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Evidence-Based Practice and Applied Nursing Research – C361

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A. Quantitative Research

Introduction

The goal of quantitative research analysis is to find out the association between the two variables being studied. Quantitative research has to show the results in numeric data that is very detailed. Often this data is arranged in tablets, charts, or other figures. Using the quantitative research analysis the future outcome can be predicted. For quantitative research, the researcher uses surveys and questionnaires to collect the data to be studied and interpreted. For this research purpose, I evaluated the article Falls in People with Multiple Sclerosis Compared with Falls in Healthy Controls.

Review of the Literature

The purpose of this study is to compares the risk, circumstances, consequences, and causes of falls that have been recorded among patients with multiple sclerosis and healthy controls of similar age and gender. There have been previous similar studies conducted that showed different results from this study. Those studies have concluded that 50-70% of people have fallen at least once in three to twelve month period. The review of current literature concluded that 70% of people with MS have fallen at least once within 6 month despite of being much younger than population of the previous studies. The goal of this study is to analyze the survival without falling between population with MS and the healthy controls.

Critique:

The circumstances of falls in this study vary from any other study in terms of how many people with MS fell inside compared to outside. It was determined that 86% of population in this study with MS fell outside. This high percentage could be the indication that the individuals with MS are younger and less disabled and they are able to spend more time outdoors. Also, it was interesting to note that previous studies had less injuries related to falls in their cohort with MS. The lower risk for injury is less because they are old and more disabled and not able to go outside.

Discussion of Methodology

The method used for evaluation of risk, circumstances, consequences, and causes of falls was a prospective cohort study. It was conducted at a Department of Veteran Affairs and an academic medical center in the Northern USA. "The Institutional Review Board of the Portland VA Medical Center and Oregon Health & Sciences University approved this study and the investigation was conducted according to the principles expressed in the Declaration of Helsinki". Participants had to sign informed consent to be able to participate in the study. Local community neurology clinics assisted with recruiting patients with MS by posting flyers, informing individuals at support groups about the study, and with the help of healthcare professional referrals. Healthy control group was formed from people who responded to the flyers. The criteria for both groups were their age between 18 to 50 years old, ability to sign their own informed consent to participate in the study, and the ability to keep record of their falls for 6 month period. The variables in the study were falls and type of injury sustained. Participants had to record how many falls they had per day and if they have sustained any injuries and type of injuries. Also, it was important to note what the participant was doing when the fall occurred and if the fall was inside or outside of the house.

Critique:

For this study Kaplan Meier survival analysis and log-rank tests were used to measure survival without falling between participants with MS and healthy controls. It measured number of participants who survived without falling at the end of the trial. It is the simplest way of computing the probabilities of falling between two groups within 6 months period. Out of 112 potential subjects with MS, only 52 met all the inclusion criteria and consented to participate. Out of 63 healthy controls who responded to the fliers, 49 completed all measures and were included in the trial.

Data Analysis

All analyses are based on data from the 52 participants with MS and 49 healthy controls who have returned all recorded fall calendars. The average age of participants with MS was 39.7 years and people in control group was 38.7 years. Out of 200 total falls recorded, 145 were in the participants with MS and 55 in the healthy controls. It was clear that people with MS have fallen more often and have sustained more injuries related to falls. Also, people with MS had more episodes of recurrent falls. The significant difference was also noted in the location where the fall occurred for different groups. For people with MS falls occurred inside of the house while performing activities of daily living. However, healthy control group mostly fell outside of the house or while climbing the stairs.

Critique:

In my opinion, the reason why more people with MS have sustained more injuries related to falls, is because these individuals were much younger and less disabled and spent more time outside of the house. In the other studies only 11% of their participants have reported injuries related to falls. The reason could be that in the other studies the participants are much older and disabled and spend more time indoors or totally bed ridden.

Researcher’s Conclusion

The study concluded that the risk for falls, circumstances when the fall occurred, and the causes of falls for participants with MS and healthy control group differ. Individuals with MS fall more often and are more likely to get injuries related to falls, and frequently fall indoors while performing activities of daily living. The study totally made sense to me because it is obvious that the younger patients are, the more active they are and more often they go outside. Previous studies had patients who were totally disabled and bedbound and thus had less frequent falls. Patients in this study were young between the ages of 18 to 50.

2. Critique whether the evidence presented in *each* section of the journal article supports the researcher’s conclusion.

