Evaluating documentation in telephone triage

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Evaluating Documentation in Telephone Triage

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Chapter 1

Introduction

Controlling costs has become a vital component in today’s managed care environment. The survival of health care organizations depends on the success of their management strategies. “Telephone nursing, or telephone triage has been identified as a successful demand management strategy” (Anders, 1997). Telephone triage has been defined as, “The process of collecting and interpreting information on the phone in order to determine the urgency of a problem and the need for medical intervention. The nurse determines how soon the treatment needs to begin” (McGear and Simms, 1988). The word triage means to sort and was first performed on the battlefields when the wounded soldiers were prioritized by acuity in order to receive care. Now, health care has become more sophisticated but still requires the prioritizing of the urgency of treatment needs.

Telephone triage is different than bedside nursing. The bedside nurse talks to the patient while observing sight, sounds, touch, smell and nonverbal messages. The tele-care nurse collects all data with listening to the caller. The nurse guides the stages of the call, but gives the responsibility of implementing the nursing care to the caller. “To achieve the goal, trust must be established between the tele-care nurse and the patient” (Smith, 1999).

Data collection is a key concept and first step to triage nursing. “The goal of the client history is to determine the acuity of illness or concern while identifying the needs and care required” (Osterhaus, 1995). The nurse centers on the problem presented and must listen carefully to signs and symptoms of the problem, or the medication that needs to be refilled, or what they are having a problem with, or if the patient needs a referral or
a follow up appointment. Once the appropriate data is collected the nurse can then implement with the patient or physician the appropriate outcome.

Statement of the Problem

In a pediatric office setting, two doctors, Drs. Gey and Miriam (1999) have examined what they have determined to be most effective to triage a phone call. In a survey conducted by the office, the satisfaction of the patients has tremendously increased after instructing the triage nurses on how to effectively triage a call. They determined these important elements to include:

1. Have a pencil and specific paper by the phone for taking down specific information
2. Get the full name, age, date of the last office visit or by some other special description.
3. Get the description of the problem, its duration and symptoms such as fussiness or undue crying (in a child), vomiting, diarrhea, fever, cough, abdominal pain, or abnormal breath sounds.

The literature states that, “Little is known about the effectiveness of nurses triaging by phone, probably because the schemes are not easy to assess.” (Greenburg, 2000). What research there has been is patchy. In a study reported by Nursing Economics, “Telephone nursing resulted in $2,360 of savings for a sample of 90 callers in one month, or $116,328 projected annually for their clinic population. (2000).

Statement of Purpose

The purpose of this study was to evaluate the effect of a revised telephone triage form on the completeness of documentation.
Theoretical Framework

Orem’s (2001) self-care deficit nursing theory is the conceptual framework used to guide this study. A brief overview will be provided with a more in depth look at this theory in Chapter II. Orem’s general theory of nursing is centered on the propositions that nursing is a complex form of deliberate actions within interpersonal situations and that nursing is a helping human health science. Orem’s framework, based on the concept of self-care, includes three interrelated theories: (a) the theory of self-care (b) the theory of self-care deficit (c) the theory of nursing systems. (Orem, 2001)

The theory of nursing systems provides the primary framework for the present study and involves the nurse acting as the “agent” for the patient when the patient has health care deficits or a triage issue. Nursing agency is considered to be the developed skills, knowledge and capabilities of educated nurses that empower them to represent themselves within the frame of a legitimate interpersonal relationship. Such relationships between client and nurse assist the client to meet their therapeutic self-care demand (Orem, 2001). In this study, the nurse (agent) will provide complete documentation when triaging calls to control disease and promote well-being of the patient.

Research Question

Does implementation of a more concise, standardized form for telephone message triage in an ambulatory clinic in an academic health center facilitate more complete documentation?

Operational Definition

The operational definition of documentation is a completed message form.
**Conceptual Definition**

For this study, documentation was conceptually defined as the data or evidence that is collected and needed in order to prioritize and effectively triage the telephone call.

**Significance to Nursing**

Properly managed telephone care systems provide benefits for clients and health care institutions. “The primary benefit to callers is the consistency and accuracy of health information. Additional benefits to clients include financial savings due to decreased work absences, decreased babysitting costs by eliminating office visits, providing prompt access to emergency instructions and increasing client’s knowledge for self-care” (McGear and Simms, 1988 p.). Providers of health care services benefit from a properly managed telephone system. “A telephone system increases continuity and monitoring of clients (especially those with special needs or chronic conditions) and enhances efficient use of time and resources” (1988 p.).

