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This statement serves the purpose of justifying that Amy E. Droskinis is the sole author of this manuscript.

The Modern Bedside Nursing Arena:

A Case Study Exploring The Current Issues Faced By Diploma Prepared Nurses

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Abstract

Nursing is a dynamic and rapidly progressing field. As the profession changes over time, it is vital to the nursing population to study how these transformations influence the workforce. In this study the aim was to explore how nurses are functioning in the acute care setting and how modifications in educational requirements and technological advancement have affected their nursing practice. A case study method involving phenomenological electronic mail interviews was completed to explore one nurse's perspective and experience. This information was then compared to most recent research and applied to the modern nursing arena.

The findings of this project have been organized into two main themes: progressive transformation and technological innovation. The progressive transformation theme focuses on the culture transition that the nursing profession has transpired into, which includes the requirement for advanced education and an enhanced knowledge base. Additionally, this cluster reveals that with great knowledge comes superior responsibility, and that more tasks beyond direct bedside care are being taken on by nurses. The technological innovation cluster explores the role of technology within nursing education and how delivery methods have influenced learning. Lastly, this cluster provides a reflection of how bedside technology is being incorporated into patient care and how nurses should weave technology into their practice.

An intimate view through this case study has shed light on one participant's experience, thereby providing the possible impetus for further research on the subject. Findings are significant to educators and nursing staff development professionals due to the sensitive and personal experiences revealed. Now that these issues have surfaced, it is the responsibility of nursing leaders to assess if nurses within their environment are experiencing similar situations and to then remedy and rectify the circumstances.

The Modern Bedside Nursing Arena:

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Introduction

Internet access, telecommunications and connectivity, information systems, and education support and references have percolated the health care environment and nurses are one of the clinical providers that are experiencing this drastic transition in the last ten years (Gassert, 2008). Variable reviews regarding this transformation however have been reported. In one study 75% of nurses recognized an increase in documentation quality with usage of electronic medical records (Moody, Slocumb, Berg and Jackson, 2004), but yet 64% of nurses involved preferred previous bedside paper charting (2004). In a separate study the overall experience of working as a nurse in a highly technical environment was explored and exposed nurses approving of using technology as part of their care, but did emphasize the need for high quality education and assistance to practice with technology successfully (McGrath, 2008). Diverse views with

incongruence and conflicting recommendations warrant further research into the demographics of the nursing population, their education preparation and exactly what their current professional experiences encompass.

Background

In recent years, nursing has witnessed significant changes in technology, educational requirements for career advancement, mandatory requirements for continued licensure, and institutional requirements for specialty certification. Despite these varied changes, a paucity of research is available on nurses' experience with any of them. In order to maintain a robust workforce filled with educated and experienced nurses, it is vital that the nursing research community explore the needs of this population. The goal of becoming involved is to keep them in the nursing profession as long as possible and provide opportunities for an enriched and empowered career. This case study explored the experience of how seasoned diploma nurses are functioning in the professional nursing environment and what could improve their career outlook in terms of education and professional development and standards.

The importance of studying this experience is fueled by research that shows the aging nursing population, that increases in technology have forced them to consider early retirement and that little has been done to improve this incidence (Valencia and Raingruber, 2010). Determining the barriers in furthering current educational status and exploring preparation provided by the hospital and diploma programs for technological changes were key focus points during research. In addition, discovering how the participant feels about the advances in needing more education for jobs a nurse previously could obtain with a diploma and many years of experience were also explored.

Methods

Participation in this study was voluntary and recruitment occurred from the researcher's personal professional network and/or through word of mouth solicitation. After a potential participant had been identified, recruitment occurred through telephone conversation, electronic mail, and a scheduled face-to-face meeting. Following agreement to take part in the project, an informed consent was provided and completed prior to initiating research. Following establishment of a research participant and review of the research plan, the case study began.

Most recent research in the professional nursing community recognizes the value of case studies during qualitative research and is the foundation for why this methodology was selected for this study. Case studies are reported to be one of the most efficient and best ways to describe real-life context situations and experiences (Anthony &Jack, 2009). In comparison to all situations in which qualitative case studies were completed as a research method, the acute care nursing setting utilized this method the most (Anthony &Jack, 2009). Presumptively, this method is so frequently used in the acute care setting because of how it best addresses the means of answering the research question. Furthermore, the case study method is an appropriate way in which to carry out research involving an individual while still being able to collect a vast and detailed amount of data (Gangeness & Yurkovich, 2006).