The researcher was able to recruit people with MS from neurology clinics and healthy controls by posting the fliers and obtaining referrals from their healthcare providers. Many people responded to the fliers. Some individuals with MS were not able to participate due to their inability to make informed consent and record their falls in the calendars. Also, only people between the ages of 18 to 50 were able to participate. For 6 months the fall episodes were recorded and the circumstances of falls. It was determined that that out of 200 falls, 145 falls were from the participants with MS and 55 falls in the healthy controls. The evidence supports researcher’s conclusion that people with MS fall more often and sustain more injuries related to falls. Most falls in people with MS are inside while performing activities of daily living.

3. Explain the protection of human subjects and cultural considerations of the journal article.

All individuals who were able to participate in the study had to be between the ages of 18 to 50 years old. They had to be alert and oriented and able to sign their own consents. Also, it was important to be able to record their falls in the calendars over 6 months period. People with MS had to have MRI-confirmed diagnosis of MS. The research was aimed to identify the risks for falls with individuals with MS and the circumstances when the fall occurred. Hopefully, after conducting this study, individuals with MS will be more aware what to do to avoid falls. The subjects were selected fairly with confirmed diagnosis of MS. Exclusion criteria were a self-reported condition of MS, other neurological conditions affecting gait and balance, unable to follow direction in English, blindness, or unable to ambulate more than 100 meters (Sreeram V. Ramagopalan, 2017). The benefit of this study was to maximize the safety of the individuals with MS by making them more aware of their limitations and hopefully prevent future falls. To make sure that subjects adhere to the participation protocol, participants were contacted by phone each month to remind them to return their calendars and to answer any study-related questions.

4. Strengths and limitations of the study.

This study has many strength and a couple of limitations. One of the strength is that it is the first study that compares the risk of falls in people with MS compared to healthy people of similar age and gender. Knowing the risks of falls in individuals with MS could assist with determining the interventions to reduce fall related injuries in individuals with MS who experience significant frequency of falls. Using fall calendar is the gold standard to assessing falls because it decreases bias from misclassification. The limitation of the study is the fact that this study focuses on younger individuals with MS which could suggest that they have different risk taking behaviors and level of activity than older people.

5. How the evidence informs nursing practice.

The evidence suggests that people with MS fall more frequently and sustain more injuries related to falls. This information could be very helpful for nurses in their day to day practice. When carrying for the individuals with MS, nurses need to pay special attention to them to prevent falls. Avoiding falls and injuries should be nurses' main goal when it comes to patients' safety. Identifying individuals who are prone to falls and taking an extra step to educate patients and families about ways to avoid falls could be life saving. Knowing which circumstances cause falls in individuals with MS, nurses can shift their focus on educating them to modify their home environment for safety.

B. Qualitative Research

Introduction

Hospice is a government program designed to offer medical care and services to support families and patients to maintain quality of life when illness is unlikely to be cured. This program is for people who will not benefit from the curative measures anymore and have been given life prognosis of less than six months. Hospice services also provide emotional and spiritual support during the illness and to the families after their loved one passes. Hospice services in the United States have been widely used providing satisfaction among patients and caregivers. However, there are situations when families opt for hospitalization if symptoms are not properly managed by hospice team. In the study it was determined that approximately 25% of hospice patients disenroll from hospice due to hospitalization. There are options that can be offered to the families and patients who are in crisis to avoid hospitalization. The goal of this study is to understand the reason for hospitalization among hospice patients from the perspective of hospice team members.

Review of the Literature

The objective of this study is to understand the main reason for hospice patients' hospitalizations by conducting a qualitative study using a grounded theory approach. The study was performed by interviewing interdisciplinary team members who were involved in patient care. Most of the time patients end up revoking hospice services due to uncontrolled pain, caregiver burden, or shortness of breath. Every crisis is unique; however, to better understand how to manage commonly experienced crises, interdisciplinary team members need to develop individualized care plan to assist caregivers when problems arise.

Critique:

The authors visited hospice cite and interviewed their members. Their work was supported by the contributions from the National Institute of Aging, National Institute on Drug Abuse, the Howard and Phyllis Schwarts Philanthropic Fund, the John A. Hartford Foundation, and the Empire Clinical Research Investigator Program (Phongtankuel, V., Scherban, B. A., Reid, M. C., Finley, A., Martin, A., Dennis, J., & Adelman, R. D., 2016). Authors were able to identify that during crisis hospices are able to provide continuous level of care or general inpatient for symptom management or caregiver relief. According to the article, 21.1% of hospices did not provide higher level of care to their clients who were discharged.