Clear and concise forms for triage documentation are needed so that we can ensure all the benefits from a telephone care system. This project is significant to nursing because by having a well thought out, understandable method of data collection for triage telephone messaging, nurses will be better able to provide care and improve outcomes for our patients. Mortality and morbidity can improve with this study and the improvement with message taking with telephone triaging as patients would be instructed to go to the emergency room or to call 911 in the event of a true emergency or symptoms that may warrant an emergency. Patients may need to hear someone tell them it is alright to go to the emergency room for their chest pain instead of waiting to get in to see their doctor.
Assumptions

It was assumed that the nurse filled out the form accurately. It was also expected that patients gave accurate, honest information in response to the nurse’s questions.

Summary

In summary, as telephone triage nursing becomes more popular, there must be a more accurate way to document and assess each patient’s individual needs. By doing so, the Registered Nurse can then determine the priority of the situation and the patient can be instructed how their need will best be met. The purpose of this study was to determine if there is more complete documentation of required information after implementing a new telephone triage form. The theoretical framework of Orem was used to guide this study. Implementation of a clear, concise, easy to use form for message taking in triage nursing is important to ensure the best, most effective outcome for each individual patient. The form must be completed in entirety to be most effective amongst all disciplines.
Chapter 2

Literature Review

This chapter presents the theoretical framework that was used to guide this study and the review of relevant literature related to triage nursing and documentation. The relevant concepts of Dorthea Orem’s Self-Care Deficit Nursing Model are explored first because it is the theoretical framework that guided this study. The remainder of the chapter includes the literature review for understanding triage nursing and the need for clear, concise data collection to implement and succeed with documentation.

Nursing Theoretical Framework

Orem’s self-care deficit theory (Orem, 2001) was used to guide this study. The concepts from her theory that played an integral role in the development of this research study are self-care agency, a part of the theory of self-care deficit, and the partly compensatory nursing systems. Orem defines self-care agency as a complex and acquired human ability to know their requirements to regulate human functioning and development and to engage in self-care to meet these requirements. These requirements for regulation of human functioning are known as self-care requisites. Self-care is further defined as the practice of activities of individuals initiated on their own and performed for themselves on behalf of maintaining life, health and well-being. (Orem)

The purpose of performing self-care requires cognitive, emotional, and physiological capabilities as described as self-care operations. (Orem, 2001) The first phase of self-care action includes estimative operations and transitional operations. This means the self-care agent, the caller, acquires knowledge related to their own health and wellness.
Orem (2001), defines the nurse as “another self” who provides the assistance needed when patients lack the self-care agency to meet their own self-care demands. The nursing system is divided into three categories: wholly compensatory, partly compensatory and supportive educative system. Nursing systems are action systems produced as a result of the deliberate actions of the nurse intersecting with the demands and actions of the patient (Orem, 2001). Orem’s framework guides the nurse to best describe and prescribe the care needed for a particular client or population, in this study this included callers in need to triage. The nurse employed may be wholly compensatory, partly compensatory, or supportive-educative. Simplified, these terms are defined as total care, partial care, or education and restraining. When patients call in need of triage, thus health problem, the nurse who receives the call is partially compensatory. Nurses design and implement nursing systems by identifying nurse and patient roles, planning and initiating care within a specific time frame, and providing maximal independence for the individual or the dependent care of the individual (Orem, 2001).

Orem (2001) identifies three dimensions to nursing practice, social interpersonal and professional-technological dimension. Only the professional-technological dimension will be used for this study. This dimension includes the professional and care management operations of nursing practice which include diagnostic, prescriptive, regulation or treatment and case management. The act of triaging a call by the nurse would be a diagnostic procedure, while the documentation and actions taken would fall into the prescriptive and treatment operations.
Aspects of Triage Nursing

Controlling costs has become vital in today’s managed care environment. Telephone triage has been identified as a successful management strategy. (Anders, 1997) As the population of telephone nursing continues to expand it is necessary that studies be designed and carried out to evaluate the degree to which telephone nursing triage lives up to its expectations and benefits.