In addition to being a well-suited means of studying life experiences, qualitative research through case studies has been shown to be an extremely appropriate and reliable form of research. An extensive study that reviewed qualitative case studies reported that 95% of the studies provided moderate to high levels of authentic data and research findings (Anthony & Jack, 2009). Due to previous successes with qualitative case studies in nursing research

involving the acute care setting with real-life situations, this was the most fitting and appropriate process to carry out. This research method directly correlates with the goal of the study which was, to explore the complex issues faced by a diploma-prepared nurse and possibly expose a catalyst for further research.

Data Collection

Following voluntary participation and submission of an informed consent, the researcher completed phenomenological interviews to explore the participant's experience as a registered nurse using personal electronic mail (e-mail). Using open ended, semi-structured questioning the researcher encouraged the participant to provide informal, but detailed responses. E-mail correspondence continued until data saturation was achieved. All data was encrypted and kept private through password protection and stored through the researchers personal e-mail account and computer.

Drastic increases in e-mail and internet use in the last decade stimulated the inspiration to use this particular vector for research during the case study. In the United States it is estimated that 54% of all people utilize the internet for some purpose and this statistic includes all ages, races, genders and ethnicity (Kalick, Price, Warren & Koch, 2006). Recent nursing studies have shown that valuable interactions during research can occur through e-mail conversations and this can lead to achieving long distance research objectives (Liehr, Takabashi, Liu, Nishimura and Summers, 2004). In fact, participant interactions were determined to be the instance in which e-mail is best used (Liehr et al, 2004) and were the terms in which it was used during this study.

Further support by recent research, electronic mail is an acceptable and equal form of interviewing and data collection in phenomenological research when culture stipulated ways of

showing meaning and emotion are used such as emoticons and abbreviations (Opdenakker, 2006). Also, asynchronous types of communication, such as e-mail, provide a participant with an increased amount of anonymity and better medium for self-disclosure of sensitive responses (Opdenakker, 2006). Additionally, the internet is recognized by the nursing research community as a "flexible, convenient and easily accessible" form of data collection ((Kalick, Price, Warren & Koch, 2006). E-mail is economical to the researcher as it is free to all parties involved, allows for increased concentration and focus during interviews due to lack of background noise and interruptions, and allows for a longer term of participant availability during research (Opdenakker, 2006). Although a non-traditional method of data collection in phenomenology, electronic communication offers a feasible, previously successful and professionally acceptable practice to obtain data and perform research.

For the purpose of data collection, the participant corresponded with the researcher for approximately two months. Each e-mail required roughly 5-10 minutes of the participant's time and the final number of correspondences required was nine. Collected data is reflective of the lived experience expressed by the registered nurse regarding professional interactions, barriers to achieving advanced nursing education, technological requirements within health care agencies, and institutional barriers. All data was obtained from a Pennsylvania registered nurse working in the acute care hospital setting who is diploma-prepared and has no further education other than state mandated continuing education credits. All ages, genders and races were considered for participation.

Procedure

Using an unstructured, electronic interview format, four-questions were initially sent to the study participant and subsequent unstructured questions were used to enhance clarification of responses. All questions were only asked from home by the researcher and throughout communication the participant was encouraged to reply to the researcher in a private setting removed from distraction. The purpose of the interviews was to obtain as much data as possible about the current lived experience of the diploma prepared registered nurse in the acute care hospital setting.

Data Analysis

Data was recorded by printing email conversations. Every conversation between the researcher and participant was printed and defined as data. This served the purpose as being an exact transcription for all interactions and responses between the researcher and participant. Following data collection and completion and printing of all conversations, the researcher used coding to analyze the data.

Coding was completed by color highlighting common themes and phenomenon during data analysis. The method of analysis by Colaizzi (1978) was used to derive themes and analyze data. Following this seven step method allowed the researcher to discover common themes and patterns within the data and gave an organized and structured process for deriving meaning from collected material (1978). The final step, unique to only this method, required the researcher to return the analyzed data to the research participant to confirm truth and validity (1978). Substantiating data through this procedure allows for enhanced authenticity and is what enticed the researcher to select this method of analysis.

No other person had access to the collected data at any time. Common themes developed from the analysis of data are designated within an audit trail and are included in the narrative case study. Data has been reported, in defined sub-categories and themes that were established during data analysis. The name of the participant is not utilized in data reporting. Instead, she has been provided with a pseudonym when direct quotes are required to assure anonymity. Following confirmation from the participant, all correctly analyzed data was organized by the researcher and provides an in-depth report of data analysis, research findings and application to nursing practice and the profession.

