Readiness for Discharge Quantitative Review

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Abstract

Bobay, Jerofke, Weiss, & Yakusheva (2010) published the quantitative study, "Age-Related Differences in Perception of Quality of Discharge Teaching and Readiness for Hospital Discharge," in Geriatric Nursing this year. This paper is a critical evaluation of a quantitative research study using guidelines recommended in the syllabus provided by Dr. Omar G. Baker for Nursing 350 at Ferris State University. This study addresses the differences in perception of the quality of teaching and readiness for discharge from the hospital. Many factors affect the elderly population post discharge state, making the assessment of a patients discharge a vital link in having a successful outcome. The focus of the study was to look at the quality of discharge teaching and the readiness for discharge among medical surgical geriatric patients who were discharged to home. Quality of Discharge Teaching Scale questions and the Readiness for Hospital Discharge Scale questions were administered to participants. These questions, along with data from patients seen in the Emergency Room and patients readmitted within thirty days was collected and compared. Areas of measure on the questionnaires included, personal status, knowledge, coping ability, and expected support. Correlations were then made between the assessment of patient's readiness for discharge and a successful discharge. Our critique of this study breaks down the components of a quantitative study, evaluating the purpose, the problem, theoretical framework, review of literature, hypothesis, limits, sample and design, data analysis, discussion of findings and conclusions.

Readiness for Discharge Quantitative Review

The purpose of this research study is to assess the older adult population's readiness for discharge after being hospitalized. Bobay, Jerofke, Weiss, & Yakusheva (2010) tell us the basis for their research stating: "Adults age 65 and older account for one third of all hospitalizations in the United States" (para. 1). In addition, "almost one fifth (19.6%) of Medicare patients that have been discharged from an acute care hospital setting are readmitted within thirty days" (para 1). Bobay, Jerofke, Weiss, & Yakusheva believe that high readmission rates can be attributed to inadequate discharge preparation, lack of patient and family caregiver readiness, poor discharge transition coordination, and unsuccessful coping with the demands of daily living (para. 1). The researchers believe that the basis for readmissions in the older adult population is because their discharge needs are different from those of the general population. Bobay et al., believe that several different factors can influence an older adult's discharge needs, including: "multiple comorbidities, illness-induced limitations, impaired mobility, fatigue, anxiety, cognitive impairment, hearing impairments, health literacy deficits, and living alone" (para 1). Therefore, researchers investigated the "differences in perceptions of the quality of discharge teaching and readiness for hospital discharge" (Bobay et al., para. 1). Researchers then compared the results to the number of post discharge ED visits and number of readmissions to the hospital within the older adult age range.63

In a research study, the problem and purpose should be clearly identified. This needs to contain the population and major variables (Nieswiadomy, 2008, p. 380-381). This study clearly identifies what the purpose and problem are, giving the reader no doubt what will be examined.

Review of Literature and Theoretical Framework

The framework in this article is clearly identified. "A theoretical framework presents a broad, general explanation of the relationships between the concepts of interest in a research study; it is based on one existing theory" (Nieswiadomy, 2008 p. 111). The concepts of interest in this article are the quality of discharge teaching provided by nurses, which is called nursing therapeutics, age of the patient, the patients perception of their readiness to discharge, readmissions and Emergency Department (ED) visits thirty days post discharge, and their relationship to readiness for discharge. A transition is a passing of one phase or condition to another. The framework of this article is based on the transition theory developed by Meleis. "Meleis and colleagues' transition theory offers a useful framework for evaluation of the multiple factors contributing to the discharge transition" (Bobay et al., para. 9). This theory is appropriate because there are so many factors that can enhance or inhibit one's readiness for discharge. Some of those factors that this article discusses are: the patient's feelings about discharge, how a nurse delivers discharge instructions, and the age of the patient (Bobay et al.). Operational definitions "indicate how a variable will be observed or measured" (Niewsiadomy, p. 48). These are clearly defined as the patient's perception of discharge teaching, measured by the Quality of Discharge Teaching Scale (QDTS). The Readiness for Hospital Discharge Scale (RHDS) was used to determine the patient's perception of their readiness for discharge. Data was collected thirty days post discharge to determine readmissions and ED post discharge visits within thirty days. These are the operational definitions.

