DOCUMENTATION OF NURSING CARE
CURRENT PRACTICES AND PERCEPTIONS OF NURSES IN A TEACHING HOSPITAL IN SAUDI ARABIA

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Assignment presented in partial fulfilment of the requirements for the degree of Master of Nursing at Stellenbosch University

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DECLARATION

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

Nursing documentation is the written evidence of nursing practice and reflects the accountability of nurses to patients. Accurate documentation is an important prerequisite for individual and safe nursing care. It is a severe threat for the individuality and safety of patient care if important aspects of nursing care remain undocumented. Nursing staff cannot rely on information that is not documented. Every patient is important and unique hence every patient's care is individualised and different according to his/her needs. This is why important aspects of his/her care need to be documented. Ultimately, the documentation practices reflect the values of the nursing personnel (Isola, Muurinen and Voutilainen, 2004:79-80).

The goal of this study was to investigate documentation of nursing care with reference to current practices and perceptions of nurses in a teaching hospital in Saudi Arabia

Specific objectives of the study were:

- to identify whether the hospital policies are being carried out
- to identify whether the procedures regarding current documentation are being carried out and
- to explore the perceptions of the nurses regarding the current documentation practices.

Research Methodology

For the purpose of this study, a non-experimental descriptive design with a quantitative approach was used. The study was carried out at King Faisal Specialist Hospital in Jeddah in Saudi Arabia. The total population of 90 registered nurses were used in this study. Questionnaires were distributed to the participants and they were answered with no identities written on the questionnaires. After the questionnaires were completed, it was posted in a box and was collected by the researcher. The questions are straightforward, easily understood, unambiguous, non-leading, objectively set and aimed at obtaining views, experiences and perceptions of documentation of nursing care. . Involvement of participants was voluntary and non-coercive.

Data analysis were carried out with the support of a statistician, expressed in tables, frequencies and statistical associations were done between various variables based on a 95% confidence interval.

The study revealed that:

- Hospital policies are being carried out N=76 (95%)
- Procedures pertaining to documentation of nursing care are being carried out N=67(83,7%).
- Nurses N=45(56,3%) indicated that paper documentation included a lot of paperwork.
- The Cerner (computer system) is regarded as the best system ever used for documentation of nursing care N=44(55%)
- The Mycare system (medication ordering system) is regarded as the most reliable, user-friendly system and nurses are happy with it N=68(85%)

Recommendations are:

- Nurses still need to be taught about the hospital policies
- Nurses should be taught the correct procedure on documenting the patient data
- Nurse clinicians and managers should check the Cerner for compliance with regard to documentation of physical assessment when conducting audits
- Use of paper for nursing documentation should be minimized by shifting some of the nursing documentation procedures from paperwork to electronic version
- Continuous updating, in-service training and monitoring to keep nurses abreast with the dynamic nature of computer usage
- Reviewing of the system, troubleshooting and suggestions from users need to be attended to on a continuous basis
- It is recommended that a backup system (generator) is in place to ensure continuity of documentation

SAMEVATTING

Die dokumentering van verpleegsorg is die skriftelike bewys van die verpleegpraktyk en weerspieël die toerekenbaarheid van verpleegsters teenoor pasiënte. Noukeurige dokumentering is ’n belangrike voorvereiste vir individuele en veilige verpleegsorg. Dit is ’n ernstige bedreiging vir die individualiteit en veiligheid van pasiënte-sorg, indien belangrike aspekte van verpleegsorg nie gedokumenteer word nie. ’n Mens kan nie inligting vertrou wat nie gedokumenteer is nie. Die versorging van elke pasiënt is belangrik en uniek. Dit is waarom belangrike aspekte aangaande haar/sy versorging gedokumenteer behoort te word. Uiteindelik weerspieël die dokumenteringspraktyke, die waardes van die verpleegpersoneel (Isola, Muurinen en Voutilainen, 2004: 79-80).

Die doel van die studie was om dokumentasie van verpleegsorg met verwysing na huidige praktyke en persepsies van verpleegkundiges in ‘n opleidingshospitaal in Saudi Arabia te ondersopek.

Spesifieke doelwitte was

- om vas te stel of die hospitaal se beleidsrigtings toegepas word
- om vas te stel of die prosedure t.o.v die huidige dokumentering uitgevoer is
- en’n ondersoek na die persepsies van verpleegsters aangaande die huidige dokumenteringspraktyke

Vir die doel van hierdie studie is ’n nie-eksperimentele beskrywingsontwerp met ’n kwantitatiewe benadering gevolg. Hierdie studie was in King Faisal Specialist Hospital in Jeddah, in Saudia Arabia gedoen. ’n Totale bevolking van 90 geregistreerde verpleegsters was betrokke. Vraelyste was versprei na die deelnemers en is naamloos beantwoord, sonder dat hulle identiteite op die vraelys aangebring is. Na voltooiing van die vraelyste, is dit in ’n houer geplaas en deur die navorser afgehaal. Die vrae is direk, eenvoudig, maklik verstaanbaar, ondubbelsinnig, nie-afleibaar, objektief opgestel en is daarop gemik om gesigspunte, ervaringe en persepsies oor dokumentering van verpleegsters te verkry.

Betrokkenheid van deelnemers was vrywillig en nie afdwingbaar nie.

Data is getabuleer en in histogramme en frekwensies voorgestel. Deur die Chi-square- toets te gebruik, is statisties betekenisvolle assosiasies tussen veranderlikes bepaal.

Bevindinge sluit die volgende in:

- Die hospitaalbeleid word toegepas N= 76(95%)
- Prosedure t.o.v. dokumentering aangaande verpleegsorg word uitgedra N=67(83,7%)
- Verpleegsters het aangedui dat dokumentering op papier, baie papierwerk behels N=45(56,3%)
- Die Cerner (rekenaarstelsel) word beskou as die beste stelsel ooit in gebruik vir die dokumentering van verpleegsorg N==44(55%)
- Die Mycare stelsel (medisyne bestellingstelsel) word beskou as betroubaar en gebruikersvriendelik, en een waarmee verpleegsters gelukkig is N=68(85%).

Aanbevelings is gemaak, gebaseer op die volgende bevindinge:

- Dit is steeds nodig dat verpleegsters die hospitaal se beleidsrigtinge geleer moet word
- Verpleegsters moet die korrekte prosedure aangaande die dokumentering van die pasiënt se data geleer word
- Verpleegklinici en bestuurders moet die Cerner nagaan ter voldoening van die dokumentering van fisiese waardebepalinge tydens ouditeringe
- Die gebruik van papier vir verpleegdokumentering behoort afgeskaal te word deur van die praktyk van papierwerk na elektroniese dokumentering te skuif
- Voortdurende bywerking van data, indiensopleiding en monitering van verpleegsters om hulle op die hoogte te hou van die dinamiese aard van rekenaargebruik
- Hersiening van die stelsel, foutspeurdery en voorstelle van gebruikers moet op ’n voortdurende basis aandag geniet.

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SCIENTIFIC FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Recording is essential for nursing practice and it is an attempt to reflect the nursing process and to underpin the decision-making process. Systematic and purposeful documentation itself produces evidence. Thus, as a result of nursing care documentation, valid and reliable evidence of caring is produced on a daily basis. It is not however, self evident what kind of documentation and what documented items can be considered as proof or evidence (Erickson and Karkkainen 2003:199).

According to Ehnfors and Ehrenberg (2001:303), the patient record is naturally a vital parameter in health care. The record is used as a basis for care delivery, for communication between practitioners and institutions and as a document to ensure continuity of care. The care-givers need access to reliable information and an appropriate care plan for the patient. In addition, there are increasing demands for aggregated data from the records to serve other purposes, such as allocation of resources, assessment of the quality of care, research and health policy decisions.

This study is about the documentation of nursing care practices and procedures as well as the nurses' perceptions regarding documentation practices in use. Documentation of nursing care is a very important aspect of every nurse's job as the old saying goes "if it is not documented it is not done". What is documented provides evidence of what has been done and also gives an idea to an interested person concerning the medical condition of the patient.

1.1.1 Rationale

All nurses are aware of the importance of recording their plans of action and the actual implementation of care. This was traditionally done as part of an extensive paper-driven system. To improve efficiency and quality of patient care, hospitals worldwide are increasingly relying on computer technology to improve not only efficiency but also accuracy in various fields of health care, including documentation systems. Electronic-documentation provides real time access to the patient records, thus the health care worker can constantly and immediately be aware of the condition, needs and problems as they arise. There are clearly

illustrated clinical alerts of various changes in the patient's condition that can be noted immediately. Decisions made at the end-point of care provide the most current patient information and contribute to high quality of care. Another advantage is that information is entered only once, and if the data-base is correctly structured, and the same information is needed elsewhere in the record, it will immediately provide a link to that page. Other advantages mentioned in the literature, are that it prevents mistakes due to unclear handwriting, signatures not legible and other variances in the format nurses use when documenting care (Aydin, Eusebio-Angeja, Gregory, and Korst, 2003:26). It can thus be said that there are definite advantages to electronic documentation versus traditional paper-driven documentation systems.

There are different views pertaining to the attitude of nurses towards the use of computers, which cannot be generalized as being positive or negative. Some of the researchers decided to assess nurses' attitudes both pre and post implementation of computer systems. Among variables examined, were factors influencing computer acceptance, such as users exposed to computers before and users who were not exposed to computers. According to Krugman, Oman, Smith and Smith (2005:133), positive attitudes among the nurses were associated with prior experience with the use of computers. However, researchers also stated that pre and post computer implementation studies showed contradictory findings because some of the studies they looked at showed a more positive attitude than others. Furthermore, they identified an improvement in documentation of care although this was demonstrated over time with repeated measures.

It is generally believed that improved accuracy and quality of documentation, efficiency in communications and better accessibility to and retrieval of data are benefits of clinical information systems. Aydin, Eusebio-Angeja, Gregory and Korst's study (2003:28), also agreed that, to improve efficiency and quality of patient care the hospitals are increasingly relying on computer technology. In their study they focussed solely on the maternity section's labour and delivery in which the system was used to continuously monitor uterine contractions and foetal heart rate. It allowed the user to chart the progress of labour, including interventions at the bedside computer or at any computer on the unit that is part of the system.

Many of the users initially expressed concerns that the new computerised method of charting would be more time consuming and would detract from patient

care. This study was done during the transition from paper to computer charting, during a time when the nurses were still charting both by paper and computer. They found that less time was spent charting electronically with the use of the computer than by paper. The use of the system was enhanced further by the actual physical position of the computers. Computer workstations had been deliberately placed at the bedside to encourage nurses to stay with the patients in labour. The nurses therefore could not complain that the computers kept them away from the patients. They found that switching to a computerised documentation system enabled nurses to spend less time on documentation and more time on direct patient care. Nurses could also update care plans easily (Aydin, Eusebio-Angeja, Gregory and Korst, 2003:28-29). It can thus be said that there are definite advantages to electronic documentation versus traditional paper-driven documentation systems.

In Sweden documentation of nursing care is a legal issue. For the purpose of supporting documentation, clinical decisions and evaluation of care, an electronic patient care records system was introduced into primary health care. In a study carried out by Tornvall, Wahren and Wilhelmson (2004:310), the Swedish government initiated a Swedish Patient Record Act which regulates that the reason for giving care, the judgements made, interventions administered and the outcome of care should be documented for the safety of the patient and the possibility of evaluating the care. Nursing care is legally equivalent to medical care.

In this particular study of Tornval, Wahren and Wilhemson (2004:310), the implementation of the electronic patient record involved new knowledge of the nursing process documentation and new technology about the use of a computer. The emphasis was on the nurses' experiences, the nursing process and the use of the keywords they documented. From the results they (Tornval et al. 2005:315) supported their findings with the following reasons:

- Firstly the introduction of the electronic patient record involved three new areas to learn and understand simultaneously – the nursing process, the structural form of documentation and how to use a computer. The feeling of satisfaction could be derived from the sense of mastering the skill, that is, being able to control the new technology and document more comprehensively than before. It is possible that the skill of documenting

nursing care had, however been pushed into the background by the nurses due to the emphasis on having to learn how to handle a computer instead of having the possibility of concentrating on and developing the nursing record.

- Secondly the electronic patient record used in the area did not give the general view desirable from a nursing aspect, the medical diagnosis and treatment dominated instead. Perhaps the documentation under the keywords nursing history and nursing status was incomplete.
- Thirdly the role of the Swedish nurse in primary health care could both facilitate and inhibit nursing documentation. The district nurse makes independent judgements regarding treatment. However, the attribute of the district nurse's role as a coordinator with a comprehensive view of the patient's life situation should encourage her/him to describe the patient's situation as she/he perceives it.
- Fourthly, resistance to the district nurse's documentation from the general practitioners, who found the nursing documentation too extensive and difficult to obtain information from, could influence the documentation of nursing care negatively. But if one reflects over the saying "if it was not documented, it was not done" a great part of the district nurse's work therefore may not exist. The district nurses in this study found several advantages in structured documentation.

There is a need for support and education of nurses to strengthen their nursing identity and make them aware of the value of a wider use of documentation. This could on the other hand lead to a predominance of documentation of nursing facts instead of medical care.

According to Turpin (n.d:61-62), since the advent of computers in health care, nurses have explored the capability of automating the documentation of care. In the early years according to Turpin there was an effort to take the forms that were used in the manual process and "import" these into the computers.

Be it electronically or manually the fact remains that documentation of nursing care has to be meaningful, clear, tangible and unambiguous. As a communication strategy documentation has to have an ability to send a clear message across to the next person reading what is written. A nurse has to always bear in mind that it is the same documentation of nursing care that will be referred to months or years later, should there be a need to testify and review the same documentation that she or he has written. However nurses' documentation serves not only to communicate information to others, but also has a political function as a

presentation of what is important and ethically "right" to report (Buttler, Irving, Hyde, Macneela, Scott and Treacy, 2006:151).

According to Erickson and Karkkainen (2005:203), nursing care needs a clearly formulated theoretical basis which is based on consistent recorded caring as scientific knowledge. Without a clear vision of what problem is experienced by the patients and in what way knowledge that accumulates about care is passed on, there is the risk that the documentation of patient care serves other interests and demands than those of caring and nursing. There is also some danger that the classified recording of care will focus too much on administration and technology, and that the reality that should be documented is forgotten.

Erickson and Karkkainen (2005:203) further state that documentation is of central importance for the results of patient care and for showing the content of nursing. If written notes are not made of the nursing care, it is also impossible to verify on what grounds decisions and actions related to nursing care have been based. The assumption has been that what the nurses have not recorded, they have not done either. According to studies evaluating nursing care documentation the nurses record more matters connected with the patients' medical treatment and admission assessment as well as nursing interventions than caring of the patients. In spite of attempts, no agreement has been reached on how nursing care could be made visible in documentation.