Discussion of Methodology

This study design was a qualitative study using grounded theory approach from data collected in seven focus groups. Investigators visited seven nonprofit hospice organizations located in the city of New York. According to the article, the institutional review boards of Weill Cornell Medical College and Visiting Nurse Service of New York Hospice approved the study. Interdisciplinary team members were interviewed and based on their responses, new topics were introduced. All responses were recorded and then analyzed. All the data was then shared with the team members who validated that the investigator's interpretation of the identified themes was credible.

Critique:

The study suggests that by conducting cross-sectional study using a grounded theory approach and collecting data from seven focus groups will bring credible findings. The team members themselves agreed that the identified themes have captured their thoughts and feelings about the reasons why patients become hospitalized.

Data Analysis

The results identified eight major reasons why hospice patients become hospitalized. The major reason is due to not fully understanding hospice philosophy. Some of the other ones include; lack of understanding terminal diagnosis and/or prognosis, desire to continue with their primary care physicians, caregiver role strain or burnout, unmanageable signs and symptoms of distress, caregivers' reluctance to administer morphine, emergency response of 911 is faster than hospice, and finally families' difficulty accepting patients' mortality (Phongtankuel, V. et al., 2016). Evidence suggests that most of the time hospice patients ended up hospitalized due to their lack of understanding their prognosis and/or hospice care. Under hospice, the focus of care shifts from traditional medical care to comfort and palliative care only. Also, it was evident that families prefer care to be provided by their primary care physicians and hospital when the crisis occurs. Transition into hospice could be very unfamiliar to the families and patients and it takes time for trust and relationship to develop among the IDT members and the hospice recipients. After analysing the data that was provided by the participants, it was clear that the reason for hospitalization is the lack of explanation of hospice benefits upon admission. The physician did not have a clear discussion with patients and families about their prognosis and the methodology in shift of care.

Critique:

Data was collected directly by interviewing hospice IDT members who participate directly in patient care. The investigators analysed all the data and then discussed with the hospice staff their findings. Then the findings were reconciled until everybody agreed that the reasons for hospitalizations are related to their thoughts and feelings. Everybody agreed that investigators had credible findings.

Researcher's Conclusion

Researchers were able to identify eight main reasons why hospice patients end up hospitalized. Most of the time it is due to lack of understanding of hospice philosophy and goals of care. It was concluded that there should be further reseach done with the perspective of caregivers and patients on the reasons why they opted out from hospice care. There has to be future interventions on behalf of the hospice team to involve all the team members and especially physicians during initial explanation of hospice services and benefits. Open communication among physicians, patients, caregivers, and hospice IDT members will provide comfort, symptom management, prevention of crisis care, and ultimately prevention of hospitalization.

2. Critique whether the evidence presented in *each* section of the journal article supports the researcher's conclusion.

Researcher identified eight factors affecting families and patients decision for hospitalization. It was concluded that one of the main reasons that hospice patients become hospitalized is due to their lack of understanding of hospice philosophy. Educating terminally ill patients and families about proper interventions for symptom control in imperative to preventing crisis from occurring.

3. Explain the protection of human subjects and cultural considerations of the journal article.

During the study none of the hospice beneficiary names have been released to the public. This was a qualitative study and only the opinions of hospice staff were interpreted about the reasons of patients' hospitalizations. The names of hospice IDT members have not been identified in this study.

4. Identify strengths and limitations of the study.

One of the limitations of the study is that it was conducted within one single site. There are many more hospice organizations and each organization could have other useful information that could benefit in this study. Participants have an experience caring for a diverse patient population of big city, which may not accurately represent the patient population served in other regions of the country (Phongtankuel, V. et al., 2016). Only members of the hospice team have been interviewed. Patients' and caregivers' perception and reason for hospitalization could differ. Also, participants of the study can have trouble recalling the information, which could be bias. The study mentions ways to help caregivers to overcome some of the barriers they are having with the use of morphine. Study mentions interventions to help lessen the stigma of opiate use and improve knowledge about pain management among caregivers (Phongtankuel, V. et al., 2016).

5. How the evidence informs nursing practice.

Hospice program became very widely used especially in the past decade. With the changes in healthcare system and budget cuts, hospice program saves medicare spending. There are many benefits to this program. It provides care to the patients in their familiar environment surrounded by their family and friends. Nursing care is being provided in the patients’ homes.

Referenses

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