

Patient Turnover, Nursing Workloads and Outcomes of Care: Its Impact to Quality of Care

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Abstract: A descriptive non-experimental type of research was used to determine the patient turnover to nursing workloads through outcomes of care. The study was conducted from selected hospital in Laguna and was composed of (66) registered nurses as respondents selected through purposive sampling. Data were gathered through a survey questionnaire created from a round table discussion. Researchers used frequency count and weighted mean to describe occurrence of patient turnover, to determine nurse respondents' compliance to nursing workloads, and define outcomes of care, meanwhile, Pearson's r test of correlation was used to answer how patient turnover impacts nursing workloads and the effect of nursing workloads to outcomes of care. Also, regression test was performed to solve for the p value noting whether to accept or reject stated null hypothesis.

The results of variables patient turnover and nursing workloads had a computed Pearson's r coefficient of ($r=0.94$) and a regression p value of ($p=0.01$) less than the level of significance ($\alpha=0.05$) suggesting that there is a strong relationship between patient turnover and nursing workloads; a faulty patient turnover results for performance of nursing workloads to fail. Also, the study noted a computed Pearson's r coefficient of ($r=0.88$) and a regression p value of ($p=0.05$) equal to the level of significance ($\alpha=0.05$) for variables nursing workloads and outcomes of care proposing that there is a significant impact of nursing workloads to outcomes of care to patients; inconsistent nursing workloads result to poor outcomes of care.

The findings of the study lead to recommend: that processes in patient turnover should be tailored in a manner that it will not greatly affect nurses' performance of nursing workloads. Processes should not take much of nurses' working time and increase working demands. Furthermore, nurse managers may assign charge nurses to facilitate processes (completing the charts, securing consent) to admissions, transfers, HAMA, and discharges, once done they may endorse it to staff nurses, in this way, staff nurses will get to focus in their respective patients only.

Keywords: patient turnover, nursing workloads, outcomes of care, quality care

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Introduction

Life is full of surprises, unknown with what may be thrown at us; there are good days with fair share of bad days. Then there are moments that we hope could last forever, and then there are moments that we wish could end sooner. Sometimes, life takes us back with surprises that we are not equipped to deal with, whether good or bad. Nursing profession is a life filled with uncertainties, dealing to diverse patients with the same diagnosis but with different presentations is no joke. Admission, discharge, transfer of patients added with pile of doctors' orders to be carried out make nursing world a chaotic profession for many. Still many Filipino nurses embrace this profession, passion or calling is the reason we see, and that is why the world views Filipinos as great nurses.

Filipino nurses, despite of being the most sought after healthcare professionals abroad, tend to provide poor quality of care here in our country. Many may agree that this is due to the limited working environment, however, Filipino nurses are known to be adaptive and resourceful, and thus, scarcity is not an issue in delivering quality care to patients. In professional experience, lowly delivery of care is seemed to be associated with nurses' failure to manage time wisely. Time management in nursing is the dictum to deliver quality care; however, it is unwell practiced most of the time since there are tons of nursing workloads to consider which are greatly affected by fast-paced patient turnover. Hospital managements, mostly if not all, are more concern to what task is done and not to how it is done, reason why delivery of quality care is taken for granted. Hospital managements do not have an eye on the ground as to what are the nursing workloads, how it is affected by the influx of patient admissions, transfers and discharges, and more so if quality care is achieve. These result to nurse job disappointment and patient dissatisfaction.

Preceded, are few heavy-weighted reasons for hospital managements, through the nurse managers, to further their understanding to patient turnover and how it affects nursing workloads that may alter delivery of quality care. Understanding patient turnover is not limited in knowing patient census, but more so, in learning what a patient goes through before and after admission/transfer/discharge for the management to track where in specific process does a patient experiences disappointment and to create a plan in addressing it. Glitches in patient turnover increase nursing workloads increasing demands and resources for care to patients putting quality of care at the losing-end. High patient turnover makes the nursing work environment more crowded and chaotic because nurses must provide concentrated nursing care to an increased number of patients and families within shorter time frames [22]. Thus, patient turnover should be considered an important factor in the allocation of nursing personnel and in-patient outcomes [9].

While many researches were conducted to understand phenomena affecting delivery of quality care, little attention has been placed to patient turnover, its relationship to nursing workloads and how it impacts outcomes of care to patients. Previous studies focused on nurse staffing as the predictor of the outcomes of care to patients [5, 15, 16]. A study focused on the effect of nursing staffing to patient outcomes based on patient turnover levels [19]. Meanwhile, this study did not assert nurse staffing as concept to affect outcomes of care to patients, instead it determined whether outcomes of care is affected by the patient turnover, nursing workloads as the bridging concept between the two. While other studies utilized patients' satisfaction to assess outcomes of care, [5, 15, 16, 19] this study gathered nurses respondents' perception on how the outcomes of care is with the nursing workloads they perform. It is to check nurse respondents' insight in which areas of care delivery they believe patients are disappointed with. Previous researches focused their study of patient turnover in

admissions, transfers, and discharges [13, 17]. However, this study included HAMA as one of the sub concepts of patient turnover as researchers believe that patients who go for HAMA are both a concern and a challenge to the healthcare field [2]. Instead of gathering the ratio of the number of admissions, discharges, HAMAs and transfers to the total number of treated patients to assess patient turnover, [8, 23] this study gathered nurse respondents' perception on what processes/procedures of patient turnover do patients experience poor service.