Hypothesis or Research Questions

The authors: Bobay, Jerofke, Weiss, and Yakusheva (2010), acknowledge that

this research is part of a larger study funded by the Robert Wood Johnson

Interdisciplinary Nursing Quality Research Initiative (INQRI). In doing so, they allude to

a directional hypothesis within the larger study with the use of the word trajectory. The

larger study, by INQRI, of "the trajectory of the influence of nurse staffing at the hospital

unit level on patient perceptions of quality of discharge teaching, readiness for hospital

discharge, and post discharge readmissions and (ED) visits" (para 11). This study

implies a directional relationship between the influence of nursing staffing at the hospital

unit level and the variables of patient perceptions of quality of discharge teaching,

readiness for hospital discharge, and post discharge readmissions and ED visits; although

the hypothesis is not actually stated.

In this study of age-related differences in perception of quality of discharge

teaching and readiness for hospital discharge, Bobay, Jerofke, Weiss, and Yakusheva

(2010) look at a smaller subset of the original study to "uncover differences in the

discharge process and outcomes for older adult age groups" (para11). In this comparative

study, the independent variable of older adult age groups is identified and the dependent

variables of differences in discharge process and outcomes are recognized but no

hypothesis is provided (Bobay et al.).

The research questions are "easily identifiable and are precise and specific"

(Nieswiadomy, 2008, p. 136). Four questions look at the specific areas studied and are as

follows:

1. Are the measures of quality of discharge teaching and readiness for

   hospital discharge reliable across older adult age groups of medical

   surgical patients?

2. Are there differences in the perceptions of the quality of discharge

teaching and discharge readiness between younger adults and 4 age

groups of older adults?

3. What is the relationship between quality of discharge teaching and

discharge readiness for older adults?

4. Are patient perceptions of discharge readiness predictive of post

discharge utilization for older adults? (Bobay, Jerofke, Weiss, &

Yakusheva, 2010, para 12)

These research questions describe what is being looked at in this study. These questions

define that this study will be looking at the questions based on the "inherent

characteristics" (Nieswiadomy, p. 160) of older adults. This intact group is the

independent variable that cannot be manipulated by the researchers.

Sample and Design

The sample and design are evaluated using Nieswiadomy's (2008) guidelines for

critiquing sampling procedures (p. 206). The target population is identified as "the older

adult" who has been hospitalized (Bobay, Jerofke, Weiss & Yakusheva, 2010, para. 1).

This is quantified as adults aged 55 and older. The sample population is broken into four

age groupings: ages 55 to 64, ages 65 to 74, ages 75 to 84, and age 85 years and older.

"These older adult groups were compared with patients younger than 55 years of age"

(Bobay et al., para. 10).

The accessible population is identified as: "1892 English or Spanish speaking

medical-surgical patients who were discharged to home from 16 medical-surgical units in

four Magnet-designated hospitals in the Midwestern United States" (Bobay, jerofke,

Weiss, & Yakusheva, 2010, para. 9).

A probability sampling was used through random selection from the above mentioned units between January and August of 2008. The specific sampling method is called "a within unit randomization process" (Bobay, Jerofke, Weiss, & Yakusheva, 2010, para.9), but it is not described. Determining the appropriateness of this study is difficult without contacting the authors for further information. The demographics characteristics of the sample are fully represented and thoroughly described in the study with a chart included to present these characteristics.

The sample size of 1892 is adequate since "samples of 5,000 or 6,000 are often sufficient to estimate the characteristics of the entire population of the United States" (Nieswiadomy, 2008, p. 201). The sample is representative of the population, but potential bias is identified acknowledging that the findings may not be generalizable to non-Magnet facilities and that older patients may have had multiple reasons for not completing study instruments (Bobay, Jerofke, Weiss, Yakusheva, 2010). The authors also note that decisionally incapacitated patients may have been under sampled. Subject dropout is not discussed.

In summary, although the sampling method and subject dropout are not discussed, the sample and design were adequate and provided for generalizability of the study. Ethical issues are acknowledged in the addressing of patient privacy rights, and ensuring consent.

Data Collection Methods and Instruments

Data Collection methods and instruments are evaluated using Nieswiadomy (2008) guidelines (p. 227). The researchers gave in depth description of data collecting,

breaking down the date to capture the age groups as well as the variances of differences.

Two questionnaires were used. Questions were asked up to four hours prior to a

patient's discharge from the hospital units (Bobay, Jerofke, Weiss, & Yakusheva, 2010).

The level of measurement was appropriate for the research variables since the vital data

of post discharge utilization was measurable at the ratio level of measurement with Chi-

square analysis. Chi-square analysis is commonly used to compare sets of data and

predict probability (Nieswiadomy, 2008, p. 210).