The human being is an entity of body, soul and spirit. Therefore it is of utmost importance that the human being is cared for as a whole entity and that the care is documented from the point of view of the patient's holistic situation. The main goal is health, even if in different stages of the process of caring several such aims may be set down which are indirectly related to health. The aim of caring is to help the patient to attain as much good health as possible. Health does not mean absence of illness, for health and suffering or illness is part of life. Caring and nursing originate in the desire to alleviate this suffering (Karkainnen and Erickson, 2004:268).

From an ethical point Erickson and Karkkainen (2005:203), further elaborate that documentation of nursing care is to form a basis for the patients' inviolability and for the respect and preservation of their dignity. The way in which the care is recorded reveals the values of the recorder and her view of human beings. When the nurses genuinely say that they respect the patients and their decisions, they

simultaneously confirm the patient's dignity as a human being. By recording the patient's wishes and needs regarding how they want to be cared for, the patient's views are made visible. Thus also the things that the patient regards as important will be revealed. The patient's or the significant other's view and experience of the care will be revealed by using straight citations of their own expressions.

Bailey and Howse (1992:372), in their research study on resistance to documentation stated their concern as being based on a common view that quality and continuity of patient care can be threatened if essential facts about patients are blocked. Faced with a chronic communication problem, hospital managers have implemented corrective measures to resolve it, but with limited success. Breakdown of communication is of particular concern to nursing management since much of the duty for clinical communication is assured by nursing staff and because they (the nurses) are the only professional group that maintain continuous service for patients over the 24 hour period. Further they assume responsibility for a large amount of documentation or charting as they attend to all aspects of patient care. Indeed nurses spend 38% of their day in activities that involve transmitting information through nursing care plans and nursing notes. Given this demand for charting and the constant rotation of staff, one-to-one communication is not feasible. Therefore, critical information must be written down and permanently stored. It is imperative then, that there be commitment and compliance among nurses if effective communication is to occur. Charting is often seen as taking priority over "hands-on care" that nurses regard as purposeful use of their time and while most nurses will acknowledge the merits of documentation, few will see the task as rewarding or completely performed.

Involvement of patients in their nursing care is critically important. In the study carried out by Bondas, Erickson and Karkkainen (2005:128), it has been identified that the patients and their views were seldom referred to in the documentation of nursing. The reason for that was not necessarily nurses' lack of knowledge or their unwillingness to record from a patient-centred point of view, but might have been because nurses chose to record matters connected with medical treatment rather than with caring. Recording patient care was reduced to parts of the body and to physical functions. The nurses did not always seem to be aware of the patients' need for care. Nurses also preferred recording positive rather than negative matters. On the other hand, they did not always record all the knowledge they had of patients. If the patients did not participate in the planning of their care,

any problems specified with regard to patients or nursing diagnosis did not necessarily define patients' state. Rather they defined the nurses' perception of patient state or a need chosen from a classification. There is a tendency within a nursing profession to move away from the traditional focus on basic nursing care towards more instrumental and technological nursing.

Bondas et al. (2005:128) therefore suggest that, by documenting nursing care in a patient-centred way, together with the patient whenever this is feasible, it will be possible to reveal the substance of patient care and to obtain an accurate record of what nurses do. Documentation may also be obstructed by the fact that nursing care has not yet created a distinctive image for itself as a scientific area with clear principles based on its own knowledge base. Bondas et al. caution if nursing is centred around values foreign to it, this could cause confusion and even opposition among nurses, which may also result in reluctance to documenting nursing care.

According to Teytelman (2002:122), the purpose of documentation is to promote communication among health care providers and to promote good care. Documentation informs other staff about the patient's health status and care provided. Moreover documentation is used by the system's risk management department and quality assurance committees to evaluate patient care and to determine whether improvements should occur. Documentation is also used by third party payers to determine if and when they will pay providers for the care of the patient. It is also used by researchers in health care and for initial and continuing of licensing grants by health care administrative agencies. Documentation serves to meet legal and professional standards.

Teytelman further explains that if the nurse has not met these standards, this can result in harm to the patient because important information regarding statements and valuable observations can be overlooked. Consequently this may result in poor documentation being used by a patient's attorney in a lawsuit. Secondly a nurse-expert witness for the patient may use poorly kept nurses' notes as support for the conclusion that the patient was poorly monitored by the nursing staff. Lastly a jury may correlate a sloppy, disorganised record with sloppy, disorganised care. Some studies indicate that one in four malpractice lawsuits are decided by information in the patient's record.

Therefore a lack of documentation can be as grave for both the nurse and the patient as inaccurate or confusing documentation. Nursing is not complete until the care has been properly documented and the old saying "if it was not documented, it was not done" applies with strong force today. While incomplete or inaccurate documentation can be used by a patient's attorney in a lawsuit, accurate, complete and legible documentation can be a nurse's best defence in a potential lawsuit (Teytelman, 2002:123).

Tapp (1990:234) in her study on inhibitors and facilitators to documentation of nursing care practice found that the majority of subjects described a dilemma between documentation and caring for the patients. Most believed that documentation is done at the expense of patient care time. Many participants stated that they created time for documentation by omitting meal breaks, staying over after the shift or omitting the psychosocial nursing assessments and interventions. To grapple with the lack of the time issue, one subject described his charting a "reader's digest note". He further explained that a "reader's digest note" is merely words on paper without supporting evidence for reporting stability or instability of patient condition.

Tapp's study concerning facilitators doing documentation mentioned a theoretical framework. The nurses were enthusiastic in praise for the efficiency that the structure of a theoretical nursing framework brought to documentation. They reported that the use of a discreet vocabulary describing patient problems amenable to nursing simplified and coordinated care and documentation. Positive reinforcement from another facilitator could be illustrated when a nursing supervisor gives praise and positive comments concerning the documentation. Interesting or gossipy information also facilitated documentation. If a patient is noncompliant, uncooperative or refuses therapy, it is often recorded. One subject commented that the only time a nurse charts care is when a patient has refused something or is being difficult.

Generally in Tapp's study nurses agree that documentation is important legal evidence that nursing care provides and that without a written record, nursing is legally indefensible. However, redundancy of forms, repetitive data records and imprecise language contributed to a lack of accurate documentation. Nurses who work with a theoretical model of nursing practice express enthusiasm for the specific terminology and structure it provides. A theoretical model describes a patient's nursing needs and problems more clearly, therefore, documentation is

more organised and less difficult. Documentation of nursing practice is necessary to define practice and to provide evidence that nursing care occurs. Effective and accurate written communication is the link from clinical practice to research and education.

Involvement of the patient in his or her nursing care as evidenced by nursing care documentation cannot be emphasised enough. Erickson and Karkkainen (2004:272), suggest that the best way to document the patient's conceptions of a situation is to use the patient's own words. Including the patient's viewpoint in the documentation yields important evidence for caring and nursing care, so that the visibility of caring will be assured in the future as well. Examining the documentation of caring and nursing on the practical level, it is important that the nurses have a common theoretical basis. When the concepts used originate from a common theoretical foundation, the creation of a consistent structure of nursing care documentation is possible. Without a clearly expressed theoretical basis, caring science cannot purport to be an independent domain with its clearly defined and expressed basis for its activities.

Erickson and Karkkainen (2004:229), in another study on documentation on the basis of the process model stated that the advantage of the process model from the standpoint of the documentation of nursing care, is that it provides a logical structure for recording, which guides the nurse to document systematically and purposefully. The nursing process is also for its part regarded as creating a basis for professional nursing. The ongoing computerisation of nursing care documentation makes the discussion of the nursing process particularly topical, because it has been regarded as the most suitable for the computerised structuring and classification of documentation of nursing care. Depending on the nursing science frame of reference, the nursing care process and its documentation can be understood in many ways. It can for example, be seen as a description of the tasks of the nurses, as a method of solving problems and making decisions and as a theoretical or philosophical model of thinking, describing caring as a whole.

The documentation of nursing care is always linked to the nurse's internalised values, which are the nurse's conscious conception of human beings and their human status. This is why the documentation of care, in accordance with ethical principles, should be based on the inviolability of the patient's human dignity and its preservation. Respecting the patients and their opinions imply that the nurse

also records such matters which the patients consider important, even if the nurse disagrees. The documentation should not reveal the nurse's own viewpoints, but should reflect the patients' hopes and needs with respect to the way in which they wish to be cared for. Nursing care documentation should consist of information about the patient on admission, final evaluation, the discharge plan and nursing referral based on evaluation (Erickson and Karkkainen, 2003:201).

There are acts or procedures that serve as guidelines and are mandatory for a South African registered nurse to comply with. Among those acts is documentation of nursing care whereby a nurse is expected to document her care given to the patient. It is advised that a registered nurse in his or her daily professional practice remembers her scope of practice to be able to perform his or her duties legally and efficiently, The registered nurse must have had sufficient training and supervision to be able to do any procedure or act that is out of the scope of practice, especially given the fact that some of the health practice institutions may expect nurses to be able to do functions that may not be covered in their scope of practice. (South African Nursing Council regulation R2598 of 1982, Chapter 2).

In chapter 2 of the South African Nursing Council's regulation R387 of 1985, there are acts or omissions set out in respect of which the Nursing Council can take disciplinary steps against a registered nurse.

1.1.2 Practice

Wilful or negligent omissions to carry out such acts in respect of diagnosing, treating, caring, prescribing, collaborating, referring, coordinating and patient advocacy as the scope of practice of the registered nurse permits, could lead to disciplinary steps.

Wilful or negligent omission to maintain the health status of the patient under his care or charge, and to protect the name, person and possessions of such a patient through:

correct patient identification
determining the health status of the patient and the physiological responses of the body to disease, condition, trauma and stress
correct administration of treatment, medication and care
the prevention of accidents, injury or other trauma

the prevention of the spread of infection

the checking of all forms of diagnostic and therapeutic interventions of the individual

specific care and treatment of the very ill, the disturbed, the confused, the aged, infants and children, the unconscious patient, the patient with communication problems, the vulnerable and high risk patient as well as the monitoring of all the vital signs of the patient concerned

to keep clear and accurate records of all actions which he performs in connection with patient

purporting to perform the acts of a person registered in terms of the Medical, Dental and Supplementary Health Services Professions Act, 1974 and Pharmacy Act 1974, unless the nurse is also registered in such a capacity.

1.1.3 Legislation with reference to Documentation in South Africa

1.1.3.1 Nursing care plan

"Immediately the patient is delivered into the nurses' care the registered nurse (not enrolled personnel) must prepare a nursing care plan based on correct identification, meticulous history taking, careful physical examination, consideration of the medical diagnosis and treatment and medical judgement. A clearly defined plan for intervention, evaluation and recording is essential. The practitioner must ensure that all findings, actions, observations, reactions, interactions, decisions and any untoward occurrences are meticulously recorded. All care must be planned according to individual needs. The practitioner must practise her independent professional judgement with care and where necessary, must adapt (and not disregard) institutional policy, nursing routines, procedures, psychological approaches and standing guidelines to the needs of the patient. Where necessary she must make environmental changes to meet the needs of the patient and where improvisation is necessary, she must ensure safe methods and materials. Co-ordination of care given to the patient by other health professionals must be effected meticulously", Searle (2004:200).

The importance of record keeping cannot be over emphasized, Pera and van Tonder (2004:51) caution that legal claims can be instituted against a nurse months or years later, a nurse must at all times document accurately and completely because inaccurate and incomplete records are evidence of a nurse who is negligent. According to the South African Nursing Council Act 33 of 2005 a nurse may be disciplined if found negligent for not recording his or her nursing care.

1.2 PROBLEM STATEMENT

The literature reveals definite advantages and disadvantages of changing the documentation system to the electronic format (Krugman, Oman, Smith & Smith, 2005:135). The use of electronic documentation systems in a specialist hospital in Jeddah, Saudi Arabia, has been initiated since the opening of the Hospital. It is a known fact that any new system takes time to be successfully implemented. A phase in approach was applied resulting in a dual system for a period of time specifically related to documentation. Currently part of patient information is still being recorded on paper, while other information is directly electronically recorded.

In the light of the above the researcher suspects that the nurse as end-user of electronic documentation will experience problems with electronic documentation and resistance to change with reference to documentation.

1.3 RESEARCH QUESTION

The researcher has therefore set the following questions as a point of departure for the research.

Are the procedures and practices regarding electronic documentation in the hospital being executed? How do nurses experience the electronic system?

1.4 GOAL

The goal of this study is to investigate documentation of nursing care with reference to current practices and perceptions of nurses in a teaching hospital in Saudi Arabia.

1.5 OBJECTIVES

To identify whether the hospital policies are being carried out

To identify whether procedures regarding current documentation are being carried out

Explore the perceptions of the nurses regarding the current documentation practices.

1.6 RESEARCH METHODOLOGY

1.6.1 Research Design

A research design is a blue print for conducting a research study. It maximizes control over factors that could interfere with the study's desired outcome. The type

of design directs the selection of a population, sampling procedure, methods of measurement and a plan for data collection (Burns and Grove, 2001:47).

A non-experimental descriptive design with a quantitative approach will be used. The study will be carried out in King Faisal Specialist Hospital in Jeddah in Saudi Arabia.

1.6.2 Population and sampling

There are 10 wards available in the hospital with a. total population of ninety (90) registered nurses working in these wards. For the purpose of this project the registered nurses working in these wards will form the target population and all the registered nurses will be included in the sample.

1.6.3 Instrumentation

A structured questionnaire will be used to collect data. The questionnaire will enable the researcher to determine whether the hospital policies and procedures are carried out, to identify problems and whether the nurses are experiencing electronic recording of nursing care positively.

The questionnaire will consist of both closed and open ended questions. The questionnaire will be divided into sections.

1.6.4 Data collection

Data will be collected through the use of a questionnaire. Participants will only be registered professional nurses. The collection will take two weeks to be completed. The researcher will collect data personally.

1.7 DATA ANALYSIS AND INTERPRETATION

A statistician will be used to assist with the data analysis with the use of a computerized statistical programme. The researcher will also determine associations between variables using the chi square tests.

Quantitative information will be presented as percentages and numeric data in table format. Qualitative information will be analysed by identifying core themes and sub-themes and then quantifying it.

1.8 RELIABILITY AND VALIDITY

The reliability and validity will be supported by a pilot study, the use of experts in the fields of nursing, statistics and research methodology. The pre-tested questionnaire will be checked for inaccuracies and ambiguity to ensure that it measures exactly what it is supposed to measure.