A descriptive study conducted by Greenberg (2000) was completed to evaluate the outcomes of an established telephone nursing service. Outcomes were assessed from the perspective of both the client and the organization. The study took place within a pediatric outpatient clinic for one month. Twenty-four of the total number of callers, (n=90) actually participated in the survey. Callers were asked both the reason for the telephone nursing call and the result of the call. Sixty-six percent phoned for information and 48.9% received information. The estimated dollar savings for the sample for one month was $2,360. This was calculated by subtracting the dollars ($2,216) spent on actual outcomes, from the dollars ($4576) that would have been spent based on the likely outcomes without telephone nursing for either the nurses or the patients. Estimated gross savings per call was $26.20. Thus, using the average number of calls, (n=370) the savings was predicted to be for one year, was $116,328. A limitation of the study was that the researcher was also the interviewer, and a part-time employee of the clinic. This introduces the possibility of bias during the interview, and in the data collection, even though effort was made to remain objective.

In another study done by Leisure (1998), at the Family Health care Medical Group, Inc. in Simi Valley, California demonstrated that telephone triage reduced same
day visits in the family practice office. In 1996, the number of same day visits was 7,500; during the testing period. By improving telephone triage, it dropped from 7,500 to 1,100.

Telecare provided by competent individuals is both clinically and cost-effective. (Decesare, 1996) Unfortunately, this is not always the case. Receptionists, medical assistants, licensed practical nurses and registered nurses have given health advice over the phone in outpatient settings for many years. This practice of random phone instruction is unreliable, impulsive, adlibbed and out of the scope of practice for an LPN or Medical Assistant. As the telephone triage model emerges and expands, it is vitally important that highly trained professionals give telephone advice. (Decesare, 1996)

Although telephone nursing is becoming more formalized, results of a survey of 76 California facilities investigating the training credentials of triage personnel confirmed that current triage personnel have diverse credentials and varied amounts of training. (Cadwell, Perkins & Yates, 1994) Although 62% of the facilities surveyed employed registered nurses for triage responsibilities only 57% of those nurses received specific training for triage skills. The remaining facilities used staff other than registered nurses (e.g., LPN’s, PA’s, EMT’s). Only 63% of those facilities using non-RN staff for triage received telephone care instruction. These findings reinforce the need for training programs and standards to provide safe and accurate phone care.

Properly managed telephone care systems provide benefits for clients and healthcare institutions. The primary benefit to callers is consistency of health information. Additional benefits include financial savings due to decreased work absences and decreased babysitting costs by eliminating office visits, providing prompt
access to emergency instructions and increasing client’s knowledge for self-care. Client education also fosters independent decision-making regarding health care issues. (McGear and Simms, 1988)

Gerdtz and Becknall (2001) set out to describe the data triage nurses gather from patients in order to allocate a triage priority using the Australian Triage Scale (ATS). They wanted to explore the factors that influence the duration of triage assessments. The most noteworthy findings of the study were the limited amount of objective physiological data collected by nurses when describing urgency, the substantial variation found for the length of time taken by the participants to make a triage decision, and the range of patient, nurse and environmental variables found to influence significantly the duration of the nurse-patient interaction at triage. Additionally, there is a strong need for the development of standardized approaches to triage practice. It is important to develop effective teaching strategies in order to maximize the consistency to which triage scales are being applied and used.

The goal of data collection is to determine the acuity of illness or concern while identifying the needs and care required. (Osterhaus, 1995) The nurse centers on the problem presented and must listen carefully to signs and symptoms explained by the caller. The data obtained are only subjective; the nurse should be able to guide the caller to make observations. The nurse listens to the callers’ rate and pitch of speech, silences and pauses and the callers’ attitude for clues to help acquire accurate information. (McGear and Simms, 1988)

An interesting study and discussion of the results by Leclerc, Dunnigan et al. (2003) was done to validate user perception of nurse recommendations to look for
another health resource among clients seeking tele-care. This study was conducted to analyze the effects of different users and call characteristics on the incorrectness of the self-report. A random sample of fifty-nine call centers was selected with 4,696 completed interviews with consenting callers. Thirty-one percent of calls concerned children under five, forty-eight percent concerned middle-aged adults and fifty-three percent contacted for someone else. More than eighty percent of the people had a higher favorable opinion on the clarity of the language used to advise them and on the ways of understanding the advice provided than they originally had. Even if the great majority of callers felt that the language used to advise them was clear and the advice they received was easy to understand, the findings did show that there was a significant discrepancy between telephone healthcare and the health-line nurses documentation of whether such advice was given. This has important implications for any intervention that might be implemented.