The two data collection instruments or questionnaires utilized are The Quality of

Discharge Teaching Scale (QDTS) and The Readiness for Hospital Discharge Scale

(RHDS). The QDTS asks 24 questions in a 0- to 10- point response format. This survey

explores three areas of patient perceptions of their discharge teaching: content needed,

content received, and the delivery of discharge teaching. Part of the QTSD survey

contains the "Content Needed subscale" and the "Content received subscale" (Bobay,

Jerofke, Weiss, & Yakusheva 2010, para 13. The Content Received subscale measures

how much information patients thought they needed before discharge and is used for

comparison with the Content Received subscale, which is a measure of how much they

actually received (Bobay et al., para 13). The RHDS scale is a 21-item self-report

questionnaire that uses the same scaling format as the QDTS to measure four components

of a patient's perception of their readiness to go home from the hospital: how the person

is feeling on the day of discharge (Personal Status); how much the patient knows about

self-management at home (Knowledge); how well the patient will be able to manage self-

care at home (Perceived Coping); and how much emotional support and help will be

available at home (Expected Support) (Bobay et al.).

Both data collection instruments are described as "reliable for all age groups" (Bobay, Jerofke, Weiss & Yakusheva, 2010, para. 14). Reliability determines its consistency and stability. To test or determine reliability, a correlation coefficient is established between the relationship of the variables. A larger number means a more stable relationship exist between variables (Nieswiadomy, 2008, p. 218, 283). This study does not explicitly state the process in determining reliability. It does show the Chronbach's alpha range (table 2). In addition, a total range score of .86 to .91 is given, which translates into a high reliability (Bobay, Jerofke, Weiss, & Yakusheva, 2010, para. 22).

The issue of instrument validity is suggested by the appearance of face value. The instruments are intended to measure patient perceptions of their discharge teaching and readiness to go home from the hospital. Since the study intended to measure for differences between these perceptions, dividing them by age groups and comparing them with post discharge readmissions or emergency department visits, the tools were valuable for the purpose utilized, and in fact, the study intended to further evidence their reliability by dividing the results into age groups, concluding that they are reliable and valid instruments.

Predictive validity is concerned with the ability to predict future behavior (Nieswiadomy, 2008, p. 223) The study addresses this with the ability to predict that "more than 30% of the oldest patients were likely to have post discharge utilization (Bobay, Jerofke, Weiss, & Yakusheva, 2010, para. 27). This demonstration of predictive validity is important since this is a "very valuable quality for an instrument to possess" (Nieswiadomy, p.223).

The study does not indicate that any pilot study was conducted using the instruments.

But in summary, the data collection methods and instruments appear reliable and valid in supporting the study.

Data Analysis

To obtain results, researchers surveyed 1842 adults to obtain answers to their questions. Bobay, Jerofke, Weiss & Yakusheva (2010) explain to us the details of their results of respondents: "more than half of the total sample were older adults aged at least 55 years ($n = 1108$, 58.6%) and female ($n = 1036$, 54.7%)" (para 15). In addition, researchers broke down the older adult population into sub groups: age group 55–64 comprised 22% of the sample, 65–74 was 18%, 75–84 was 15%, and 85 and older was 4%. What the survey found was that significant differences were found between age groups, with fewer male, fewer married, more living alone, lower education, and fewer black patients in the oldest age group of age 85 and older (Bobay et al., para 15). What was found among this population is that older patients were more likely to have a prior hospitalization for the same condition, to have been hospitalized within the past three months, to have received transition coordination services such as case management or community referral, and to have had a home health visit post hospitalization (Bobay et al., para 15).

Results from the QTSD survey results show that there were differences shown across the different age groups. Older patients perceived that they received less content than patients aged 55 to 64 and 65 to 74. Readiness for discharge was assessed "with a single-item dichotomous question" (Bobay, Jerofke, Weiss, & Yakusheva, 2010, para 18) and with the RHDS. On the single item, between 0% and 5.8% of patients rated themselves as not ready for discharge. In contrast, using an RHDS cutoff score of less

than 7, 13.8% to 24.5% of patients reported their lack of readiness. Overall, older patients rated themselves as slightly more ready to go home than younger patients on the total scale and on personal status, knowledge, and coping ability subscales. There was not any statistically significant differences related to expected support (Bobay et al.).

In analyzing the data for readmissions ED visits within thirty days post visit, researchers used Chi-square analysis (Bobay, Jerofke, Weiss, & Yakusheva, 2010). The results showed that there weren't any "significant differences in readmissions or ED visits post discharge between age group categories" (Bobay et al., para 20). Overall, younger patients had lower readiness scores than older patients, with the exception of the knowledge subscale. When adults were surveyed with the knowledge subscale, then it was the older adult population that reported low readiness (Bobay et al.). Another interesting result shows that nearly 45% of the oldest patients with a perceived coping ability below 7 were readmitted or used the ED within 30 days. More than 30% of the oldest patients were likely to have post discharge utilization if scores on personal status and expected support were below 7 on the RHDS.

