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| Topic 1 DQ 1 |  |

PICOT is utilized by the health care community to identify and study a nursing or medical practice problem. Consequently, PICOT examples that may provide insight into the use of the PICOT process, may not be relevant to nursing practice as they are based on a medical practice problem.

Describe the difference between a nursing practice problem and a medical practice problem. Provide one example of each. Discuss why is it important to ensure your PICOT is based on a *nursing*practice problem.

Nursing practice problem is challenges that nurses face during practice that deals with modalities of the patient, their support, preventing harm, improving quality of care and outcome. Nurses perform and provide assessment, health education, and coordinate health care. Incorporating evidence-based practice into nursing problems increases the potential of safe patient handling and movement. “Nurses can contribute ideas through a combination of both personal and professional experiences. It is through different ways of thinking that possible solutions to problems can be found.” (Grand Canyon University (Ed). (2018). To reduce injuries associated with patient handling, nurses have to apply evidence-based practice “to provide patients with safe, quality care and to improve outcomes.” (Grand Canyon University (Ed). (2018) an example is that hand washing breaks the chain of infection. Therefore, nurses enforce hand hygiene and apply during care to reduce the risk of hospital-acquired infections. The importance of PICOT based on nursing practice is to provide quality of care and improve patient outcome during course of care.

Medical Practice problems are problems that are faced by patients during disease prevention, cure of disease, accurate diagnosis, doctor-patient relationship and the competency of all health care personnel to reduce suffering. Being aware of the potential of patient harm and educating them about it is very essential in reducing harm. Medical practice problems can result when the practice is done without research or "protection of the of vulnerable groups." (Grand Canyon University (Ed). (2018). It is also important to carry out evidence-based practice in medical practice to reduce problems. The evidence-based practice encourages the medical community to follow research-proven practices for best patient care and outstanding outcomes. An example is continued medical educations which are very effective in promoting patient outcome. Additionally, today with the evolution of health care, people are living longer with non-invasive medical treatment or minimally invasive. If someone had an ectopic pregnancy, they would receive a keyhole surgical procedure instead of opening their entire abdomen or cesarean.

Reference:

Grand Canyon University (Ed). (2018). Nursing research: Understanding methods for best practice. Retrieved from https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1

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| Topic 1 DQ 2 |  |

Nursing research is used to study a dilemma or a problem in nursing.

Examine a problem you have seen in nursing.

Provide an overview of the problem and discuss why the problem should be studied.

Provide rational and support for your answer.

The field of nursing research has changed over time in many different ways with the increased populations of diverse cultural differences. Lack of cultural awareness in nursing is a problem that continues to grow. It is very important to study diverse cultural competency in order to provide health education while maintaining cultural competency and patient safety. Understanding different cultures and incorporating their cultural needs and value into their care plan not only addresses patient concerns but also improve their health outcome. There are times when patients from different cultures express their feeling as being discriminated against their cultural differences. “Nurses have a fundamental obligation to address the changing needs of patients. As emerging populations grow, it is imperative that nurses advocate and support changes that are needed to help these populations live well” (Grand Canyon University (Ed). (2018).Therefore, cultural diversity comes with problems that nurses need take under consideration to improve the quality of care. Some cultures only allow female caretakers for female patients and the same applies to males. The sex preference for health care providers becomes a big issue when the facility is understaffed. Overall, a diverse cultural awareness is important to improve patient care and reduce problems in nursing.

Reference:

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| PICOT Question and Literature Search |  |

The first step of the evidence-based practice process is to evaluate a nursing practice environment to identify a nursing problem in the clinical area. When a nursing problem is discovered, the nurse researcher develops a clinical guiding question to address that nursing practice problem.

For this assignment, you will create a clinical guiding question know as a PICOT question. The PICOT question must be relevant to a nursing practice problem. To support your PICOT question, identify six supporting peer-revised research articles, as indicated below. The PICOT question and six peer-reviewed research articles you choose will be utilized for subsequent assignments.

Use the "Literature Evaluation Table" to complete this assignment.

1. Select a nursing practice problem of interest to use as the focus of your research. Start with the patient population and identify a clinical problem or issue that arises from the patient population. In 200–250 words, provide a summary of the clinical issue.
2. Following the PICOT format, write a PICOT question in your selected nursing practice problem area of interest. The PICOT question should be applicable to your proposed capstone project (the project students must complete during their final course in the RN-BSN program of study).
3. The PICOT question will provide a framework for your capstone project.
4. Conduct a literature search to locate six research articles focused on your selected nursing practice problem of interest. This literature search should include three quantitative and three qualitative peer-reviewed research articles to support your nursing practice problem.

Note: To assist in your search, remove the words qualitative and quantitative and include words that narrow or broaden your main topic. For example: Search for diabetes and pediatric and dialysis. To determine what research design was used in the articles the search produced, review the abstract and the methods section of the article. The author will provide a description of data collection using qualitative or quantitative methods. Systematic Reviews, Literature Reviews, and Metanalysis articles are good resources and provide a strong level of evidence but are not considered primary research articles.  Therefore, they should not be included in this assignment.

While APA style is not required for the body of this assignment, solid academic writing is expected, and documentation of sources should be presented using APA formatting guidelines, which can be found in the APA Style Guide, located in the Student Success Center.

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| Topic 2 DQ 1 |  |

Qualitative data management and organization are achieved through direct interaction with individuals, on a one on one basis or in a group setting. “It is a key characteristic of a quality nursing research study that tells a story by developing a narrative that reflects realities and viewpoints of study subjects” (Polit, D. F., & Beck, C. T. (2017)

 Researchers need to apply strategies to help guide qualitative research. Understanding the phenomena being studied and applying strategies that researchers use also important in managing data. Sampling is one of the important strategies to consider. Therefore, “when selecting study participants, the qualitative researcher seeks to find subjects who can enrich understanding of the issue studied. Questions the researcher may ask when recruiting subjects include “who can confirm my understandings, challenge or modify my understandings, enrich my understandings?” (Polit & Beck, 2017, p. 491). The snowball sampling is the second strategy that helps the researcher manage and organize the data. As a result, it “involves study participants that referrers other participants to the researcher for inclusion in the study. The effect is that the sample size snowball increases in size. This method may help the researcher develop a more desirable sample with less risk of bias” (Grand Canyon University (Ed). (2018).

Reference:

Grand Canyon University (Ed). (2018). Nursing research: Understanding methods for best practice. Retrieved from <https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1>

Polit, D. F., & Beck, C. T. (2017). Nursing research: Generating and assessing evidence for nursing practice. (3rd ed.). Philadelphia, PA: Wolters Kluwer Health/Lippincott, Williams & Wilkins.

**Re: Topic 2 DQ 1**

Qualitative data can be difficult to manage. The data can often be lengthy, and researchers are tasked with the responsibility of making the data useful and applicable to the research question. There are not statistical tests that can be done on words collected, so the researcher must spend additional time determining how the information will be organized. Collecting this data relies on interviews, questionnaires and other methods of getting information from other sources, and “no matter how large or small the project, the qualitative methodology depends primarily upon eliciting self-reports from subjects or observations made in the field that are transcribed into field notes” (Johnson, Dunlap, Benoit, 2010). One strategy that helps manage and organize qualitative data is to clearly define what the qualitative research project desires to accomplish. The clarity of purpose helps the researcher identify not only what type of qualitative data that is necessary, but also helps the researcher determine what from the research gathered is relevant. The research can either be gathered by field notes which are observations of what is happening. Baseline qualitative protocol uses interviews and they are transcribed. Follow up qualitative protocol askes fewer questions, and the information is used to study changes across a certain amount of time. Focus group protocols utilize a small group of people who are asked various questions, and these people have expertise on the information. Once the purpose of the research is clearly defined, one or more of the four methods described can be chosen to best satisfy the objective. By carefully, choosing how information should be gathered, the collected data will be filtered of some material that is not valuable to the research.  
Another method researcher can use is recording interviews with digital voice recorders. After an interview is recorded, it will then be transcribed. By recording these interviews with applications that are compatible for voices, a clear recording that can be referenced in the future can be used. Digital copies can be saved, so that a researcher can address it in the future. This helps better manage the data because there will be information backed up as well as a reference that can be addressed. A benefit is that the information gathered is not paraphrased, instead, they are direct quotes that the subjects of interest have provided. This method of recording interviews is a way that the researcher can better organize the data collected. This method is very useful for study designs that use the baseline qualitative protocol.

References

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Johnson, B. D., Dunlap, E., & Benoit, E. (2010). Organizing "mountains of words" for data analysis, both qualitative and quantitative. Substance use & misuse, 45(5), 648–670. doi:10.3109/10826081003594757

**Re: Topic 2 DQ 1**

Qualitative research relies on information given by those involved in the research either as participants and/or researchers through observations (Johnson, Dunlap and Benoit, 2010). Researchers often times cannot control how much of these information they receive and can only determine what they need and what they don’t need after going through it. It therefore becomes necessary to find ways of managing this information until the research is complete, or until such time as the researchers will deem it dispensed with. Information management startegies are needed at all levels: receiving, storing, processing, and access as may be needed during the research period (Johnson, Dunlap and Benoit). One of the ways researcg data is managed is by utilising information technolgy. Computer softwares provide a platform where information can be received, stored, processed or analysed and retrieved on need basis. For instance, researchers can buy a software that allows respondents to key in their feedback directly. The software will then categorise the information into folders based on pre-set criteria. The software can also analyse the data and present results on graphs, bar charts or pie graphs as the researchers may deem convinient. So, by utilising information technology tools, researchers can effectvely manage volumnous information. It eliminates posibility of recieveing stakes of paper which would be the case if printed questionnaires were issued out. Another way information can be managed is by putting in secuirty protocols to ensure not only data safety but also keep its integirty. Research data is sometimes sensitive and the privacy of the respondents must be protected. Without water-tight security protocols, people’s confidentialty may be compromised. These security protocols can be computer-based if the research was itself computer-based or actual lock and key in case of paper-based tresearch.

References

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Johnson, Bruce D, Eloise Dunlap and Ellen Benoit. "Structured Qualitative Research: Organizing “Mountains of Words” for Data Analysis, both Qualitative and Quantitative." Substance Use & Misuse 45.5 (2010): 648-670.

**Re: Topic 2 DQ 1**

 Data organizing and management and is a challenging, integral, and vital part of qualitative research and is crucial to ensure successful studies. Being able to organize your data, i.e., converting your raw data to a final concise report, is an essential skill in scientific academic research. Major research projects can easily generate millions of words. Fortunately, recent advances in computer technology and software have made it possible to manage these mountains of words more efficiently.

When dealing with voluminous and sometimes overwhelming data sets, to understand the phenomena being studied, there are strategies researchers use to organize the information presented in the study. These strategies included, extensive training, communication and meeting between those involved in the study, maintaining consistency of the information collected, development of a conceptual framework for analysis, and creating a trail for internal and external audits. To assist with the management of the study, according to an article found in the International Institute for Qualitative Methodology, there are eight recommendations. These recommendations include, having one person organize the study, providing a thorough documentation, organizing a timeline, use of iterative process for data collection and analysis.

There are numerous ways of deriving structured data from qualitative unstructured data. Machine Learning and Deep Learning Applications which can derive useful and accurate quantitative data from qualitative information will play a huge role in the future of Analytics. But manual methods like using the Amazon Mechanical Turk, or a combination of both, are also effective approaches to deriving Quantitative Structured Data from Qualitative Unstructured Data.

**Steps for managing qualitative data are as follows:**

**1.ACCURACY:**Check if your data are of sufficient quality and accuracy before conducting a major analysis.  
**2. MAINTAIN COPIES:**Prepare backups of the data management system. These backups should be updated as data preparation and analysis proceeds.  
**3. ARRANGEMENT:**Field notes or researcher commentary should be arranged in a chronological, genre, cast-of-characters, event or activity, and topical or quantitative data file schema.  
**4. ORGANIZATION:**Combine related themes into major categories. Label these categories and create file (or Word document) for each major category.  
**5. LABELING:** Create a system for labeling and storing interviews. This can be conducted using a unique name or case identifier for each file. These should reveal crucial information about the file to researchers.

References:

1.Barbour, Rosaline. 2017. Doing Focus Groups.

2.Gibbs, Graham. 2017. Analyzing Qualitative Data.