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Findings

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The main theme derived from the study reveals the drastic changes experienced by the participant in terms of professional standards and regarding patient care practices. The facts collected and ideas that were explored have been separated into two main themed clusters with each cluster having two sub-themes. A *progressive transformation* and *technological innovation* are the titles that represent the clusters focusing on the vast knowledge gained by the researcher that gives specific insight into the modern bedside nursing arena.

Progressive Transformation

A recent alteration in standards and concepts within the nursing field delineates the *progressive transformation* cluster and is described through the subthemes of *additional requirements* and *extended responsibilities*. The idea that the culture of nursing has evolved from a trade trained job into a professional career that demands educational standards and advancement dominated the interviews and reoccurred persistently during conversation. The perception that nursing previously was known as a skill governed occupation similar to an

automotive mechanic has now exploded into a profession that requires extensive knowledge in areas extrinsic to original bedside nursing and is shaping the current issues experienced by the participant.

Additional Requirements Perhaps the most frequently mentioned and most intense sentiment evoking topic was that of the sub-theme of changes in *additional requirements.* Currently a diploma-prepared RN, the participant expressed that upon embarking on her nursing career she was under the impression that she had achieved educational requirements to obtain any position within the scope of practice of nursing and wouldn't require further college level education in order to advance in her career. Recently, the standards for educational requirements for advanced positions within nursing have altered and unfortunately she is faced with the complex situation of advancing her educational level while simultaneously continuing to carry out full time employment responsibilities. Stuck in this dilemma, the participant has expressed that she feels as though nurses like her whom lack advanced degree preparation are being "pushed out" of the nursing professional altogether.

Recruitment and retention are vital to sustaining the nursing staff in hospital communities and the participant did reveal that she would be more likely to attend school if her institution supported her financially 100% with education costs and would even agree to be employed there indefinitely via contract if she never had to put forth or exchange money during her time when she was going back to school. In terms of cost containment and hospitals benefitting from the information gleaned during this project, it would be beneficial to explore the price tag of tuition fees for advanced nursing degrees vs. the cost of replacing nurses that leave hospitals for different positions or leave the field all together. Educational limitations fueled by financial

constraints have left the participant feeling as if she is disserted with no other choice than to advance her degree status, but can not seriously and aggressively carry out this notion.

Extended Responsibilities Not only have education requirements supported the modification of the outlook of nursing, but so has the second sub-theme in the *progressive transformation* cluster: the *extended responsibilities* outside of bedside care. Described as "getting away from hands-on care" the participant exposed a problem that could easily be overlooked if not viewed from an insider's perspective. Vital to all health care records nursing documentation is mandatory, but is described by the participant as tedious and occasionally excessive. She repeatedly expressed concern about paperwork requirements and believes this removes her from the patient bedside and instead leads to being haphazardly glued to the computer for charting.

Technological Innovation

Excessive documentation is potentially the byproduct of the technological overhaul occurring nationally in health care facilities. Information technology revamping the health care system is supported by the Institute of Medicine and federal government mandate of a nationwide adoption of electronic medical records by 2014, (Graybeal, K, 2009) and is something that can no longer be avoided. Due to the complexity of this inevitable takeover, the other cluster, themed *technological innovation* was investigated due to this rapid and mandatory change in the health care milieu. This cluster represents the experience of the participant involving incorporating technology into the nursing environment. Two massive areas explored between the researcher and participant are the two sub-themes of this cluster which are changes

in *enhanced methods* of education and changes in *balancing resources* during bedside patient

care that have occurred because of technology.

Enhanced Methods Methods of teaching have expanded from the original chalkboard

and lecture teaching format to a more contemporary means of information delivery involving

computerized software, distance education and electronic classrooms. This type of education has

inundated the nursing profession and the participant describes this transition to be rocky and

quite frequently both intimidating and unpleasant. The participant expressed her own situation

with one computer software program in which she simply clicks through the program, passes the

required exams and later forgets all of the information tested upon. Although later accountable

for this data, she confesses to simply meeting the requirements at that time and has trouble

retaining what she thought she'd learned. Learning this information in a didactic classroom

setting is not an option at her institution and unfortunately she is left with no other alternate form

of learning. As hospitals embrace the idea of combining technology and learning it is vital to

staff development that nurses are able to actually learn from and maneuver through online

programs.