Keatinge and Rawlings (2004) set up a Kids Kare Line for nursing triage to determine the efficiency and effectiveness in relationship to parent’s satisfaction and resource utilization. There were 101 participants in the study, and they were most frequently calling the Kids Kare Line to seek advice about a child who was between the ages of zero to five years. Only five (4.59%) callers of the 101 participants in the study identified that they had to wait a long time for their call to be answered, therefore demonstrating that the service was efficient. From an effectiveness perspective, all participants said that they understood the advice given to them by the Kids Kare Line Nurse. Ninety-seven percent of the parents followed the advice of the nurse, which
shows that the nurses operating the line are providing user-friendly advice to the parents. This study did not seek to provide any financial evaluation of the service.

An analysis of the literature identified two contrasting trends concerning patient satisfaction and triage. Hankey (1994) states that triage enhanced patient satisfaction and results in patients feeling cared for which then lessens their anxiety. Triage also can help by ensuring patients are dealt with in a strict order of priority. (Toulson, 1996)

However, George et al. (1992) state that, “triage extends waiting times (which has an undeniable correlation with patient satisfaction); patient satisfaction with in a triage system is no different than when compared to patient satisfaction in a non-triage system, thereby decreasing effectiveness and efficiency.”

Implementation of a tele-health survey was completed by Greenburg and Cartwright (2001). The survey was developed to address the needs of the industry. It was beneficial to collect data for use in measuring and comparing current tele-health practices and to establish an ongoing database to capture the depth of the tele-health industry. The tele-health survey is web-based and contains 150 questions that target tele-health activities divided into broad categories. The content ranges from descriptive data about the organization (for example size, type, population server) and its tele-health activities to specific questions about the services (for example staffing, technology, costs). Industry results may include average reported talk time for specific services, cost per call, staff turnover and client/provider satisfaction. Senn, 1988 states when this kind of information is appropriately used, it will help identify gaps in performance, assist in evaluation, improve understanding and facilitate change based on objective data rather than consensus. These are all key concepts involved with telephone triage.
Documentation

The issue of nursing documentation and care planning has been discussed by nurse educators and administrators since 1964 when Waler and Silmanoff conducted research on activities and behaviors when writing and reading nurses’ notes. They found that the notes were neither valued nor accurate and that they were seldom read. In an interview study with fourteen RN’s, they reported barriers being lack of professional identity and language in nursing, excessive number of forms, lack of time and lack of space to write. (Tapp, 1990)

In a more recent Swedish study by Bjorvell, Wredling and Thorell-Ekstrand, 2002 a total of 377 RN’s were assigned to one of two groups. All of the participants received a three day course on nursing documentation. This included lectures, group practice and group feedback regarding the nursing process, as well as laws and regulations regarding documentation. Seventy-seven percent of the participating RN’s believed that nursing documentation increased patient safety. When asked to rank the most influential barriers to nursing documentation, RN’s in both groups identified the time and organizational issues in both. Most RN’s (62%) in the study believed that the nursing documentation was useful for their work.

Iyer and Camp (1995) described documentation as the most significant professional function of the RN, since effective recording of the patient care will demonstrate the patient response to nursing interventions. They state, “Nurses make complex, sophisticated decisions concerning patient care, yet nursing documentation does not always reflect those decision-making responsibilities.” Documentation must clearly
communicate a nurse’s judgment and evaluation. It also helps to inform other professionals involved in the care of the patient.

Common flaws in documentation in the literature include: lack of brevity, assumptions being made, use of abbreviations, and the use of unnecessary emotive language. Nurses need to document the facts and not opinions and avoid making generalizations such as “the patient is doing well.” (Rodden, 2002) It is important to realize that any record documenting patient care may be used as evidence by court or in any part of an investigation. It is often not until a complaint is made, or legal action is pursued that a nurse then begins to understand and appreciate the value of keeping documentation.