1.9 PILOT STUDY

A pilot study is commonly defined as a smaller version of a proposed study conducted to refine the methodology. It is developed much like the proposed study, using similar subjects, the same setting, the same treatment and the same data collection and analysis. Burns and Grove (2001:49-50)

The pilot study will be done prior to the collection of data itself under the same circumstances as the actual study. The questionnaire will be tested for inaccuracies and ambiguity. 10% (9) registered nurses will be used in the pilot study. These nurses will not form part of the actual study.

1.10 ETHICAL CONSIDERATION

According to Basson and Uys (1991:96) nursing research must not only be able to guarantee or refine knowledge, but the development and implementation of such research should also be ethically acceptable. The ethical acceptability of the research should apply first of all to the people directly involved in it, but also to the people involved in carrying out the research.

For the purpose of this project consent will be requested from the Chief of Nursing Affairs at King Faisal Specialist Hospital in Jeddah in Saudi Arabia and the Committee for Human Research at the University of Stellenbosch.

Informed written consent will be obtained from each participant. Participation will be voluntarily and without any coercion (Annexure A). The aim and the reason for the study will be explained to the participants. Anonymity and confidentiality will be ensured.

1.11 STUDY LAYOUT

In chapter 1 the rationale, research questions, objectives and aspects related to the research methodology will be described. Furthermore the general layout of the study will be covered in this chapter.

In chapter 2 an overview of the literature study will be described.

In chapter 3 the research methodology is described which includes the research design, research questions, instrumentation, data collection, ethical considerations, pilot study and data analysis.

In chapter 4 data analysis and interpretation of the data will be described.

In chapter 5 results and recommendations based on the findings of the study will be described.

1.12 CONCLUSION

This chapter provides the motivation and the scientific foundation for the research study. The background to the study of the documentation of nursing care, current practices and perceptions of nurses are addressed. The objectives and the problem statement are highlighted followed by the format of the five chapters. The following chapter provides an in-depth theoretical framework for the secondary data.

1.13 OPERATIONAL DEFINITIONS

ADLS – activities of daily living.

CNS – central nervous system.

CERNER – computer system used to document patients' vital signs.

FACT SYSTEM – factual accurate completeness and timely.

GIT – gastro intestinal tract.

MYCARE SYSTEM – electronic medication ordering system.

OVR – occurrence variance report .

VIPS – wellbeing integrity prevention and safety.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

Documentation is a professional and legal issue which has been adopted by all nurse training institutions throughout the world. It is a fundamental concept which already starts in the foundation phase of the profession and is emphasised continuously throughout the student nurse's training and beyond.

Some of the articles in the literature have discussed such concepts as prerequisites, facilitators and consequences of sound professional nursing documentation. Different researchers have portrayed different points of arguments when it comes to nursing documentation. Some of those perspectives have been grounded on concepts like institutional policies, legal connotations, perceptions and attitudes of nursing staff and quality of nursing documentation.

Regardless of a researcher's point of argument it has been noted that a large percentage of reviewed articles show that most research participants perceived nursing documentation as a good, mandatory, important aspect of patient safety, is beneficial, facilitates nursing care and is a very good mode of communication not only among professional nurses, but with other members of the multidisciplinary fraternity as well.

In this chapter the benefits of nursing documentation, advantages, attitudes toward nursing documentation, some theoretical perspectives and different forms of nursing documentation will be discussed. Shortcomings, guidelines or suggestions on nursing documentation are some of the concepts which a current researcher has reviewed in some of the research articles. Both negatives and positives covered in different reviewed articles should therefore act as a strategy to educate nurses regarding documentation covered by this research as a whole.

When documentation is accurate, individual, pertinent, non-judgemental and up to date, it promotes consistency, understanding and effective communication between health care providers. Nursing documentation is an essential element of professional practice, the role of which is to ensure the quality of nursing care rendered. For instance a nursing care plan — illustrates the patient's present chief complaint then follows other complaints, nursing history and assessments. All of these aspects form the basis from which a patient's hospital stay will be focused

on from a nursing perspective. The primary purpose of documentation of nursing care is to ensure individuality and continuity of care.

2.2 THEORETICAL PERSPECTIVE

Karkkainen (2004:268) did a theoretical study on documentation of care in which she started off by stating that the attitude of caring depends on the approach to the basic questions of existence or ontology. The ontological underpinning of her theory are ethics that are based on a conscious ethical view of caring reality, with regards to minor matters and complex or major matters. It is of central importance that human beings are cared for as body, soul and spirit and not just with respect to some part. When a human being is cared for as a whole, the essence of the caring is that there is respect for dignity, which is founded on the quality and integrity of each person. Human dignity is also based on letting each human being make individual choices and protect him or herself from infringement. Ethical care thus means accepting other human beings or patients as they are.

Information recorded in this way will be patient centred instead of having the main interest focused on to what the nurses do. The intermediaries of the substance of caring will thus be the concepts and words which describe the various dimensions of caring. The concepts used will reflect the recorders' ethical principles and their conception of human beings and the world.

Heartfield (1996:100) in her discourse analysis of nursing documentation states that, the discursive properties of the texts were: emphasis on bodies, body parts, bodily functions, health and self "deficits" writing for particular audiences, patient observation, nursing outcomes, dominance of the voices of the doctors, with a coinciding absence of the patient's or family's voices and objective language that filters subjective information or shared understanding of the hospital experience of the patient. They are read as discourse of nursing documentation that frames nursing in particular ways.

2.3 DISCOURSE ANALYSIS OF NURSING DOCUMENTATION

2.3.1 Patients as objects

The hospital and more especially the patient record becomes the surface of emergences for the object of patient. The person enters the hospital as an individual, through the process of being written about, the person loses the encumbrance and complex of his or her life and is transformed to patient. This

object status given to the patient makes it manifest, nameable and describable. The individual is highly visible and able to be categorized, identified and compared to others. A ‘65 year old alert female admitted for worsening muscular dystrophy', is by the end of the first page of her admission notes categorised as mobile, with pain control and a safety concern (Heartfield, 1996:101).

There is a focus on body parts within nurses’ writing. Many entries in the patient record reveal a systematic non-acknowledgement of the patient as more than an object. This objective language creates the focus on the parts of the person. The patient is composed of potential problems deficits, functions and symptoms. According to Heartfield (1996:101) the patient is constructed as both object and subject of documentation. The separate parts and problems form the object of judgement, observation and measurement. It is this objectification and categorisation that makes the individuals subject to the knowledge that others have developed. The patient is constituted as more than these parts.

2.3.2 Patients as subjects

Heartfield (1996:101) explained that following an admission the individual is subjected to the rituals of examination and treatment. Part of becoming a patient means that they lose their identity. They are rarely referred to by name but are given descriptive labels such as "patient" or "59 year old man". Through this process they become the silent recipient of the hospital regime. Patients have a subjective role but it is the speaking subject that discourse is concerned with and being discursively made silent, the patients become objects. Heartfield further states that the patient concept is formed by discourse.

The discursive elements unite to construct patients as a passive collection of systems, parts and functions, ADLS (activities of daily living), CNS (central nervous system), GIT (gastro intestinal tract), the list goes endless. Despite the choice of heading with which to classify the patient, the overall concept of the patient does not change. The patient is constructed as a fragmented body. These headings indicate different ways of ordering patients and their problems or deficits but any selection from this list indicates a conceptual relationship between the ways of describing the patient as an element of discourse.

2.3.3 Holism

What is written by nurses in the patient records refers to the patient's body as reduced to parts and functions. In writing about the patient's body, the nurse does not simply write about the individual's body but it is the body in relation to the hospital, the disease, the alteration from the norm, the body as it requires nursing care / time / resource. A viewed concept of patient is presented through nursing documentation. Of all the nursing observations and actions, only fragments are documented. The fragments as body parts and functions are the body systems of medical science (Heartfield 1996:101).

The nurse as person, carer or often decision maker is hidden behind dominant rational forms of organisation that dictate documentation protocol. Nursing documentation functions to communicate the performance of medical orders and patient responses through very specific language. The dominant power of institutional, scientific, medical knowledge and processes are clearly evident in the way that nursing is mediated through the patient record (Heartfield 1996:101).

2.3.4 Power Relations

According to Heartfield (1996:102) the hospital is an examining mechanism, particularly through the use of documentation. Nursing documentation functions as a manifestation and ritual of power relations. Through the recording of nursing activities the patient and nurses are examined but communication occurs through a limited language. While the client as object becomes visible within the care-notes the nurse disappears.

Other professionals write clearly about their judgements and examinations. Heartfield's study revealed that the nurses write about observations and responses in a manner that is passive. Such intentions leave the record devoid of meaning as anything more than a record of information that assists the other health care providers. There is no apparent knowledge base that underpins what nurses are doing that differentiates from them assisting the doctor.

There have been quite a few articles on nursing documentation, some have been based on certain models. However the literature serves as a guideline to professional nurses when documenting, indicating what should be documented. It is of utmost importance for a professional nurse to know what to write especially when considering a sound professional nursing documentation.

2.4 DOCUMENTATION OF NURSING CARE

The most important purpose of documentation is to communicate to other members of the multidisciplinary team the patient's progress and general condition. Documentation of nursing care is also used when looking at the quality of care rendered to the client whilst he or she is in the capable hands of professional health care workers. According to Jual and Moyet (2004:9), there are other important reasons for having nursing documentation done in addition to what has been mentioned above.

The reasons are to:

- differentiate the accountability of the nurse from that of other members of the health care team
- provide the criteria for reviewing and evaluating care (quality improvement)
- define the nursing focus for the client or the group
- provide the criteria for client classification
- provide justification for reimbursement
- provide data for administrative and legal review
- comply with legal, accreditation and professional standard requirements
- provide data for research and educational purposes.

Karkkainen and Erickson (2003:199) suggested that recording is essential for nursing practice and is an attempt to show what happens in the nursing process and what decision making is based on. Systematic and purposeful documentation itself produces evidence. Thus as a result of nursing care documentation, valid and reliable evidence of caring is produced on a daily basis. It is not however, self evident what kind of documentation and what documented items can be considered as proof of evidence. The question of what can be regarded as evidence has indeed given rise to lengthy international debates in recent years. Knowledge and skills that cannot be measured are also needed, for example professional clinical skills and the patient's own experience must be taken into account. This kind of multidimensional understanding of nursing evidence gives the concept of evidence a novel content which is more compatible with nursing care.

Karkkainen and Erickson (2003:199) further acknowledged that a prerequisite for using nursing documents in evidence based nursing care is ensuring the quality of the documents. The quality of nursing care is evaluated retrospectively, assuming

that what has been recorded has been performed and that good documentation also indicates good care. Nursing care is evaluated by comparing the notes with approved standards. In the study carried out by Karkkainen and Eriksson (2003:199), they found that least attention was paid to nursing diagnosis and discharge summaries. The final evaluation of the nursing care process was often a copy of a note written by a physician. In the documents direct citations of patients' statements were very rare and only seldom were there any notes referring to patients' families. The nursing documentation indicated poor planning and evaluation of nursing care. There was no proof of nurses' ability to analyse information and draw inferences from it. A comparison of the information on nursing care provided by the nurses interviewed with the information recorded showed that they did not always match. The researchers therefore concluded that nursing care documents do not constitute a comprehensive source of information about the care that the patient has received.

In Sweden Bjorvell, Thorell-Ekstrand and Wreddling (2003:206), carried out a study using a VIPS model which is an acronym formed from the Swedish words for Wellbeing, Integrity, Prevention and Safety. Most of the participants perceived nursing documentation to be beneficial to them in their daily practice and to increase patient safety. The use of the VIPS model facilitates documentation of nursing care. The researchers were positive also that the inhibitors, facilitators and consequences of nursing documentation identified should help both registered nurses in practice and their leaders to be more attentive to the prerequisites needed to achieve satisfactory nursing documentation in patient records.

In this particular research it is said that the Swedish Board of Health and Welfare passed a regulation that mandated the nurses to document their nursing care. According to the regulation the documentation should describe the individual needs of the patient planned and executed interventions, evaluation and discharge notes – which comply with the nursing process. The VIPS applies both to electronic documentation and paper based documentation. Apart from this particular study there have been reports in other studies that registered nurses were complaining that the notes that were written were neither valued, nor accurate and that they were seldom read. Another argument was that the nursing process is based on a model of a one-to-one nurse-patient relationship whilst

nurses in most hospital situations have multiple patient assignments (Bjorvell et al., 2003:207).

Some of the barriers revealed in different studies are a lack of knowledge of the nursing process, negative attitude towards change, inability to see the benefits of nursing documentation, lack of consistent record systems and routines, lack of time, lack of support from supervisors and colleagues, organisational obstacles, difficulties in writing, inappropriate forms and lack of continuity. One of the studies however also described what registered nurses perceived as motives for documentation, namely that it should be a working tool and that it should increase both patient and staff safety.

The results of this particular study by Bjorvell, Thorell-Ekstrand and Wredling (2003:208), revealed that most registered nurses believed that the nursing documentation was useful for their work and also that well written nursing documentation could replace oral shifts reports. A large number of nurses believed that other professionals had an interest in nursing documentation and department supervisors did support its implementation. If the nursing documentation in patient records is asked for by other professionals and supported by leaders, this may increase the feeling of meaningfulness of the documentation, as it shows that the notes are also useful for others. On the other hand there were some inhibitors identified to be contributing to ineffective, nursing documentation such as – a place to sit when documenting, functional computer or forms/charts, the opportunity to sit undisturbed when writing. Insufficient time available for registered nurses to document nursing care in practice is a problem that has frequently been expressed. However that there might have been inhibitors found, most of the registered nurses had sufficient knowledge in documentation and the VIPS model.

According to Isola, Muurinen and Voutilainen (2004:73), there is evidence suggesting that a continuous performed audit of patient records combined with discussions of improvement is one way to improve the quality of care and that a good level of documentation correlates with high quality practise. Thus studies focussing on nursing documentation also offer useful information on the quality of nursing care. When the patients' individual needs are carefully assessed, goals are set to respond to the patients' individual needs, interventions are chosen to achieve the goals set and the plan is implemented. Furthermore if the goal achievement is regularly evaluated the quality of nursing care is high.

As much as the nurses have to write everything when they are documenting their nursing care they also need to adhere to the nurses' duties so as to fill up the gap that might be present because for example, in the study carried out by Isola, Muurinen and Voutilainen, they identified that even though the documentation of nursing care increased, the medical treatment was, the most documented area. The researchers pointed out that the documentation should communicate the patient's situation and progress. The nursing staff should be able to use the information in everyday nursing care activities. This requires the existence of a well-structured and freely available basis for documentation.