Discussion of Findings

Researchers, Bobay, Jerofke, Weiss, and Yakusheva found the instruments used in the study were reliable for use in the age groups of the four groups of older adults (2010, para 30). The expected correlation was found in the Knowledge subscale (Bobay et al., para 28). This information was presented objectively (Nieswiadomy, 2008, p. 386). The quality of discharge teaching was related to readiness for discharge and the expected relationship between the skill of the nurse doing the discharge teaching and the patient perception of readiness for discharge was found (Bobay et al., para 28). This was

consistent with previous research presented in the background literature review. The

exception to this was in the oldest subgroup of patients, 85years or older. There was no

association between the Quality of Discharge Teaching Scale and the Readiness for

Hospital Discharge Scale (RHDS) in this age group. In addition, this age group reported

a perception of having received less discharge information. In explanation of the

discrepancy in this age group, the researchers suggest differences in the nursing

assessment of what these patients need to know based on a history of frequent

hospitalizations for the same problem. Here they suggest nurses perceive these patients

already have the information they need based on previous experiences. The authors

suggest differences in the cognitive ability of this age group affecting the ability to

understand the discharge teaching and suggest other methods may be needed to help the

older patient understand this information (Bobay et al., para 28). These suggestions may

seem reasonable and legitimate but they are not objective, but rather subjective. The

authors cited references in this section that were not introduced in the initial background

review to attempt to justify these differences in the older adult group findings. They

reiterate this in discussing that the RHDS is predictive in ED visits and readmission as

age increases, but then try to justify the different results in the older than 85 group citing

the same new references. They suggest a multidisciplinary approach to discharge

planning based on factors brought in with the new literature (Bobay et al., para 29).

While this indeed may be the best approach, it is not supported in the way this study was

done.

     The clinical significance is that "assessment of patients readiness for hospital

discharge should become a standardized practice in all hospitals" (Bobay, Jerofke, Weiss,

& Yakusheva, 2010, para 30).   Assessment of discharge readiness should be taught in nursing schools and as continuing education for licensed nurses (Bobay et al., para 30). Continued research will reinforce the need to improve discharge outcomes and identify more improvements needed in the discharge process. Again, this is probably true, but the authors cited additional literature not mentioned in the initial review as part of their defense.

Sample size and four different hospitals were identified as strengths of the study. All the hospitals were Magnet- designated, giving them an above average distinction. This was identified as a study limitation. In addition, the authors suggest that they may have under-represented "decisionally incapacitated patients" based on the number of caregivers represented in the study (Bobay, Jerofke, Weiss, & Yakusheva, 2010, para 31). The authors did identify the study limitations without trying to persuade the reader on the conclusion of the value of this information (Nieswiadomy, 2008, p. 386).

Conclusions, Implications, & Recommendations

In answering the "So what question?", the conclusion is where the author is able to project the study into the future (Nieswiadomy, 2008, p. 386). Bobay, Jerofke, Weiss, & Yakusheva (2010) answer this question by demonstrating through the collected evidence that there exist differences in needs of age related discharges. The recommendation is to use the assessment tools described in the study to assist in predicting results of post discharges. The conclusions are based on the data, they are subjective and some freedom is imbedded to look beyond the here and now and project the possible uses of this study into the future.

Limitations

The study speaks of the limitations. Questioning an older population, study size, physical and mental limitations of the subjects, and the limited type of facilities used to conduct the study were identified as limitations. It is imperative that a study notes its limitations as this provides a stronger validity to data acquired. Bobay, Jerofke, Weiss & Yakusheva do this in a well-defined section of the study pinpointing the study's limits.

Summary

In summary, Bobay's study is a useful quantitative study. Through a comprehensive in-depth appraisal of the components of the study, our Ferris group was able to evaluate the strengths and weaknesses. Our group concludes that the purpose, the problem, theoretical framework, literature, hypothesis, limits, design, data, findings and recommendations were presented systematically, congruently and in a fashion that supports scientific guidelines for a well laid out quantitative study. The study's presentation of data provides evidence that supports the implied hypothesis and conclusion.

References

Bobay,K.L., Jerofke, T.A., Weiss, M.E., &Yakusheva, O. (2010). Age –related

differences in perception of quality of discharge teaching and readiness for

hospital discharge. *Geriatric Nursing, 31*(3), 178-187.

Nieswiadomy, R. M. (2008). *Foundations of Nursing Research.* Upper Saddle River,

New Jersey: Pearson Education, Inc.