3.Krueger, Richard A. 2019. Focus Groups: A Practical Guide for Applied Research.

**Re: Topic 2 DQ 1**

Managing qualitative research data begins with ensuring researchers know what the project is designed to accomplish, ensuring that the staff/field workers are trained on how to conduct the research, document field notes and systematically record the information (Johnson, Dunlap, & Benoit, 2010). Data that is obtained should be filed, labeled and include type of information obtained, name of person who collected it, date, time, and locations (Johnson, Dunlap, & Benoit, 2010). The researcher/team will need to decide what data base to use and ensure staff/researchers know how use it (Johnson, Dunlap, & Benoit, 2010).

Researchers should start organizing their research by creating file folders and labeling them to ensure they are easily identifiable (Emmelhainz, n.d.). The files are named with the project and year and what they are such as interview, observations and so forth and saved often. (Emmelhainz. n.d.). All information should have multiple copies stored in at least two different locations with at least one copy stored offsite (Emmelhainz, n.d.). All sensitive data should be encrypted (Emmelhainz, n.d.).

A second way to manage and organize data is to have a dedicated staff assigned to the job (Isaac, 2015). A protocol for data should be developed to standardize transcription format (Isaac, 2015). The researcher should maintain copies of all-important information in files and ensure the information is backed up after any updates or analysis (Isaac, 2015). All field notes, recordings or videos should be kept in chronological order. All files and gathered data should be labeled in a way so it is easily identifiable by the researcher/team. Ensure all information is stored in a safe place and ensure no data is missing (Isaac, 2015).

References:

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Isaac, (2015). 7 Steps for managing qualitative data. weloty. Retrieved from: https://weloty.com/7-steps-managing-qualitative-data/

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TOPIC 2 D 1

When dealing with voluminous and sometimes overwhelming data sets, organize the information presented in the study. These strategies included, extensive training, communication and meeting between those involved in the study, maintaining consistency of the information collected, development of a conceptual framework for analysis, and creating a trail for internal and external audits. To assist with the management of the study, according to an article found in the International Institute for Qualitative Methodology, there are eight recommendations. These recommendations include, having one person organize the study, providing a thorough documentation, organizing a timeline, use of iterative process for data collection and analysis,

Quantitative design is based on the traditional scientific research design and the science aspect of nursing. Through quantitative design, researchers are able to quantify findings easily. For example, a quantitative study designed to address infection rates will provide factual data about the number of infections occurring and other statistical data.

With Qualitative research you will have the following:

1. Open-ended interview questions, not Likert scaled instruments
2. Ethier one on one or focus group sessions which are recorded
3. Transcription of the recorded sessions
4. Data analysis, line by line review of the transcribed data, not SPSS statistical software
5. Results of the study will be identified as themes, not numerical or statistical results

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| Topic 2 DQ 2 |  |

The three types of qualitative research are phenomenological, grounded theory, and ethnographic research. Compare the differences and similarities between two of the three types of qualitative studies and give an example of each.

Ethnography is a qualitative research method that is “aimed at examination of cultural behaviors and the reason behind them in a deeper level” (Polit & Beck, 2017). In this case the researcher has to use strategies such as observation and interviews to fully study the culture and collect the right data.

Grounded theory is an “methodology that allows for researchers to consider phenomena of significance to nursing, and understand the actions taken in an area by those who are involved in performing the actions” (Polit & Beck, 2017). This approach is believed to lead to the development of many middle-range, or narrower, practice-related nursing theories.

Phenomenology “provides an approach that allows researchers to better understand a person’s lived experiences”. (Polit & Beck, 2017). Therefore, in this method, the researcher attempts to increase profound understanding of important phenomena of the subject being studied. As result, the study focuses on a small group as the researcher collect data from conversations and extensive interviews.

The similarity between grounded theorists and phenomenological is that they both achieve goals by collecting and analyzing data from participants perspectives and both types of researches ensure that their findings does not influence predetermined ideas. As a result, the findings supports an actual interactions of those that are involved in the research.

The differences is that phenomenological seek to describe and explore experiences, which can only be done by collecting data from individuals who have lived through those experiences. It is very difficult to understand the emotion of a person who is going through post-traumatic stress disorder (PTSD). As nurses, we are aware that causes of PTSD are including but not limited to war, assault and disasters and so on. The victims usually have bad experience and it difficult to learn from their experience unless they agree to be interview about it. The movie “Titanic” is also an example of phenom logical research because the real rose narrated the story from her personal experience. On the other hand, grounded theory to describes and explains the phenomenon under study. Grounded theorists seek to include all data sources that might contribute to theory development such as interviews, observations, research and examinations. An example of grounded theory is to understand how operation stress injuries leads to PTSD, “exacerbating mental illnesses, social difficulties, and spiritual or moral distress” (Smith-MacDonald, L., Raffin-Bouchal, S., Reay, G., Ewashen, C., Konnert, C., & Sinclair, S., 2019,para 1)

References:

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**Re: Topic 2 DQ 2**

There are three types of qualitative research. Phenomenology seeks to gather meaning from human experiences while grounded theory seeks to explain why a social process is the way it is. In order to gather information about human experience, interviews are often used. Questions such as “What is it like to be…?” are utilized, and the responses gathered do not follow a specific pattern because they vary based on the person who is answering. “Grounded theory sets out to discover or construct theory from data, systematically obtained and analyzed using comparative analysis” ( Chun Tie, Y., Birks, M., & Francis, K. (2019). While the grounded theory appears to be very flexible, it still demands very skilled and complex procedures when constructing a theory. Unlike phenomenology, grounded theory relies on coding to “identify concepts, similarities and conceptual reoccurrences” (Chun, et al. 2019). Coding is a way to organize the information gathered, so that a theory can be drawn from the data. There are three levels of coding initial, intermediate and advanced coding.  In both phenomenology and grounded theory, questions are open ended. An example of the phenomenology research would be evaluating the perspective of new graduate nurses working in the intensive care unit. This could be evaluated by asking new graduate nurses, “What has been your experience as a new graduate nurse in the intensive care unit?” In order to gather information about this topic, it is important that question is clear, so that researchers can draw the appropriate conclusions. An example of a grounded theory research question would be asking new graduate nurses “How do you feel clinical experience in nursing school has prepared you for your transition to nursing practice in your desired field?” This is a grounded question that a school could ask students at the end of clinical experience and before practice, and from the information that students provide, the school can gather a theory about student belief of preparedness based on the unit they want to work in post-graduation. Unlike phenomenology, grounded theory draws a conclusion based on analyzing the information provided. It is often critiqued that there is a possibility for information to be skewed using this method. It is possible that researchers may pick and choose what aspects of the research they choose to code, so that it can satisfy their desired conclusion. In both phenomenology and grounded theory, there is a high value placed on the experiences of others. Specifically, phenomenology “research that seeks to describe the essence of a phenomenon by exploring it from the perspective of those who have experienced it” (Neabauer, Wikop, Varpio, 2019). While grounded research uses the experiences and thoughts of others to draw theories from.

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**Re: Topic 2 DQ 2**

**What is qualitative research?**

qualitative research is when "the research is based on the art aspect of nursing. These may include lived experiences, feelings, and perceptions among other facets of the human experience" (Grand Canyon University (Ed). (2018).

**When should it be utilized?**

It should be utilized when "developing narrative that reflects realities and viewpoints of study subjects. Key characteristics of a qualitative study as identified are:

* Flexible, capable of adjusting to new information during the course of data collection
* Holistic, aimed at an understanding of the whole
* Involves merging various data collection strategies
* Requires researchers to become intensely involved" (Polit, D. F., & Beck, C. T. (2017).

**What makes it different from Quantitative Design?**

Quantitative design is "based on the traditional scientific research design and the science aspect of nursing. Through quantitative design, researchers are able to quantify findings easily. For example, a quantitative study designed to address infection rates will provide factual data about the number of infections occurring and other statistical data" (Grand Canyon University (Ed). (2018)

**What are the different methodologies of Qualitative Design?**

The three types of qualitative research are phenomenological, grounded theory, and ethnographic research. qualitative research methodologies is when "nurse researchers study aspects of the art of nursing. These may include lived experiences, feelings, and perceptions among other facets of the human experience. For example, the nurse researcher may design a study to learn more about the lived experiences of breast cancer survivors" (Grand Canyon University (Ed). (2018)

**How are the results presented?**

The results are presented through the collections of data, observation and interviews of the subject being studied.

References:

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**Re: Topic 2 DQ 2**

Ground theory and ethnography are both qualitative research techniques that use observation as a tool to collect data.

Ground theory has on a dynamic, explorative and more narrow approach that focuses on one aspect of a social process of a particular process. The amount of data is adequate (not too much) that flows from data to analysis to data to analysis (Fathi Najafi, Latifnejad Roudsari, Ebrahimipour, & Bahri, 2016, para. 3-5). For example; ask open-ended questions, observe focus groups, research artifacts and literature (“Grounded Theory: Simple Definition and Examples - Statistics How To,” 2019, para. 4).

The ethnographic theoretical approach seeks details of all aspects of a subject in a broad holistic manner acquiring massive amounts of data with a static or linear path (Fathi Najafi, Latifnejad Roudsari, Ebrahimipour, & Bahri, 2016, para. 3-5). Ethnographic research can be collected via social media like tweets on the social media program Twitter (Dr Dorota Crockford, 2019, para 5).

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**Re: Topic 2 DQ 2**

Qualitative research is a method of conducting research that focuses primarily on the verbal responses and feelings of people involved. Quantitative research is the sister to qualitative research, but they differ because quantitative research focuses primarily on statistical data and using numerical values as the primary focus. Two primary methods used under the umbrella of qualitative research include phenomenological and grounded research.

Phenomenological research is a qualitative measure that focuses primarily on what people say and takes their findings as truth (Groenwald, 2004). Edmund Husserl is not credited with designing the initial plans of phenomenological research, but he has been noted as “the fountainhead of phenomenology in the twentieth century” (Groenwald, 2004, p. 43). Phenomenology is precisely the study of phenomena (Groenwald, 2004).  Phenomenological research is based on the exact study of that phenomenon exhibited by people by detailing their expressed testimony on situations (Groenwald, 2004). An example of phenomenological research could be to ask a group of nurses if anxiety was present in their lives and if any of that anxiety could be attributed to their work as a nurse. The verbal or written testimony provided by the nurses interviewed would be taken as proof of their feelings without dispute. The beautiful part of phenomenological research is that it eliminates any bias provided by the people conducting the study as the evidence is not up for interpretation, the answers provided speak for themselves without the need of outside analysis.

The grounded theory seems as if it could be the polar opposite of phenomenological research. The grounded theory uses data, although not numerical data, to generate a theory that can be reported and used in future practice (Tie, Birks, & Francis, 2019). Grounded theory (GT) is utilized when little or nothing is known about an idea or concept to shape and guide similar needs in the future (Tie et al., 2019).  To provide an example of GT a decision must be made as to what kind of GT research we are doing. The different genres of GT include traditional, evolved and constructivist (Tie et al., 2019). Evolved GT is the offspring of symbolic interactionism and is used to assess “the symbolic meaning people ascribe to the processes of social interaction” (Tie et al., 2019, p. 2). If I am understanding GT correctly (and please correct me if I am wrong) than an example of GT would be studying how Christians view their interactions as nurses in society. Using GT we could see how nurses perceive their public interactions as nurses with their Christian beliefs guiding them.

I hope I have verbalized the different types of research correctly, but these ideas seem a bit complex to me so please correct any misunderstandings. Thanks

Adam

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**Re: Topic 2 DQ 2**

The two types of Qualitative research designs that I will be speaking on is grounded theory, and ethnographic.

**Grounded Theory**

This is a systematic technique used in qualitative research to analyze data. It allows researchers to develop a theory that explains a specific phenomenon. Although grounded theory research is systematic, it is also a flexible process to collect data, code the data, make connections and identify what theory/theories are generated or are built from the data collected. “In grounded theory, the researcher does not commence the process of research with a predetermined theory in mind, the formulation of theories stem from the data that allows one to explain how people experience and respond to events. The main feature of Grounded theory research is the development of new theory through the collection and analysis of data about a phenomenon” (Astalin, 2013). The main purpose of this research design is the development of new theory through the collection and analysis of data about a phenomenon which can be used in health care setting so that we can approach existing problems in a new way.