Isola, Muurinen and Voutilainen (2004:73) identified in their study that evaluation of nursing documentation performed regularly in order to gain information on the quality of nursing care is rare in Finland. Although there is some evidence available to suggest that a continuously performed audit of patient records combined with discussions of improvement is one way to improve quality of care, Isola et al (2004:73) suggest that there are serious limitations in using the patient records as a data source for quality assessment and evaluation of care. However if nursing documentation is not accurate and adequate, there is an obvious risk to patient safety and well-being and to the continuity of care. Assessment of the patient's cognition and documentation of the results of assessment is of major importance when planning the care on a reliable, individual foundation.

Some previous studies according to Isola et al. (2004:78) do also miss the cognitive impairment of patients by insufficient assessment of cognitive status. Another area to which development activities should be targeted is the documentation of clear and concrete means by which patients' independent functioning is supported. Also the nursing personnel should be encouraged to document information of the patient's own resources. Building nursing care on an individual basis means that the patient's functional capability and resources should be carefully assessed and nursing care adjusted accordingly. Also, documentation of patient care should emphasize the importance of these activities. Furthermore they also found that almost half of the documents lacked information on the specific times and frequencies of carrying out preventive or therapeutic interventions. This is an important result to be taken into account when considering the development activities. Evaluation is the area that warrants most attention and development activities. Only every fourth record included information on every change in the patient's functional capability. Insufficient and

inaccurate evaluation follows from insufficient and inaccurate assessment of patient needs. When assessment fails, the basis for planning nursing care is fragile, implementation of the plan is problematic and evaluation of goal achievement becomes difficult or even impossible.

It is of interest to learn more about to what extent patient records accurately reflect the situation and the care of the patient. Ehnfors and Ehrenberg (2001:304) suggest that the patient record should be an important basis for delivery of nursing care and in the assessment of quality of care. In areas of care where the patients have limited abilities to express themselves the demand for accurate patient care records is great, both for everyday care and for retrospective audits.

They also stated that the Swedish Board of Health and Welfare emphasises that the patient record should provide for the evaluation of the care of patients with chronic diseases, multiple diseases and at the end of life. In the nursing home environment in which they did their research they also stated that the patient record as a data source in nursing home care is therefore of great interest. Nurses have an essential role in managing and recording nursing as well as medical care for residents in Swedish nursing homes.

Mental condition, nutritional and hydration status, oral status, status regarding urinary incontinence, skin condition, physical activity, mobility, disturbed balance and sleep are all of special importance in the care of elderly patients . These are factors that influence the self care ability of the patient and are important predictors of serious risks such as pressure sores and falls. Ehnfors and Ehrenberg (2001:304) also stated that a great quantity of data is hidden in the patient records but there are also serious flaws in these data. Nurses need to make use of patient records for the care of individual patients as well as for other purposes.

Aggregated record data have the potential to be an important source for expanded knowledge and improved practice in health care. The findings of this particular study, together with previous works indicated that at the present state, it is not possible to rely solely on recorded data for nursing care delivery or for the assessment of care quality. It is strongly recommended that before using recorded data for research purposes, investigators should carefully examine the accuracy of the data and consider the use of additional data sources. Structured

and systematic formats of records seem to increase the accuracy of the data (Ehnfors and Ehrenberg, 2001:309).

Ankersen, Darmer, Egerod, Landberger, Lipart and Nielsen (2006:532), undertook a study on nursing documentation audit focusing on the VIPS implementation programme in Denmark. Ankersen et al (2006:532) found that the study demonstrated that the VIPS is intuitively easy to understand, which facilitates implementation. The challenge in documenting the ongoing status of the patient has been the degree of reuse of information across the patient trajectory. The study showed that the care plans were motivated by the documented signs and symptoms. The success of the study was due to the systematic structure of the VIPS model and the simplification of the diagnostic statement. The majority of the care plans were standardized, a fact which further obscure the estimated quality in relation to the individual needs of the patient.

The study has shown that nurses formulate diagnoses regarding existing or potential problems but none drew upon the patients' resources. One reason may be that the project leaders and supervisors failed to focus on this aspect. Looking at patients' resources in a broader perspective, the hospitals are now regarded as primary targets for preventive strategies related to life style changes. Nurses have an opportunity to discuss lifestyle changes while patients are hospitalised and understand the gravity of their situation (Ankersen et al. 2006:532).

Ankersen et al. (2006:533) stated that training the entire staff simultaneously rather than using key persons has shown promise as a learning method and implementation strategy in relation to nursing documentation. Clinical supervision and chart audits have proven to be a good learning experience for the supervisors as well as the staff nurses. The support of the hospital management is an aspect of the implementation process, which should not be overlooked. Managerial nurses need to be proficient in theories of nursing as well as management, as managers at the unit level should be able to evaluate and supervise nurses in their effort to improve documentation.

Bondas, Erickson and Karkkainen (2005:124) stated that individual care means that care is planned together with the patient and takes into consideration the person's innermost world and his or her needs and wishes. Ethical care means a desire to do good for the patients. Doing good is shown in ways nurses work and in the things they do for the patients. Bondas et al. further indicated that the

documentation of nursing care is always related to nurses' internalised values which means nurses' conceptions of a human being and human existence and their respect for human dignity. A human being's dignity, which is based on equality and inviolability, implies a right for patients to make their own decisions and the right to defend their integrity and therefore, also what is written about their care. In the documentation of nursing care, Bondas et al. further explain that respecting patients and their views means that nurses also record matters that in patients' opinion are important. When the documentation is in accordance with the ethical principle, its content reveals patients' hopes and needs regarding how they wish to be cared for and how they wish to appear in the documentation. Nursing documentation cannot be based solely on formalistic problem solving, but must be based on an individual assessment of a situation. One of the shortcomings of care documentation is the small amount allotted to patients' wishes and needs. Nurses should be made aware of the importance of documentation that pays attention to patients' needs and their ability to analyse and express in writing knowledge derived from nursing, should be improved.

2.5 DIFFERENT NURSING DOCUMENTATION SYSTEMS

Basically two types of nursing documentation systems in nursing care exist, firstly manual or traditional documentation and secondly electronic nursing documentation. Both systems have its merits in presenting information about the patients. Both systems have advantages and disadvantages and consequently the one is preferred above the other while many nursing professionals sometimes prefer both.

According to Turpin (n.d:62) one of the important lessons learned about the move from paper to computerised charting is that the process is not "automatic". The capacity of computers to sort, rearrange and copy data expands the potential for data management, however the computers must be programmed to perform the functions as required. For instance, in a paper chart, a column is needed to write a date and time for each entry. In a well-designed computer system, the date and time are defined when the user makes an entry. No specific column is needed although the programmer must know how the user wishes the data to be presented. It can be emphasised that undoubtedly the primary concern of electronic documentation is about communication between nurses, physicians, inventory control staff and other health care providers in an institution in which the main focus is the wellbeing of the patient.

La Duke (2001:284) in her study on online nursing documentation found that nurses were dissatisfied and complained about the length of the time it took them to document. They felt they were charting information that no one was reviewing or that was clinically irrelevant. Many of their complaints focussed on the way the software worked as opposed to the way it has been individualised by the facility. Physicians on the other hand were unhappy with the "new" nursing documentation. They were more concerned about the quality of the content being captured. Nursing staff perceived that their suggestions and requests for changes to the system were being ignored. Ultimately re-engineering of the system was conducted with the critical support for the change being from management, administration and physicians.

In her recommendations La Duke had the following strategies in place:

- Use research based standardized languages for goals, diagnoses and intervention dictionaries.
- Be sure that there's a value to moving a documentation process online. For example ask yourself what patient specific data could be shared among disciplines and what aggregated data could be of use to various departments for process improvement. Plan hands-on classroom training for users in small bites to maximise ability to retain and use information. Bring one nursing unit or one discipline online at a time. Evaluate anxiety, disruption and resistance at each step.

Langowski (2005:124) found from the research she did online on nursing documentation systems that nurses' satisfaction increased by 20% because their perception was that less time was available for direct patient care. There was significant improvement in quality of nursing documentation. Online nursing documentation offers prompts, alerts and a customised screen to obtain required data. Information is documented in real time and health care decisions are made with the entire patient information available.

According to Ammenwerth, Mansmann, Iller and Eischstadter (2003:70) user acceptance is often seen as the crucial factor determining the success or failure of the project. Functionality and usability of the documentation system, training and support, previously paper-based documentation processes and other differences in the environment can influence a user's acceptance of a new computer-based system and thus its overall success. Obviously low acceptance of computers may make the introduction of computer-based systems difficult.

Another important issue is the acceptance of the nursing process which can be supported by computer-based nursing documentation.

2.6 NURSING DOCUMENTATION GUIDELINES

Bergerson (1989:11) in his article titled "more about charting with the jury in mind" had a lot of suggestions of what a nurse has to write about the patient in the chart and what to leave out. He said that if you are ever involved in a malpractice dispute, the patient's chart will be your best friend or your enemy. To avoid making the chart and yourself vulnerable, use a set of charting guidelines called the FACT system which ensures that each entry is factual, accurate, complete and timely. Adhere to the facts – the chart should contain descriptive, objective information: what you see, hear, smell, and feel not what you suppose, infer, conclude or assume. The chart should contain subjective information too but only when it is supported by documented facts. For example the entry is written as "patient appears restless" what does that mean? Does it mean tossing in bed, talking incessantly or pacing the floor? Bergeson cautions to be descriptive of what you mean and not conclude and say the patient is restless.

2.6.1 Accuracy

This is a crucial element. Do not make the chart look inaccurate or unreliable for example do not chart for somebody else or let them chart for you. If you are to chart for somebody else for any uncontrollable circumstance, make an entry in a way that implies that somebody else did the intervention.

2.6.2 Pitfalls of countersigning

Bergerson (1989:11) suggest that nurses should review the entry and ensure that it clearly identifies whoever did the procedure.

What you do not chart can hurt you - when you are very busy, getting your work done may seem more important than documenting every detail. But from a jury's point of view an incomplete chart suggests incomplete nursing care. Learn to anticipate litigation whenever you give patient care.

2.6.3 Handling late entries

Do not squeeze entry in the margins or between existing entries. It looks unprofessional and may allow the jury to draw a "sloppy chart" of a sloppy nurse inference. Instead add an entry at the first available space on the next day's chart.

Then document the date and time the event occurred. Clearly identify your entry as a late entry and be sure to cross reference the late entry with the page where it should have appeared.

2.6.4 How to correct a mistake

Simply draw a single straight line through the mistake so it remains legible. Then write "mistaken entry" or "disregard" above or beside it and sign your name. This is important because falsification of records is evidence of what attorneys call a consciousness of negligence. The inference is that someone was negligent, knew it and tried to cover it up.

2.6.5 Fill in the blank spaces

Avoid leaving blank spaces in the chart. When you complete an entry draw a line to the right and margin. Similarly do not leave a blank space between two entries. Each new entry should be "snagged up" against the previous one.

2.6.6 Do not throw away your defence

This is illustrated for example, when you have spilled coffee on the page. Do not throw away, copy it and put the damaged one in the file. Once something is considered to be part of the official record, do not discard or destroy it.

2.6.7 Timing is everything

You might be very busy and forget to chart the right time of the interventions. Routinely carry a notepad and keep personal working notes. Do not chart anything in anticipation of doing it.

2.7 EXCLUSION AND INCLUSION CRITERIA FOR CHARTING

- Document the patient's behaviour objectively, the chart must reflect nursing care at all times.
- When documenting avoid unprofessional, derogatory references as these references are likely to upset patients.
- Whenever possible use the patient's own words.
- Incident reports are temporarily kept in the patients' files and when patients are discharged they are removed.
- It is unethical to document disputes among professionals in the patients' files, only nursing care must be documented in the patients' files.
- Entries must be legible at all times.

Teytelman (2002:123) suggested that any generalizations, nurses opinions or criticisms of the patient should be left out. The documentation should contain:

- An assessment of the client's health status and situation.
- A care plan or health care plan reflecting the needs and goals of the client.
- Nursing actions and the patient's response to the intervention provided.
- Re-evaluation and needed adjustments to care.
- Information reported to a physician or any other health care provider and that provider's response.

Teytelman further explains that the ethical principle of veracity serves as the bedrock issue in documentation. Providing truthful information in the record is of critical importance. Even if there are other mitigating circumstances, one piece of falsified documentation casts doubt on the entire record and can easily render an indefensible malpractice case. It can subject the nurse to not only civil (monetary) but also criminal liability.

2.8 CONCLUSION

In summary, documentation by the nurse is the written evidence of nursing practice. It is the communication about the patient's general condition and the record of the patient's response to nursing, medical and allied professional interventions. Legally, if what nurses do is not documented, it was not done. Nursing clinicians, educators, administrators and researchers use accurate and timely records to assist in the development of a knowledge base for nursing practice (Tapp, 1990:229).

If the medical record is complete, accurate and reflects the documentation of high quality, non-negligent care, it can be the nurse's "best defence" against allegations of negligence. If, however, the documentation is incomplete, contains gaps, is not consistently done pursuant to policies and is inaccurate, then the record can and will be used to support the allegations of negligence in the patient's complaint according to Brent (2001:81). Thus adherence to guidelines for proper documentation is essential.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter the researcher describes the research methodology followed in this research study.

3.2 RESEARCH QUESTION

For the purpose of this study the researcher set the following questions as a point of departure for the research.

Are the procedures and practices regarding electronic documentation in the hospital being executed? How do nurses experience the electronic system?

3.3 GOAL

The goal of this study was to investigate documentation of nursing care with reference to current practices and perceptions of nurses in a teaching hospital in Saudi Arabia.

3.4 THE OBJECTIVES

to identify whether the hospital policies are being carried out
to identify whether procedures regarding current documentation are being carried out
explore the perceptions of the nurses regarding the current documentation practices.

3.5 RESEARCH DESIGN

The research design flows directly from the particular research question or hypothesis and from the specific purpose of the study. Simply stated, the research design is the set of logical steps taken by the researcher to answer the research question. It forms the ‘blue print’ of the study and determines the methodology used by the researcher to obtain sources of information, such as subjects, elements and units of analysis, to collect and analyze the data and to interpret the results (Brink, 2006:92).

For the purpose of this study, a non-experimental descriptive design with a quantitative approach was used. The study was carried out at King Faisal Specialist Hospital in Jeddah in Saudi Arabia. Questionnaires were distributed to the participants and they were answered anonymously with no identities written

on the questionnaires. After the questionnaires were completed, they were posted in a box and were collected by the researcher. The questions were straightforward, easily understood, unambiguous, non-leading, objectively set and the purpose was to attain views, experiences and perceptions of documentation of nursing care.

