have shown that registered nurses are not being properly prepared to care for older adults (Deasey, et. al, 2014). Undergraduate nursing curricula do not include enough gerontology and/or does not allow for much exposure to the elderly population (Deasey, et. al, 2014). Emergency room nurses are showing confidence in caring for all individuals across the life span, however their skill set for older adult care is lacking (Deasey, et. al, 2014). For an individual who is 65 or older in age, an environment such as the emergency department may present multiple challenges. The care for an older adult cannot be fast paced or chaotic, as is often seen in an emergency department; time is needed to explore, examine, and care for the individual needs of these patients.

### **Needs Assessment**

The need for this project was determined through observation in a local emergency department at [REDACTED], in Belleville, New Jersey. [REDACTED] has 85, 000 visits to the emergency department a year with about 7,000 visits a month. Within the 7,000 visits, about 14.5% of the visits are from individuals 65 and older in age (W. Yapp, personal communication, November 1, 2018). With such a large older adult population within this emergency department, it is evident that care specific to the needs of the geriatric population is

needed and would benefit the patient population as well as the department. The main emergency department at [REDACTED] is one that holds multiple curtained rooms, three public restrooms, and is fast paced as management and healthcare providers would like all patients to be seen in a quick and timely manner. The nurse to patient ratio is most times 1:8 in the emergency room with acuity levels that vary from little to no resources being needed to provide care, to highly critical patients needing multiple resources. The experience levels of the nurses vary from less than one year to 20 years in the emergency department. Among the nursing staff, 75% of the nurses have between one and five years of experience (W. Yapp, personal communication, November 1, 2018). These factors make it difficult for the older adult to have their basic needs and medical care needs met in a timely manner by emergency department nurses. The challenges that the emergency department faces are not just evident to an outsider, but also to the stakeholders of this organization. The chief executive officer as well as the chief nursing officer are both aware of the growing elderly population and the need for a better structured care system within the emergency department for this population.

On a national level, the National Hospital Ambulatory Medical Care Survey (CDC, 2013) highlighted the rapid growth of the emergency department geriatric population. Data from this survey reported that in the year 2012-2013, 12 out of 100 patients 65 and older were seen in the emergency department for an injury. Moreover, in the same period, 36 out of 100 patients 65 and older were seen in the emergency department for illness (CDC, 2013). These numbers will continue to grow as the baby boomers continue to age. Therefore, the need for gerontology educated and skilled health care providers in the emergency department will not only be necessary for the local emergency department at [REDACTED], but across the states on a national level as well.

### **Problem Statement**

Emergency department nurses have a knowledge gap and insufficient skills to provide high quality care to the growing older adult patient population.

### **Clinical Question**

This project focused on answering the question; “Will a geriatric nursing care questionnaire identify insufficient skills and a knowledge gap in emergency department nurses caring for adults 65 years and older?”

### **Aims and Objectives**

The overall aim of this project was to improve the quality of care provided to older adults in the emergency department through identification of insufficient gerontology skills and knowledge in emergency department nurses through a geriatric nursing care questionnaire. To achieve this aim, the following objectives were identified:

- Identify nurses' attitudes towards caring for older adults
- Identify the level of professional responsibility nurses feel they have to older adults
- Explore the barriers nurses face in providing care to the elderly emergency department population.
- Evaluate the impact of the results of the geriatric nursing care questionnaire on the future implementations of the education department of [REDACTED]

### **Literature Review**

To find supporting evidence, a computerized literature search was completed using the Rutgers Smith Library database, Cochrane Library database, CINAHL, MEDLINE and PubMed. The literature was searched using criteria that consisted of peer reviewed studies, research studies, and studies published within the last 5 years. The key words/phases used were “geriatric”, “older adults”, “emergency department”, “nurses’ perception”, “barriers”, “attitude”, and “knowledge”. All study titles and abstracts were reviewed for relevance prior to use.

The articles chosen were specific to the clinical question posed for this project. There were 10 articles that met the inclusion criteria for the literature review (See Appendix A). These articles were further examined to identify the study design as well as the level of quality of evidence (See Appendix B). Within these articles, one was a cohort study, two were cross-sectional studies, six were qualitative studies, and one was a questionnaire development study.

In order to examine the perceptions and knowledge base of emergency department nurses caring for older adults, specific factors should be assessed. First, the perception of nurses caring for geriatric patients must be examined. Secondly, the barriers to caring for the identified needs must be recognized. Lastly, interventions that have been used to increase knowledge base and improve perception of the older adult population for nurses should be identified.

Nurses’ perception of older adults and the care they require may affect the care provided. According to a cross-sectional study by Deasey, Kable, & Jeong (2016), nurses’ perceptions and attitudes can affect their work practices and interactions with older adults. The literature also showed that nurses perceived the care and needs of the older adult population to be difficult to provide in an emergency department setting. In a cross-sectional study by Taylor, Rush, and Robinson (2015), nurses reported elderly were given low quality of care due to nurses’ poor

orientation of priority setting. Nurses conveyed poor time management and skills made it difficult to attend to the needs of the older adults. Another study revealed the frustration nurses felt towards older adults who needed help with basic care needs while nurses had to tend to acute health assessments and treatment plans in the emergency department setting (Gallagher, Fry, Chenoweth, Gallagher, & Stein-Parbury, 2014).

Another study of qualitative design showed that pain management in older adults can be challenging in the emergency department for nurses (Gorawara-Bhat, Wong, Dale, & Hogan, 2017). The study identified the perceptions of the 20 participants on pain management in elderly clients to then develop a plan to improve quick and concise pain management for the population in the emergency department setting. Assessing the perceptions and knowledge base of nurses caring for older adults in an emergency department is the first step needed in identifying where a gap lies between nurses and high-quality care.

Barriers that nurses face in caring for the needs of the geriatric emergency department patient are due to lack of awareness and education. In a qualitative study where participants were made of nursing staff and clinicians, it was found that many of them were unaware of how to appropriately treat an emergency department geriatric patient (Lennox, Braaf, Smit, Cameron, & Lowthian, 2018). Some reported not having enough time to fulfill the needs of the patient in the chaotic emergency department (Lennox, Braaf, Smit, Cameron, & Lowthian, 2018). Another qualitative study reported lead nurses have a better insight on emergency geriatric care in comparison to lead physicians (McCusker, et. al., 2018). If provided with the appropriate tools and education, nurses stand frontline in providing high quality emergency geriatric care.

Another barrier identified by Blank, Tobin, Jaouen, Smithline, Tierney, & Visintainer (2014), in a qualitative study, is that older adult patients may be hesitant to provide feedback on

their care. The patients' reluctance prevents nurses from acknowledging the needs of the geriatric patients. An additional qualitative study reported that emergency departments are not equipped to be geriatric-friendly (Boltz, Parke, Shuluk, Capezuti, & Galvin, 2013). The organizational structure of the emergency department proved to be a barrier in providing appropriate care to the geriatric patients.

After identifying the perceptions of emergency department nurses and the barriers against addressing the needs of the older adult population, plans for improvement of education and healthcare should be explored. A questionnaire development study, by Persoon, Bakker, Wal-Huisman, & Olde Rikkert (2015), developed a tool called the Geriatric In Hospital Nursing Care Questionnaire. The tool allowed for the areas in which nurses lacked education or positive perspective to be clearly identified, allowing for areas that needed reinforcement to be focused in on. Furthermore, a cohort study by Conroy, et. al., (2014), found that a Comprehensive Geriatric Assessment tool used in the emergency department could potentially be used to narrow in on the needs of the older adult patient which would assist the nurses in structuring the care delivered to this population.

The studies reviewed for this project have identified important factors including the needs of the older adult population, the barriers and misconceptions emergency department nurses hold in providing holistic care for this population, and some of the appropriate tools being used to improve the geriatric knowledge base of emergency department nurses. Limitations noted in the studies include study time restraints, small sample sizes, single study location, and survey fatigue from open-ended questions (Conroy, et. al., 2014). The results of the studies have identified the gap in emergency department nurses' knowledge on older adults and the care they provide to this population.

### **Theoretical Framework**

The plan-do-study-act (PDSA) (Agency for Healthcare Research and Quality [AHRQ], 2013), (Appendix C) is a model that was designed by the Institute for Healthcare Improvement, to test an implementation of change. The model tests change by seeing how the development of a plan, the implementation of a plan, the evaluation of a plan and the continuation of a plan can come full circle to exhibit true success (Agency for Healthcare Research and Quality [AHRQ], 2013). PDSA model is composed of four parts: plan, do, study and act. Each section of the model requires pertinent information needed to implement change. One must focus on specific questions to correctly identify needed elements in each section. These questions include: What is the goal that is trying to be achieved? How will it be achieved? How effective was the implementation of change? What can be done differently to improve the process of implementation?

The PDSA model (Agency for Healthcare Research and Quality [AHRQ], 2013) proved to be the best framework for the project at hand, where implementation of change is needed for quality improvement (See Appendix C). The first step was identifying the problem in the care of geriatric emergency department patients. Identification of the problem came through the exploration of the barriers nurses face in providing care to the older adult emergency department population. Moreover, identification of the gerontology educational needs of emergency department nurses and exploration of the views of emergency department nurses on geriatric patients were vitally important. The use of the Geriatric In Hospital Nursing Care Questionnaire (GerINCQ) (Persoon, et. al., 2015) (See Appendix D) laid the foundation for identifying the areas of nursing care for older adults in the emergency department that needed to be addressed.

The second step was implementation of the plan. A three -page geriatric nursing care questionnaire, the GerINCQ (Persoon, et. al., 2015), was provided to emergency room nurses at [REDACTED]. All nurses from day-shift, night-shift and evening-shift were invited to participate. Prior to being provided with the questionnaire, a Waiver of Documentation of Consent was provided to all participants.