An example of this is where researchers observed people who were bereaved as they progressed through a series of stages and observed that each stage was characterized by certain responses such as denial, anger, bargaining, depression and acceptance. This was not a new phenomenon, as individuals have been going through these stages for a very long time but the research formally acknowledged and described the experience. Today healthcare professionals use their knowledge of the grieving process a new knowledge derived from grounded theory, to understand the experience of bereavement and to help the bereaved to come to terms with their loss.

**Ethnographic Theory**

This research design is a qualitative method where researchers observe and/or interact with a study's participants in their real-life environment. This is used when a researcher wants to study a group of people to gain a better understanding of their lives or specific aspects of their lives. Researchers use this method to describe, analyze and interpret a culture’s characteristics. Information is gathered by carefully observing and participating in the lives of those being studied, while still maintaining a professional distance. Information is also gathered by interviewing these participants. “Ethnography is the branch of anthropology that involves trying to understand how people live their lives. Unlike traditional market researchers, who ask specific, highly practical questions, anthropological researchers visit consumers in their homes or offices to observe and listen in a non-directed way” (Anderson, 2009).

An example of this type of research design is one in which the researcher, “lived as a member of a gang in Chicago for nine months. This allowed him to write about the organizational structure and the forms of power that existed in street gangs” (Hawks, 2019).

**Differences between Grounded theory and Ethnography**

* Ethnography differentiates itself from grounded theory because it entails understanding the participant’s behavior with respect to a specific culture, looking at culture rather than the whole context.
* In the case of grounded theory, the researcher doesn’t consult the literature before the fieldwork in order to avoid getting influenced by the literature, on the other hand, ethnographers can consult the literature before conducting the study to get an idea about how the researcher can proceed further.
* How results findings are presented - Grounded theorists focus their final report on the discussion of conceptual analysis and substantive theory which is built from the collected data while ethnographers use descriptive approaches like narratives to describe participants and their actions.

**Similarities between Grounded Theory and Ethnography**

* In both methodologies, the researcher studies the phenomenon in its natural context and uses a holistic approach to study the phenomenon.
* For both methodologies more than one data collection approach is implemented to helps the researcher in providing multiple interpretations and also enhances the accuracy and credibility of the research study.
* The third similarity is that; the researcher presents the reports from the perspective of the participant who has experienced the phenomenon in the natural setting. Excerpts from the interviews, stories of participants are added to the report which enhances the overall productivity of the research findings.

References

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| Rough Draft Qualitative Research Critique and Ethical Considerations |  |

Write a critical appraisal that demonstrates comprehension of two qualitative research studies. Use the "Research Critique Guidelines – Part 1" document to organize your essay. Successful completion of this assignment requires that you provide rationale, include examples, and reference content from the studies in your responses.

Use the practice problem and two qualitative, peer-reviewed research article you identified in the Topic 1 assignment to complete this assignment.

In a 1,000–1,250 word essay, summarize two qualitative studies, explain the ways in which the findings might be used in nursing practice, and address ethical considerations associated with the conduct of the study.

Prepare this assignment according to the guidelines found in the APA Style Guide, located in the Student Success Center. An abstract is not required.

This assignment uses a rubric. Please review the rubric prior to beginning the assignment to become familiar with the expectations for successful completion.

You are required to submit this assignment to LopesWrite. Refer to the [LopesWrite Technical Support articles](https://support.gcu.edu/hc/en-us/sections/360001963394-LopesWrite) for assistance.

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| Topic 3 DQ 1 |  |

Provide examples of experimental and nonexperimental research design. Contrast the levels of control applied to each.

Experimental and non-experimental are both commonly used designs for quantitative research studies, although they are different. An experimental design is a study or “type of quantitative research design that is highly controlled and to study cause and effect with independent and dependent variables” (Grand Canyon University” (Ed). (2018). As a result, the researcher can control the level of some independent variable by purposefully manipulating to get the desired results during the study. Strategies are applied during the research to assess circumstances and end results connections. Therefore, the researcher is able to “make a claim that there is a definitive, direct, cause-and-effect relationship between variables” (Grand Canyon University (Ed). (2018). For example, a patient might have no allergies to food or drugs recorded. However, they have diarrhea and abdominal discomfort every time they consume milk or milk products. Therefore, there is a relationship between milk and the patient's symptom of diarrhea.

Non-experimental research design lacks the manipulation of an independent variable, instead, it relies on interpretation, observation or interactions to conclude. It is associated with descriptive designs of research that focuses on examining variables as they naturally occur without manipulation of the researcher compared to experimental research. Correlational is an example of a non-experimental research design. “Correlational study designs will have hypotheses that predict the relationship between the independent and dependent variables; however, because of the lack of control in the study design, any change in the dependent variable cannot be determined to be a result of the independent variable”(Grand Canyon University (Ed). (2018). An example of non-experimental research asking a question like: what is it like to be a nursing student and pregnant at the same time? As you watch the behavior or action of a nursing student who is pregnant, you find out that they are extra stressed.

The levels of control applied would depend on the research question itself. However, if the relationship is the main cause of the research, then an independent variable can be manipulated which would be experimental. Non-experimental has a low level of accuracy due to the lack of manipulation of variables. Therefore, the research interprets and examine the variables as they change.

Reference:

Grand Canyon University (Ed). (2018). Nursing research: Understanding methods for best practice. Retrieved from https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1

**Re: Topic 3 DQ 1**

Experimental research is defined as research design that focuses on cause-effect relationships (Gustav, 2017). It interrogates variables to determine which effect, if any, one variable has on another. There is deliberate manipulation of the variables so as to determine how such manipulation affects the other variable or entire results. Take for instance a research on the effect of using pharmacological sleeping aids on the quality of sleep. The pharmacological sleeping aids are the variable being tested to study their effect on quality of life. To concretely understand the cause-effect, a control study will be necessary. In this case, the control may involve using placebos. A cause-effect relationship will then be established. Examples of experimental research designs include “between-subjects experiments” and “within-subject-experiments” (Price, Rajiv and C, 2013).

Non-experimental research does not involve actual testing. Studies are done through observations from which inferences (which are actually the results) are made (Thompson and Panacek, 2007). Examples of nonexperiemntal research include qualitative research and correlational research (Price, Rajiv and C, 2013). Others are partially experimental and partially non-experimental in nature but are categorised under non-experiemntal research.

Experimental studies necessarily need control studies. Control study helps to show that results of the experiment are indeed due to the variables involved in the experiment and not merely by chance. The researcher has control over the variables which enables him/her to manipulate them and see how results differ. In the above example, the researcher has control of how much (dosage) pharmacological sleeping aid to administer and when. For non-experimental research, the researcher has no control over what to observe. Because they are observational in nature, what the researcher observes may not be within their control.

References

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Price, I-Chant A, S Jhangiani' Chiang Rajiv and Paul C. *Research Methods in Psychology*. 2013. Electronic. <https://opentextbc.ca/researchmethods/>.

Thompson, Cheryl Bagley and Edward A Panacek. *Research Study Designs: Non-experimental*. 2007. <https://www.airmedicaljournal.com/article/S1067-991X(06)00309-9/pdf>.

**Re: Topic 3 DQ 1**

An experimental design is one where there is a high level of control; whereas, a non experimental design is one that relies on observations to draw conclusions (Wong Vivian. C., & Steiner Peter M.,  2018). Both have specific relevance; however, the designs of each vary greatly. An example of an experimental design is a laboratory test. If I wanted to test a drug’s effectiveness in killing a bacterial infection without killing other bacteria, I can set up petri dishes with varying conditions, treat them and check them to see the results which could lead me to see the drug’s effectiveness. In experimental design, there is a high level of control as independent and dependent variables are established. The independent variable is the one that is changed. In the case of the above example, the independent variable could be different concentrations of bacteria on the petri dishes. The dependent variable is the variable that stays the same. In the case of the example, this would be drug in study. There is a high level of control when doing experimental drugs because the conditions are manipulated, and the gathered results are then evaluated. In a non experimental design, the set up is not manipulated. This relies heavily on observation and surveys (Wong &  et al. 2018). An example of this type of study would be “Do students feel prepared for the workforce after having completed their nursing education?” The variables in this question cannot be altered, and in order to get an answer, one must simply rely on surveys that ask students to possibly rate their workforce readiness. From there, a conclusion can be drawn. Non-experimental studies have little control (unlike experimental studies) and have low validity (Wong & et al. 2018). In a study such as the example above, how can it be controlled what type of students were interviewed. The results could show that the students feel very ready for the workforce, but it is possible that the only students who felt motivated to take the time to respond to the survey felt very prepared. When conducting an experiment, it is important to consider what design satisfies the intended purpose best. Some research questions require more internal validity while other research questions satisfy the intended purpose with low validity. In conclusion, experimental studies have a high level of control while non experimental studies have low control. The level of control in an experimental studies varies based on how the study is designed.

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**Re: Topic 3 DQ 1**

**Experimental research**

According to Bhat (2019) “Experimental research is any research conducted with a scientific approach, where a set of variables are kept constant while the other set of variables are being measured as the subject of experiment”. With experimental research, the researchers are capable of performing experiments on people and manipulating the predictor variables.

This type of study strictly follows a scientific research design. It has a hypothesis, a variable that can be influenced by the researcher, variables that can be calculated, measured and compared. It seeks to determine a relationship between the dependent and the independent variable. After the researcher has collected the data, the result will either support or reject the hypothesis. This type of research uses random sampling. “When conducting experimental research, the researcher sets up the study to evaluate an experimental drug, treatment, or intervention. This type of research is a randomized control trial (RCT). Some patients receive the experimental drug, treatment, or procedure, and the other group does not. Randomization involves something similar to a coin toss” (Helbig, 2018).

“For example, a nurse may observe that an elderly person in her care is sleeping better at night, as measured by the number of hours slept. The nurse may hypothesize that this improvement is due to the recent introduction of an exercise regimen every evening. Sleep is measured for a period of time when the exercises are being undertaken by the individual (B phase). After a stable sleep pattern graph is observed, the exercise regime is withdrawn and sleep is measured again (A phase). If the hypothesis is true, the sleep measures will fall, and after a period of time, when the exercises are reintroduced” (Behi & Nolan, n. d.).

Experimental research is a controlled research; a true experiment in which the researcher manipulates one or more variables to determine the effect on other variables; random assignment is used. They also manipulate an independent variable around a controlled variable. This type of research is essentially done in a controlled environment. Within a true experimental design, there must be randomization, a control group, and manipulation of a variable while examining the direct cause or predicted relationships between variables.

**Nonexperimental research**

In this type of research, the researcher cannot control, manipulate or alter the predictor variable or subjects but instead depend on interpretation, observation or interaction to come to a conclusion. With non-experimental research, the researcher must rely on associations, surveys or case studies, and cannot determine a true cause-and-effect relationship. Non-experimental researchers are required to observe and interpret what they are looking at.

This type of research can be generalized to a larger population. “A common type of nonexperimental research is a correlational design. Correlational design looks at the association or relationship between variables. It is not like a quasi-experimental design study or randomized control trial because there is nothing new introduced in the design of the study. There is no new medication, treatment, or procedure introduced” (Helbig, 2018).

References

Bhat, A. (2019). Question Pro Survey Software. Experimental Research. Retrieved from https://www.questionpro.com/blog/experimental-research/

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| Topic 3 DQ 2 |  |

Describe sampling theory and provide examples to illustrate your definition. Discuss generalizability as it applies to nursing research.

**Describe sampling theory and provide examples**:

Sampling theory is “the process of selecting the study population or study sample” (Grand Canyon University (Ed). (2018). As a result, the researcher selects the sample that he or she chooses to study. The two examples of sampling theory are probability sampling and non-probability sampling.

**Probability sampling** is “based on the premise that there are known probabilities and participants who have a chance of being selected” (Grand Canyon University (Ed). The researcher will randomly base the researcher on the number of patients that were admitted to the hospital from October to December regardless of the reason for the visit.

“**Simple Random Sample**: The researcher randomly chooses a group of individuals from the larger population being studied

2.**Systematic Sampling**: This method selects every kth member of the population for sampling.

3.**Stratified**: divides the population into mutually exclusive groups, then extracts a random sample.

4 **Cluster**: This method divides the population into mutually exclusive groups that are representative of the population” (Grand Canyon University (Ed). (2018).