Focus areas were (a) the contemporary shift to electronic documentation (b) working in both traditional and electronic paradigms (c) perceptions with regard to the impact on quality of care, patient outcome and patient safety. Involvement of participants was voluntary and non-coercive.

3.6 POPULATION AND SAMPLING

According to Brink (2006:123) a population is the entire group of persons or objects that is of interest to the researcher, in other words, that meets the criteria which the researcher is interested in studying.

The total population were 90 registered nurses working in different wards of King Faisal Specialist Hospital in Jeddah, Saudi Arabia. All of the 90 registered nurses participated with 9 out of 90 making up the pilot study and 81 remaining for the actual; study. The population was a limitation as all the nurses were included in the study.

3.7 INSTRUMENTATION

Instrumentation is a component of measurement. It is the application of specific rules to develop a measuring devise. The purpose of instrumentation is to produce trustworthy evidence that can be used in evaluating the outcomes of research (Burns and Grove, 2001:389).

A structured questionnaire with both open and close-ended questions were used to collect data. The questionnaire enabled the researcher to determine whether the hospital policies and procedures were carried out, identify problems and whether the nurses experienced electronic recording of nursing care positively. The questionnaire had two sections namely section A and section B. The total number of questions was 33. There were 32 closed ended questions with answers to choose from and 1 open-ended question, the last question number 33. Section A concentrated on biographical data which consisted of gender, age, ward speciality and duration of work in the hospital of research. Section B concentrated on nursing documentation policies and procedures, various

documentation systems, advantages and disadvantages of documentation systems, as well as nurses' perceptions about current documentation systems used in the hospital of research.

Participants were all registered professional nurses working in different wards. Data was collected by answering the question in a questionnaire and after the respondents completed the questionnaires, the questionnaires were collected by the researcher.

The questionnaire was based on literature study and the researcher's clinical experience in the hospital. It was validated by experts in nursing, the ethical committee and the statistician.

3.7.1 The questionnaire

Burns and Grove (2001:426) define a questionnaire as a printed self-report form designed to elicit information that can be obtained through the written response of the subject.

3.7.2 The design of the questionnaire

A structured questionnaire was used with information about the research study. It was easy, clear and had instructions on how to go about completing it. The nature of the questions in the questionnaire ensured rapid computation and statistical analysis of the data obtained.

The questionnaire had two sections, namely section A and section B. Section A was basically demographic data and section B was about the policies and procedures pertaining to nursing documentation performed in the wards and the perceptions of the registered nurses regarding the types of documentation systems.

3.7.3 Types of questions

The questionnaire consisted of 33 questions with 32 of the questions being multiple- choice, close-ended questions with answers provided. The last question number 33 was an open-ended question about the general nurses' view with regards to electronic documentation of nursing care in the chosen hospital.

3.7.4 DATA COLLECTION

The target population of the registered nurses working at King Faisal Hospital in Jeddah, Saudi Arabia was given a questionnaire by the researcher. The respondents were requested to complete the questionnaire and the completed questionnaires were collected by the researcher.

3.8 ETHICAL CONSIDERATION

Nursing research must not only be able to guarantee or refine knowledge, but the development and implementation of such research should also be ethically acceptable. The ethical acceptability of the research should apply first of all to the people directly involved in it, but also to the people involved in carrying out the research (Basson and Uys 1991:96).

For the purpose of this project consent was obtained from the Chief of Nursing Affairs at King Faisal Hospital in Jeddah, Saudi Arabia and the Committee for Human Research at the University of Stellenbosch in South Africa.

Informed written consent was obtained from each participant. Participation was voluntary and without any coercion. The aim and the reason for the study were explained to the respondents. All respondents were assured of anonymity and confidentiality.

3.9 PILOT STUDY

According to Delport, de Vos, Fouche and Strydom (1998:211) a pilot study is the process whereby the research design for a prospective survey is tested. A pilot study can be regarded as a small-scale trial run of all the aspects planned for use in the main enquiry. Burns and Grove (2001:49-50) on the other hand stated that a pilot study is commonly defined as a smaller version of a proposed study conducted to refine the methodology. It is developed much like the proposed study, using similar subjects, the same setting, the same treatment and the same data collection and analysis techniques. However, a pilot study could be conducted to develop and refine a variety of the steps in the research process. For example a pilot study could be conducted to refine a research treatment, a data collection tool, or the data collection process. Thus a pilot study could be used to develop a research plan (Burns Grove, 2001:49-50).

A pilot study was done prior to the actual collection of the data to pre-test the instrument for inaccuracies and ambiguity and the feasibility of the study. A total number of 9 (10%) registered nurses were used in the pilot study. These nurses did not form part of the actual study. Permission was obtained from the hospital's Institutional Research Board and from the participants respectively. The pilot study was conducted as the actual study. The pre-tested instrument was found to be accurate and without any ambiguity.

None of the respondents reported any difficulty in answering the questionnaire, and stated that they took 15-20 minutes to answer the questionnaires. The pilot study showed understanding of the questionnaire and there was no need to change the questionnaire.

3.10 DATA ANALYSIS AND INTERPRETATION

The data of the study was analysed by the researcher with the support of the statistician. The SPSS computer programme was used to organise data from the respondents. The data was presented in frequencies, tables and statistical associations done between variables using the Chi square test on a 95% confidence interval.

3.11 CONCLUSION

The various steps for research methodology adopted for this study were outlined. The research design, target population and the research process were discussed. The research objectives, research instrument, data analysis, pilot study and ethical consideration for this study were highlighted. The next chapter presents the summarized findings by descriptive analysis followed by the discussion of the primary findings in keeping with the objectives.

CHAPTER 4
DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this chapter the data analysis and the findings of the collected data from the research is presented. All the data from completed questionnaires were transferred to the computer by the statistician working together with the researcher. The data are presented, analyzed and interpreted in this chapter. All the respondents were registered nurses. There were 81 questionnaires distributed; only one was spoilt and the remaining 80 were returned completed. No complaints of inability to understand the questionnaire or difficulty experienced in answering questions were reported.

The data are presented in the form of frequency distribution tables. Bar charts were created from the frequency distribution tables. A follow up confirmatory analysis to test for equality of proportions across the levels of the variables was carried out using the chi-squared test. The chi-squared test for independence was also used to test for associations between demographic variables and the responses to the various questions. The p-value is the measure reported from all tests of statistical significance. It is defined as the probability that an effect at least as extreme as that observed in a particular study could have occurred by chance alone. If the p-value is greater than 0.05 by convention the chance cannot be excluded as a likely explanation and the findings are stated as not statistically significant at that level (Hennekens & Burning, 1987:108). Therefore the 95% confidence interval was applied to determine whether there were any statistical associations between variables.

4.2 DATA ANALYSIS AND INTERPRETATION

4.2.1 Section A: Biographical data

Question 1: Ages of Respondents

Table 4.2.1 shows that the majority of the respondents, N=40 (50%) are adult registered nurses between the ages of 30-39 years, followed by age group 40-49 years, N=24 (30%).The table also shows that the hospital does not have many older nurses in employment as shown in the age groups 50-59 years N=5 (6,3%) above 60 years N=1 (1.5%)

Table 4.2.1: Ages of Respondents

Age	N	%
≤21 yrs	0	0
≥22≤29 yrs	10	12.5
≥30≤39 yrs	40	50
≥40≤49 yrs	24	30
≥50≤59 yrs	5	6.2
≥60 yrs	1	1.3
TOTAL N	**80**	**100**

Question 2: Gender

Table 4.2.2 shows that the majority of the respondents were predominantly females that is N= 69 (86.3%).

Table 4.2.2: Gender

Gender	N	%
Male	11	13.7
Female	69	86.3
TOTAL	**N**	**100**

Question 3: How long have you been working at this hospital?

Table 4.2.3 shows that the majority of respondents have been working at the hospital for more than 59 months N= 21(26.3 %), however there are numerous variations between less than 12 months and 59 months as shown in table 4.3.

Table 4.2.3: Duration of employment at the Hospital of Research

Duration	N	%
≤12mths	15	18.7
≥13≤24mths	14	17.5
≥25≤36mths	9	11.3
≥37≤49mths	13	16.3
≥50≤59mths	8	10
>59mths	21	26.2
TOTAL	**80**	**100**

Question 4: What type of ward speciality are you working in?

Table 4.2.4 shows that the respondents are widely distributed between all speciality areas, with paediatric, ICU, oncology and neurology wards having the largest percentages.

Table 4.2.4: Type of ward speciality

	N	%
Medical ward	9	11.2
Surgical ward	4	5
Paediatric ward	10	12.5
ICU	10	12.5
Cardiology ward	5	6.3
Oncology ward	10	12.5
Neurology ward	10	12.5
Operating room	7	8.8
Emergency room	6	7.5
Neonatal	9	11.2
TOTAL	**80**	**100**

4.2.2 Section B

Question 5: Do you have policies pertaining to documentation of nursing care in your nursing unit?

Table 4.2.5 shows that the majority of the wards N=75 (93.7%) have policies relating to documentation of nursing care. N=4(5%) respondents stated that there are no policies and N= 1(1,3%) respondent stated that she does not know.

Table 4.2.5: Policies pertaining to documentation

	N	%
Yes	75	93.7
No	4	5
Do not know	1	1.3
TOTAL	80	100

Question 6: what does the hospital policy state on documentation of patients' vital signs?

Table 4.2.6 shows that the majority of the respondents N=76(95%) are aware that the patients' vital signs must be recorded in the Cerner and the vital signs sheet and the remaining N=4(5%) stated that it must be recorded in the Mycare system and the physician's order sheet. According to Ammenwerth, Eichstadter, Iller and Mansmann (2003:70) nursing documentation is an important part of clinical documentation, therefore it is expected that 100% would be aware of the policies on documentation of nursing care. Thorough nursing documentation is a precondition for good patient care and for efficient communication and cooperation within the health care professional team.

Table 4.2.6: Hospital policy on patients' vital signs

	N	**%**
It must be recorded in a Cerner (computer) and vital signs sheet	76	95
It must be recorded in the Mycare system	2	2.5
It must be signed in a physician's order sheet	2	2.5

TOTAL	80	100

Question 7: Which of the following patient data can be recorded in the Cerner?

Table 4.2.7 shows that the majority of respondents, N=67(83.7%) are aware of the policy on vital signs that can be recorded in the Cerner. N=13(16.3%) are not aware of the policy.

Table 4.2.7: Patient data that can be recorded in the Cerner

	N	%
Temperature, pulse rate, blood pressure, respiration rate, oxygen saturation and pain	67	83.7
Muscle contractions and dilatations	2	2.5
Fluid intake and urinary output	11	13.8
TOTAL	**100**	**100**

Question 8: What does the hospital policy state about electronic documentation of physical assessment?

Table 4.2.8 shows that the majority of respondents, N=76(95%) are aware of the policy on electronic documentation of physical assessment and N=4(5%) are not aware of such a policy. These results show, as described in the discussion of table 4.2.7, that all nurses should be aware of the policies on documentation, a deficit in knowledge may result in a deficit in accurate and complete documentation about patient care.

Table 4.2.8: Electronic Documentation of Physical Assessment

	N	**%**
It must be recorded once a month	2	2.5
It must be recorded twice a week	2	2.5
It must be recorded once at least within 2 hours of commencing a shift per day	76	95

TOTAL	80	100

Question 9: What problems do you experience with manual documentation?

Table 4.2.9 shows that only N= 5(6.3%) responded that handwriting is illegible and time consuming which was the most appropriate answer. Langowski (2005:122) stated the following problems with manual documentation that it is time consuming, one may miss important documentation requirements, may not be aware of what someone else has documented and it could be viewed as impersonal and expensive. N=59(73,7%) respondents stated that hand writing may be illegible because of the individual's hand writing. N=10(12,5%) respondents stated that it is time consuming N=4(5%). Respondents stated that the notes are written in clear understandable language. N=2(2,5%) respondents stated that notes are written in the English language.

Table 4.2.9: Problems experienced with manual documentation

	N	**%**
Hand writing may be illegible because of the individual's hand writing	59	73.7
Notes are written in a clear understandable language	4	5
Notes are written in the English language	2	2.5
It is time consuming	10	12.5
Illegibility of handwriting and time consuming	5	6.3
TOTAL	**80**	**100**

Question 10: What problems do you experience with the electronic documentation system?

Table 4.2.10 shows that the majority of the respondents indicated that the worse problem that could be experienced with electronic documentation is when the computer systems are down, when they need to document nursing care N=78(97,5%). N=2(2,5%) respondents stated that there is only one computer in each ward. Time delays in documentation could lead to poor care or even failure to document valuable and critical information.

Table 4.2.10: Problems experienced with electronic documentation

	N	%
The computer system may be down by the time I want to do documentation	78	97.5
Computer documentation system is not used in this hospital	0	0
There is only one computer in each ward	2	2.5
Computers have never been functional in this hospital in this year	0	0
TOTAL	80	100

Question 11: According to your opinion what are the advantages of traditional documentation (writing on paper)?

Table 4.2.11 shows that the majority of the respondents N=45(56.3%) can express themselves on paper freely with no space constraints followed by N=28(35%) respondents indicating that they do not have to depend on a computer for documentation. N=6(7,5%) indicated that there was no need for computers which could cause space constraints (mean=3,34;SD=0,83;SE=0,09). A statistical association was identified between age and advantages of traditional documentation (Mann Whitney p=0,06). Another statistical association with no significance was identified between the duration of working in the hospital and advantages of traditional documentation (Mann Whitney p=0,57).

Table 4.2.11: The advantages of traditional documentation (writing on paper)

	N	%
Do not depend on the computer to do documentation	28	35
Can express myself on paper freely with no space constraints	45	56.2
There is not enough paper to write on	1	1.3
No need for computers, no space constraints	6	7.5
TOTAL	80	100

Question 12: What are the disadvantages of paper documentation?

Table 4.2.12 shows that the majority N=72(90%) indicated that handwriting on paper is illegible and that a paper can be thrown away. As described in the analysis of question 9 the literature support is applicable in this question as well. N=6(7,5%) respondents stated that some of the hand writings are not easy to read ;N=2(2,5%) stated that you can always refer to what you have written. Illegibility of handwriting may pose threatening situations for patient care as handwriting could be interpreted incorrectly resulting in care being seriously compromised.

Table 4.2.12: Disadvantages of paper documentation?