The third step of the PDSA cycle was to analyze the data collected. The data collected assessed what areas of nursing care emergency department nurses are less proficient in when caring for older adults in the emergency department. After all completed questionnaires were collected, a data analysis of the responses followed. The participating nurses were then given an opportunity to provide feedback on the questionnaire. The data collected provided focus on areas that need skill enhancement and further education in gerontology for the emergency department nurses.

The last step in the cycle was the act stage where changes are made in the plan, if necessary, for a stronger implementation. The results were shared with the stakeholders of the facility; in this case they were the chief nursing officer, the director of the emergency department and the education department. The results obtained from the questionnaire were used to inform change and overcome limitations in providing high quality care for older adult patients.

## **Methodology**

### **Setting**

This quality improvement project took place in a community hospital, [REDACTED], located in Belleville, NJ. The data collected was specific to the 50-bed Emergency Department and the registered nurses employed in the emergency department. The

Chief Nursing Officer approved the project as well as the hospital's Institutional Review Board Committee.

### **Study Population**

The study participants were composed of both male and female emergency department nurses with various years of emergency department experience. The participants were from day-shift, night-shift and evening-shift. Individuals who were excluded from the project included all other healthcare providers who were not registered nurses, and nurses who did not work in the emergency department. A consent document (Appendix E) was provided to all participants prior to administration of the GerINCQ. The consent document described the project and the purpose of the questionnaire.

The emergency department nurses were the key individuals in the implementation of this project, for they were the ones completing the GerINCQ. They are the frontline healthcare providers for the emergency department patients. The responses the nurses provided assisted the education department in developing new teaching mechanisms for the emergency room nurses.

### **Study Interventions**

A 21-section questionnaire, the GerINCQ (Persoon, et. al., 2015) was distributed to 50 emergency room nurses at [REDACTED]. The distribution of the questionnaire took place over a 2-week period. The average time for completion of the GerINCQ was 15 minutes (Persoon, et. al., 2015). The questionnaire was completed by each participant one time only. It was distributed during the emergency department huddles throughout at two-week period and collected by the principal investigator.

The Geriatric In Hospital Nursing Care Questionnaire contains 67 items (See Appendix D). All items have a score ranging from 1 to 5. The higher the score, the greater the proficiency

in providing geriatric care. Items 15, 16 and 21 in the questionnaire, required reverse scoring where the higher the score the more negative the indication. Lastly, one section of the questionnaire, Subscale 1: Performed Intervention, has the most positive answer, which is the highest scoring answer in the middle of the range.

The GerINCQ (Persoon, et. al., 2015) was developed to be used for data collection on geriatric, medical, and surgical units, however for this project it was solely in the emergency department. Permission was obtained to use the GerINCQ in an emergency department setting from the creators of the questionnaire via email. The first section of the GerINCQ concentrates on specific characteristics of the participants. The characteristics recorded include: gender, age, highest level of education, number of nursing experience years, number of years at the current hospital, and number of hours per week worked in the emergency department. The other question posed in the first section of the questionnaire is in which department does the participant work, which in this case was the emergency department for all participants. There are 5 subscale sections within the questionnaire which focus on nursing perspective on older adult care. The subscales are: *Performed Intervention*, *Aging-Sensitive Care Delivery*, *Professional Responsibility*, *Attitude Towards Caring for Elderly* and *Perception About Caring for Elderly* (Persoon, et. al., 2015).

The Geriatric In Hospital Nursing Care Questionnaire has satisfactory internal consistency ( $\alpha=0.86$ ) (Persoon, et. al., 2015). In order to further prove the results yielded by the initial questionnaire, this concept was exhibited to a panel of experts, all from various hospitals around the country (Persoon, et. al., 2015). The items' relevance and presence were judged in each round, and in the following round potentially new items were presented as well. Items were only accepted by the panel if their content validity index (CVI) exceeded 0.9. Although small,

the improvement on the GerINCQ score ( $P < .05$ ) was quite significant. The effect size (0.5), revealed one year after the birth of the CareWell in-Hospital program, was also tremendous; mean improvement  $\pm$  standard deviation was  $0.10 \pm 0.22$ . Validity of this tool was measured by supporting evidence-based practice studies. The GerINCQ has satisfactory construct validity, high reliability and is sensitive to changes over time (Persoon, et. al., 2015).

### **Outcome Measures**

The parameters used to select participants were emergency department nurses, with various years of emergency department experience and various levels of highest nursing degree obtained. An excel spreadsheet was created to collect the data (see Appendix F). In order to have achieved the aim and objectives of this project, the parameters for participation must have been met. The GerINCQs was collected at the end of the three daily huddles each day for the two-week intervention period. The 67 items of the questionnaire were analyzed and the information from each section was converted into numerical data shown as percentages. The percentages were then compared amongst the various questions themselves. The GerINCQs were collected and reviewed at the principle investigator's residence and stored in a passcode secured file cabinet also located within the residence.

### **Benefits/Risks**

The proposed project included multiple potential benefits. The participants allowed for the collection of pertinent data needed to assess the perception of emergency nurses on care of the older adult in the emergency department. Furthermore, data collected from the questionnaire identified areas of potential improvement for emergency department nurses caring for elderly patients. The risk posed to participants involved were minimal as the intervention attempted to improve safety and care of older adults through evaluation of the perceptions of the emergency

department nurses. The only potential risks identified were emotional stress for the participants who may have had to reflect on negative experiences with older adults or divulging lack of knowledge or expertise while completing the questionnaire as an emergency department nurse.

### **Subject Recruitment**

Participants were recruited through the emergency department. The principal investigator attended the 7 am, 11 am, and 7 pm huddle in the emergency department for a two-week period and distributed hard copies of the questionnaire to all the willing emergency department nurses. An explanation of the project and the questionnaire were provided during these times. Furthermore, a consent document was distributed to all participants prior to beginning the GerINCQ. After completion of the questionnaire pastries and coffee were offered as light refreshments to participants. The principal investigator stayed in the hospital during each time-period until all completed questionnaires were collected.

### **Consent Procedures**

The consent was provided to interested participants prior to the questionnaire being distributed during the huddles in the breakroom of the emergency department. Signatures were not obtained for participation to maximize anonymity of the participants. The consent document identified the purpose of the study, and the risks and benefits that it may have held (See Appendix E). It stated that participation is completely voluntary, and responses are confidential. It also provided contact information for the primary investigator for any future questions or concerns. Subjects were provided with a copy of the consent document for their records. Since signatures were not required for participation, a Waiver of Documentation of Consent was obtained from the IRB.

**Subject Cost and Compensation**

There was no cost incurred by the participants. Participant monetary compensation did not apply to this study. Light refreshments of coffee and pastries were provided to participants by the principal investigator.

**Project Timeline**

The timeline from planning to completion of this project was about 1 year and 8 months from January 2018 to September 2019. The implementation of this project took place over a 2-week period. The timeline may be viewed under Appendix G.

**Resources Needed/Economic Considerations**

The allocated budget for this project was approximately \$445 (Appendix H). Cost included pens, paper for printed Waivers of Documentation of Consent and copies of the GerINCQ. Also included were the cost of pastries and coffee for light refreshments offered.

**Evaluation Plan****Data Maintenance/Security**

The data obtained throughout this project was stored in a file cabinet only accessible with a passcode. The principal investigator held the passcode protected file cabinet within her residence. The purpose of the passcode on the file cabinet was to protect the privacy and confidentiality of each participant. The secured documents will be destroyed after all data has been maintained at Rutgers University in a repository for the required six years after the study is closed.

## **Data Analysis**

SPSS statistic software, version 25.0 for Windows was used to analyze data retrieved. Categorical data was obtained from the demographic survey. A descriptive analysis of the data was conducted based on the GerINCQ responses. Due to the sample size, a non-parametric test and a standard mean and deviation was used instead to analyze the data.

## **Findings**

A total of 50 participants were recruited. With the use of the GerINCQ tool within the emergency department, the knowledge deficit and challenges emergency department nurses face when caring for older adults were identified. Additionally, the results of the questionnaires showed the areas in which emergency department nurses need guidance and educational refreshers in the care of geriatric patients.

## **Demographics**

All 50 participants completed the demographic and 5 subscale sections of the questionnaire. The demographic survey comprised of gender, age, highest degree, number of nursing experience years, number of years at the current hospital, and number of hours per week worked in the emergency department. The demographic survey results accounted for predominantly female participants (80%) and (20%) male. Participant ages 21-30 (44%) and 31-40 (44%) made up the majority of the sample size with only (12%) age ranging from 41-50. The survey also indicated that the majority of the participants had a Bachelor Degree (72%) and a majority of newer nurses with one to five years of nursing experience (62%). Furthermore, of the participants (46%) worked in the emergency department of [REDACTED] one to five years, with the minority of the group (4%) having worked there 21-25 years. In terms of the

number of hours per week worked in the emergency department, the majority (98%) worked full-time at 40 hours a week, with the remaining (2%) being part-time nurses who worked 24 hours a week. Demographic data can be seen in Table 1.