Information to help teach nurses to assess a patient over the phone, use protocols, document information was published by Quilter and Siebelt (1997). Using protocols help to avoid litigation and maintain quality patient care. The author explains that once a RN/LPN begins speaking with a caller, they are legally obligated to give advice or refer to a health-care facility or emergency department. Documentation of information that should be documented includes: date and time of call, name of caller, address and telephone number of caller, illness history and signs and symptoms, advice given, protocol followed and recommended time frame for caller to seek care. Adequately documenting the interaction with the caller is vital in telephone triage.

Furthermore, Barr (2002) states in the health care environment patient documentation requirements are growing because of risk management issues, standards of practice and external regulatory agency requirements such as the Joint Commission on Accreditation of Healthcare Organization and the Centers for Medicare/Medicaid
Services. Coping with the rapidly changing health care environment calls for professional nurses who have the ability to identify problems and carry out planned change through communication and understanding. Many factors including nurse skill determine the direction of emerging health care technology, including new laws that mandate how nurses are expected to protect and distribute patient information.

All nurses are responsible for the quality of care they give. Although telecare nurses are in a unique situation that is protected legally, there are five measures that are imperative in decreasing phone advice risks. These are:

1. Using protocols endorsed by physicians
2. Completing proper documentation
3. Seeking information, such as medical staff consultation, when needed.
4. Giving appointments when clients request them.

Summary

In summary, utilization of Orem’s self-care deficit nursing theory as a conceptual framework for this research study was believed to have enhanced the project in several ways. One of the key features is to use the methods of guiding, supporting, teaching or providing for a developmental environment to help patients to achieve their self-care agency. The nursing agency is the nurse that triages the call and her responsibility will be to assess and document the self-care deficit.

The literature addresses the concept of triage nursing and discusses the benefits. These benefits include controlling costs, reduction in same day visits and patients
believed that the advice was easy to understand, and there was an increase in patient satisfaction. In contrast to that, the literature found that there is a significant variation of time it takes a nurse to make a triage decision. It also found that there is a need for the development of standardized approaches to triage practice for consistency, and also triage nursing noted an increase in the amount of time that patients had to wait.

The literature also addressed the importance of documentation to avoid litigation and maintaining quality patient care. Documentation is valuable to an RN in their daily professional work and for increasing patient safety. It also helps to further promote communication with other members of a patient’s health care team.

This project will better help to assist nurses to understand triage nursing and to better understand the importance of obtaining data appropriately. Nurses will also understand the importance of documentation of the data to continue to strive to maintain quality of patient care, and increase patient safety.
Appendix A

Theoretical Design:

Directing an Individual Toward Self-Care

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**Self-Care Deficit**
- pt/problem

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**Nursing Agency**
- Situational
- Institutional
- Personal

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**Documentation of Self-Care Deficit**

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**Self Care**

---

**Basic Conditioning Factors:**
- age/gender
- family systems
- availability of resources
- environmental factors
- patterns of living
- development
- health state

---

**Educational Level of Staff**
- Years of Experience

---

**Distractions**
- Workload
Chapter 3

Method

This chapter will include a description of the design of the study, the sample selection including inclusion and exclusion criteria. Data collection procedures will be discussed and the methods utilized in the study to examine triage nursing message taking will be described. Data analysis procedures will also be described.

The purpose of this study was to evaluate whether a concise, standardized form used for telephone message triage in a general internal medicine clinic at an academic health center, improved documentation of required information on the form.

Design

The research used a comparative descriptive design. This design was selected to examine and describe the differences that were established between the documentation on the old nursing triage message form and the documentation on the new, concise nursing triage message form. The data was collected over a two month period.

Setting

Data was collected with a retrospective review of patient charts within a general internal medicine ambulatory clinic at an academic health center during the year 2005-2006.

Sample

The sample for the study was 25 patient records within the general internal medicine clinic at an academic health center. The sample included randomly selected charts from a period beginning two weeks after the implementation of a new triage form
until a total of twenty five charts, with at least one triage nursing documentation form are obtained. The form was examined for completeness.

**Inclusion Criteria**

Eligible for this study were all adult patients that had a medical record in the General Internal Medicine Clinic at an academic health center. There must have been at least one documented triage message form in the patient’s chart. The patient had to be at least 18 years of age or older.

**Exclusion Criteria**

Excluded from this study was any documented telephone message that resulted in advice to the patient/caller to call 911. This may have had an impact on the amount of data that may be collected regardless of a new documentation form.

**Materials**

A documentation data collection form was designed and developed for this study. No patient identifiers were collected. Each information area was marked Y if present and N if not present. (See Appendix B for the data collection form.)