	N	**%**
Some of the handwriting is not easy to read	6	7.5
You can always refer to what you have written	2	2.5
Illegible handwriting, paper can be thrown in a trash bin	72	90
TOTAL	80	100

Question 13: What are the advantages of electronic documentation?

Table 4.2.13 shows that the majority N=69(86.3%) agrees that the information is safely kept and requires a username; N=7(8,7%) respondents stated that it is safely kept in the computer; N=2(2,5%) respondents state that you require a username and password to access the information in the computer. According to Langowski (2005:122) in electronic documentation information is entered only once. It provides fast, real time access to patient records. Decisions are made at the point of care with the most current patient information. This in turn drives higher quality of care.

Table 4.2.13: Advantages of electronic documentation

	N	**%**
It is safely kept in the computer	7	8.7
You require a username and password to access information on the computer	2	2.5
You need a lot of computers to do it	2	2.5
Safely kept and username required	69	86.3
TOTAL	**80**	**100**

Question 14: What are the disadvantages of electronic documentation?

Table 4.2.14 shows that the majority, N=50 (62.5%) of the respondents indicated that the disadvantages of electronic documentation are when computers are down and there are no computers; N=27(33,7%) respondents stated that when the computer system is down you cannot complete the documentation; N=2(2,5%) respondents stated that it is difficult to read other people's notes because it is not clear in the computer; N=1(1,3%) respondent stated that you cannot document without using a computer.

Table 4.2.14: Disadvantages of electronic documentation

	N	**%**
When computer system is down you cannot complete the documentation	27	33.7
It is difficult to read other people's notes because it is not clear on the computer	2	2.5
You cannot document without using a computer	1	1.3
Computers down and absence of computers	50	62.5
TOTAL	**80**	**100**

Question 15: If computers are not working on a particular day, what are the interventions used for nursing care procedures and practices?

Table 4.2.15 shows that the majority, N=44(55%) of respondents indicated the most appropriate response according to policy that "down time forms" and physician's order sheets are to be used; N=30(37,5%) respondents stated that down time forms may be used for ordered tests; N=6(7,5%) respondents stated that physician's order forms may be used for medication ordering if the Mycare system is not working (mean=3,33;SD=0,82;SE=0,092). Statistical association between age and interventions used during computer down time was identified but with no significance (Kruskal Wallis p=0,19). However, a statistical significance has been identified between duration of working in the hospital and nursing interventions used during down time (Kruskal Wallis p=0,01). An unacceptable number of respondents N=36(45%) indicated incorrectly the measures which are applied for documentation when computers are down. It is

critical that all nurses are aware of the measures in place when computers are down as documentation of patient care may be delayed or not documented at all which may influence patient care.

Table 4.2.15: Interventions used for when computers are down

	N	%
Down time forms may be used for ordered tests	30	37.5
Physician 's order forms may be used for medication ordering if my care system is not working	6	7.5
Down time forms and physician's order sheets	44	55
TOTAL	**80**	**100**

Question 16: If a nurse has documented his/her nursing care in the system, what is the security measure to ensure that nobody else can erase or modify the entry without being identified?

Table 4.2.16 shows that the majority N=71(88.7%) indicated the most appropriate response according to policy is that a username and password protect all electronic entries. However it is a concern that N=9(11.3%) respondents do not know what the policy is with reference to the security measures protecting electronic entries. Failing to know the policies with reference to documentation may result in inadequate documentation which may directly influence patient care.

Table 4.2.16: Security measure to ensure that nobody else can erase or modify an entry without being identified

	N	%
Username and password	71	88.7
Identity document	2	2.5
Employee number	7	8.8
TOTAL	**80**	**100**

Question 17: What are your personal experiences and feelings regarding current documentation systems?

Paper System

Table 4.2.17 shows that the majority N=45(56.3%) indicated that paper documentation is a lot of paperwork and it is time consuming, followed by minimal time and lots of paperwork N=23(28,7%) respondents; N=12(15%) respondents state that because they have to do a lot of paperwork they have minimal time with

their patients (mean=3,33;SD=0,82;SE=0,092). A statistical association has been identified between age and personal experiences regarding current documentation systems (the paper system) but with no significance (Kruskal Wallis p=0,69). Another statistical association with no significance was identified between duration of working in the hospital and personal experiences and feelings regarding the paper documentation system (Kruskal Wallis p=0,84).

Table 4.2.17: Paper System

	N	**%**
A lot of papers to write on and it is time consuming	45	56.3
Because I have to do a lot of paperwork I have minimal time with my patient	12	15
Minimal time and lots of paperwork	23	28.7
TOTAL	**80**	**100**

Question 18: What are your personal experiences and feelings regarding Cerner documentation system?

Table 4.2.18 shows that the majority N=44(55%) indicated Cerner electronic documentation is one of the best systems used for documentation, however, N=18(22.5%) indicated negatively that there are not enough computers to use; N=11(13,7%) respondents stated that there are frequent down times which has an impact on their nursing care; N=7(8,8%) respondents stated that nobody reads what they have written so why should they bother. (mean=3,33;SD0,82;SE=0,092). Statistical association was done with no significance between the age and experiences and feelings regarding the Cerner system (Kruskal Wallis p=0,21). Statistical association has also been done between duration of working in the hospital and personal experiences and feelings regarding the Cerner system (Kruskal Wallis p=0,29), however no significance has been found.

Table 4.2.18: Cerner

	N	**%**
Nobody reads what I have written so why should I bother	7	8.8
Not enough computers to use	18	22.5

It is one of the best systems used for documentation	44	55
There are frequent down times which has an impact on my nursing care	11	13.7
TOTAL	**80**	**100**

Question 19: What are your personal experiences and feelings regarding current Mycare documentation system?

Table 4.19 shows that the majority N=68(85%) indicated the Mycare electronic system is the best system, it is user friendly and they are happy with it. N=12(15%) respondents stated that the Mycare system is not good at all, they find it difficult to use and it is outdated. The discrepancy which exists between the respondents who were positive about the Mycare electronic system and those who found it to be outdated is a concern.

Table 4.2.19: Mycare

	N	**%**
It is a reliable system, it is user friendly therefore I am happy with it	68	85
It is not good at all I find it difficult to use and it is outdated	12	15
TOTAL	**80**	**100**

Question 20: In your mind what do you think are the advantages of entering some of the nursing procedures in the electronic system instead of paperwork?

Table 4.2.20 shows that the majority N=46(57.5%) have indicated that nursing procedures entered electronically are safely kept until needed; N=15(18,8%) respondents stated that everybody has a different handwriting which is difficult to read; N=11(13,7%) respondents stated that there is no need for date and time, it is kept safely; N=8(10%) respondents stated that you do not need to write time and date it is already there. The preservation of accurate records is important especially in providing continuity of care and for legal enquiries.

Table 4.2.20: Advantages of entering some of the nursing procedures in the electronic system instead of paperwork

	N	%
When entered it is safely kept until when needed	46	57.5
You do not need to write time and date it is already there	8	10
Everybody has a different handwriting which is difficult to read	15	18.8
No need for date and time, it is kept safely	11	13.7
TOTAL	**80**	**100**

Question 21: Which specific practices and procedures are documented electronically?

Table 4.2.21 shows that the majority N=56(70%) indicated that physical assessment and vital signs are documented electronically. This is a correct answer. However, N=24(30%) of the respondents are not accurate in knowing what is the policy about specific practices and procedures. It is expected that all staff will have the knowledge about documentation about specific practices and procedures. A breakdown in the continuity of care could result if there is insufficient knowledge about specific policies concerning practices and procedures.

Table 4.2.21: Specific practices and procedures documented electronically

	N	%
Vital signs (blood pressure, temperature, pulse, respiration, oxygen saturation and pain	14	17.4
Checking of narcotic medications	3	3.8
Physical assessment	7	8.8
Physical assessment and vital signs	56	70
TOTAL	**80**	**100**

Question 22: What nursing action / intervention does a nurse complete in the Cerner that shows that he/she viewed procedures done or to be done for instance blood in progress or radiological procedures?

Table 4.2.22 shows that the majority N=78(97%) indicated correctly that an electronic Cerner review should be done and N=2(2,5%) respondents stated that oracle and hospital intranet systems respectively be reviewed.

Table 4.2.22: Electronic nursing action / intervention entries indicating that procedures were viewed or what must be done such as blood in progress

	N	%
Nurses review in the Cerner	78	97.5
Nurses review of oracle system	1	1.3
Nurses review of hospital intranet system	1	1.2
TOTAL	**80**	**100**

Question 23: Which year was the electronic system introduced in this hospital?

Table 4.2.23 shows that the majority N=42(52.5%) indicated the correct year when the electronic system was introduced; N=31(38,7) respondents mentioned 2005 and N=2(2,5%) respondents stated that it was introduced in 2007. (mean=3,33;SD=0.82;SE=0,092). A statistical association was done between age and the year in which the electronic system was introduced in the hospital (Mann Whitney p=0,36). Another statistical association was done between the duration of working in the hospital and the year in which electronic system was introduced in the hospital (Mann Whitney p=0,67).(mean=11,60;SD=1,87;SE=0,21). No significance obtained.

Table 4.2.23 Year for introduction of electronic system

	N	%
2007	2	2.5
2005	31	38.7
2000	42	52.5
2006	5	6.3
TOTAL	**80**	**100**

Question 24: In the immediate post operative phase what must be covered in a nurse's documentation about the patient?

Table 4.2.24 shows that the majority N=75(93.8%) indicated the correct response. However, N=5(6.3%) have indicated that there is “no need to bother about the general condition as long as the procedure is done”. This is an unacceptable response as a holistic approach is applied to patient care. It is not just the procedure that matters. Furthermore, the quality of nursing care can be evaluated retrospectively, assuming that what has been recorded has also been performed. Good documentation may indicate good care. Secondly nursing care is evaluated by comparing the notes with approved standards. A prerequisite for using nursing documents in evidence-based nursing care is ensuring the quality of the documents (Erickson and Karkkainen, 2003:199).

Table 4.2.24: In the immediate post operative phase what must be covered in a nurse's documentation about the patient

	N	**%**
General condition of patient and post operative instructions	75	93.7
No need to bother about general condition as long as the procedure has been done	5	6.3
The surgeon will do the documentation of nursing care no need to worry about the condition of the patient	0	0
TOTAL	**80**	**100**

Question 25: When doing a dressing, what exactly do you as a nurse document about the dressing?

Table 4.2.25 shows that the majority N=76(95%) indicated the general condition of the wound should be documented after a wound dressing. This is a correct answer; N=3(3,6%) respondents mentioned size and appearance only while N=1(1,3%) stated that there is no need for documentation, the wound has been there all along. These results show a deficiency in knowledge about documentation of wound care which may have implications for the continuity of wound care existing among the respondents.

Table 4.2.25: **Documentation of a dressing**

	N	**%**
General condition of the wound	76	95

Size and appearance only	3	3.6
No need for documentation, the wound has been there all along	1	1.3
TOTAL	**80**	**100**

Question 26: If there is a dispute between the nurse and the doctor for example, should that be indicated in the patient's file?

Table 4.2.26 shows that the majority N=61(76.3%) indicated that disputes between staff members for example should not be documented, while N=19(23,7%) respondents are contrary to the idea of not documenting disputes between staff in the patients' files. A statistical significance has been identified between the age an opinions regarding documentation of professional disputes in the patients' files (Mann Whitney p=0,02). A statistical association has also been done between duration of working in the hospital and opinions regarding documentation of professional disputes in the patients' files (Mann Whitney p=0,85) but found to have no significance.

Table 4.2.26: Documentation of disputes in the patient's file

	N	**%**
no	61	76.3
yes	19	23.7
TOTAL	**80**	**100**

Question 27: Is it relevant to do documentation about a paediatric patient when you are nursing him or her?

Table 4.2.27 shows that the majority N=78(97.5%) indicated that documentation of a paediatric patient is necessary but it is a concern that N=2(2.5%) indicated that this was not a requirement.

Table 4.2.27: Relevancy of documentation about a paediatric patient

	N	**%**
No, he/she is only a child therefore there is no need to do documentation about his or her care	2	2.5
Yes, it is my duty and responsibility to document my nursing care about the paediatric patient I took care of	78	97.5
Only sometimes it will be required to document	0	0
TOTAL	**80**	**100**

Question 28: Why should a patient be involved in the planning of his or her nursing care?

Table 4.2.28 shows that the majority N=77(96.2%) indicated that the patient should be involved in the planning of his/ her nursing care; N=2(2,5%) respondents stated that the patients must be involved in their planning of care as required by the institution, while N=1(1,3%) respondent stated that this can only be done if the nurse is concerned that somebody will be checking on the nurse's work afterwards. Involving the patient in his/ her care is not only a right but also promotes compliance of care.

Table 4.2.28: Patient involvement in planning of his or her nursing care

	N	**%**
As a patient's right, a health care provider should involve a patient in a planning of his care	77	96.2
Involve the patient in his care plan as required by the institution	2	2.5
This can only be done if the nurse is concerned that somebody will be checking on the nurse's work afterwards	1	1.3
TOTAL	**80**	**100**

Question 29: What does good nursing documentation entail?

Table 4.2.29 shows that the majority N=79(98.7%) indicated that good documentation entails clear communication about the patient's general condition; N=1(1,3%) respondent stated that good nursing documentation entails writing about the nurse's personal feelings and preferences. A 100% response was expected as documentation entails clear communication about the patient's general condition.

Table 4.2.29: Good nursing documentation

	N	**%**
Clear communication about the patient's general condition	79	98.7
Writing about the nurse's personal feelings and preferences	1	1.3
To show a nurse's beautiful handwriting when documenting	0	0
TOTAL	**80**	**100**

Question 30: Why should a nurse's handwriting be legible in a documentation that she/he has written?

Table 4.2.30 shows that the majority N=79(98.7%) of respondents indicated legibility of documentation is important to show people who reads the documentation that they understand it and N=1(1,3%) respondent stated that legibility in documentation is to show how beautiful the nurse's handwriting can be. A 100% response was expected as documentation should enable people reading it to understand what has been written.

Table 4.2.30: Legibility in documentation

	N	**%**
To enable people reading his/her documentation to understand what has been written	79	98.7
To show how beautiful his/her handwriting can be	1	1.3
TOTAL	**80**	**100**

Question 31: Why should there be nursing documentation in a patient's file in the first place?

Table 4.2.31 shows that all N=80(100%) of the respondents indicated that nursing documentation should be reflected in the patients' file.