**Table 1**  
*Participant Demographics*

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	10	20.0	20.0	20.0
	female	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	22	44.0	44.0	44.0
	31-40	22	44.0	44.0	88.0
	41-50	6	12.0	12.0	100.0
	Total	50	100.0	100.0	

		highest_degree			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	associate degree	12	24.0	24.0	24.0
	bachelor degree	36	72.0	72.0	96.0
	diploma	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

		years_experience			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1	7	14.0	14.0	14.0
	1-5	31	62.0	62.0	76.0
	6-10	4	8.0	8.0	84.0
	11-15	4	8.0	8.0	92.0
	26-30	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

		years_hospital			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1	13	26.0	26.0	26.0
	1-5	23	46.0	46.0	72.0
	6-10	12	24.0	24.0	96.0
	21-25	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

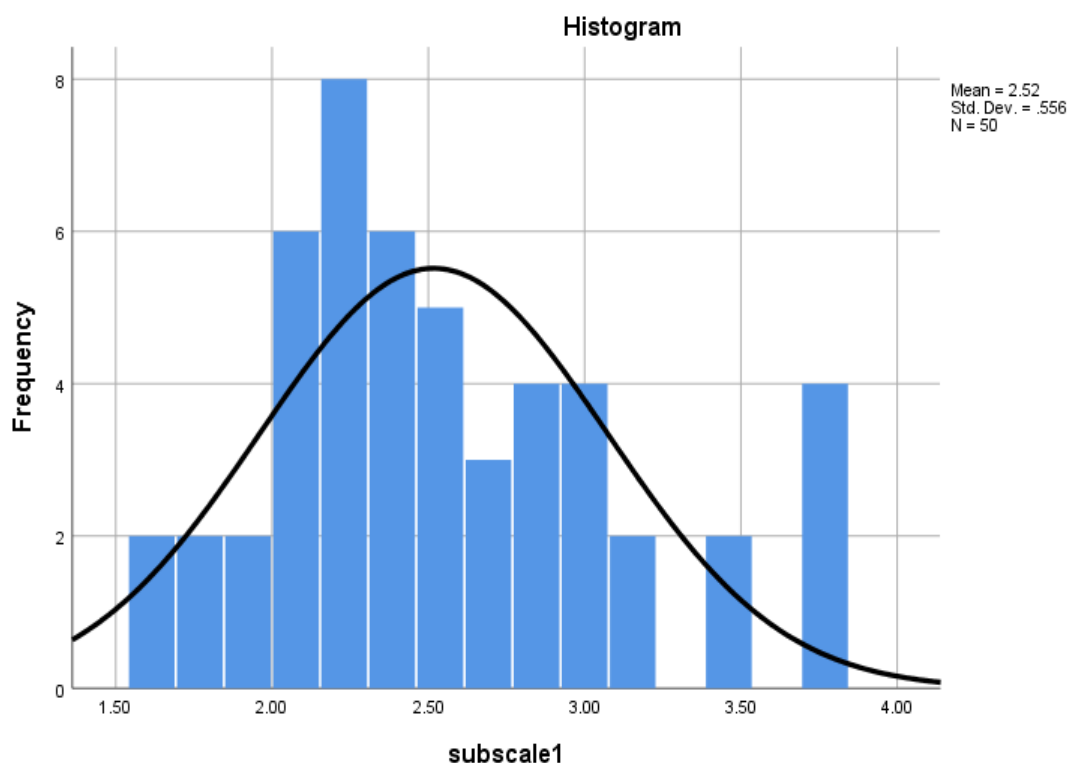
		hours_week			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	24 hours	1	2.0	2.0	2.0
	40 hours	49	98.0	98.0	100.0
	Total	50	100.0	100.0	

## Preformed Intervention

The first subscale of the GerINCQ tool examined how often specific interventions were used in caring for older patients in the emergency department (Appendix D). The interventions that were presented included preventing pressure ulcers, delirium, falls, malnutrition, offering

activities, incontinence material, active mobilization policy, enteral nutrition, urinary catheters, pain medication, sleep medication, medicinal restrictive measures and physical movement-restrictive measures. The scoring ranged from 1-4 for this subscale with too little=1, too little-adequate=2, adequate=4, adequate-too often=2, and too often=1. The majority of the population reported adequate use of the interventions with a minimum of 1.62, a maximum of 3.69 and a mean of 2.5169. A graphical representation of this data can be seen in Figure 1.

**Figure 1.**

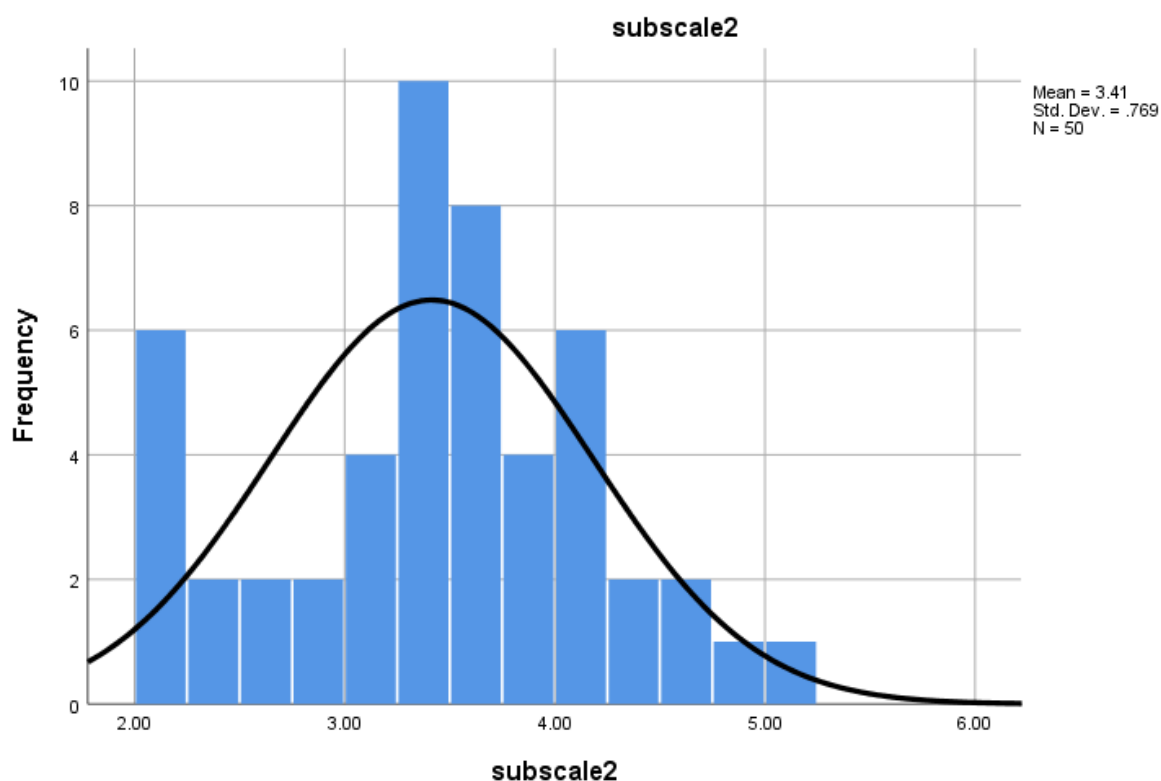


### **Aging-Sensitive Care Delivery**

The GerINCQ tool's second subscale (Appendix D) analyzed the participants' satisfaction with the sensitivity and delivery of care provided to older adults in the emergency department. A Likert scale was used to score the answers: Response 1 (Highly Unsatisfied),

Response 2 (Unsatisfied), Response 3 (Neutral), Response 4 (Satisfied), Response 5 (Highly Satisfied). Higher scores indicated more positive responses. Subscale 2 focused on the satisfaction participants had with the respect, change of pace, encouragement of independence, continuity of care after discharge and a few other aspects pertaining to older adults in the emergency department. The majority of the participants scored satisfied for subscale 2; minimum 2.00, maximum 5.00 and a mean of 3.4138. A graphical representation of this data can be seen in Figure 2.

**Figure 2.**

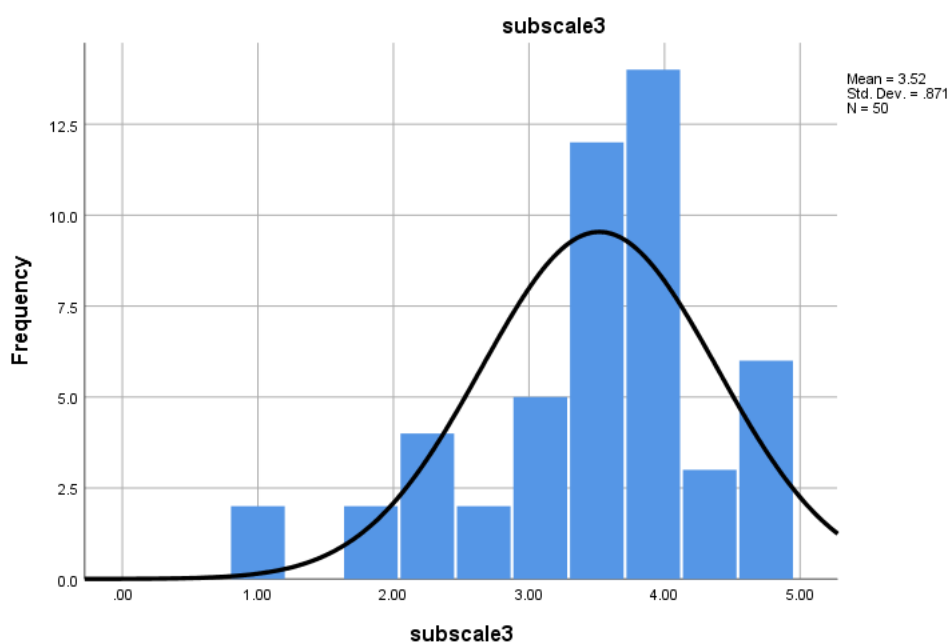


### Professional Responsibility

The third subscale of the GerINCQ (Appendix D) examined the professional responsibility the nurses felt towards specific aspect of patient care and incidents in the