**Nonprobability sampling** is when the “participants do not all have the same chance of selection” (Grand Canyon University (Ed). As a result, the researcher will base the research on the number of patients diagnosed with flu during the flu season. Examples of nonprobability sampling are:

“**Convenience**: Used when the researcher does not know participants to recruit into the study.

2. **Purposive**: Allows the researcher to select participants who will provide a specific perspective according to the research questions.

3. **Snowbal**l: This method of recruiting participants uses the assistance of others already enrolled in the study.

4.**Judgment**: This method recruits participants based upon a specific area of expertise” (Grand Canyon University (Ed). (2018).

Generalization, as it applies to nurse research, is very important to determine the specific characteristics of participants to be included in the research study for accurate results. For nonprobability sampling, the researcher has to include only the participants that meet the purpose of the study. Probability sampling, the researcher provides all participants the opportunity to be selected randomly and participate in the research. For example, the hospital might want to find out were readmitted for complications of the same problem between November to December 2019? This is probability sampling. If the research question asks how many patients with flu complications were readmitted between November to December 2019, the focus will be on Flue diagnosed patients only. I hope the concept is understood and clear to everyone.

Reference:

Grand Canyon University (Ed). (2018). Applied statistics for health care. Retrieved from <https://lc.gcumedia.com/hlt362v/applied-statistics-for-health-care/v1.1/>

**BLEE T3DQ2**

While conducting research, it is imperative to determine the target population that the research study will focus on. There is usually a population of people who meet the criteria for the study, however this group of people is usually too large for the study to handle. From here the researcher breaks down the large population into a smaller group termed the sample population or study population, the process of selecting these participants is called the sampling method. There are two categories of sampling types probability sampling and non-probability sampling; in probability sampling all of the participants have an equal chance of being selected into the sample, where as non-probability sampling method focuses on a non-systematic process that illuminates equal chances for the participants to be placed in the target population.

Probability sampling is composed of simple random samples stratified random sample’s systematic and cost a random samples, as for nonprobability sample in the three types are convenience judge mental and snowball sampling.

**Probability Sampling:**

Simple random sampling utilizes the whole population and participants are selected using a lottery method or a computer generated random list. Stratified random sampling is a method that utilizes a modification of the simple random sampling, but difference in the fact that the population group is broken down into subcategories that are divided by demographic data and from their participants are selected randomly, this is helpful as it helps the researcher obtain adequate data from all the subcategories of the population. Next, systematic random sampling or interval sampling is a method used by researchers to select participants using a systematic rule or fixed interval for example it could include participants from a hospital but we only want the data from every fifth patient. Lastly, cluster sampling or multistage sampling is used when a populations size is impossible to break down into subcategories and the population has to be divided by a geographical location from there the researcher draws random groups to be included and randomly selects participants from those groups.

**Non-Probability Sampling:**

In sampling is the most popular type of sampling used in clinical research, subjects are enrolled in the trial on the basis of availability and accessibility, which makes for a quick inexpensive and convenient type of sampling.

Judgmental sampling method allows the researcher to select the participants from specific characteristics or demographics and participants are chosen simply because the researcher believes they are suitable for the trial.

Snowball sampling is utilized when a population is hard to track down, in this method the researcher utilizes one participant from a population and ask them to deliver surveys or some other type of research collecting material to his or her colleagues of the same demographic and/or class.

Generalizability is defined as the “extension of research findings and conclusions from my study conducted on a sample population to the population at large” ("Writing@CSU", 2019), meaning in nursing research generalizability means after we have determined the Direction of our research and used sampling methods to determine the research population we can see how are research has affected the population and make a conclusion.

Reference:

Mohamed Elfil, A. (2019). Sampling methods in Clinical Research; an Educational Review. Retrieved 12 December 2019, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5325924/

Writing@CSU. (2019). Retrieved 12 December 2019, from https://writing.colostate.edu/guides/guide.cfm?guideid=65

**Re: Topic 3 DQ 2**

According to Elfil and Negida (2017), to conduct any research in a practical way, the researcher must study a piece of a population (sample population) because researching every single person in the world who qualifies (target population) is not realistic (Elfil & Negida, 2017).

Elfil and Negida (2017) write, there are many different types of sample population research study designs. The two main groupings of sampling method are probability sampling method and non-probability sampling method.

* Probability sampling is a way of equally selecting the sample population therefore it is the method that better represents the target population. The difference in the probability samples is the way the groups are selected.

1. Systematic sampling chooses the sample using a system of intervals (every third person).
2. Cluster sampling involves looking at groups of populations in the same area. These like clusters divided and groups for a random selection (Elfil & Negida, 2017).

* Non-probability sampling selects research participants non-systematically, in doing so, lessens the chance of equality among participants in the sample.

1. Judgmental sampling evolves the researcher’s choice with their assumptions of how the sample population will be chosen (e.g., ratios of men to women).
2. Snow-ball sampling is a non-probability method where the researcher asks for more subjects via the other subject’s colleagues (e.g., nurses on the same unit), (Elfil & Negida, 2017).

Generalizability is a problem that can arise from confusion with the way a study is designed or conducted, and whether the results of the study are valid outside the study in a specific or general manner (Kukull & Ganguli, 2012).

Kukull and Ganguli (2012) write, for a study to be valid, the data collection, design, and appropriate statistical analysis must be at the core of the study. The researcher’s ability to generalize a studies’ validity, depends on their ability to correctly identify and separate “relevant” data from “irrelevant” data and furthermore, distinguish what is and is not relevant. Distinguishing what data is relevant or irrelevant, can be a matter of judgment and therefore not an easy task. This difficult judgment can result in generalizing data (Kukull & Ganguli, 2012).

An example that Kukull and Ganguli (2012) give is of the disease of Alzheimer’s. The distinction between true cases and non-cases distorts observed results (Kukull & Ganguli, 2012).

References

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Kukull, W. A., & Ganguli, M. (2012). Generalizability: The trees, the forest, and the low-hanging fruit. Neurology, 78(23), 1886–1891. https://doi.org/10.1212/wnl.0b013e318258f812

**Re: Topic 3 DQ 2**

Describe sampling theory:

According to Statistics Solutions, sampling is a “statistical procedure that is concerned with the selection of the individual observation; one is able to make statistical inferences about the population.” The authors go on to say that in sampling one can assume samples are drawn from the population and sample/ and population means are equal. Therefore inferences can be made about the population, with the help of samples. So in other words, sampling theory is applicable only to random samples and only relationships existing between a population and sample are drawn from the population.

Examples to illustrate your definition:

Sampling can be acquired from market researchers, commercials and or polls, etc., I even learned that the Census bureau uses this technique to gain the necessary data needed. Another example the researcher suggested: drug manufacturer would like to research the adverse side effects of a drug on the population of the country—the researcher decides a sample of people from each demographic and then conducts research on them. Types of sampling: Probability sampling, non-probability sampling, simple random sampling, cluster sampling, systematic sampling, stratified random sampling, etc., (Bhat, 2019).

Discuss generalizability as it applies to nursing research:

Generalizability is a measure of how useful the results of a study are for the people. It can be applied in academic settings. In addition, in the healthcare field one could use generalizability on simply making predictions based on past observations. Some of the groups one could consider could be based on race, age, gender, etc., in order to make theoretical and or empirical. If I wanted to study diabetes in African-Americans from ages 25-50—participants should be compared to the largest possible group of non-participating individuals. I could take what I learned on a small scale and now relate it to the larger yet broader picture. Which has been very beneficial in the nursing field, and helpful in developing effective evidenced-based research.

**References:**

Bhat, A. (2019). Experimental Research. Retrieved from:

<https://www.questionpro.com/blog/experimental-research/>

 https://www.statisticssolutions.com/sample-size-calculation-and-sample-size-justification/sampling/

**Re: Topic 3 DQ 2**

According to Wisdomjob.com. (2018) “Sampling theory is a study of relationships existing between a population and samples drawn from the population. Sampling theory is applicable only to random samples”. Sampling is selecting a particular group or sample to represent the entire population. There are two main sampling methods, these are probability and non-probability sampling.

**Probability Sampling**

In this type of sampling method, all the members of the population have an equal chance of being a part of the sample. Probability Sampling uses various methods such as simple random sampling, stratified sampling, cluster sampling, and systematic sampling. Probability sampling technique is based on the randomization principle, wherein the procedure is so designed, which guarantees that each and every individual of the population has an equal selection opportunity. This helps to reduce the possibility of bias. For example, if you have a population of 100 people every person within that population would have odds of 1 in 100 for getting selected. Probability sampling gives you the best chance to create a sample that is truly representative of the population.

**Non-Probability Sampling**

With a non-probability sampling method, not all the individuals within that population are not given an equal opportunity of becoming a part of the sample. With this technique, there is no probability attached to the unit of the population and the selection relies on the personal judgment of the researcher. The methods of non-probability sampling are convenience sampling, quota sampling, judgment or purposive sampling and snowball sampling.

“While probability sampling is based on the principle of randomization where every entity gets a fair chance to be a part of the sample, non-probability sampling relies on the assumption that the characteristics are evenly distributed within the population, which make the sampler believe that any sample so selected would represent the whole population and the results drawn would be accurate” (Surbhi, 2017).

According to Colorado State University (2019) “Generalizability is applied by researchers in an academic setting. It can be defined as the extension of research findings and conclusions from a study conducted on a sample population to the population at large. While the dependability of this extension is not absolute, it is statistically probable”. Generalizability is making a prediction based on a recurring experience. If something occurs frequently, we expect that it will continue to do so in the future.

Generalizability is used in nursing practice as it allows us to logically interpret the finding of research studies and allow us to act purposefully and effectively in incorporating these results into evidence-based practice to provide safe and effective care for patients.

Reference

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| Topic 4 DQ 1 |  |

Compare independent variables, dependent variables, and extraneous variables. Describe two ways that researchers attempt to control extraneous variables. Support your answer with peer-reviewed articles.

Comparison of variables:

**Independent variables**: “The experimental or interpreter variable. It is manipulated in the research to observe the effect on the dependent variable” (Grand Canyon University (Ed). (2018). Therefore, it is supposed to have an effect on another variable and controlled by the researcher. As a result, it comes before the dependent variable. For example, a patient taking metoprolol for high blood pressure. The experimenter can change or controls the dose by reducing, increasing or according to the desired parameters of blood pressure/hear rate.

**Dependent Variables**: “The outcome variable. It takes on different values in response to the independent variable”( Grand Canyon University (Ed). (2018). Dependent variables as it sounds, it depends on Independent variable and very interesting to the researchers. Therefore, it is influenced by the independent variable. Example, The decrease in heart rate is depending on the BP medication. The researcher is looking for a possible effect on the dependent variable(HR) that might be caused by changing the independent variable(Metoprolol 50mg).

**Extraneous Variables**: “A variable that can influence the relationship between the independent and dependent variables; can be controlled either through research design or statistical procedures; were not foreseen or known at the beginning of the study”( Grand Canyon University (Ed). (2018). In this variable, there is no relationship between the measured variables. And there is no support to the original theory of HTN. Example, number of falls with no relationship to Lowering bp. Of course, orthostatic hypertension is usually the possible cause of fall.

Two ways that researchers attempt to control extraneous variables Researchers try to control for extraneous variables in their experiments by controlling the conditions of the experimental environment to keep variables as constant as possible:

1. One way is to try to match the study participants on the possible confounds, such as matching experimental and control subjects, by age, gender, and other key possible confounding Variables in Research 165 variables

2. Another way is to incorporate an extraneous variable as an independent variable in the study design

References:

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McLeod, S. A. (2019, Aug 01). What are independent and dependent variables. Simply Psychology. <https://www.simplypsychology.org/variables.html>

**Re: Topic 4 DQ 1**

Compare independent variables, dependent variables, and extraneous variables. Describe two ways that researchers attempt to control extraneous variables. Support your answer with peer-reviewed articles.

Independent variables are the items that a researcher can manipulate within a study(Schmidt, 2018). The dependent variable is the outcomes reached by the manipulation of the dependent variable (Schmidt, 2018). Extraneous variables are those that “influence the relationship between the independent and dependent variables; can be controlled either through research design or statistical procedures; were not foreseen or known at the beginning of the study” (Schmidt, 2018, Chapter 4).