Balancing Resources Technology has consumed the professional nursing role not just

through education and documentation but also with bedside patient care. Expressed by the

participant, the focus on bedside technology in patient care has drastically advanced in the last

ten years and this experience formed the sub-theme of technological advancement in terms of

balancing resources during patient care. Improving efficiency and safety with use of technology

is a priority of both the researcher and participant, and this sub-theme is meant to simply display

the tribulations of the actual experience and nuances that are occurring at the patient bedside.

The main concept expressed was not the actual increase in technology at the bedside, but instead

about how nurses can learn to appropriately and more effectively balance technology and managing the patient from a humanized approach.

Concerns that have arisen involve how nurses are experiencing difficulty with treating the patient as a patient and not just the machines that they are attached to and associated with. This lead to the formulation of the issue of the extreme emphasis and trust placed on technology during bedside care and that these advancements could be masking for some nurses the life threatening situations that some patients face. One study completed explored how nurses may have an inappropriate trust in technology and that complacency in this matter can lead to dangerous patient outcomes (Browne & Cook, 2011). The situation exposed was as nurses become more accustomed to technology that requires little intervening, that nurses themselves could pay less attention to those devices and in turn to their critical patient (2011). The experience of the participant mirrors the 2011 study previously mentioned that recognizes that trusting in technology too much can be harmful and the technology should not be a substitute for care but instead an extension of nurse monitoring.

Discussion

In order to properly compare each theme and subtheme to nursing practice and apply the participant's response to recent research, each topic will be discussed separately. Although the participant is one person, her experience is reflective of several recently discussed and researched topics within the nursing community. Surfacing with this information provides a medium for even further research and exposes detailed interactions and situations that give rise to further territory that necessitates exploration.

Progressive Transformation

Expressed by the participant, the feeling of being "phased out" of the nursing community is not untrue or an unjust emotion. Confirmed through recent research, the Institute of Medicine of the National Academies (IOM) has recommended that nurses become increasing involved in the health care revolution and serve as a partnership with other disciplines in governing this community (Munro & Savel, 2011). In order to do so, the IOM continues to recommend that nurses achieve advanced degrees including a goal of 80% of nurses holding baccalaureate degrees by 2020 and raising the current minimum education requirements for a registered nurse (2011).

Additional Requirements The nursing community overall is pushing all nurses to obtain further education and hospitals are joining this task force by demanding that nurses attain more education than previously required and to continue learning throughout the lifespan (Munro & Savel, 2011) . In addition to the nursing community efforts, a federal advisory panel recommended that by 2010 two thirds of the basic nursing workforce hold a bachelor of science in nursing degree and currently 54% meet this suggestion (Siela, Twibell and Keller, 2009). A source of professional discontent and frustration, this has also flooded into positions beyond direct bedside care and the need for an advanced degree to obtain such positions has become extremely popular.

Unavoidably this has left the participant feeling as though she is unable to move forward in a career that she initially felt well prepared for, and instead younger nurses with less experience and more education are the candidates sliding into sought after positions. Younger nurses from the millennial generation who are settling into the workforce have a different outlook on employment and career advancement in general and currently the nursing workforce is functioning simultaneously with three separate generations (Swearingen, 2004). In contrast to

the past when nursing management and decision making functioned in a dictatorship and hierarchy like fashion and people were promoted based upon seniority, now positions are obtained with other considerations including performance and education which does contribute to generational conflict in the workforce(2004).

Extended Responsibilities Not alone in her apprehension about fulfilling trivial responsibilities when she'd rather be providing direct patient care, a 2011 New York Times article "*Caring for the Chart or the Patient?*" reflected the participant's exact concerns. The article (2011) reveals that numerous health care agencies are requiring nurses to document information beyond their basic daily assessments and additionally involves assuring that accreditation standards and reimbursement requirements are met and documented by nurses in patient charts. These demands are often "flavor of the month" (Brown, 2011) style and are dropped upon the nurses' unexpectedly with the expectation that they are to fit multiple new requirements into their daily practice and tasks at any given time.

This phenomenon is reflected in the participant's opinion that she is being taken away from patient care to fulfill these expectations and worries that imperative bedside necessities such as compassion and empathy will be forgotten and overlooked as a priority. Embedded in nurses from the start of their career, the idea of something must be charted to be accounted for is contaminating this current circumstance and worries the participant and New York Times that "if it can't be charted, it ***WON'T*** be done." (2011) and patient-nurse relationships will lack the love, trust and sympathy that can't be tangibly documented.