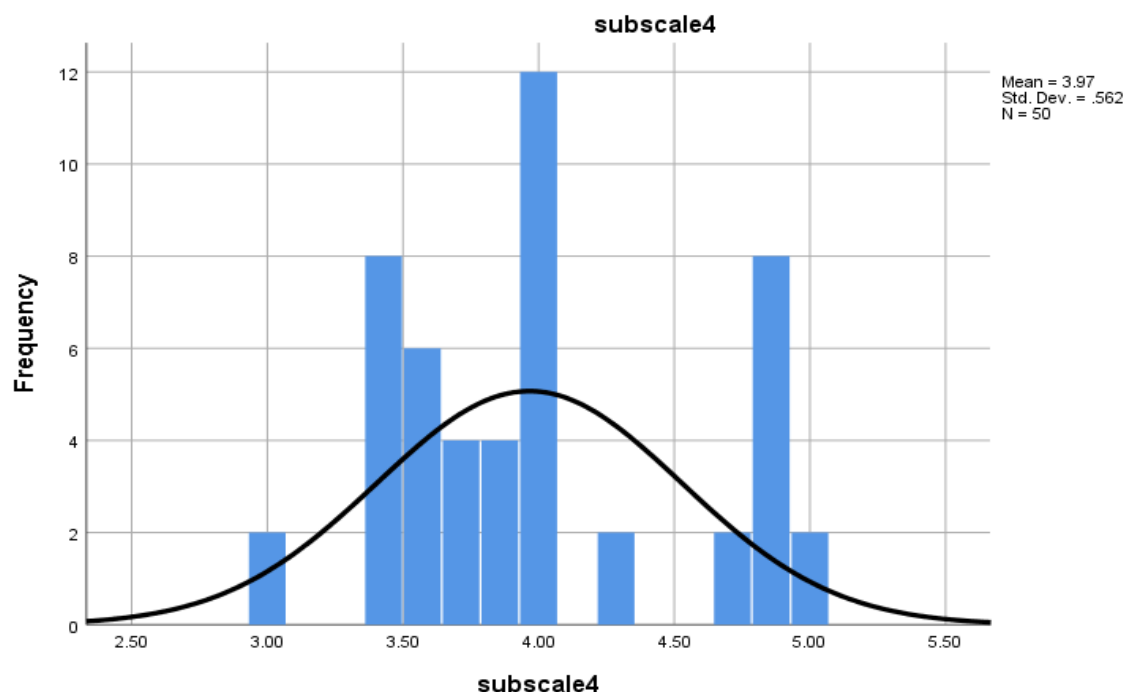
emergency department. The areas examined included fall incidents, development of pressure ulcers, deterioration in nutritional status, urinary tract infections, mobility retention, behavioral problems in those with dementia, patients with anxiety, development of delirium, wounds as a consequence of sedative medication, wounds as a consequence of restrictive measures, (mis)communication with older patients, and arranging discharge. The questionnaire's Likert scale had 5 possible responses ranging from not at all, a little, neutral, responsible, and very much. Most participants ranked themselves as feeling professionally responsible in the areas mentioned above. The minimum was 1.00, the maximum 4.75 and the mean 3.5183. A graphical representation of this data can be seen in Figure 3.

**Figure 3.**



### Attitude Towards Caring for Elderly

The fourth subscale of the questionnaire (Appendix D) evaluated the attitudes nurses had towards everyday experiences and the frequency of those experiences with older adults in the emergency department. There were five response options ranging from never, rarely, sometimes, often and always. The following areas were the focus of the fourth subscale of the questionnaire: careful observation of older patients, keeping close eyes on the confused, talking in simpler language, talking more loudly and clearly, creating optimum communication conditions, allowing extra time for admission process, using case history details for plan of care, involving them in their healthcare decisions, start of discharge planning at admission, allowing more time for discharge preparation, taking health history from an informal carer's point of view, involving informal carer in the care of the older patient, awareness that older patients can be less assertive, and encouraging patients to retain their independence. The results showed that the emergency department nurses mostly felt that they *often* had positive experiences and attitudes in terms of the care they provided on an everyday basis in the emergency department to the older adult population. The statistical scoring was a minimal of 3.00, maximum of 5.00 and a mean of 3.9657. A graphical representation of this data can be seen in Figure 4.

**Figure 4.**

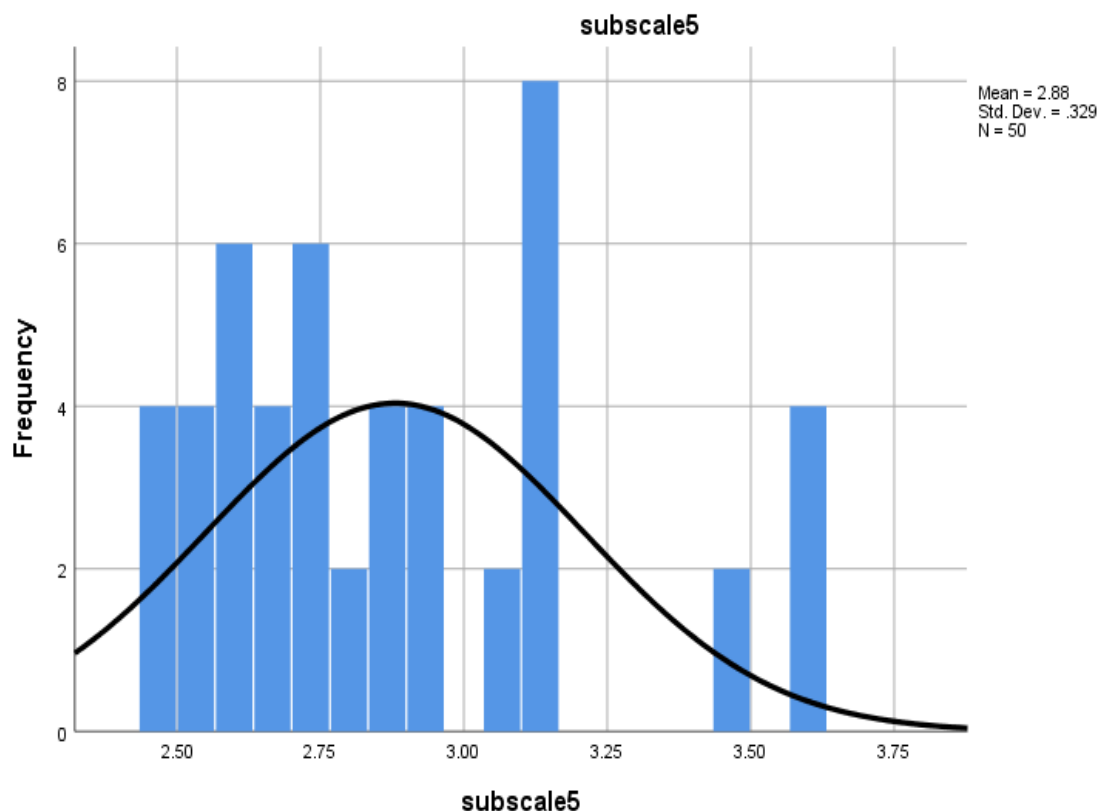
### Perception About Caring for Elderly

The GerINCQ's fifth and final subscale (Appendix D) had a total of 10 questions numbered 12-21. Questions Items 15, 16 and 21 out of the 10 had reverse scoring. Scoring for those three questions ranked from five to one, instead of one to five like the other 7 items. The mean scoring for the fifth subscale was 2.88, with a minimum of 2.47 and maximum of 3.60. The results of this subscale showed that depending on the question, participants felt either neutral sometimes or adequate with their perception of care provided to older adults. The responses for questions 15, 16, and 21 also resulted the same way.

The fifth subscale questions were geared towards the perception nurses had of the day to day care they provided to older adults. Item 12 asked which portion of the patients cared for were

older adults within the last 12 months. Questions 13 asked what portion of the shift is devoted to older patients. Question 14 asked how satisfying is the work the older adults. Question 15 questioned how demanding nurses find the work with older patients. Item 16 examined how hard nurses find it to care for restless older patients. Item 17 asked how proficient nurses think they are in providing care for this population. Item 18 questioned to what extent nurses felt recognized by their colleagues for their care of older patients. Question 19 examined to what extent nurses felt supported by their superiors in the provision of care of older patients. Item 20a questioned how nurses experienced the training in the provision of care to older adults. Lastly, item 21 examined how often nurses experienced older adults exhibiting disruptive behavior. A graphical representation of this data can be seen in Figure 5.

**Figure 5.**



### **Open-Ended Questions**

Within the questionnaire (Appendix D) there were two open ended questions that participants had to answer. Question 15b asked what areas of care were demanding in caring for older patients. Participants stated demanding aspects of care included the following: pressure ulcers, fall risk, confusion, documentation of extensive medication lists, blood draws due to skin turgor, preforming ADLs on those who are limited or incapable, care for high acuity older patients, older adults with multiple health issues, and physical and mental limitations of the patients.

Question 20b examined what training nurses believed their department needed in caring for older patients. The responses included the following: identifying and caring for those with delirium or confusion, education of the different presentations of common illnesses in older adults, and how to show empathy within this population. Furthermore, nurses felt education should also include a general course on caring for older adults. Lastly, many participants stated hiring experienced nurses in the field of geriatrics would also benefit and improve the care provided to older adults.

### **Discussion**

The older adult and care of the older adult in an emergency department setting has been shown to be very complex. The complexity has been noted not only in the literature review but also in the responses received in the GerINCQ (Persoon, et. al., 2015). In all 5 subscales of the questionnaire, it was noted that none of the results showed to have a majority of the responses at the highest level of positive geriatric practices, attitudes, and perceptions. Most participants indicated that there was a need for further education, a greater skill set and a stronger support

system from superiors. The results indicate the need for further intervention and education for the emergency room nurses to support safe practice and job satisfaction in the care of elderly clients.

Although the results of the GerINCQ proved to be more beneficial than not, there were a few limitations identified during the course of the project. A limitation of the study was that the study was only conducted in one emergency department of a small community hospital, which limited the generalization of the results. Secondly, data was collected from nurses self-reporting which may have resulted in nurses answering questions based on what they believed the investigator wanted to hear. Lastly the number of participants was minimal; results may have been different with a larger number of participants.

The outcome of this project offers opportunity for change in the healthcare system including clinical practice, healthcare policy, quality and safety and education. The recognition of the needs of the population to reduce the number of unnecessary resources and the time spent in the emergency department, may show to be cost effective and improve the quality of care.