Table 4.2.31: Nursing documentation in a patient's file

	N	**%**
As a professional obligation that nursing care was rendered and to communicate to other staff members about the patient's condition	80	100
Just for fun and the sake of doing it	0	0
To be done only if a nurse feels like doing it and has time for it	0	0
TOTAL	**80**	**100**

Question 31: Who are the people that are supposed to have access to the patient's nursing documentation and why should those people access the patient's file?

Table 4.2.32 shows that all N=79(98.7%) of the respondents indicated that the multidisciplinary team members taking care of the patient should have access to the patient's file while only N=1(1,3%) respondent stated that the family members should have access to the patient's file to make sure that the multidisciplinary team members are providing adequate care to their relative.

Table 4.2.32: Access to the patient's nursing documentation and rationale

	N	**%**
Multidisciplinary team members taking care of the patient - to communicate and monitor the patient's progress	79	98.7
Family members - to make sure that the multidisciplinary members are providing adequate care to their relative	1	1.3
Patient's occupational colleagues - to read and correct whatever has been written about the patient	0	0
TOTAL	**80**	**100**

Open question: What is your general view on electronic documentation of nursing care?

The responses to this question were summarized as follows:

Advantages and preferences of the system

1. Best system.
2. Data can be retrieved.
3. System better off than paper system.
4. It is clear, brief, concise, understandable, accessible, convenient, easy to use and the data is kept safe.
5. Documentation is standardized, illegibility avoided, saves space and time, it is a comfortable and excellent method and not time consuming.
6. Less paperwork, good, accessed by username and password.

7. Patient confidentiality maintained, perfect, user friendly, settles disputes quickly.

Disadvantages and contributing factors to the (computer system) not being much favorable:

1. Computers take a lot of time away from patients, meant for minimizing paperwork but too much time spent on it.
2. It affects nursing care.
3. When the system breaks down one has to go back to the paper system.
4. There are not enough computers to be able to complete work in a timely manner.
5. Hardware does not support staff.
6. If the system can be available to all staff members with an effective training system it can be effective in nursing institutions.
7. It is time consuming; therefore it does not work well.
8. It can only be excellent if it can be next to each bedside.
9. It is robotic and not always accessible especially during down time.
10. The system is not user friendly.

4.3 DISCUSSIONS

The respondents who have the most experience, 50-59 months, at the hospital under study are N=21(26,3%). Registered nurses who have least working experience less than 12 months in this hospital are N=15(18,8%). The majority of the nurses have more than 12 months of experience and this should be an advantage about the knowledge of policies and procedures regarding documentation.

Ward specialty does not have a major influence per se in the knowledge of policies and procedures pertaining to documentation of nursing care because documentation guidelines are generic. The only difference will be the unit guide lines which will demonstrate what should be done in a specific unit with reference to a certain routine of work or patient assignment for instance.

In question 5 which asked about the availability of policies pertaining to documentation of nursing care, N=75(93,8%) answered yes meanwhile only a mere N=4(5%) answered no. This large percentage is representative of registered nurses who know the availability and implementation of policies in the hospital

and also this percentage N=75(93,8%) is not unit or ward specific. It is a general response from the respondents.

The majority of registered nurses in this hospital know where to document their vital signs as evidenced by the N=76(95%) response who stated that it must be documented both in the computer and the vital sign sheet. For the least N=2(2,5%) said vital signs must be recorded in the Mycare system and N=2 (2,5%) who said it must be recorded in the physician's order sheet.

Vital signs to be recorded are temperature, blood pressure, pulse, respiration, oxygen saturation and pain (in King Faisal hospital – Jeddah, Saudi Arabia). This is the policy of the hospital. The majority of respondents answered correctly N=67(83,8%0 however it is expected that all nurses will have adequate knowledge of the policies and procedures.

King Faisal hospital – Jeddah has a clear policy which states that the vital signs and physical assessment must be documented once at least within two hours of having started the shift per day. The majority of respondents N=76 (95%) indicated the correct answer. It is expected that all nurses will show adequate knowledge with regard to the policies on patient documentation.

Illegibility of handwriting has been mentioned by the respondents as the problem mostly experienced N=59(73,8%); followed by N=10(12,5%) respondents who stated that manual documentation is time consuming and a further N=5(6,3%) combining the possibility of illegible handwriting and time issues. These statistics can be used in favor of electronic documentation especially when one considers legibility of handwriting which is not a problem at all when dealing with electronic documentation. Meanwhile the majority N=78(97,5%) indicated that the main problem experienced with electronic documentation was the possibility of the computer system being down especially when a nurse wants to check her orders and procedures or have to document electronically.

There are still mixed feelings with regards to advantages and disadvantages of writing on paper, and the use of the computer system; N=45(56.2%) of respondents felt that they can express themselves freely with no space constraints on paper and N=28(35%) stated that one does not depend on a computer to do documentation. However, N=6(7,5%) stated that difficulty in reading some of the handwritings and the fact that the paper on which one has

documented may land in a thrash bin were the most convincing disadvantages of the manual/paper documentation version.

On the other hand respondents N=69(86,3%) stated that information is safely kept in a computer and also you need to have a username and a password to retrieve information, but the majority of respondents N=77 (96,3%) stated that you cannot do electronic documentation without using a computer and it is impossible to document electronically when the computer system is down.

The majority of respondents N=74(92,5%) are familiar with the hospital policies pertaining to documentation when computers are not working on a particular day, that down time forms may be used for ordered tests and the physician's order sheet may be used to order medication when the Mycare system which is the medication ordering system is down. It is however expected that all nurses are familiar with the policies.

For identification of a person who has accessed, modified or erased any documented information about the patient in a computer, N=71(88,8%) respondents stated that, such a person would be easily identified by their username and password which is the security measure to ensure confidentiality to the access of patients' computerized information. Personal experiences and feelings regarding the current paper documentation in particular, are that the respondents felt that there is a lot of paper to write on, it is time consuming and there is minimal time to do all the paper work which in future might be deemed outdated because of the negative image it (paper documentation) has from the registered nurses point of view in which case electronic documentation might be the more acceptable form.

The Cerner (computer) on the other hand is said to be one of the best systems supported by N=44(55%) of the respondents. The negative experiences mentioned N=11(13,8%) about frequent downtimes may influence nursing care adversely. Inadequate computers N=18(22,5%) might delay the nurses in doing their documentation and checking procedures done or to be done. Some of the respondents N=7(8,8%) indicated that there is nobody reading what they have documented in the computer system so why should they bother doing it. This may create some problems with the continuity of care.

Personal experiences with regards to the Mycare system which is the system for medication ordering from the pharmacy using computers, N=68(85%) of the

respondents said it is a reliable system, it is user friendly and they are quite happy with it, while only N=12(15%) found it not to be good at all, difficult to use and outdated. This could be attributed to the fact that it was only introduced in April 2006 in King Faisal hospital – Jeddah.

On stating advantages of entering some of the nursing procedures in the electronic system instead of paper documentation, N=61(81,3%) said that when information is entered into the computer system it is safely kept until needed, you do not need to write date and time since it is already there. Registered nurses stated that some practices and procedures are documented electronically, for instance temperature, blood pressure, respiration, oxygen saturation and pain. This is an indication that the hospital policies and procedures are being carried out by the nurses.

To have determined whether the registered nurses were carrying out the hospital policies and procedures a question was asked about specific nursing interventions carried out by nurses to ensure that he/she reviewed procedures done or to be done for instance blood is in progress; N=78(97,5%) answered that the correct intervention is the nurses' review in the Cerner (computer system). This demonstrated that the registered nurses were carrying out the hospital policies and procedures as were expected.

Immediate post operative care of the patient following a procedure that was done in the operating theatre entails documentation about the patient's general condition on arrival from the operating theatre and following post operative medical orders; N=76(95%) of the respondents responded correctly.

When the respondents were asked about what to write when a nurse has done a wound dressing N=76(95%) said that there must be documentation about the general condition of the wound, which will provide continuity in care. Thus, as a result of nursing care documentation valid and reliable evidence of caring is produced on a daily basis according to Karkainnen and Erickson (2003:199).

The majority of respondents N=61(76,3%) indicated that the patients' records should not be used for disputes between a nurse and a doctor. It is unfortunate that N=19(23,7%) indicated the contrary. Bergerson (1989:11) in his guidelines about documentation of nursing care pointed out clearly that the patient's chart should not be used to settle disputes or assign blame. Bergerson further stated that finger pointing and accusations have no place in the patient's official chart

whatsoever. Currently at King Faisal hospital in Jeddah in Saudi Arabia there is an OVR (occurrence variance report) which might be referred to as an incident report. In other hospitals it is used to describe what happened during the patient's care that is essential and this OVR must not be kept in a patient's file. For the respondents who felt that disputes can be written about in a patient's file an OVR can perfectly replace that beyond any possible doubt.

When nursing a pediatric patient N=78(97,5%) of the respondents stated that you have to document your nursing care about that pediatric patient, whereas N=2(2,5%) felt that there is no need to document because she/he is only a child. Professionally and legally a nurse is obliged to document nursing care of every patient regardless of age. This is in full support of the legal statement for the nurse that if it was not documented it was not done.

A total of N=77(96,2%) answered that as a patient's right a health care provider should involve a patient in a patient plan of care with N=2(2,5%) stating that a patient is only involved if that is an institutional requirement and then N=1(1,3%) stated that the involvement of a patient in his or her plan of care can only be done if a nurse is concerned that somebody will be checking on the nurse's work afterwards. Involvement of a patient in the plan of care not only enhances participation and compliance but it can also give the patient a clear picture of how the health care system works. Karkkainen (2004:269) states that respect for human rights and human dignity is part of the nurse's responsibility for those in his or her care. This means that in nursing care, human beings are genuinely helped to make use of their freedom and right to decide on their own affairs. In order to make this possible, Karkkainen further explains that the nurse should give the patients sufficient comprehensive information for them (patients) to be able to make the best decisions.

When the respondents were asked about what exactly a good nursing care documentation entails, N=79(98,8%) stated that it is about a clear communication with regard to a patient's general condition. This is so true because when a nurse documents a patient's condition the nurse explains what has been done by him/her (the nurse) and the other multidisciplinary team members, the nurse also explains what is to be done in future in relation to the patient. The nurse also writes about the changes, improvements, deterioration of the patient's general condition and the nurse covers aspects such as response to treatment given, wound condition, state of consciousness, psychological status, social status which

covers important aspects like family visiting, concerns of the family about the patient's progress and any planned medical management issues.

Some of the problems experienced by the nurses in manual documentation of nursing care was legibility of handwriting. This is also the indication from the respondents N=79(98,8%) who said that the nurse's handwriting must be legible so that people reading the nurse's notes would be able to understand what has been written. When the respondents were asked why should there be documentation in the patient's file in the first place 100% stated that it indicated that nursing care as a professional obligation was rendered and to communicate to other staff members the patient's general condition.

In answering the question asking about the people who are supposed to have access to the patient's file, N=79(98,8%) responded that it is the multidisciplinary team members taking care of the patient and the reason for that response is to communicate and monitor the patient's progress. Taking ethical principles into account one can be much convinced that, with such a good response this ensures that the principle of confidentiality is maintained at all times which will without any doubt enhance a trusting relationship between the clients/patients with their concerned relatives and the multidisciplinary members.

4.4 CONCLUSION

This chapter presented the findings, analysis and discussions of the collected data. The sections focused on the findings on documentation of nursing care, policies and procedures and perceptions of registered nurses with regard to current documentation systems used in the hospital of research. The findings in this study answered the research question “are the procedures and practices regarding electronic documentation in the hospital being executed”? N=76(95%) of the respondents stated that electronic documentation must be recorded within 2 hours of commencing a shift per day and N=67(83,7%) stated that temperature, pulse rate, blood pressure, respiration rate, oxygen saturation and pain are the patient data documented electronically. The goal of this study was to investigate documentation of nursing care with reference to current practices and perceptions of nurses in a teaching hospital in Saudi Arabia. The nurses document manually and electronically but have the following perceptions about current practices, namely that manual documentation involves a lot of paper to write on and it is time consuming. N=45(56,3%0 indicated that the Cerner system which is an

electronic documentation system is the best system used for documentation N=44(55%).

The following objectives were reached to:

- identify whether the hospital policies are being carried out, N=76(95%) respondents stated that patients' vital signs are recorded in the Cerner and a vital sign sheet which has to be recorded within two hours of having commenced the shift for the day.

- identify whether procedures regarding current documentation system are carried out, N=67(83,7%) stated that pulse, temperature, respiration rate, blood pressure, oxygen saturation and pain are documented and
- explore the perceptions of nurses regarding current documentation systems, N=45(56,3%) stated that there are a lot of paper to write on and it is time consuming. The Cerner system on the other hand is regarded as the best used for documentation N=44(55%).

Chapter 5 presents the conclusions and recommendations emanating from this study.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The preceding chapter contains discussions, analyses and interpretation of the research findings. This chapter presents the summaries of the primary findings of the research study presented in chapter 4. The findings are concluded to determine if the objectives and research questions of the study were achieved. From these presentations, conclusions and recommendations are offered**.**

5.2 RECOMMENDATIONS

From the conclusions of the primary findings, the following recommendations are offered to reinforce the execution of procedures and practices regarding nursing documentation and the nurses' perceptions regarding current documentation systems.

5.2.1 Hospital policies on patients' vital signs

The response given by the respondents showed that the respondents are aware of the hospital policies on patient's vital signs. N=75(93,7%) respondents stated that there are policies on vital signs. Despite the fact that the majority of registered nurses are aware of the policies it is recommended that the registered nurses should still be taught about hospital policies for the good functioning of the hospital. It is expected that all nurses are aware of the policies on documentation. A deficiency in knowledge about documentation may result in poor and inaccurate documentation about patient care which may result in a breakdown in the continuity of care.

5.2.2 Documentation of patient data on the Cerner

N=76(95%) respondents stated that the patient data must be recorded in a Cerner and vital sign sheet. Majority of respondents are aware of the documentation of patient data, it is recommended that the registered nurses should be taught the correct procedure on documenting the patient data. According to Ammenwerth, Eichstadter, Iller and Mansmann (2003:70) nursing documentation is an important part of clinical documentation.

5.2.3 Electronic documentation of the physical assessment of a patient

The policy of King Faisal Hospital clearly states that physical assessment must be documented on the Cerner (computer) at least within two hours of having commenced each shift. It is recommended that nurse clinicians and nurse managers when doing their audits should check the Cerner and see if there is compliance with regards to documentation of physical assessment (skin appearance from head to toe and integrity, breathing rate and sounds, heart rate etc.) in the Cerner.