There are many methods used to control extraneous variables within the design of the study or various procedures throughout the study. Two examples of methods used to control extraneous variables are physical control and selective control (Street, 1994). Physical control assumes that all known extraneous variables are known during the study which allows the researcher to control the study by only manipulating the variables of interest (Street, 1994). As the study becomes more complex the use of physical control as a method to reduce or eliminate extraneous variables becomes more difficult and other methods become a more popular choice (Street, 1994). A second method of controlling extraneous variables is through selective control (Street, 1994). Street (1994) states that selective control is a method used to reduce the presence of extraneous variables by assigning subjects to test groups in a manner that spreads the extraneous variables uniformly among the subjects being tested (Street, 1994). By spreading the extraneous variables out among all the test subjects they effectively “cancel out across groups” (Street, 1994, p. 171).

Conducting a quality research project that is free of extraneous variables is vital in promoting data that can be effectively used across the globe. By implementing methods to reduce or eliminate extraneous variables we provide solidity to the data that is provided within the study results.

Schmidt, M. (2018). Measurement, statistics, and appraisal. In Nursing research: Understanding methods for best practice. Retrieved from https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1/#/chapter/4

Street, D. L. (1994). Controlling extraneous variables in experimental research: A research note. Accounting education, 4, 169-188. http://dx.doi.org/10.1080/09639289500000020

**Re: Topic 4 DQ 1**

In research the independent variable is the variable that the research controls/manipulates to cause an effect on the dependent variable (Helmenstine, 2018). The dependent variable is what is being studied to determine what effect the independent variable had on it (Helmenstine, 2018). The extraneous variable is an unintentional variable that is not part of the study (Statistics How To, 2015). There are four different types of extraneous variables, they are demand characteristics, experimenter effects, participant variables and situational variables (Statistics How To, 2015).

Researchers attempt to control extraneous variables to prevent them from altering or concealing the effects of the independent variable on the dependent variable (Flannelly, Flannelly, & Jankowski, 2014). To control extraneous variables researchers try to control the experimental environment as much as possible (Flannelly, Flannelly, & Jankowski, 2014). To control other extraneous variables researchers, match participants as much as possible such as gender and age, or group participants in age ranges known as stratification (Flannelly, Flannelly, & Jankowski, 2014). Researchers may also include the extraneous variable as an independent variable measure in the statistical analysis to control variations (Flannelly, Flannelly, & Jankowski, 2014).

An example of extraneous variables is in the article, Problems in Rorschach Research and What to Do About Them (Viglione, & Tanaka, 1997). This study included that the “complexity of the record or the number of responses may account for the relations between the two Rorschach variables.” The study also included that if the number of responses eliminates the association between the variables (Viglione, & Tanaka, 1997).

References;

Flannelly, L. T., Flannelly, K. J., & Jankowski, K. R. B. (2014). Independent, Dependent, and Other Variables in Healthcare and Chaplaincy Research. *Journal of Health Care Chaplaincy*, *20*(4), 161–170. https://doi-org.lopes.idm.oclc.org/10.1080/08854726.2014.959374

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**Re: Topic 4 DQ 1**

**Variables**

In any research study, there are varies variables that are tested in order for the researcher to achieve the desired result. According to AllPsych.com. (2018) “Variables can be defined as any aspect of a theory that can vary or change as part of the interaction within the theory. In other words, variables are anything can affect or change the results of a study”

The independent variables are those that have a direct effect on the dependent variable. The independent variable is the variable the researcher can change or controls and is assumed to have a direct effect on the dependent variable. While, on the other hand, the dependent variable is the variable that the researcher will test, measure or observe. The researcher will assess how it responds to a change in the independent variable. It is sometimes referred to as the responding variable.

According to AllPsych.com. (2018). “Extraneous variables can be defined as any variable other than the independent variable that could cause a change in the dependent variable. The extraneous variable that can impact the relationship between the independent and dependent variables and can introduce error into the scientific results". These are factors within the research that the researcher cannot control or cannot measure or these are factors that are considered unimportant. These are undesirable factors within a study that, if not controlled or accounted for, could negatively affect the data being collected. These will not influence the final decision drawn by the experiment but they may introduce error into the scientific results.

According to Stephanie (2015) “One way to control extraneous variables is with random sampling. Random sampling does not eliminate any extraneous variable, it only ensures it is equal between all groups. If random sampling isn’t used, the effect that an extraneous variable can have on the study results become a lot more of a concern”. Another way is of controlling extraneous variables is “the use of experimental designs: In certain studies, the experimental designs may play a crucial role in reducing or completely removing the role and impact of the extraneous variables” (Dissertation Canada, 2013).

Reference

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Dissertation Canada. (2013). Methods to Control Extraneous Variables. Retrieved November 24, 2019 from http://www.dissertationcanada.com/blog/methods-to-control-extraneous-variables/

**Re: Topic 4 DQ 1**

Great discussion Courtney. It is very interesting how researcher controls the variable, observe how it affect the dependent variable and look for extra results that happens with no relationship. "**Extraneous Variables:** A variable that can influence the relationship between the independent and dependent variables; can be controlled either through research design or statistical procedures; were not foreseen or known at the beginning of the study" (Grand Canyon University (Ed). (2018)

Reference:

Grand Canyon University (Ed). (2018). Applied statistics for health care. Retrieved from <https://lc.gcumedia.com/hlt362v/applied-statistics-for-health-care/v1.1/>

**Re: Topic 4 DQ 1**

One of the objectives of research is to find out the unknown or more information about what is not known. To achieve this, it is often necessary for researchers to investigate relationships between different elements of the issue under study which influence its status. These elements are called variables and can be independent or dependent (Flannelly, Flannelly, & Jankoski, 2014). According to Flannelly, Flannelly, & Jankoski, (2014), independent variables are those elements of the study whose status is not affected or influenced by the other variables. Instead, it is the one which actually influences the other variables (dependent variable). From the definition of the independent variable, it is clear that a dependent variable is a direct opposite of the independent variable. Dependent variable is influenced by the independent variable; or simply put it is not static as its baseline changes when independent variables are manipulated (Flannelly, Flannelly, & Jankoski, 2014). These two variables contrast more than they compare. In comparison, both can be said to be the main variables that show the casue-effect relatioship in research. Manipulating the independnt variables causes a change in the dependent variable hence showing the relationship which researchers are interested in. For instance, a researcher may be interested in knowing the relationship between income and quality of healthcare. Income in this case is the independent variable and quality of healthcare available to the income earner is the dependent variable. What a person earns is not depended on the quality of care they get but the quality of care is influenced by their earnings.

Extraneous variable is defined as that which interferes with the “relationship between independent variables and dependent variables” (Flannelly, Flannelly, & Jankoski, 2014, para. 16). Given the above example, an extraneous variable can be said to be whatever variables that will influence the relationship between income (independent variable) and quality of healthcare (dependent variable). A person’s income may be low but availability of government subsidies in their community or strong familybackground and support enables them access quality healthcare. Extraneous variables may exagerate the relationship between dependent and indpendent variables. This is why researchers often seek to control the extranous variables so that only a true cause-effect relationship is established. According to Flannelly, Flannelly, & Jankoski (2014), extraneous variables can be controlled by “controlling the conditions of the experimental environment to keep variables as constant as possible” (‘Extraneous, nuisance, or confounding variables’, para. 1). In other words, all other factors in the experimental environment are held constant. Using the above example, the researcher may require subjects to declare other healthcare resources available to them apart from their own income.

References

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| Topic 4 DQ 2 |  |

Describe the "levels of evidence" and provide an example of the type of practice change that could result from each.

Levels of evidence or *hierarchy of evidence* (Levels of evidence (2019) are evidence-based information that is "assigned to studies based on the methodological quality of their design, validity, and applicability to patient care" (Levels of evidence (2019). When doing research, it is crucial to select the highest level of evidence possible at the top of the pyramid. The research decision is based on the most substantial level of evidence, which is the top three of the pyramid because they are filtered. The unfiltered ones are not reliable and have a weak level of evidence, although they are still valuable.

 The types of practice changes that result from each are:

* Meta-Analysis: This method review applies quantitative research design methods to identify the results.
* Systematic Review: can be useful in identifying problematic areas during a practice. For example, bone marrow transplant would require research that would summarize the treatment, medications and more
* Critically Appraised Topic: Benefits patients in any clinical setting. For instance, a common cause of falls and what can be done to prevent it.
* Critically Appraised Articles: Through a comprehensive evaluation, turning and repositioning patients is a useful practice that reduces bedsore. Therefore, the authors of critically-appraised individual articles not only evaluate the effectiveness of the study but also summarize different research studies.
* Randomized Controlled Trials RCTs: this can help the researcher determine the side of the effect of a particular medication to one group compared to another group. The result of the study is to prevent further harm to the patient.
* Cohort Study Identifies: is more like epidemiology where the researcher determines the source of disease. For example, if multiple patients are admitted at the hospital due to complications related to their last meal. The source or food will be tested for possible E-coli contaminated.
* Case-Control Study: the researcher studies how E.coli can be transmitted from feces to food. This study is identifying patients who have the outcome of interest and similar sources of contamination.
* Background Information / Expert Opinion: All resources are used in this level of evidence to support the research by providing background information in order to determine the care needed. An example is caring for a patient with a brain injury.

Reference:

Levels of Evidence. (2019). Research Guides: Evidence-Based Practice for Health Professionals:Retrieved from <https://libguides.nvcc.edu/c.php?g=361218&p=2439383>.

**Re: Topic 4 DQ 2**

Levels of evidence are broken down into seven levels of a pyramid, the top level systematic review, meta-analysis, and critically appraised topics and articles are placed at the top of the pyramid and are considered the best form of evidence based information as they have been filtered and considered critically appraised.

A meta-analysis is a systemic review that utilizes quantitative methods to give a summary of the results, systematic reviews are you an article that the author has systematically searched for appraised and summarized all of the available medical literature for that specific topic.

The next level down from the top is critically appraised topics, these topics are comprised of articles that authors have you evaluated and synthesized using multiple research studies. Next critically appraised individual articles are those in which the author has evaluated and synopsized individual research studies. Under that level is randomized controlled trials which are comprised of a randomized group of participants in both an and a control group who are followed up with for the outcomes of interest. Next is cohort studies which identifies two subcategories of patients of which, one receives the “placebo” and the other does not. The second to last tier on the pyramid is comprised of case control studies which involves identifying the participants who have the outcome of the study and also the control participants without that outcome and determining if they had received the “placebo”. Finally, the last year includes background information and expert opinion these are comprised of textbooks encyclopedias etc. And usually include a generalization of the topic.

**Example practice changes that could potentially result from each level of evidence:**

* **Systematic reviews**
  + Determining answers to all clinical questions
  + Researching therapy ideology diagnosis prevention prognosis definitions and quality in improvement a clinical presentations
* **Critically appraised topics**
* **Critically appraised individual articles**
* **Randomized controlled trials**
  + Changes in therapy etiology diagnosis prevention and quality improvement
* **Cohort studies**
  + Research on ideology, therapy diagnosis prevention and/or prognosis
* **Case controlled studies/ Reports**
  + Research are changes in prognosis prevention etiology and therapy.
* **Background information/Expert opinions**

Resource:

Research Guides: Evidence-Based Practice for Health Professionals: Levels of Evidence. (2019). Retrieved 12 December 2019, from https://libguides.nvcc.edu/c.php?g=361218&p=2439383

**Re: Topic 4 DQ 2**

Research is about seeking information, answers for the unknown, answers to why, what and how questions. People can make all manner of claims which are unreliable because they are unsubstantiated. Because of these gaps, research is necessary to find evidence so that claims are no longer mere claims but substantiated theories, position statements and reliable findings. Reliability of research findings depends on evidence gathered. Levels of evidence refer to a grading system to which evidence gathered in research is subjected (Burns, Rohrich, & Chung, 2011). It is important in research because it guides users of research on the reliability of findings. The concept of levels of evidence dates back to four decades ago in a “Canadian Task Force on the Periodic Health Examination” (Burns, Rohrich, & Chung, 2011). It identified four levels of evidence namely:

1. Level 1 whose evidence should have at least one randomized controlled trial. Randomization enhances generalizability of the findings.
2. Level 2 is case control study. Control studies help to confirm that whatever findings attributed to a study are not by chance.
3. Level 3- time series comparisons. Comparisons with other data available gives further insight to the research findings.
4. Level 4 is expert opinions (Burns, Rohrich, & Chung, “Canadian Task Force on the Periodic Health Examination’s Levels of Evidence”, 2011)

Level one evidence is often presumed more reliable because of the element of randomization while level four is exposed to the biases of the expert’s beliefs and experience. It should be noted that the above are the original levels identified in the Canadian Task Force on the Periodic Health (Burns, Rohrich, & Chung, 2011). Other levels have since been added but the principle behind them is that they show how much evidence was available to support researcher’s conclusion.