### **Implications for Clinical Practice**

The ability of the nurse to identify the needs of the older adult patient population and understanding the differences that might arise from the care provided to them in comparison to other age populations, will aid in accurate clinical practice. The clinical aspect of nursing care involves not only a strong knowledge base, but also comfort in the physical tasks that must take place in order to provide the best care. Emergency department nurses are required to have a knowledge base and skill set that can be easily accessed and used due to the rapid throughput of the department.

### **Implications for Healthcare Policy**

The rapidly growing older adult population is seen across all healthcare spectrums. In a fast pace environment such as the emergency department, having a healthcare policy that is geared towards providing the best care for the older adult population holds high importance. A healthcare policy should be developed based on the results from the GerINCQ, through changes made in the educational department and the resources provided to emergency department nurses. Once an older adult is brought into an emergency department specific care needs and safety risks should be identified by all emergency department nurses.

### **Implications for Quality/Safety**

With a rapidly growing geriatric population, it is imperative to have a healthcare system that is focused on providing high quality and safety to their emergency department patients. Nurses who are knowledgeable in geriatric care are better equipped at identifying near misses, and more confident in being advocates for their patients. An emergency department staffed with geriatric knowledgeable nurses may promote for increased patient satisfaction, safety, and allow for mentoring of other nurses within the department to enhance patient care of the elderly client.

### **Implications for Education**

The results of this project may inform change in the knowledge base and skill set of emergency room nurses caring for the older adult population through the identification of the knowledge gap nurses have in caring for older adults. With the success of this project in identifying the areas of geriatric care that emergency department nurses lack knowledge in, a geriatric centered educational program may be developed by the education department of [REDACTED]

[REDACTED] The results of the GerINCQ provided valuable information to guide the development of a geriatric educational program for the emergency department nurses. Once developed, it may be offered to nurses in other departments who lack similar skills and education

related to the geriatric patient. The older adult population is growing rapidly and there is a need for a better healthcare system for this population in the emergency department.

### **Plans for Future Scholarship**

Results of this project will be shared with the Chief Nursing Officer, the Emergency Department director, and the education department. They will also be communicated to the emergency department staff at the department daily huddles and monthly meetings. Furthermore, results will be posted in the Barnabas Health newsletter and shared through poster presentations at Rutgers School of Nursing.

The professional community will have access to this project's results through proposed publications in peer-reviewed geriatric and emergency nursing journals. Also, presentations will be made at Emergency Nurses Association conferences. Furthermore, seminars through Barnabas Health with chief executives and board members will be facilitated for professional reporting. Through publication, professional reporting, and emergency department nurse education, the outcomes of this project will encourage opportunity to increase awareness in the community of the need for geriatric centered emergency department care.

### **Conclusion**

The GerINCQ proved to be a valuable tool in identifying the educational needs of emergency department nurses' caring for older adults. The older adult population is expected to continue to increase in number. Healthcare providers across all fields should be encouraged to seek additional education to identify, treat, and adapt to the needs of this population. The results of this project have shown that further education and resources are needed to properly care for older adults in the emergency department. Furthermore, the results have also shown that emergency department nurses are eager and willing to enhance their knowledge and skills in

order to better serve this rapidly growing population. The use of the GerINCQ in this project has opened the door to communication amongst nurses and nurse educators in the emergency department, which in turn will encourages change resulting in improved patient care, safety and satisfaction for elderly clients in the emergency department.

### Reference

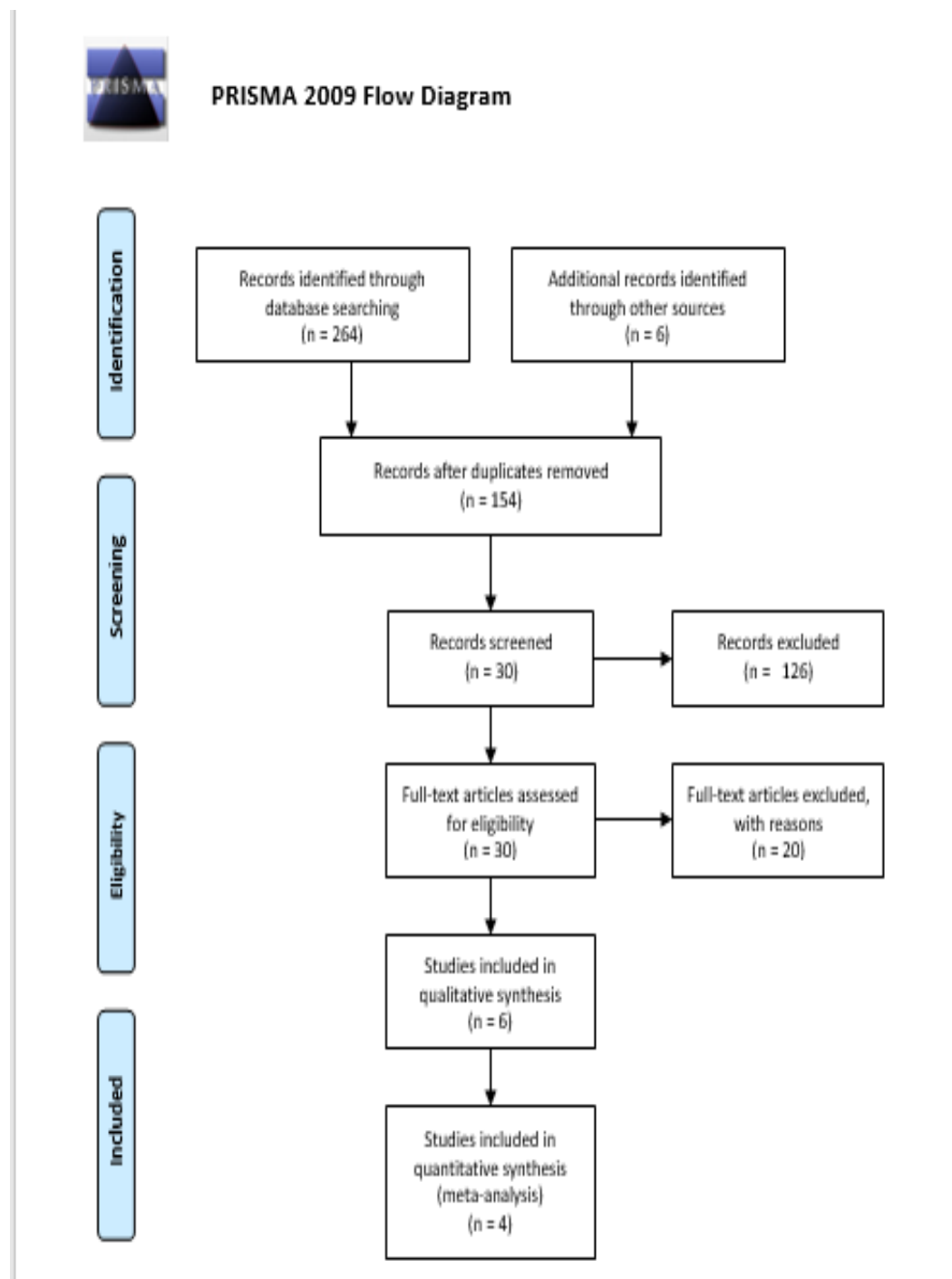
- Agency for Healthcare Research and Quality [AHRQ], (2013). Plan-Do-Study-Act (PDSA) Cycle. Retrieved from <https://innovations.ahrq.gov/qualitytools/plan-do-study-act-pdsa-cycle>
- Blank, F. S. J., Tobin, J., Jaouen, M., Smithline, E., Tierney, H., & Visintainer, P. (2014). A Comparison of Patient and Nurse Expectations Regarding Nursing Care in the Emergency Department. *JEN: Journal of Emergency Nursing*, 40 (4), 317–322. <https://doi-org.proxy.libraries.rutgers.edu/10.1016/j.jen.2013.02.010>
- Boltz, M., Parke, B., Shuluk, J., Capezuti, E., & Galvin, J. E. (2013). Care of the Older Adult in the Emergency Department: Nurses Views of the Pressing Issues. *Gerontologist*, 53 (3), 441–453. <https://doi-org.proxy.libraries.rutgers.edu/geront/gnt004>
- Centers for Disease Control and Prevention [CDC], (2013) The State of Aging and Health in America 2013. Atlanta, GA: *Centers for Disease Control and Prevention*, US Dept of Health and Human Services
- Conroy, S. P., Ansari, K., Williams, M., Laithwaite, E., Teasdale, B., Dawson, J., & ... Banerjee, J. (2014). A controlled evaluation of comprehensive geriatric assessment in the emergency department: the 'Emergency Frailty Unit'. *Age & Ageing*, 43(1), 109-114.
- Deasey, D., Kable, A., & Jeong, S. (2014). Influence of nurses' knowledge of ageing and attitudes towards older people on therapeutic interactions in emergency care: A literature review. *Australasian Journal on Ageing*, 33 (4), 229–236. <https://doi-org.proxy.libraries.rutgers.edu/10.1111/ajag.12169>