**Data Collection**

Prior to my study, data was collected by clinic staff to evaluate the completeness of the nursing triage message form. A new, more concise form for triage telephone message documentation was developed by the staff employed with ambulatory services and the registered nurse and the licensed practical nurse that are responsible for the documentation. The literature was also used to provide assistance to develop a new, concise form which was approved and implemented after introduction to the staff. After the form had been in place for two to three months, twenty five charts containing the new
message triage documentation form were randomly selected and data on the nursing triage message form was once again be analyzed for completeness of the required information. The results of this study were compared to the data previously collected by the staff.

Protection of Human Rights

Institutional review board approval for the study was obtained. All data from clinic patient records that were utilized in the study will be held anonymous. No names were attached to any nursing triage message form; thereby protecting the staff of the clinic from any violation of their personal rights.

Assumptions

In this study, it was assumed that by having complete, required information documented on a triage message form, there was an increase in positive patient outcomes and an increase in the patient’s quality of life. It was also assumed that triage nursing is cost effective. It was assumed that the data that was collected from the patient’s record was not altered in any way.

Limitations

After the new form was developed and implemented, the triage nurse may be too involved or busy and may not accurately or completely fill out the triage nursing message form. Another limitation is a lack of generalization of the findings to all clinics. Only one clinic was the focus of this study. There may have been a significant clinic difference in who answers the triage call and completes the message documentation. The general internal medicine clinic used both a registered nurse and a licensed practical
nurse. The use of clinic records may have been limited by accuracy of the records available. The validity of such records cannot be confirmed.

**Data Analysis**

Data obtained was entered into the computer program SPSS for Windows. Data was entered and organized by each question and yes or no response. Accuracy of the data entered into the computer was assured by a random cross-check against the original data and by careful examination of computer provided frequencies of each variable value.

**Summary**

The purpose of this study was to examine if we have a clear concise form for nursing triage message taking facilitated more complete documentation of required information on the form. Patient charts from the general internal medicine clinics at the Medical University of Ohio provided the data for this project. Specific data collection procedures are discussed, as well as controls for threats to the internal and external validity of the study. Assumptions and limitations of the study were detailed. Data analysis is discussed including the rationale for using the contingency tables and Chi-Square Test of Independence as the statistical test.
Chapter 4

Results

This study evaluated the effects of a new, concise form for message triage on documentation of required information. The following chapter presents the results of the statistical analysis of the data collected and application of these results to the research questions. The chapter concludes with a summary.

Sample

The sample for the study came from the patient records within the general internal medicine clinic at an academic health center. Prior to this study, data was collected by clinic staff to evaluate the completeness of the nursing triage message form that was in use at that time. A new documentation data collection form was designed, developed and implemented prior to the data collection for this study. Randomly, twenty five charts were selected eight weeks after implementation of the new form and the data on the nursing triage documentation form was analyzed for completeness.

Findings

The research question for this study asked, “Is there a significant difference in the number of complete nursing triage message forms before and after implementation of a new, more concise form?”

Table 1 shows the patient demographic data on the old and then again on the new form.
Table 1

Proportions of Complete Documentation of Patient Demographic Information on the
Old and New Nursing Triage Forms

<table>
<thead>
<tr>
<th></th>
<th>Old Form</th>
<th>New Form</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Name of Caller</td>
<td>17</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Phone # of Caller</td>
<td>11</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Name of Patient</td>
<td>19</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Phone # of Patient</td>
<td>10</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Date of last visit</td>
<td>6</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Date of next visit</td>
<td>7</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Signature/Title</td>
<td>9</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

* p<.05

All of the percentages of completed patient demographic information increased on
the new form. For example, obtaining the name of the caller on the old form was
completed 68% of the time and 88% of the time on the new form. The phone number of
the patient was completed 40% of the time on the old form and then 92% of the time with
the new form. There was not a significant difference in the triage nurse obtaining the
name of the caller on the old or the new form. Examining the count with the name of the
caller on the old form, 68% of the forms were completed, while 88% were completed
with the new form. It is important to consider that the completed percentages on both
forms were high. Obtaining the name of the patient also increased in percentage and was
statistically significant at .01. Obtaining the phone number on the new form increased
from 40% to 92%. Change in completion of the date of the next visit were not
statistically significant. Overall, completion for all components on the new form
increased and for five out of the seven components the increase was statistically
significant.
Table 2 represents descriptive data on compliance for the process information on both message triage forms.