References

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Burns, P. B., Rohrich, R. J., & Chung, K. C. (2011, Jul 12). The Levels of Evidence and their role in Evidence-Based Medicine. Plastic Reconstructive Surgery, 350-310. doi:10.1097/PRS.0b013e318219c171

**Re: Topic 4 DQ 2**

According to Krueger (2019) “Levels of evidence (sometimes called hierarchy of evidence) are assigned to studies based on the methodological quality of their design, validity, and applicability to patient care. These decisions give the "grade (or strength) of recommendation". The level of evidence pyramid highlight seven levels of evidence, namely systematic reviews, critically-appraised topics, critically-appraised individual articles, randomized control trials (RCTs), cohort studies, case-controlled studies/reports and background information/expert opinion. The higher one goes on the pyramid the stronger the study and the lower, the weaker the study.

When conducting research studies one searches for various evidence to be able to answer the research question. Evidence-based practice is about finding evidence and using that evidence to make clinical decisions. Based on the level of evidence pyramid the higher you go the stronger the level of evidence and the lower you go is the weaker the level of evidence. When searching for evidence-based information the researcher should choose the highest possible level of evidence as these have all gone through an evaluation process and have been filtered. Various types of clinical questions are best answered by different types of research studies. However, you might not always find the highest level of evidence such as a randomized control study, systematic review or meta-analysis to answer your research question, when this happens the researcher needs to go down to the next highest level of evidence on the pyramid.

According to Burns, Rohrich & Chung (2012) “The levels of evidence were further described and expanded by Sackett in an article on levels of evidence for antithrombotic agents in 1989. Both systems place randomized controlled trials (RCT) at the highest level and case series or expert opinions at the lowest level. The hierarchies rank studies according to the probability of bias. RCTs are given the highest level because they are designed to be unbiased and have less risk of systematic errors. For example, by randomly allocating subjects to two or more treatment groups, these types of studies also randomize confounding factors that may bias results. A case series or expert opinion is often biased by the author’s experience or opinions and there is no control of confounding factors”.

**Example of the type of practice change that could result from each level of evidence**

**Systematic reviews** **and Meta-analysis -**can be a very useful decision-making tool for primary care/family physicians as they can accurately summarize large amounts of information, identify gaps in medical research also harmful interventions that will be useful for researchers, clinicians, policymakers and the public.

**Critically appraised topics** – through evidence-based decision making they provide the best evidence for common clinical problems.

**Randomized control trials** – from this type of study improvement in quality control can be implemented which will result in safe and effective patient care and improve patients’ satisfaction.

**Cohort studies** – this investigates the causes of disease, risk factors and health outcomes within a group of people so that the necessary treatment and interventions can be given.

**Case-control study** - determines if an exposure is associated with an outcome such as a disease or condition of interest. They are used for investigating disease outbreaks and studying rare diseases or outcomes.

**Background information/expert opinion** – through this level of evidence which includes point-of-care resources, textbooks, conference proceedings, etc. These provide the best answers to clinical questions using structural search, critical appraisal, authoritative recommendations, clinical perspective, and rigorous peer review.

References

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Krueger, D. W. (2019). Winona State University. *Evidence Based Practice Toolkit*. Retrieved Sep 12, 2019 from https://libguides.winona.edu/c.php?g=11614&p=61584

**Re: Topic 4 DQ 2**

Thank you for sharing Nancy. in addition to what you said, it is critical as nurses to be aware of the "methodological quality of research design, validity, and applicability to patient care" (Levels of Evidence. (2019). Therefore, nursing research "must be peer reviewed to be published in journals, there are still some weaknesses or errors in all studies" (Grand Canyon University (Ed). (2018).

References:

Grand Canyon University (Ed). (2018). Nursing research: Understanding methods for best practice. Retrieved from <https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1>

Levels of Evidence. (2019). Research Guides: Evidence-Based Practice for Health Professionals:Retrieved from https://libguides.nvcc.edu/c.php?g=361218&p=2439383.

**Re: Topic 4 DQ 2**

Great post!

In addition, the weakest level of evidence is the "opinion from authorities and/or reports of expert committees" (Levels of Evidence. (2019)The information are not usually very reliable but they do some how support clinical care practice. An example is background information expert Opinion.

Reference:

Levels of Evidence. (2019). Research Guides: Evidence-Based Practice for Health Professionals:Retrieved from https://libguides.nvcc.edu/c.php?g=361218&p=2439383

**Re: Topic 4 DQ 2**

Very impressive information Sami. Applying evidence based is very important during research. Therefore, "All nursing studies contribute something, but beyond the statistical significance of the findings, clinical importance of findings needs to be evaluated to determine whether the patient’s response to treatment is enough to have implications for nursing care" (Grand Canyon University (Ed). (2018).

Reference:

Grand Canyon University (Ed). (2018). Nursing research: Understanding methods for best practice. Retrieved from <https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1>

**Re: Topic 4 DQ 2**

Thank you for sharing Nancy. in addition to what you said, it is critical as nurses to be aware of the "methodological quality of research design, validity, and applicability to patient care" (Levels of Evidence. (2019). Therefore, nursing research "must be peer reviewed to be published in journals, there are still some weaknesses or errors in all studies" (Grand Canyon University (Ed). (2018).

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**Re: Topic 4 DQ 2 Weekly CAT Click Here**

I am just amazed as why we did not use SR in week 2&3. It is very interesting to learn that the highest levels of evidence are the systematic reviews. This is because they are accurate  "with reproducible, well-described methods with increasing priority for researchers" (Lackey, M. J., Greenberg, H., & Rethlefsen, M. L. (2019). I believe that a lot of money is invested in SR. Benefits of this research are seen  in HIV, Cancer etc treatments to reduce the progression of the disease and prolong life a little bit longer. It helps answer the PICOT question by providing evidence, support and interventions that are more reliable and *filtered.*

Reference:

Lackey, M. J., Greenberg, H., & Rethlefsen, M. L. (2019). Building the Systematic Review Core in an academic health sciences library. *Journal of the Medical Library Association*, *107*(4), 588–594. https://doi-org.lopes.idm.oclc.org/10.5195/jmla.2019.711

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| Topic 5 DQ 1 |  |

The theoretical foundations of qualitative and quantitative methods are very different, but many researchers believe both methods should be used in the research study to increase validity and reliability. What advantages or disadvantages do you see in using both types of methods in a nursing study? Support your answer with current evidence-based literature.

Sonassa O. Toury, NRS-433V, January 6th  2020 at 6:35am Arizona time.

**Advantages**

Mix method “is a type of research design that includes both quantitative and qualitative design methods” ((Grand Canyon University (Ed). (2018). The advantages of using both methods in research enables the researcher to “performed the research by evaluating nonnumeric variables, and numeric variables that result in measurable data” (Grand Canyon University (Ed).(2018). Using both qualitative and quantitative research methods not only increases validity and reliability of the research, but it also identifies and provide a clear study about nursing and medical practice problems. Therefore, being aware of the subjective and objective of each study is important to during data analysis. As a result, qualitative data can assist with interpreting, clarifying, describing, and validating quantitative results.

**Disadvantages:**

The disadvantages are due to the effort and expertise that is required for both studies due to their simultaneous data collection. Both study each have equal weight. Therefore, mix methods requires a “team, extensive training in both quantitative and qualitative methodologies and careful adherence to the methodological rigor required for both methodologies”(Doorenbos, A. Z. (2014). There is a high chance of nursing researchers to face the possibility of inconsistency in research findings arising from the objectivity of quantitative methods and the subjectivity of qualitative methods. In these cases, additional data collection may be required. Both qualitative and quantitative data are collected simultaneously. The findings from each level will then be blended into one overall interpretation as the result of the entire study. I believe that mix method must be time consuming and more expensive due to the fact that they are duplicate.

**References:**

Doorenbos, A. Z. (2014). Mixed Methods in Nursing Research : An Overview and Practical Examples. Retrieved 2019, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4287271/.

Grand Canyon University (Ed). (2018). Nursing research: Understanding methods for best practice. Retrieved from https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1

**Re: Topic 5 DQ 1**

Adam,

Thank you for sharing. It is very important to include both studies in nursing research in order to collect both subjective and objective data to increase validity and reliability. "An example of using mixed methods would be examining effects of consuming a caffeinated beverage prior to bedtime" (Rutberg, S., & Bouikidis, C. D. (2018).

Reference:

Rutberg, S., & Bouikidis, C. D. (2018). Focusing on the Fundamentals: A Simplistic Differentiation Between Qualitative and Quantitative Research. Nephrology Nursing Journal, 45(2), 209–213. Retrieved from https://search-ebscohost-com.lopes.idm.oclc.org/login.aspx?direct=true&db=ccm&AN=129106232&site=ehost-live&scope=site

**Re: Topic 5 DQ 1**

Eleath Levy-Stering,

your post is very impressive and thorough. Mix method incorporates both qualitative and quantitative of a study in order to support a study. According to Polit and Beck (2012), "advantages of using a mixed method approach, including complementary, practicality, incrementality, enhanced validity, and collaboration." (Polit, D.F., & Beck, C.T. (2012).

Reference:

Polit, D.F., & Beck, C.T. (2012). Nursing research: Generating and assessing evidence for nursing practice. (9th ed.). Philadelphia, PA: Wolters Kluwer.

Very interesting. Using both qualitative and quantitative in one study is whats known as mix methods. Our text book specifically say "[Mixed methods](https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1/#/chapter/1) is a research design that incorporates both quantitative and qualitative research methods" (Helbig, J. (2018).

Therefore, an advantage according to Polit and Beck (2012) of using a mixed method approach is to "including complementary, practicality, incrementality, enhanced validity, and collaboration" (Polit, D.F., & Beck, C.T. (2012).

The disadvantages is using two step process to "obtaining quantitative and qualitative data concurrently, with equal importance given to each design, with more data and time consuming" (Rutberg, S., & Bouikidis, C. D. (2018).

References:

Helbig, J. (2018).Nursing Research:Understanding Methods for Best PracticeHistory and Process of Nursing Research, Evidence-Based Nursing Practice, and Quantitative and Qualitative Research Process. Retrieved from <https://lc.gcumedia.com/nrs433v/nursing-research-understanding-methods-for-best-practice/v1.1/#/chapter/1>.

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**Re: Topic 5 DQ 1**

Any research method that is used by the researcher is solely dependent on the topic being researched. Both qualitative and quantitative methods are very important based on the type of reached being carried out. In conducting qualitative research the researcher uses interviews, focus group discussion, diaries and journal or observation as a means of collecting data. However, the quantitative research method collects data by using a numerical system to measure variables. “The difference between qualitative research and quantitative research is that qualitative research is a means to study and assign meaning to subjective life experiences, whereas quantitative research is a means of mathematically proving relationships exist between variables” (McNiff & Patrick, 2018).

According to Green and Johnson (2018), there are several methods that are used in qualitative nursing research. These are ethnography which is the examination and understanding of the cultural behaviors of the participants being studied; phenomenology allows the researcher to better understand a person’s lived experiences or phenomena of life; and grounded theory which allows for researchers to consider phenomena of significance to nursing.

Poppulo.com (2019), identified the following advantages and disadvantages of qualitative research.

**Advantages of qualitative research**

1. Qualitative research can capture changing attitudes within a target group such as consumers of a product or service, or attitudes in the workplace.
2. Qualitative approaches to research are not bound by the limitations of quantitative methods.
3. Qualitative research provides a much more flexible approach. If useful insights are not being captured researchers can quickly adjust questions, change the setting or other variables to improve responses.
4. Qualitative data capture allows researchers to be far more speculative about what areas they choose to investigate and how to do so.