- Deasey D., Kable, A., & Jeong, S. (2016) Emergency nurses attitudes towards older people in the emergency department: a cross-sectional study, *Contemporary Nurse*, 52:2-3, 369-380, DOI: 10.1080/10376178.2016.1224122
- Gallagher, R., Fry, M., Chenoweth, L., Gallagher, P., & Stein-Parbury, J. (2014). Emergency department nurses' perceptions and experiences of providing care for older people. *Nursing & Health Sciences*, 16 (4), 449–453. <https://doi-org.proxy.libraries.rutgers.edu/10.1111/nhs.12137>
- Gantt (2018). What is a Gantt Chart? Retrieved from <http://www.gantt.com/>
- Gorawara-Bhat, R., Wong, A., Dale, W., & Hogan, T. (2017). Nurses' perceptions of pain management for older-patients in the Emergency Department: A qualitative study. *Patient Education & Counseling*, 100 (2), 231–241. <https://doi-org.proxy.libraries.rutgers.edu/10.1016/j.pec.2016.08.019>
- Jacobsen, L.A., Kent, M., Lee, M., & Mather, M. (2011). America's aging population. *Population Bulletin* 66, no.1 (2011).
- Kelley, M. L., Parke, B., Jokinen, N., Stones, M., & Renaud, D. (2011). Senior-friendly emergency department care: an environmental assessment. *Journal of Health Services Research & Policy*, 16(1), 6-12. doi:10.1258/jhsrp.2010.009132
- Lennox, A., Braaf, S., Smit, D. V., Cameron, P. and Lowthian, J. A. (2018), Caring for older patients in the emergency department: Health professionals' perspectives from Australia – The Safe Elderly Emergency Discharge project. *Emergency Medicine Australasia*. doi:10.1111/1742-6723.13108
- McCusker, J., Minh Vu, T. T., Veillette, N., Cossette, S., Vadeboncoeur, A., Ciampi, A., & ... Belzile, E. (2018). Elder-Friendly Emergency Department: Development and Validation

- of a Quality Assessment Tool. *Journal of The American Geriatrics Society*, 66 (2), 394-400. doi:10.1111/jgs.15137
- Persoon, A., Bakker, F. C., Wal-Huisman, H., & Olde Rikkert, M. G. M. (2015). Development and Validation of the Geriatric In-Hospital Nursing Care Questionnaire. *Journal of the American Geriatrics Society*, 63 (2), 327–334. <https://doi-org.proxy.libraries.rutgers.edu/10.1111/jgs.13243>
- Taylor, B. J., Rush, K. L., & Robinson, C. A. (2015). Nurses' experiences of caring for the older adult in the emergency department: A focused ethnography. *International Emergency Nursing*, 23 (2), 185–189. <https://doi-org.proxy.libraries.rutgers.edu/10.1016/j.ienj.2014.11.003>

## Appendix A

### PRISMA Diagram



**Appendix B**  
Table of Evidence

Article #	Author & Date	Evidence Type	Sample, Sample Size, Setting	Study findings that help answer the EBP Question	Limitations	Evidence Level & Quality
#1	Blank, F. S. J., Tobin, J., Jaouen, M., Smithline, E., Tierney, H., & Visintainer, P. (2014).	Qualitative study	nineteen males and 30 female patients, ages 18-89 participated. Of the nurse participants, 20% had <5 years ED experience, 22% had 5-10 years, and 52% had >10 years.  50-bed emergency department of a level 1 trauma center.	The purpose of this study is to compare expectations of patients and nurses  The unexpected highly positive patient rating did not identify specific areas for practice improvement; it did provide positive feedback for excellent care, reinforcing good nursing practice.	Unexpected highly positive patient rating did not identify specific areas for practice improvement;	Research  Level II  Quality: Good
#2	Boltz, M., Parke, B., Shuluk, J., Capezuti, E., & Galvin, J. E. (2013).	Qualitative Study	527 registered nurses from 49 United States hospitals	Results showed a lack of older person friendly environment in the emergency department  Results showed solutions created by nurses to address the	Survey fatigue from answering open-ended questions from survey  Participants are committed to older adults making results are not	Research  Level III  Quality: Good

				needs and care of older adults in the emergency department	transferrable to all hospitals	
#3	Conroy, S. P., Ansari, K., Williams, M., Laithwaite, E., Teasdale, B., Dawson, J., & ... Banerjee, J. (2014).	Cohort study	Two group cohort at a large ED in East Midlands, UK, of 1,695 participant age 85+ in each cohort	The introduction of Comprehensive Geriatric Assessment into one ED was associated with reduction in admissions and readmissions	Lack of a control group  Lack of individual patient outcomes	Research  Level I  Quality: Good
#4	Debra Deasey, Ashley Kable & Sarah Jeong (2016)	Cross-sectional study	371 members of the College of Emergency Nursing Australasia who completed and returned the surveys	Nurse's attitude can affect nurses' work practices and interactions with older people  Results showed that that emergency department nurses have positive attitudes towards older people in the ED.	Limited participants due to one school used for entirety of study	Research  Level II  Quality: Good
#5	Gallagher, R., Fry, M., Chenoweth, L., Gallagher, P., & Stein-Parbury, J. (2014).	Qualitative Study	60 nurses employed either part time or full time for at least three months within the ED	Nurses expressed frustration in their difficulty managing acute health assessment and	Study participants were recruited from one ED only	Research  Level III  Quality:

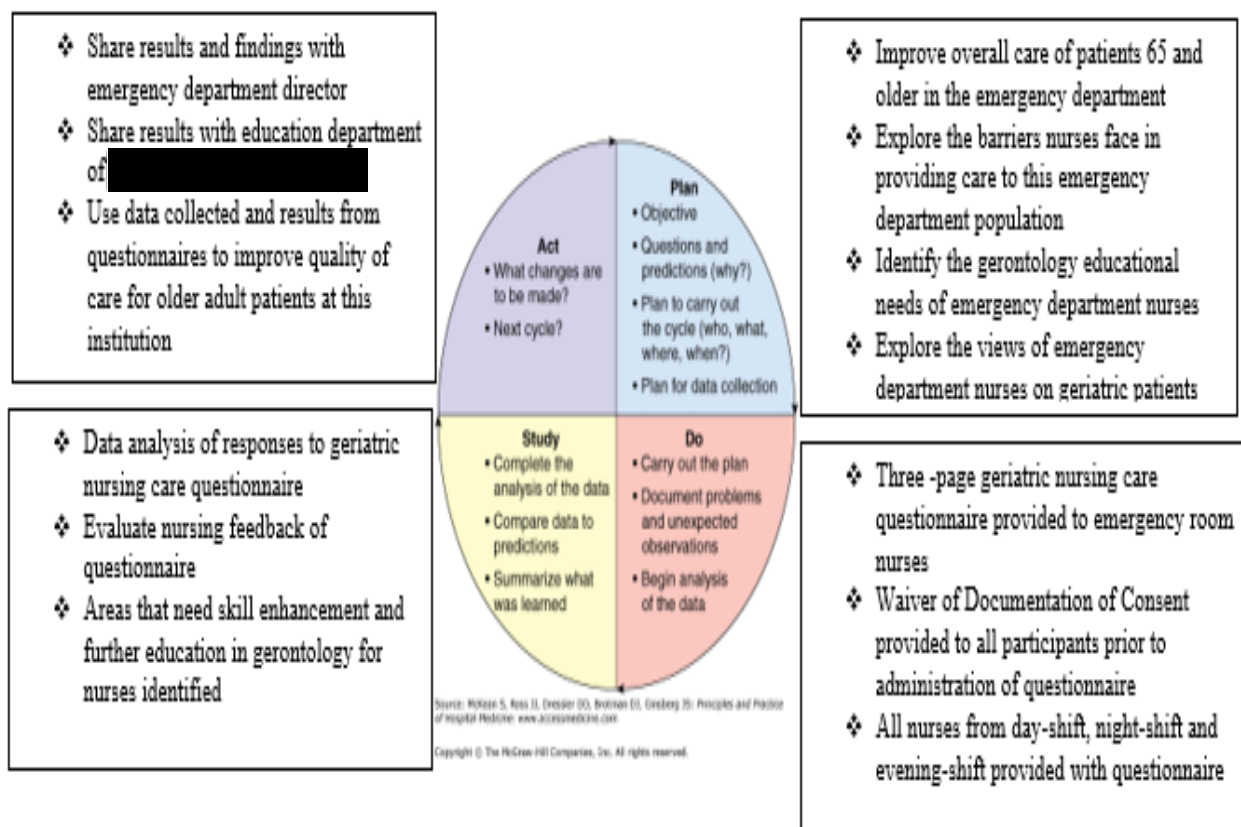
			in Sydney, Australia.	treatments being prioritized above what nurses perceive to be basic care.		Good
#6	Gorawara-Bhat, R., Wong, A., Dale, W., & Hogan, T. (2017).	Qualitative study	Sample size of 20 emergency department nurses	Nurses were asked to share their perception of older adult pain management in an emergency department in or to construct a pain management plan	Small sample size	Research  Level II  Quality: Low
#7	Lennox, A., Braaf, S., Smit, D. V., Cameron, P. and Lowthian, J. A. (2018).	Qualitative Study	Sample size of 54 nursing staff and health clinicians, and 7 medical staff from a large metropolitan hospital ED in Melbourne	<p>The time consuming and complex needs of the elderly patients were emphasized, and it was noted that these needs could not always be addressed in an ED.</p> <p>Participants reported knowledge deficit in relation to caring for the geriatric patient in the ED.</p>	<p>Setting restricted to 1 ED</p> <p>Participants may not have been heard equally in focus groups</p>	Research  Level III  Quality: Good