Table 2

*Proportions of Compliance of Process Information*

<table>
<thead>
<tr>
<th></th>
<th>Old Form</th>
<th></th>
<th>New Form</th>
<th></th>
<th>$X^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Date of Message:</td>
<td>20</td>
<td>80</td>
<td>24</td>
<td>96</td>
<td>3.03</td>
</tr>
<tr>
<td>Time of Message:</td>
<td>13</td>
<td>52</td>
<td>21</td>
<td>84</td>
<td>5.89*</td>
</tr>
<tr>
<td>Legible Handwriting:</td>
<td>22</td>
<td>88</td>
<td>25</td>
<td>100</td>
<td>3.19</td>
</tr>
<tr>
<td>Adequate Message:</td>
<td>15</td>
<td>60</td>
<td>25</td>
<td>100</td>
<td>12.50*</td>
</tr>
<tr>
<td>Disposition:</td>
<td>11</td>
<td>44</td>
<td>25</td>
<td>100</td>
<td>19.44*</td>
</tr>
<tr>
<td>Chart Available/review</td>
<td>4</td>
<td>16</td>
<td>23</td>
<td>92</td>
<td>29.07*</td>
</tr>
<tr>
<td>Physician Notified:</td>
<td>14</td>
<td>56</td>
<td>25</td>
<td>100</td>
<td>14.10*</td>
</tr>
</tbody>
</table>

* p< .05

Again, all of the percentages increased with the implementation of the new message triage form. Documentation of the chart being available for review on the old form was completed only 16% of the time as compared to 92% of the time on the new form. The new form also demonstrated that the physician was notified of the triage concern 100% of the time on the new form, but was only notified 56% with the old form. Increase in documentation for the date of the message and the legibility of the handwriting of the triage nurse were not statistically significant. The handwriting is important to examine because the care providers need to be able to determine what the nature was of the call. Although not statistically significant, the handwriting was thought to be legible on 88% of the initial charts and then on 100% of the charts after implementation of the new form.
Table 3 represents descriptive data on compliance for the physician information on both message triage forms.

Table 3

Proportions of Compliant Physician Components

<table>
<thead>
<tr>
<th></th>
<th>Old Form</th>
<th></th>
<th>New Form</th>
<th></th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Physician Signature:</td>
<td>9</td>
<td>36</td>
<td>18</td>
<td>72</td>
<td>6.52*</td>
</tr>
<tr>
<td>Physician Date:</td>
<td>2</td>
<td>8</td>
<td>16</td>
<td>64</td>
<td>17.01*</td>
</tr>
<tr>
<td>Physician Time:</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>16</td>
<td>4.35*</td>
</tr>
<tr>
<td>Actions Completed:</td>
<td>19</td>
<td>76</td>
<td>25</td>
<td>100</td>
<td>6.82*</td>
</tr>
<tr>
<td>Patient Called Back:</td>
<td>6</td>
<td>24</td>
<td>24</td>
<td>96</td>
<td>27.00*</td>
</tr>
<tr>
<td>Time/Date:</td>
<td>1</td>
<td>4</td>
<td>20</td>
<td>80</td>
<td>29.64*</td>
</tr>
</tbody>
</table>

* p<.05

The proportions of compliant physician components were all increased with the implementation of the new message triage form. This area also showed that the differences between the old and the new form were statistically significant. The physician signature was only completed on 36% of the charts using the old form, and then doubled to 72% of the charts with the new form. The physician dating the form was done on 8% of the forms compared to 64% of the forms with the implementation of the new form. The largest difference was the patient being called back and then the triage nurse or physician documenting the time and date in which that occurred. The percent of patient being called back increased to 96% from 24%. The increase for time/date was 4% on the old form and 80% on the new form.
Summary

This chapter demonstrates that all of the proportions of completed documentation did increase using the new form, and when the Pearson Chi-Square analysis was done, the only variables that were not statistically significant were the name of the caller, the date that the message was taken, date of the next visit and the legibility of the handwriting. The increases in compliance for all other variables on the new message triage form were statistically significant.
Chapter 5

Discussion

This chapter provides a discussion of the results of the research study. Orem’s model was used as the conceptual framework for this study. Conclusions will be drawn and limitations of the study will be addressed. The implications for nursing practice, education and theory are provided and recommendations for future research are explored.