**Disadvantages** **of qualitative research**

1. The sample size can be a big issue. If you seek to infer from a sample of 200 employees, based upon a sample of 5 employees, this raises the question of whether sampling will provide a true reflection.
2. There can be sample bias.
3. Self-selection bias – this may arise when companies ask staff to volunteer their views for research, whether in a paper, online survey or focus group. Quantitative data is gathered whether someone volunteered or not, hence the possibility of bias.
4. Getting information by means of a focus group can be a challenge. The act of bringing together a group is inevitably outside of the typical ‘norms’ of everyday work life and culture and may influence the participants in unforeseen ways.
5. The right questions might not be asked. In qualitative approaches, asking about “how” and “why” can be hugely informative, but if researchers don’t ask, that insight may be missed.

**Advantages of Quantitative Research**

1. **It can be tested and checked**. Quantitative research requires careful experimental design and the ability for anyone to replicate both the test and the results. This makes the data you gather more reliable and less open to argument.
2. **Straightforward analysis**. When quantitative data is collected, the type of results will tell you which statistical tests are appropriate to use. As a result, interpreting your data and presenting those findings is straightforward and less open to error and subjectivity.
3. **Prestige.** Research that involves complex statistics and data analysis is considered valuable and impressive because many people don't understand the mathematics involved.

**Disadvantages of Quantitative Research**

1. **False focus on numbers**. By focusing solely on numbers, you run the risk of missing surprising or big-picture information that can be beneficial.
2. **Difficulty setting up a research model.** When you conduct quantitative research, you need to carefully develop a hypothesis and set up a model for collecting and analyzing data. Any errors in your set up, bias on the part of the researcher, or mistakes in execution can invalidate all your results.
3. **It can be misleading**. Many people assume that because quantitative research is based on statistics it is more credible or scientific than observational, qualitative research. In fact, the impact of this bias occurs earlier in the process of quantitative research than it does in qualitative research.

Using both qualitative and quantitative research is known as a mixed method. According to Creswell (2012) “A mixed methods research design is a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative research and methods in a single study to understand a research problem”. When one type of research design is not adequate in answering the research problem or to answer the research question, then the mixed method can be used.

According to UKEssays (2003), the following advantages and disadvantages of using mixed methods research were noted.

**Advantages**

* The researchers have the advantage of using numbers to add precision to words, pictures, and narratives.
* Another advantage of applying the mixed method in research is that researchers can generate and actually test a grounded theory.
* Applying the mixed method of research allows the researcher to tackle a broader and a more complete range of research questions owing to the fact that the researcher is not confined within the tenets of a particular method of research. In addition, researchers have the ability to use the strength of one method of research to counter or overcome the weaknesses in another method.

**Disadvantages**

* Due to its duplicity, the mixed methodology in one study can prove difficult to handle by a single researcher, especially when the researcher has to apply two or more approaches concurrently.
* The mixed method is more expensive and time-consuming due to its duplicity content.

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3 posts

**Re: Topic 5 DQ 1**

Both qualitative and quantitative methods can be included in research. Many researchers believe that using both methods is beneficial for the increase of validity and reliability. There are many different disadvantages and advantages to using different types of methods in nursing studies. Mixed methods is a way to “investigate complex health-related topics” (Guetterman, T. C., Fetters, M. D., & Creswell, J. W. 2015). One of the advantages of qualitative research is it provides an opportunity for complex aspects of expert opinion to be studied. People’s personal experience can be very valuable in some nursing research, so this method is very helpful in integrating the experiences of others (Guetterman, & et al 2015). Another advantage of qualitative research is that it would be very useful for exploratory research to create a hypothesis about a subject that may not have been studied in depth previously. One disadvantage of qualitative research is that it is difficult to determine how valid and reliable data collected from interviews is (Guetterman, & et al 2015). When asking open ended questions, there will be so much information gathered. From there, the researcher has to break the information down to determine what is useful for the research, and this can take up a lot of time. One of the advantages of including qualitative data in nursing is that it allows the researchers to organize information and allows for better understanding of hidden aspects of data. The data collected from qualitative methods can be represented in tabulated forms which may increase the understanding of the material, and its ability to be used. Including both of these methods is beneficial in nursing research as nursing is a very dynamic field. While there are many topics to be studied such as infection control, compassion, IV insertion and many others. It is important to recognize that all of these subjects are tied to humans, and the people who complete this work, the nurses, heavily influence the outcomes (Guetterman, & et al 2015).  Using quantitative data helps understand create an organized method of studying different aspects of nursing while including qualitative data also helps gain perspective from the nurses. It helps the researcher form a hypothesis about why the data collected came to be because there is insight from the nurses themselves. This linguistic data combined with tabulated, numerical data is very helpful in increasing validity and reliability of data because it offers a broader perspective of the information, and the reader has the benefit of understanding the information also from the opinions of nurses. For example, in evaluating hand hygiene and infection control, for qualitative data, a researcher could include the number of infection outbreaks in a given time, and for quantitative data, a researcher could include the nurse's perception of how infection control is taught and reinforced in the facility.

Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating Quantitative and Qualitative Results in Health Science Mixed Methods Research Through Joint Displays. Annals of family medicine, 13(6), 554–561. doi:10.1370/afm.186

**Re: Topic 5 DQ 1**

**The theoretical foundations of qualitative and quantitative methods are very different, but many researchers believe both methods should be used in the research study to increase validity and reliability. What advantages or disadvantages do you see in using both types of methods in a nursing study? Support your answer with current evidence-based literature.**

According to Kathleen Stevens (2013), in recent years there has been a heavy shift for evidenced-based quality improvement in the healthcare system and is targeted to redesign this system to be safe, efficient and effective. One major shift in this direction is the need for more research in nursing hot topics. As mentioned previously: although both the quantitative-Evidence based medicine and qualitative-narrative research have the same dignity from the scientific point of view. Among the advantages of quantitative method, the possibility to reach a higher samples size is the most important one. Quantitative methodology shows a single moment, a picture, of phenomena, with no dynamics and poor of details, it also involves developing a larger sample and does not require a longer time frame for data collection (Schofield, 2007). With that, qualitative approach seemingly has more of an advantage of producing a great number of details, that unfortunately is not easy to collect with quantitative studies, this method is considered top choice for comparing different points of view on the same phenomenon (ex: if we were to look at illnesses perceived by the patient who suffers from that disease, it would be equally significant to also look at their caregivers and providers of care). Qualitative methods are not known in the medical sector, where Stakeholders are often supporters of the Evidence based medicine (Napolitano, 2019). In summary: Qualitative research differs from quantitative research at the initial starting point. In quantitative research, the researcher begins with a predetermined hypothesis and attempts to determine whether it holds true (based on the data collected) (Lewis, 2019). While qualitative research, begins from a more general exploratory standpoint and can lead to the generation of hypotheses based on the data collected, one of the disadvantages is that it does not allow the researcher to determine the best solutions; instead if offers a list of solutions (Lewis, 2019). In a nursing study, Silverman (2010) would argue that qualitative approaches leaves out contextual sensitivities—and limits its scope to only meanings and experiences. Quantitative limits also include taking a snapshot of a phenomena and is not as in-depth (Lewis, 2019).

There are some benefits of using qualitative research approaches and methods. Firstly, qualitative researchapproach produces the thick (detailed) description of participants’ feelings, opinions, and experiences; and interprets the meanings of their actions (Denzin, 1989).  In a nursing study, there are many benefits to using both as mentioned above. Firstly qualitative research can produce a description of participants feelings, opinions and experiences—it also renders an holistic approach to understanding the human experience in specific settings; which would be very helpful in nursing. I can appreciate, how qualitative research methods can useful in nursing and can involve participant-observation and direct observation for collecting data. While quantitative cannot account for social reality is shaped and maintained (Rahman, 2016). Finally, ethical issues are highly concerned with qualitative research rather than quantitative research.

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<https://www.researchgate.net/publication/309889936_The_Advantages_and_Disadvantages_of_Using_Qualitative_and_Quantitative_Approaches_and_Methods_in_Language_Testing_and_Assessment_Research_A_Literature_Review>

# **Silverman, D. (2010). Qualitative research. London: Sage.**

**Re: Topic 5 DQ 1**

The use of both quantitative and qualitative research methods is known as mixed method research (Helbig, 2018). Mixed method research is often used in health care research as both quantitative/measurable data and qualitative/emotional and cultural data are required when caring for individuals (Helbig, 2018). Mixed method research often provides a better understanding of the phenomenon being studied (Doorenbos, 2014). Using both quantitative data and qualitative data assists nurses to develop and/or improve evidence base practices which will enable them to provide care to the whole individual (Helbig, 2018).

Advantages of using mixed method design includes that quantitative data can be used to support qualitative component by providing baseline information to help identify study subjects, and help to identify any outliers (Doorenbos, 2014). Qualitative data can assist with subject recruitment by identifying barriers or ways that would encourage individuals to participate in the study (Doorenbos, 2014). Qualitative data can help support some statistical data and help to identify unsound quantitative measurement (Doorenbos, 2014). Mix method research also enables the researchers to obtain the subjects experience during the study and to obtain a better understanding of the data gathered (Shorten, & Smith, 2017).

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**Re: Topic 5 DQ 1**

Some advantages of using qualitative methods in nursing research are:

Smaller sample sizes are used, which can save money. During the process of this class, I have learned that doing research can take a lot of time and use a lot of resources, which costs a lot of money.

Qualitative research is an open-ended process:

“When a researcher is properly prepared, the open-ended structures of qualitative research make it possible to get underneath superficial responses and rational thoughts to gather information from an individual’s emotional response. This is critically important to this form of researcher because it is an emotional response which often drives a person’s decisions or influences their behavior (Editor In Chief, nd).”

Some advantages of using quantitative methods in nursing research are:

The research is anonymous. There are many research studies which contain delicate information about the subjects involved. Most people love their privacy, so this method would be the best choice in this case (Editor In Chief, nd).

 You can also conduct the research remotely with quantitative research methods. This makes it easier to obtain subjects and input, since there can be phone calls or online surveys given in order to collect the appropriate data. It can also save time and money, since no transportation is needed for remote research.

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| Topic 5 DQ 2 |  |

According to the textbook, nurses in various settings are adopting a research-based (or evidence-based) practice that incorporates research findings into their decisions and interactions with clients. How do you see this being applied in your workplace?

January 6th  2020 at 7:35am Arizona time.

At my place of employment, the infection control nurse or staffing education development ensures that nurses are practicing according to research to increase quality of care. I am sure a lot of employers have that in place as well. The infection control nurse keeps both staff and patients up to date with their shots. For example, the ICN makes sure that flu shots are up to date, PPD, wearing PPE as need, hand washing, and breaking the chain of disease. All these are adopted from evidence-based practice because it has proven to reduce the risk of spreading infectious disease and how to stay safe. Staffing education development provide articles continuously about medical diagnosis, how to prevent, and how to take care of a patient with a specific medical diagnosis. Employees are required to take quizzes after reading the article to ensure reminding and understanding. Applying evidence-based practice in nursing enables the nurse also to apply the nursing process during practice to provide quality of care and productive outcomes. Three weeks ago, a patient arrived with Dexcom G5 mobile. The nursing staff was required to train by watching the training videos to ensure expertise during the care of that patient. Nursing is evolving simultaneously with technology to save a life. Also, one of our patients had this life vest that would automatically initiate CPR when needed. Therefore, adopting a research-based practice not only to incorporate research findings in the standard of professional nursing practice but to reduce high cost. “An economic evaluation of a workforce in which 80% of the nurses had obtained their BSN degree showed a decrease in the length of stay and readmission of the patient these nurses treated (Auerbach, Buerhaus, Staiger, 2015). Nurses need to use EBP to make changes in the nursing profession. According to Stevens, 2013, EBP is “ the standardization of the practice of nursing with the basis of science, research, and evaluation of outcomes.” It is crucial to remain up to date with EBT changes, for example, to reduce Foley catheter-associated infections, hospital acquired infection, and other infectious diseases.

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**Topic 5 DQ 2**

Adam,

your post is informative and current. Applying EBP in nursing care is supported by research findings, clinical expertise, and patients’ values to improve outcomes. The "use of research evidence in clinical practice is an expected standard of practice for nurses and health care organizations, but numerous barriers exist that create a gap between new knowledge and implementation of that knowledge to improve patient care" (Peterson, M. H., Barnason, S., Donnelly, B., Hill, K., Miley, H., Riggs, L., & Whiteman, K. (2014). As nurses we are responsible to learn as many resources as possible to close the gap between knowledge and implementation to maintain outstanding quality of care.