#8	McCusker, J., Minh Vu, T. T., Veillette, N., Cossette, S., Vadeboncoeur, A., Ciampi, A., & ... Belzile, E. (2018).	Qualitative study	Sample size of 73 lead nurses and 67 lead physicians from 93 non-psychiatric Quebec EDs	Lead nurses have a better insight on ED geriatric care in comparison to lead physicians.  Lead physicians only saw physical environment and furniture to be associated with quality of care.	The tool used only focuses on availability of resources, and not the proper use of those resources.  Low survey participation rate	Research  Level III  Quality:  Good
#9	Persoon, A., Bakker, F. C., Wal-Huisman, H., & Olde Rikkert, M. G. M. (2015).	Questionnaire Development	13 geriatric nurses and 3 geriatricians evaluated the questionnaire  271 registered nurses from 6 hospitals validated the questionnaire	The questionnaire showed good content validity and good internal consistency	Need for larger study to evaluate differences in scores on different units	Research  Level III  Quality:  High
#10	Taylor, B. J., Rush, K. L., & Robinson, C. A. (2015).	Cross-sectional study	Seven registered nurses participated in a questionnaire about their experiences of caring for the older adult in the ED.	The study explored nurses' experience of caring for the older adult within the ED  Older adult patients were at risk of receiving low quality of	Small sample size	Research  Level II  Quality:  Low

				care due to nurses' poor orientation of priority setting.		
--	--	--	--	--	--	--

### Appendix C

#### Concept Map



Appendix D  
GerINCQ

# GerINCQ

## Geriatric In Hospital Nursing Care Questionnaire

### General information

*The following questions are about general personal information.*

<p><b>Which hospital do you work at? .....</b></p> <p><b>What is the name of your department? .....</b></p> <p><b>Is this a:</b></p> <p><input type="checkbox"/> medical department?</p> <p><input type="checkbox"/> surgical department?</p> <p><input type="checkbox"/> geriatric department?</p>		
<b>1. What is your gender?</b>	male <input type="checkbox"/>	female <input type="checkbox"/>
<b>2. What is your age?</b>	years	
<b>3. Which is your highest degree?</b>		
<input type="checkbox"/> RN – associate degree	<input type="checkbox"/> diploma	
<input type="checkbox"/> RN – bachelor degree	<input type="checkbox"/> certified aide	
<input type="checkbox"/> RN – master degree	<input type="checkbox"/> other:	
<b>4. How many years of experience do you have in your profession?</b>	years	
<b>5. How many years have you worked in this hospital?</b>	years	
<b>6. Which department do you work in?</b>		
<b>7. How many hours per week do you work in this department?</b>	hours per week	

## GerINCQ

### Subscale 1: Performed intervention

*The following questions are about your experiences with the day-to-day care provided in the department where you work. Older patients are defined as patients aged 70 years and over. There are no right or wrong answers. Please try to answer all of the questions.*

8. Please state to what extent the following interventions are used with the older patients you care for?					
	too little		adequate		too often
a. Pressure ulcers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Nursing interventions to prevent a delirium (for example, use of observation hats, closed sensory stimulation, providing glasses and a hearing aid, mobilization, activating, providing orientation points such as use of calendar and clock, photos from home, increasing feeling of safety, family participation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Nursing interventions to prevent a fall (for example, offering regular help to the toilet, setting bed at the lowest level, use of night lighting, no obstacles in room, what is needed within the patient's reach, alarm system)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Nursing interventions to prevent malnutrition (for example, screening for malnutrition, regularly offering food and drink, patient at table during meals, eating together)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Offering activities (for example, reading, games, day program, group-oriented activities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Incontinence material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Active mobilization policy (mobilization as early as possible through nurses)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Enteral nutrition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Urinary catheters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Pain medication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Sleep medication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Medicinal restrictive measures (for example, sedative medication, antipsychotics)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Physical movement-restrictive measures (for example, belts, all bed side rails up, wrist and/or ankle bands, nursing blankets, boxing gloves, chair/wheelchair trays)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## GerINCQ

### Subscale 2: Aging-Sensitive Care Delivery

9. At the department where you work how satisfied are you about the extent to which:				
	highly unsatisfied		neutral	highly satisfied
a. ... older patients are treated with respect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. ... the pace is adjusted to older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. ... independence of older patients is encouraged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. ... older patients can make decisions about their care and treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. ... informal carers of older patients receive information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. ... communication takes place with informal carers about decisions concerning the care and treatment of older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. ... there is monitoring of and attention for the burden on informal carers of older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. ... nurses adapt the care to the needs of an older patient?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. ... nurses are aware that there can be a difference in the effect of medical/nursing interventions on older patients compared to younger patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. ... nurses request information about an older patient's situation prior to admission?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. ... older patients are taken into account in the planning of each shift?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. ... continuity of care between hospital departments is adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. ... continuity of care after discharge is adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

## GerINCQ

---

### Subscale 3: Professional responsibility

10. How responsible do you feel for:					
	not at all		neutral		very much
a. ... fall incidents among older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. ... the development of pressure ulcers among older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. ... deterioration in the nutritional status of older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. ... urinary tract infections among older patients as a consequence of urinary catheters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. ... retention of mobility among older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. ... behavioral problems in a patient with dementia?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. ... older patients who are anxious and/or dejected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. ... the development of a delirium in older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. ... wounds as a consequence of using sedative medication in older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. ... wounds as a consequence of using restrictive measures in older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
kc. ... (mis)communication with older patients and informal carers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. ... arranging the discharge of older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## GerINCQ

### Subscale 4: Attitude towards caring for elderly

11. How would you describe your everyday experience for each of the following items?					
	never	rarely	sometimes	often	always
a. I observe older patients more carefully than younger patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I keep a close eye on confused older patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I talk in simple language to older patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I talk more loudly and clearly when I speak with an older patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I create optimum communication conditions for older patients by making use, for example, of the patient's own glasses or hearing aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I allow extra time for the admission of older patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I use the case history details of an older patient to plan the care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. I involve older patients in decisions concerning their health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. For older patients admitted I start the discharge planning when they are admitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. I allow more time for preparing the discharge of an older patient than I do for the discharge of a younger patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. I take the patient's health history from the informal carer's point of view	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. I involve informal carers of an older patient in the care of that patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. I am aware that older patients can be less assertive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. I encourage older patients to retain their independence during a hospital admission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You can use this space to explain any of your answers if you so wish.

## GerINCQ

### Subscale 5: Perception about caring for elderly

*The following questions are about your experiences with the day-to-day care provided in the department where you work. Older patients are defined as patients aged 70 years and over. There are no right or wrong answers. Please try to answer all of the questions.*

	almost none	less than half	half	more than half	nearly all
12. In the past 12 months, which proportion of the patients you cared for were aged 70 years or older?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Roughly what proportion of your shift do you devote to the care of older patients in your department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	not satisfying		neutral		highly satisfying
14. How satisfying is your work with older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	not demanding		neutral		highly demanding
15. A) How demanding do you find the work with older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B) Can you state what you find demanding?					

## GerINCQ

---

	not difficult	neutral	very difficult
16. How hard do you find it to care for restless older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	not very proficient	neutral	highly proficient
17. How proficient do you think you are in providing care for older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	never	rarely	sometimes	often	always
18. To what extent do you feel recognized by your colleagues for your care of older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	never	rarely	sometimes	often	always
19. To what extent do you feel supported by your superiors in the provision of care for older patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	poor	adequate	superb
20. A) How do you experience the training of nurses in the provision of care to older patients in your department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B) What training does your department need?			

## GerINCQ

**21. Some patients can exhibit behavior that others experience as disruptive, and that applies to older patients as well. During your provision of care how often do you experience that older patients:**

**Note: of course older patients can be lovely, funny, touching, modest, et cetera but these aspects will not be enquired about here.**

	never	rarely	sometimes	often	always
a. ....cannot be reasoned with?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. ....are not cooperative?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. ....demand a lot of attention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. ....are confused?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. ....are restless at night?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. ....are slow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**You can use this space to explain any of your answers if you so wish.**

**Thank you for completing the questionnaire**

## Appendix E

### Consent



#### Consent

**TITLE OF STUDY:** Assessing ED Nurses' Knowledge of Caring for Older Adults  
**Principle Investigator:** Raysha Monel, BSN, RN

Hi! You are being asked to participate in a research study that is being conducted by Raysha Monel, a DNP FNP- Primary Care student at Rutgers University.

This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. It is your choice to take part or not. You will be given a copy of the form to keep if you decide to participate. Your alternative to taking part in the research is not to take part in it.

#### **Purpose of the Study:**

The purpose of this study is to assess the knowledge gap in emergency room nurses caring for older adults and the need to educate them in order to provide a higher level of care to the emergency department older adult population.

You will be one of approximately 60 participants.

#### **What will be done?**

Once this consent is completed, a 67-item questionnaire will be provided to you. This questionnaire should take approximately 15 minutes of your time. All information and demographics will be coded to provide anonymity. Participation is completely voluntary. If you have any questions or hesitations, please let me know. The only alternative to this study is not to participate.

#### **Risks or Discomforts:**

There is no risk to you or your employment. Your supervisor will not have access to your responses or know whether you participated in the study or not. Breach of confidentiality is a risk of harm, but a data security plan is in place to minimize such a risk. Also, some questions may make you feel uncomfortable. If that happens, you can skip those questions or withdraw from the study altogether. If you decide to quit at any time before you have finished the questionnaire your answers will NOT be recorded.

#### **Benefits of this Study:**

(Version 1, 4/1/19)

There is no direct benefit to you for participating in the study. Once data collection is complete, the results will be provided to the Chief Nursing Officer, director of the emergency department and the educational department of [REDACTED]. Participation promotes an increased awareness of the need for geriatric centered emergency department care. Emergency department nurses have a knowledge gap and insufficient skills to provide high quality care to the growing older adult patient population. This information will also be disseminated nationally.

**Confidentiality:**

All efforts will be made to keep your responses confidential, but total confidentiality cannot be guaranteed.

We will not collect any information that can identify you or other subjects. Completed forms will be stored in a locked cabinet controlled by the investigator. Responses may be converted to digital format and stored on a password-protected computer that can only be accessed by the study team. Paper copies will then be destroyed. We plan to delete the data after all data analysis is complete and stored at Rutgers University for the required six years after completion of the project.

**Compensation:**

There is no monetary compensation for participation, however light refreshments will be offered.

The information collected about you for this research will not be used by or distributed to investigators for other research.

**Withdrawal:**

Your participation is voluntary. If you choose to take part now, you may change your mind and withdraw later. You may leave without turning in a completed form or by turning in a blank or incomplete form. However, once you turn in the form, you can no longer withdraw your responses as we will not know which ones are yours.

**Application of results:**

The results will be provided to the Chief Nursing Officer, the emergency department director, and the education department of [REDACTED]. Only aggregated information will be reported. Data will be grouped and averaged by age, and other demographics. Individual data will not be reported. Furthermore, the results will be posted in the Barnabas Health newsletter and shared through poster presentation at Rutgers School of Nursing.