Findings

The findings of this study add to the current literature because changing a documentation tool that is part of the permanent medical record is not a simple task. Evaluating the outcome of that effort is worthwhile. Revising the form with instruction and teaching to the staff, led to an increase in complete documentation for all information needed during telephone triage. When examined further for statistical significance, the only changes that were not statistically significant were that of the name of the caller, the date of the next visit, and the legibility of the triage nurses’ handwriting and the date of the message. The purpose of this study was to examine if there was a significant difference in the number of completed nursing triage documentation forms before and after implementation of the new, concise form. The outcomes of this research show that there was a significant increase in complete documentation for nearly all of the information. The findings of the present study are consistent with Orem’s (2001) Self Care Deficit Theory of Nursing. Nursing documentation is a part of nursing agency. In this study, the nurse performed the telephone message documentation to promote well-being. By improving the accuracy of completed information on the message triage
documentation form, the nurse will help the patient meet their therapeutic self-care demand more effectively.

**Limitations**

A limitation of this study is that the same personnel that used the initial triage documentation form may be using the revised form. A second limitation is that there have been process changes that may or may not have affected documentation of that which are outside of implementing a new form. For example, prior to my study a process change occurred which now only allows a licensed practical nurse or a registered nurse to fill out the message triage form. Before implementation of the new form, telephone triage was being done by clerical, medical assistants, licensed practical nurses and registered nurses.

**Implications**

The role of the advanced practice nurse (APN) is evolving, challenging the APN to be involved in the development and implementation of patient care standards. Advanced practice nurses must have input into decisions involving the process of documentation. Adequate and complete documentation is crucial when determining treatment. The new, more concise message triage documentation form is helpful in clinical practice. Another consideration is that the new form is convenient for the staff to use and it is readily accessible. The form is a way of monitoring data collection which is important to evaluate when discussing documentation issues.

**Recommendations for Further Study**

1. Replication of the study over a longer period of time in order to obtain a larger sample.
2. Examination of other influencing variables, for example a registered nurse versus a licensed practical nurse, versus a medical assistant when completing the documentation.

3. Positive reinforcement to the triage staff, as well as education on the importance of using the new message triage documentation form to improve patient care and communication amongst all members of the health care team.

4. Examination of the costs and patient outcomes associated with more complete documentation.

Summary

This study evaluated if there was a significant difference in the number of complete nursing triage message forms before and after the implementation of a new more concise form. The proportions of completed documentation of required information did increase with implementation of the new form. When analyzed for statistical significance, all were significant except for obtaining the name of the caller, the date of the next visit, the date of the message and the legibility of the handwriting. These variables did approach statistical significance.

Improving documentation can promote effective communication among all healthcare providers, improve satisfaction among staff members and most importantly improve the care provided to patients, which will increase the satisfaction of the patient. This study did show that the implementation of the new form increased the documentation of the required information.
References


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MEDICAL UNIVERSITY OF OHIO HOSPITAL

TELEPHONE MESSAGE TRIAGE MESSAGE FORM

MRN#_________________  Pt. name_________________

CLINIC: ___________________  DOB ___________________

Date_________ Time_________

Doctor_____________________

Caller _____________________  Phone Number_________________

Date of Last Visit: ____________  Date of Next Visit: ____________

MESSAGE______________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Medicine Refills: Y/N  Dose:  How Taken:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Pharmacy: ___________________  Phone Number: _____________

Time/Date_________________________  Signature_________________

ACTION TAKEN:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Time/Date: _______________  MD Signature_____________________

Chart Reviewed: Y/N

Date/Time Patient Notified: _______________

Notified By: ______________________________
TELEPHONE TRIAGE DOCUMENTATION

___ Name of Caller
___ Phone number of caller
___ Name of patient
___ Phone # of patient
___ Date of last visit
___ Date of next visit
___ Signature and title
___ Date of message
___ Time of message
___ Physician notified
___ Physician signature
___ MD dated
___ MD timed
___ Actions completed
___ Patient notified of changes/call returned

If the element is documented, mark the line with a Y. If the element was NOT documented, mark the line with a N.

Triage person:   ___ MA
                 ___ RN
                 ___ LPN