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**Re: Topic 5 DQ 2**

Sami,

Your post is very impressive and very thorough. your are absolutely correct about the benefits of applying EBT in nursing care. I believe that with ongoing research today, people are living longer, Les malpractice, increased quality of care and outstanding outcomes and less invasive surgeries. Therefore, "the use of evidence to guide nursing practice is the expected standard of practice for both individual nurses and health care organizations" (Peterson, M. H., Barnason, S., Donnelly, B., Hill, K., Miley, H., Riggs, L., & Whiteman, K. (2014)

Reference:

Peterson, M. H., Barnason, S., Donnelly, B., Hill, K., Miley, H., Riggs, L., & Whiteman, K. (2014). Choosing the Best Evidence to Guide Clinical Practice: Application of AACN Levels of Evidence. Critical Care Nurse, 34(2), 58–68. https://doi-org.lopes.idm.oclc.org/10.4037/ccn2014411

**Re: Topic 5 DQ 2**

With ongoing research being conducted, there is more and more evidence-based practice being utilized by many organizations today. With the use of evidence-based practice, there should be an improvement in the patient’s safety, satisfaction, and patients outcome. Several policies and practices at my workplace were implemented as a result of evidence-based research studies. One such practice is hourly rounding. Hourly rounding allows the nurse to check on the patients every hour and assess various needs, such as pain, nutritional, elimination, and comfort needs. This is a way of reducing falls, especially among the very ill and elderly patients. This is very important within my organization as patients' safety is one of their top priorities.

According to RN.com. (2015), “the incorporation of hourly rounding protocols into clinical practice is an effective evidence-based intervention. Hourly rounding decreases the incidence of patient falls and can be added to other fall prevention bundles to improve patient safety”. Also, of importance is infection control. There are mandatory meeting that is held throughout the year that deals with infection control. Various strategies are presented from evidence-based research on how to prevent various infections among patients. The use of universal precautions such as proper handwashing and the use of Personal Protective Equipment (PPE) is constantly enforced at my organization.

There is continuous research being done at my organization which results in new or updated policies for various procedures. I work on the labor and delivery unit at my hospital and we have regular staff meetings where presentations are done on various topics focussing on evidence-based information that relates to the management of the obstetric patients. A few months ago in one of our monthly meetings, there was a presentation done on factors that contribute to postpartum hemorrhage during labor and delivery and how to effectively manage these patients. As a result of these researches, several of the policies on my unit was recently updated including the one for postpartum hemorrhage.

There are also random checks that are done occasionally to ensure that each staff member is practicing according to the policies that were implemented as a result of evidence-based studies.

References

RN.com. (2015). Hourly Rounding & Fall Prevention: A Winning Strategy. Retrieved October 17, 2015 from https://lms.rn.com/getpdf.php/1820.pdf

**Re: Topic 5 DQ 2**

According to the textbook, nurses in various settings are adopting a research-based (or evidence-based) practice that incorporates research findings into their decisions and interactions with clients. How do you see this being applied in your workplace?

Utilizing evidence-based practice (EBP) within our daily routines is essential in providing the best care possible to our patients. As technology advances, studies will improve, new evidence will be discovered, and changes in practice will occur. "EBP is the conscientious, categorical, and astute approach towards a patient’s holistic health using the current and most appropriate clinical literature available, tailored to fit the patient’s specific health requirements and conditions” (Samonte & Vallente, 2018, para. 3). Within the hospital that I work we have multiple people that are responsible for promoting the implementation of the latest EBP. Primarily, the people that are responsible for providing the latest EBP to staff are the people in charge of their designated departments. For instance, the infectious disease nurse primarily assigns teaching based on infectious disease protocols etc. Our educational RN also plays a large roll in promoting the best EBP on all aspects of nursing care across the hospital. As research is conducted, policies will change, and education will be assigned as it has been for years. One area that seems to be constantly changing as research is being conducted is in cardiopulmonary resuscitation (CPR). It seems that we are always learning the new way to do CPR that promotes improvements in life saving measures.

Samonte, P. R., & Vallente, R. U. (2018). Evidence-based practice. In Salem Press Encyclopedia. Retrieved from https://eds-a-ebscohost-com.lopes.idm.oclc.org/eds/detail/detail?vid=1&sid=a6e20eca-e3b8-42c8-8936-870a68ecbc17%40sdc-v-sessmgr02&bdata=JnNpdGU9ZWRzLWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#AN=113931151&db=ers

**Re: Topic 5 DQ 2**

Medical and health care is one of the most dynamic human disciplines, and large amounts of money are spent annually on high-quality and sophisticated research, resulting in an exponential growth in health care literature. Regularly, new and more effective medicines, medical devices, and procedures are invented. One major objective behind all these efforts is to help doctors, nurses, and medical technicians provide the best possible care and treatment to patients. In addition to using traditional and well-established procedures and practices, health care practitioners are adopting innovative interventions that are based on best practices as well as solid research-based evidence. **Evidence-based practice (EBP)** is one such technique and is quickly gaining popularity due to its potential to effectively handle clinical issues and provide better patient care.

I am working as a Registered Nurse in an ICU Unit. There are many examples of EBP which I can point out in my daily practice of nursing.

**1.Infection Control**

The last thing a patient wants when going to a hospital for treatment is a hospital-acquired infection. Nurses play a key role in helping to prevent illness before it happens by adhering to evidence-based infection-control policies. This includes keeping the healthcare environment clean, wearing personal protective clothing, using barrier precautions and practicing correct handwashing. Although nurses are busy with many responsibilities, the time it takes to control infection is well worth the effort

**2.Oxygen Use in Patients with COPD**

For patient health and safety, it is essential that nurses follow evidence-based practice in nursing when it comes to giving oxygen to patients with COPD. Despite the belief by some that providing oxygen to these patients can create serious issues such as hypercarbia, acidosis or even death, the evidence-based protocol is to provide oxygen to COPD patients. This practice can help prevent hypoxia and organ failure. Giving oxygen, which is the correct treatment based on the evidence, can enhance COPD patients’ quality of life and help them live longer.

**3.Intravenous Catheter Size and Blood Administration**

Nurses should follow EBP when using intravenous catheters to administer blood for packed red blood cell transfusions (PRBC). The protocol indicates that nurses should use a smaller-gauge catheter, which increases patient comfort.

The impact of evidence-based practice (EBP) has echoed across nursing practice, education, and science. The call for evidence-based quality improvement and healthcare transformation underscores the need for redesigning care that is effective, safe, and efficient. In line with multiple direction-setting recommendations from national experts, nurses have responded to launch initiatives that maximize the valuable contributions that nurses have made, can make, and will make, to fully deliver on the promise of EBP. Such initiatives include practice adoption; education and curricular realignment; model and theory development; scientific engagement in the new fields of research; and development of a national research network to study improvement.

To affect better patient outcomes, new knowledge must be transformed into clinically useful forms, effectively implemented across the entire care team within a systems context and measured in terms of meaningful impact on performance and health outcomes. The recently-articulated vision for the future of nursing in the Future of Nursing report ( IOM 2001 a )focuses on the convergence of knowledge, quality, and new functions in nursing. The recommendation that nurses lead interprofessional teams in improving delivery systems and care brings to the fore the necessity for new competencies, beyond evidence-based practice (EBP), that are requisite as nurses transform healthcare. These competencies focus on utilizing knowledge in clinical decision making and producing research evidence on interventions that promote uptake and use by individual providers and groups of providers.

In this wide-ranging effort, another significant player was added…the policymaker. For EBP to be successfully adopted and sustained, nurses and other healthcare professionals recognized that it must be adopted by individual care providers, microsystem and system leaders, as well as policy makers. Federal, state, local, and other regulatory and recognition actions are necessary for EBP adoption. For example, through the Magnet Recognition Program® the profession of nursing has been a leader in catalyzing adoption of EBP and using it as a marker of excellence. of many significant advances, nurses still have more to do to achieve EBP across the board. A recent survey of the state of EBP in nurses indicated that, while nurses had positive attitudes toward EBP and wished to gain more knowledge and skills, they still faced significant barriers in employing it in practice (Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012). One example of implementation of EBP points to the challenges of change. The evidence-based program, Team Strategies and Tools to Enhance Performance and Patient Safety ( AHRQ , 2008 ) carries with it proven effectiveness of reducing patient safety issues and the program is available with highly-developed training and learning materials.

**References**

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**Re: Topic 5 DQ 2**

Since the late twentieth century nursing is geared towards evidenced-based practice, that incorporates research findings into the decisions made by nurses and their interactions with patients and families. With regards to my place of work, the culture of evidence-based practice is supported by the organization system wide, using the Iowa Model to promote best practices to improve patient care. The Iowa Model focuses on knowledge and problem-focused triggers, leading staff to question current nursing practices and to develop strategies to improve nursing care by using current research findings (Doody & Doody, n.d.).

Prior to being accredited as a Magnet institution, the organization has always supported evidence-based practice. Nurses have always been tasked to assist with finding solutions associated with risk management, financial problems, clinical problems, population outcome and educational needs. Especially for nurses seeking to attain RN III positions must participate in evidence-based projects which is one of the criteria for eligibility. As there are no barriers, requisite resources are made available once approval is obtained from relevant personnel in leadership/management.

Since last year there has been a lot of policy and procedural changes implemented within my department, as it relates to the Texas Alliance for Innovation on Maternal Health (AIM) in collaboration with the Department of State Health Services (DSHS) and the Texas Hospital Association. The goal of this initiative is to end preventable maternal death and severe maternal morbidity throughout Texas by implementing evidence-based safety projects referred to as bundles focused on Obstetric Hemorrhage, Obstetric Care for Women with Opioid Use Disorder and Severe Hypertension in Pregnancy (Texas Health and Human Services, n.d.).

Reference

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**Re: Topic 5 DQ 2**

One of the most prevalent ways I could incorporate EBP in my role, would be to employ infection control interventions and/ by providing oxygen to my COPD patients. Patient health and safety, is essential for nurses to understand and by following/ implementing evidence-based practices (EBP) especially when it comes to giving oxygen to patients with COPD, for example--is critical in wanting to save their lives. While our training has indicated else wise by suggesting giving O2 could have more negative consequences to these particular patients (hypercarbia, acidosis or even death), EBP renders more effective interventions.  EBP would suggest the nurse provide oxygen to COPD patients in order to prevent hypoxia and organ failure. This is the best treatment protocol that could enhance longevity in COPD patients’ and can increase their quality of life that will ultimately help them live longer.  Infection control is another heavy hitter. Lastly, my job is currently working on improving our on-board process that would enhance the training process for new nurses; especially for nurses who have never worked psy before. Simply because nurses are readily faced with daily challenges of more complex patient needs inside of a rapidly changing medical environment. Using evidence-based practices is more likely to improve patient outcomes and our skills.

Reference:

Retrieved from The Impact of Evidence-Based Practice in Nursing and the Next Big Ideas. (2013). <http://nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-18-2013/No2-May-2013/Impact-of-Evidence-Based-Practice.html>

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| Research Critiques and PICOT Statement Final Draft |  |

Prepare this assignment as a 1,500-1,750 word paper using the instructor feedback from the previous course assignments and the guidelines below.

***PICOT Question***

Revise the PICOT question you wrote in the Topic 1 assignment using the feedback you received from your instructor.

The final PICOT question will provide a framework for your capstone project (the project students must complete during their final course in the RN-BSN program of study).

***Research Critiques***

In the Topic 2 and Topic 3 assignments, you completed a qualitative and quantitative research critique on two articles for each type of study (4 articles total). Use the feedback you received from your instructor on these assignments to finalize the critical analysis of each study by making appropriate revisions.

The completed analysis should connect to your identified practice problem of interest that is the basis for your PICOT question.

Refer to "Research Critiques and PICOT Guidelines - Final Draft." Questions under each heading should be addressed as a narrative in the structure of a formal paper.

***Proposed Evidence-Based Practice Change***

Discuss the link between the PICOT question, the research articles, and the nursing practice problem you identified. Include relevant details and supporting explanation and use that information to propose evidence-based practice changes.

***General Requirements***

Prepare this assignment according to the APA guidelines found in the APA Style Guide, located in the Student Success Center. An abstract is not required.

This assignment uses a rubric. Please review the rubric prior to beginning the assignment to become familiar with the expectations for successful completion.

You are required to submit this assignment to LopesW