**Contact Information:**

(Version 1, 4/1/19)

If you have answer concerns or questions about this research study, please contact the Principal Investigator (PI) – Raysha Monel at [REDACTED]

If you wish to also read the study at its completion, please keep the email address above.

If you have any questions about your rights as a research subject, please contact the IRB director at (973)-972-3608, Newark.

Please keep this consent form if you would like a copy of it for your files.

By beginning the survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time without penalty.

|

## Appendix F

## Data Collection Spreadsheet

AutoSave Book2 - Excel Raysha Monel

File Home Insert Page Layout Formulas Data Review View Help Foxit PDF Tell me what you want to do

Clipboard Font Alignment Number Styles Cells Editing

Clipboard: Cut, Copy, Paste, Format Painter  
Font: Calibri, 11, Bold, Italic, Underline, Text Color, Background Color  
Alignment: Left, Center, Right, Indent, Wrap Text, Merge & Center  
Number: General, Currency, Percentage, Decimals, Fractions  
Styles: Conditional Formatting, Format as Table, Cell Styles  
Cells: Insert, Delete, Format  
Editing: AutoSum, Fill, Clear, Sort & Filter, Find & Select

G22

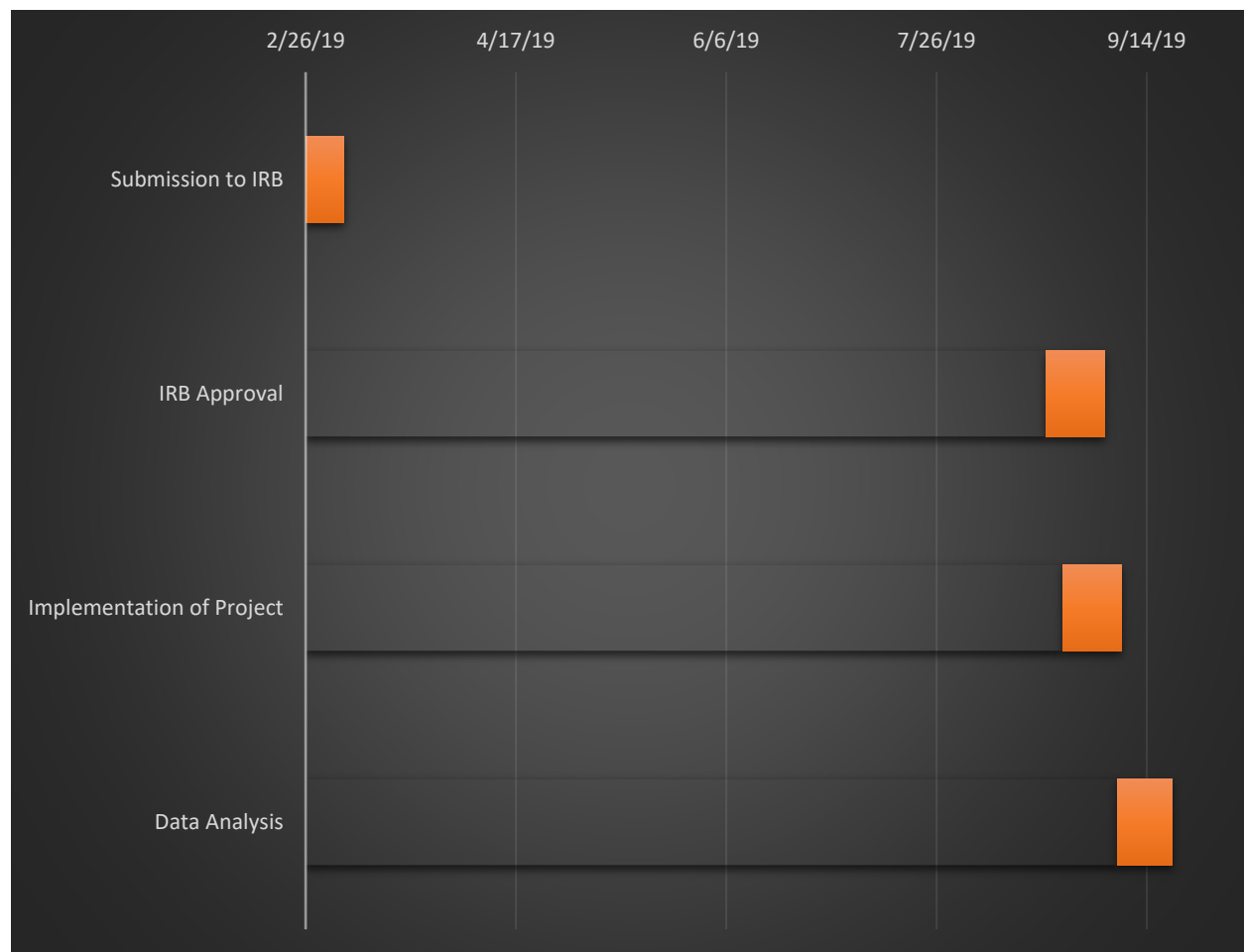
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	DATA COLLECTION SPREADSHEET: ED NURSES' KNOWLEDGE OF OLDER ADULTS													
2	Gender	Age	Highest Degree	Years of RN Experience	Years Worked in this ED	Hours Per Week in ED								
3	Female	30	RN-Bachelor Degree	4	2	40								
4	Male	38	RN-Associate Degree	10	10	30								
5	Female	22	RN-Bachelor Degree	1	1	40								
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														

Sheet1

Ready 100%

**Appendix G**

## Gantt Chart



**Appendix H**

## Project Budget

<b>Description</b>	<b>Cost</b>	<b>Total</b>	<b>Responsible Party</b>
Program Materials	Computer		
	Filing cabinet with lock and key	\$40.00	Paid by DNP student
Presentation Materials	Printing of Participant Consents		
	Printing of GerINCQ hard copies	\$40.00	Paid by DNP student
	Pens		
Light Refreshments	Coffee	\$225.00	
	Pastries	\$140.00	Paid by DNP student
Total	Total out-of-pocket expenses	\$445.00	

**Appendix I**  
**subscale1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.62	2	4.0	4.0	4.0
	1.69	2	4.0	4.0	8.0
	1.92	2	4.0	4.0	12.0
	2.00	4	8.0	8.0	20.0
	2.08	2	4.0	4.0	24.0
	2.15	2	4.0	4.0	28.0
	2.23	6	12.0	12.0	40.0
	2.31	2	4.0	4.0	44.0
	2.38	4	8.0	8.0	52.0
	2.46	3	6.0	6.0	58.0
	2.54	2	4.0	4.0	62.0
	2.62	1	2.0	2.0	64.0
	2.69	2	4.0	4.0	68.0
	2.77	4	8.0	8.0	76.0
	3.00	4	8.0	8.0	84.0
	3.15	2	4.0	4.0	88.0
	3.38	2	4.0	4.0	92.0
	3.69	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

## Appendix J

**subscale2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	8.0	8.0	8.0
	2.15	2	4.0	4.0	12.0
	2.38	2	4.0	4.0	16.0
	2.69	2	4.0	4.0	20.0
	2.92	2	4.0	4.0	24.0
	3.00	2	4.0	4.0	28.0
	3.08	2	4.0	4.0	32.0
	3.31	4	8.0	8.0	40.0
	3.38	6	12.0	12.0	52.0
	3.54	6	12.0	12.0	64.0
	3.62	2	4.0	4.0	68.0
	3.85	2	4.0	4.0	72.0
	3.92	2	4.0	4.0	76.0
	4.08	2	4.0	4.0	80.0
	4.23	4	8.0	8.0	88.0
	4.31	2	4.0	4.0	92.0
	4.54	2	4.0	4.0	96.0
	4.92	1	2.0	2.0	98.0
	5.00	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

**Appendix K****subscale3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	4.0	4.0	4.0
	1.92	2	4.0	4.0	8.0
	2.42	4	8.0	8.0	16.0
	2.83	2	4.0	4.0	20.0
	3.00	1	2.0	2.0	22.0
	3.17	2	4.0	4.0	26.0
	3.25	2	4.0	4.0	30.0
	3.33	2	4.0	4.0	34.0
	3.42	4	8.0	8.0	42.0
	3.67	6	12.0	12.0	54.0
	3.92	4	8.0	8.0	62.0
	4.00	8	16.0	16.0	78.0
	4.08	2	4.0	4.0	82.0
	4.25	3	6.0	6.0	88.0
	4.58	2	4.0	4.0	92.0
	4.67	2	4.0	4.0	96.0
	4.75	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

## Appendix L

## subscale4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	2	4.0	4.0	4.0
	3.36	8	16.0	16.0	20.0
	3.50	4	8.0	8.0	28.0
	3.57	2	4.0	4.0	32.0
	3.64	2	4.0	4.0	36.0
	3.71	2	4.0	4.0	40.0
	3.79	2	4.0	4.0	44.0
	3.86	2	4.0	4.0	48.0
	3.93	2	4.0	4.0	52.0
	4.00	8	16.0	16.0	68.0
	4.07	2	4.0	4.0	72.0
	4.21	2	4.0	4.0	76.0
	4.71	2	4.0	4.0	80.0
	4.79	6	12.0	12.0	92.0
	4.86	2	4.0	4.0	96.0
	5.00	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

**Appendix M**  
**subscale5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.47	4	8.0	8.0	8.0
	2.53	4	8.0	8.0	16.0
	2.60	6	12.0	12.0	28.0
	2.67	4	8.0	8.0	36.0
	2.73	6	12.0	12.0	48.0
	2.80	2	4.0	4.0	52.0
	2.87	4	8.0	8.0	60.0
	2.93	4	8.0	8.0	68.0
	3.07	2	4.0	4.0	72.0
	3.13	8	16.0	16.0	88.0
	3.47	2	4.0	4.0	92.0
	3.60	4	8.0	8.0	100.0
	Total	50	100.0	100.0	