Technological Innovation

Enhanced Methods Online learning has become an accepted form of education delivery in universities, colleges and even hospitals alike (Phillips, 2005). The benefits of this non-traditional method of learning have been analyzed, scrutinized but yet also accepted by not just the nursing community, but all academic institutions nationwide. As health care institutions continue to function in a "business like" manner, they have undertaken the concept of computer learning and reaped the benefits such as the ability to reach multiple students simultaneously regardless of geographic location while also needing limited educators to be involved in the process.

Integrating various learning styles into computerized learning is mandatory in continuing education in nursing and must be customized to the target population to have success (Phillips, 2005). Determining exactly who the target population is would have to be institution specific via a needs assessment. However, as previously discussed the largest segment of the nursing community is greater than forty years of age. Incorporating learning styles in relation to generational grouping would assist in meeting the needs of all learners involved in computerized learning (Notarianni, Curry-Lourenco, Barham & Palmer, 2009). In contrast to generation Y who is known as the technologically savvy generation that thrives on technology incorporated learning, generation X learners and baby boomer learners learn best in a passive but structured situation with goals and rewards having clear guidelines (2009). Perhaps this participant would be more successful with multiple educational options.

Although home computer skills may not seem necessary for employment computer skills, one study recognized that Nurse Executives nationwide believe that baseline computer knowledge is vital to being employed as a nurse in addition to computerized documentation skills (McCannon & O'Neil, 2003). Knowledge and the ability to utilize Windows operating

systems, internet and database searching, electronic mail and calendar software proficiency were all considered to be critical required skills when hiring or measuring competency of nurses (2003). Lack of literacy in information technology is not a predicament limited simply to this participant but also involves other registered nurses nationwide. One study which explored how to incorporate using technology skills in nursing instruction recognized that there are numerous nurses nationally that lack the general computer and research skills related to daily nursing practice (Schutt & Hightower, 2009).

Balancing Resources Separating when to use technology and when to use judgment at the patient bedside were the premise for this sub-theme and the need for nurses globally to recognize that bedside care and technology need to be a married practice in nursing care. Her concern for a separation between the two and how nurses are allowing technology to control tasks carried out during patient care is described by the participant. Computerized tasks and patient care needs are not different entities to be used at opposing times, but instead to be carried out simultaneously. Although no exact model exists in nursing about how to integrate technology into practice, recent research suggests that nurses must never allow themselves to become technicians who simply monitor equipment (Almerud et al, 2008). Instead, the profession must continue the basis of human care and use technology for objective situations.

Limitations

Confidentiality may have been threatened if an electronic mail file was lost in transmission. To avoid this situation, the same personal email program was used consistently throughout the project by the researcher and participant. Personal computers, as opposed to public or employer based, have been utilized to limit any outsiders' accidently viewing private

data. Strict anonymity and confidentiality were adhered to throughout and following research due to the overall sensitivity and personal interactions involved in research. The single participant's identification is heavily protected and masked to assure that he/she remains unknown during research reports. Through all efforts of the researcher, the participant and researcher had no or little relationship before embarking on research together and have only a small chance of further professional interaction following the study.

Furthermore, this case study utilized only one participant at the choice of the researcher. This tactic was selected to determine if any significant issues or dilemmas were transpiring for this population of nurses, and if any circumstances necessitated further research. However, this limited number of participants could lead to questioning if this participant's perspective represents the larger experience of her peers, as no one opinion can be generalized to all. Additionally, exploring this demographics' experience at separate institutions rather than just one hospital would contribute to further solidifying the themes and clusters gathered from this research.

Lastly, at initiation of this research study the goals and interviews as defined in the research proposal were followed. However, occasionally the data gathered did permit and require further questioning and interaction, therefore the researcher did allow the structure and organization of the study to be flexible while staying within the allowed boundaries of research. At the conclusion of the case study, the reported findings were publicly available and accessible for professional use and for further or enhanced research.

Conclusion

Themes and sub-themes exposed during this study may be applicable to numerous nurses and should be considered when resolving issues with bedside staff or determining the best ways to support this population with education requirements and delivery. Acquiring an understanding of this cohort of nurses will allow the entire profession to support and integrate their needs into daily practice. Subsequently, this will lead to a workforce filled with a combination of experienced nurses whom are interested in training the next generation and of newer nurses working simultaneously with their predecessors to master the current and future requirements of the nursing field.

Applying the knowledge extracted from this study and correlating it to nursing practice will allow bedside nurses, nurse administrators and nurse educators to gain a different perspective of the functionality of diploma prepared registered nurses. Expanding awareness of the needs of this population and their experiences in the modern bedside setting will allow for a more harmonious transition into a world of nursing that requires advanced education and demands technological application in patient care.

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