5.2.4 Personal feelings and experiences regarding current documentation: paper system

N=45(56,3%) of the respondents complained that there are lots of paper to write on and it is time consuming. According to Langowski (2005:122) manual documentation is time consuming. One may miss important documentation requirements, may not be aware of what someone else is documenting or has documented. It is therefore recommended that the use of paper be minimized by shifting some of the nursing documentation procedures from paperwork to an electronic version especially given the dynamic nature of technology.

5.2.5 Cerner.

Contemporary documentation by electronic means is preferred by some respondents as the best system N=44(55%). According to Langowski (2005:124) computer documentation is timely and health care decisions are made with the entire patient information available. Computer documentation offers patient centred care allowing all disciplines to make improved decisions in a timely manner based on all of the patient information. It is recommended that continuous updating, in service training and monitoring be done to encourage nurses to keep up with the dynamic nature of computer usage.

5.2.6 Mycare electronic system

Despite the fact that the Mycare system has been preferred by the majority of the respondents N=68(85%), reviewing of the system, troubleshooting and suggestions from users need to be attended to on a continuous basis. This is to ensure that the system is well understood and that any problem arising is dealt with. The Mycare system is the new system introduced in the hospital, meaning that there might still be resistance to its installation and some problems might be experienced in some instances.

The research questions "**Are the procedures and practices regarding electronic documentation in the hospital being executed?** And how do nurses experience the electronic system?" have been answered. Based on the conclusions drawn from the data, hospital policies and practices regarding documentation of nursing care are being carried out.

The goal of this study was to investigate documentation of nursing care with reference to current practices and perceptions of nurses in a teaching hospital in Saudi Arabia.

The following objectives were set to:

- identify whether the hospital policies are being carried out
- identify whether procedures regarding current documentation are being carried out and
- explore the perceptions of the nurses regarding the current documentation practices.

The goal and objectives set for this study have been reached. The respondents have given different opinions regarding an electronic documentation system, giving some positive and negative feelings according to the way they view it.

5.2.7 The use of electronic documentation

Despite the fact that various advantages exist in the use of electronic documentation as identified in this study the majority N=50(62.5%) of the respondents indicated that the disadvantages of electronic documentation are when computers are down and there are no computers, N=27(33,7%) of the respondents stated that when the computer system is down you cannot complete the documentation. It is recommended that a back-up system (generator) is in place to ensure the continuity of documentation.

5.3 FINAL CONCLUSION

In an attempt to conduct a study on documentation of nursing care, current practices and perceptions of nurses, a research assignment was undertaken to gain scientific knowledge on various aspects of nursing documentation. This includes various types of nursing documentation, policies and procedures, documentation guidelines and theoretical bases.

A scientific research plan was formulated to validate the study from which the researcher drew answers to research questions to satisfy the objectives of this study. The collected data was statistically analysed, interpreted and the findings were discussed.

It was found that the nurses are aware of the hospital policies pertaining to documentation of nursing care and the nurses do carry out these hospital policies.

Furthermore it was found that procedures regarding current documentation are being carried out as well.

Perceptions of nurses regarding the current documentation practices are that:

paper documentation is time consuming and there are lots of paper to write on and the Cerner system is the best system to be applied.

Documentation of nursing care whether it is done manually or electronically is very important and it is a legal document. It should be effectively and efficiently done.

Recommendations were made based on the findings. This study can possibly be used as a foundational study to conduct further research.

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ANNEXURES

ANNESURE A: QUESTIONNAIRE

Dear participant, I am Aaron Mtsha. I am doing a mini research project as one of my study programme requirements. I would like to request your voluntary participation by answering the following questions. Please do not write your name anywhere on the questionnaire. If there is anything at any stage that you are unsure about or it is not clear please do not hesitate to contact me. My contact details are 0508157344 or extension 5810/5811/5812.

INSTRUCTIONS

Please mark your answer with an X next to the correct answer or write your answer in the space provided.

SECTION A: BIOGRAPHICAL DATA

QUESTION 1: How old are you?

Age		
1	≤21 yrs	
2	≥22≤29 yrs	
3	≥30≤39 yrs	
4	≥40≤49 yrs	
5	≥50≤59 yrs	
6	≥60 yrs	

QUESTION 2: What is your gender?

7	Male	
8	Female	

QUESTION 3: How long have you been working at this hospital?

9	≤12mths	
10	≥13≤24mths	
11	≥25≤36mths	
12	≥37≤49mths	
13	≥50≤59mths	
14	>59mths	

QUESTION 4: What type of ward speciality are you working in?

15	Medical ward	
16	Surgical ward	
17	Paediatric ward	
18	ICU	
19	Cardiology ward	
20	Oncology ward	
21	Neurology ward	
22	Operating room	
23	Emergency room	
24	Labour and delivery room	
25	Neonatal	

SECTION B

QUESTION 5: Do you have policies pertaining to documentation of nursing care in your nursing unit?

26	Yes	
27	No	
28	Do not know	

QUESTION 6: What does your hospital policy state on documenting patients' vital signs?

29	It must be recorded in a Cerner(computer) and vital signs sheet	
30	It must be recorded in the Mycare system	
31	It must be signed in a physicians order sheet	

QUESTION 7: Which of the following patient data can be recorded in the Cerner?

32	Temperature, pulse rate, blood pressure, respiration rate, oxygen saturation and pain	
33	Muscle contractions and dilatations	
34	Fluid intake and urinary output	

QUESTION 8: What does the hospital policy state about electronic documentation of physical assessment?

35	It must be recorded once a month	
36	It must be recorded twice a week	
37	It must be recorded once at least within 2 hours of commencing a shift per day	

QUESTION 9: What problems do you experience with manual documentation?

38	Handwriting may be illegible because of the individual's handwriting	
39	Notes are written in a clear understandable language	
40	Notes are written in the English language	
41	It is time consuming	

QUESTION10: What problems do you experience with electronic documentation system?

42	The computer system may be down by the time I want to do documentation	
43	Computer documentation system is not used in this hospital	
44	There is only one computer in each ward	
45	Computers have never been functional in this hospital this year	

QUESTION 11: According to your opinion what are the advantages of traditional documentation (that means writing on paper)?

46	Do not depend on the computer to do documentation	
47	Can express myself on paper freely with no space constraints	
48	There is not enough paper to write on	

QUESTION 12: What are the disadvantages of paper documentation?

49	Some of the handwritings are not easy to read	
50	You can always refer to what you have written	
51	A written paper can be torn apart and thrown in a trash bin	
52	It is not a requirement for nursing care procedures	

QUESTION 13: What are the advantages of electronic documentation?

53	It is safely kept in the computer	
54	You require a username and password to access information from the computer	
55	You need a lot of computers to do it	
56	Information is safely kept, username is required	

QUESTION 14: What are the disadvantages of electronic documentation?

57	When the computer system is down you cannot complete the documentation	
58	It is difficult to read other people's notes because it is not clear on the computer	
59	You cannot document without using a computer	

QUESTION 15: If computers are not working on a particular day, what are the interventions used for nursing care procedures and practices?

60	Down time forms may be used for ordered tests	
61	Physician 's order forms may be used for medication ordering if Mycare system is not working	
62	Down time forms and physicians' order sheets	

QUESTION 16: If a nurse has documented his/her nursing care in the system , what is the security measure to ensure that nobody else can erase or modify the entry without being identified?

63	Username and password	
64	Identity document	
65	Blood group type	
66	Employee number	

QUESTION 17: What are your personal experiences and feelings regarding current documentation systems?

Paper System

67	A lot of paper to write on and it is time consuming	
68	Because I have to do a lot of paperwork I have minimal time with my patient	
69	Minimal time and lots of paperwork	
70	Nobody reads what I have written so why should I bother	

QUESTION 18: What are your personal experiences and feelings regarding current documentation systems?

Cerner

71	Nobody reads what I have written so why should I bother	
72	There are not enough computers to use	
73	It is one of the best systems used for documentation	
74	There are frequent down times which has an impact on my nursing care	

QUESTION 19: What are your personal experiences and feelings regarding current documentation systems?

Mycare

75	It is a reliable system, which is user friendly and I am happy with it	
76	It is not good at all I find it difficult to use and it is outdated	

QUESTION 20: In your mind what do you think are the advantages of entering some of the nursing procedures in the electronic system instead of paperwork?

77	When entered it is safely kept until when needed	
78	You do not need to write time and date it is already there	
79	Everybody has a different handwriting which could be difficult to read	

QUESTION 21: What specific practices and procedures are documented electronically?

80	Vital signs (blood pressure, temperature, pulse, respiration, oxygen saturation and pain	
81	Physical assessment and vital signs	
82	Checking of narcotic medications	
83	Physical assessment	

QUESTION 22: What nursing action / intervention does a nurse complete in the Cerner that shows that he/she viewed procedures done or to be done for instance blood in progress or radiological procedures?

84	Nurses review in the Cerner	
85	Nurses review of oracle system	
86	Nurses review of hospital intranet system	

QUESTION 23: Which year was the electronic system introduced in this hospital?

87	2007	
88	2005	
89	2000	
90	2006	

QUESTION 24: In the immediate post operative phase what must be covered in a nurse's documentation about the patient?

91	General patient's condition and post operative instructions	
92	No need to bother about general condition as long as the procedure has been done	
93	The surgeon will do the documentation of nursing care no need to worry about the condition of the patient.	

QUESTION 25: When doing a dressing, what exactly do you as a nurse document about the dressing?

94	General condition of the wound	
95	Size and appearance only	
96	No need for documentation, the wound has been there all along.	

QUESTION 26: If there is a dispute between the nurse and the doctor for example, should that be indicated in the patient's file?

97	no		
98	yes		

QUESTION 27: Is it relevant to do documentation about a paediatric patient when you are nursing him or her?

99	No, he/she is only a child no need to do documentation about his or her care	
100	Yes, it is my duty and responsibility to document my nursing care about the paediatric patient I took care of	
101	Only sometimes it will be required to document	

QUESTION 28: Why should a patient be involved in a planning of his or her nursing care?

102	As a patient's right, a health care provider should involve a patient in a planning of his care	
103	Involve the patient in his care plan as required by the institution	
104	This can only be done if the nurse is concerned that somebody will be checking on her/his work afterwards.	

QUESTION 29: What does a good nursing documentation entail?

105	Clear communication about the patient's general condition	
106	Writing about the nurse's personal feelings and preferences	
107	To show a nurse's beautiful handwriting when documenting	

QUESTION 30: Why should a nurse's handwriting be legible in a documentation that she has written?

108	To enable people reading his/her documentation understand what has been written	
109	To show how beautiful his/her handwriting can be	

QUESTION 31: Why should there be nursing documentation in a patient's file in the first place?

110	As a professional obligation that nursing care was rendered and to communicate to other staff members about the patient's condition	
111	Just for fun and the sake of doing it	
112	To be done only if a nurse feels like doing it and has time for it	

QUESTION 32: Who are the people that are supposed to have access to the patient's nursing documentation and why should those people access the patient's file?

113	Multidisciplinary team members taking care of the patient - to communicate and monitor the patient's progress	
114	Family members - to make sure that the multidisciplinary members are providing adequate care to their relative	
115	Patient's occupational colleagues - to read and correct whatever has been written about the patient	

QUESTION 33: What is your general view on the electronic documentation of nursing care?

_____
_____
_____
_____
_____

ANNEXURE B: CONSENT LETTER TO THE PARTICIPANT

King Faisal Specialist Hospital And Research Centre – Jeddah

Jeddah, Kingdom Of Saudi Arabia

Dear employee of King Faisal Hospital

I am Aaron Mtsha. I am doing a mini research project as one of my study requirements. I would like to request your voluntary participation by answering the following questions. You need not identify yourself though. All you need to do is to answer the questions freely. If there is anything at any stage that you are unsure about or it is not clear please do not hesitate to contact me. All the information will be treated as confidential and will be used for the purpose of the study only.

Thanking you for your cooperation.

Yours Faithfully

Aaron Mtsha

Signature Date

ANNEXURE C: LETTER OF APPROVAL

KINGDOM OF SAUDI ARABIA
KING FAISAL SPECIALIST HOSPITAL
AND RESEARCH CENTER

المملكة العربية السعودية
مستشفى الملك فيصل التخصصي
ومركز الأبحاث

RESEARCH CENTER – JEDDAH
(MBC-J-04 / Ext. 2982/2984 / Fax ext. 2983)
Internal Memorandum

To : **Mr. Aaron Mtsha**
Principal Investigator, IRB 2006-22
Staff Nurse 1, Medical Ward (5-North)
Nursing Affairs

Date: 22 Shawwal 1427
13 November 2006

Ref.: RC(J)500E/27

From : **Dr. Mouhammed Kelta**
Chairman, Institutional Review Board (IRB)
Research Centre

Subject : **IRB 2006-22:** *Documentation of Nursing Care: Carrent Practices and Perceptions of Nurses in a Teaching Hospital in Saudi Arabia*

This is to acknowledge our receipt of your re-submission of the sections of the above-noted protocol with the recommended changes. The changes were done appropriately and you may now start the project.

The Board wishes you all the best in the conduct of this protocol and we look forward to your submission of the Final Report once you have completed this project in May 2007.

/ess

CC: Ms. Sandy Lovering, Chief, Nursing Affairs, KFSH&RC-Jeddah

ANNEXURE D: LETTER OF APPROVAL FROM THE UNIVERSITY

30 August 2007

Mr MA Mtsha
Division of Nursing
Dept of Interdisciplinary Health Sciences

Dear Mr Mtsha

RESEARCH PROJECT	"DOCUMENTATION OF NURSING CARE: CURRENT PRACTICES AND PERCEPTIONS OF NURSES IN A TEACHING HOSPITAL IN SAUDI ARACBIA"
PROJECT NUMBER	N07/08/182

It is my pleasure to inform you that the abovementioned project has been provisionally approved on 28 August 2007 for a period of one year from this date. You may start with the project, but this approval will however be submitted at the next meeting of the Committee for Human Research for ratification, after which we will contact you again.

A statistical consultation and review of the questionnaire is advised before starting the project.

Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary to make their final decision.

Please note that a progress report (obtainable on the website of our Division) should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

In future correspondence, kindly refer to the above project number.

I wish to remind you that patients participating in a research project at Tygerberg Hospital will not receive their treatment free, as the PGWC does not support research financially.

The nursing staff of Tygerberg Hospital can also not provide extensive nursing aid for research projects, due to the heavy workload that is already being placed upon them. In such instances a researcher might be expected to make use of private nurses instead.

Yours faithfully

~::.fQ,~y

CH AN TONDER
RESEARCH DEVELOPMENT AND SUPPORT (TYGERBERG)
Tel: +27219389207/ E-mail: cjvt@sun.ac.za
CJVT/pm

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