Researchers, nurses by profession working in private hospitals, are motivated in conducting this study to gain knowledge of the effect of nursing workloads on outcomes of care of patients based on patient turnover levels. Result of this study aims to help hospital management, through the nurse managers, to encourage them devise a plan in addressing the matter.

Methods

The study was a descriptive research. The purpose of a descriptive research is to observe, to describe, and to document aspects of situation as it naturally occurs and sometimes to serve as a starting point on theory development [20]. Thus, descriptive correlation design was used to study the impacts of patient turnover to nursing workloads affecting outcomes of care. The main purpose of correlation research was to clarify the understanding of important phenomena through the identification of relationships among variables [4].

Participants of the study were chosen using purposive sampling technique and initially targeted to consist seventy (70) registered nurses employed in selected hospital in Laguna, however, due to attrition only sixty-six (66) nurses participated, 59.09% (39) were females and 40.91% (27) were males. Nurse respondents were mostly millennials/generation Y with 78.79% (52) counts; others were generation X and baby boom generation with 16.67% (11) and 4.55% (3) counts respectively. In terms of position profile, chief nurse and assistant chief nurse posts were both 1.52% (1) count to each, 6.06% (4) nurse supervisors, 13.64% (9) head nurses, and lastly 77.27% (51) were staff nurses. In terms of their educational attainment only 6.06% (4) nurse respondents declared to have master's degree while 10.61% (7) were master's undergraduates and the rest 83.33% (55) were baccalaureate degree holder. Also, with 60.61% (40) counts, most of the nurse respondents have only a year to two years of hospital experience, 13.64% (9) with less than one year of experience, 3.03% (2) to each with seven to eight years and eleven to twelve years of experience, 15.15% (10) with three to four years, and only 4.55% (3) have thirteen and above years of experience.

The main tool of the study was a devised 75-item survey questionnaire; 20 items for the patient turnover, 30 items for the nursing workloads, 15 items for the outcomes of care, 5 items for the demographic profile, 5 items for the hospital profile. Questions were brainstormed by nurse managers in a round-table discussion (RTD). The devised survey questionnaire was tested for its reliability and revealed Cronbach's Alpha Coefficient of 0.92 for patient turnover, 0.87 for nursing workloads, and 0.78 for outcomes of care. The survey questionnaire was answerable by a five-point Likert scale from "1" indicates never (N) to "5" specifies always (A). Attached to the questionnaire is a cover letter discussing the purpose of the study and assuring the anonymity of the nurse respondent. Prior to fielding the survey questionnaire, researchers requested permission from the authorities of Global Medical Center of Laguna. Upon approval, information, mechanics and purpose of the survey questionnaire were conferred to the nurse respondents through a meeting. Nurse respondents answered the survey questionnaire after their regular duty hour. Researchers personally administered the survey questionnaire to promptly answer any questions regarding the study.

Subsequently, questionnaires were retrieved. Data collected were summarized and analyzed using various statistical treatment: frequency count and weighted mean were used to describe occurrence of patient turnover, to determine nurse respondents' compliance to nursing workloads, and define outcomes of care, respectively; and Pearson's r test of correlation was used to calculate the linear relationship among variables (patient turnover–nursing workloads and nursing workloads–outcomes of care) and whether the relationship, if any, is significant or not. Also, regression test was performed to solve for the p value noting whether to accept or reject stated null hypothesis.

Results

Tables under present the analysis and interpretation to data gathered in this study. Since indicators were stated positively, note that the higher weighted mean agrees that there is less concern in the processes each sub concept entails; legend in the table is a guide for interpretation of computed weighted means. Table 1 summarizes the computed weighted means for patient turnover. As presented, sub concept discharge got a general weighted mean of 2.92 ranking first, sub concept admission came second with a general weighted mean of 2.82, next was sub concept HAMA with a general weighted mean of 2.64, last was sub concept transfer with a general weighted mean of 2.55.

Results imply that sub concept discharge being the first among the sub concepts bring less demands in its processes. While sub concept transfer as the last, contributes to increase workloads to nurses. Also, while sub concept HAMA was just added as part of the patient turnover in this study, results show that it stances greater impact than admission and discharge. Despite of the ranking, sub concepts got weighted means with a narrow difference from each other, an average difference of 0.12 and all were interpreted as sometimes, this means that all sub concepts may not be always frantic, yet needed to be understood to improve patient turnover and avoid possible negative impacts to nursing workloads that may result to poor outcomes of care.

Table 1. Weighted Means of Patient Turnover

Item No.	Indicator	Weighted Mean	Interpretation	Rank
	Admission	2.82	Sometimes	2
1	Triage is immediate, accurate and effective. Prioritizes patients according to immediate health needs.	2.71	Sometimes	3
2	Orders for admission and initial treatment are quick to be communicated to the attending physician.	2.44	Rarely	4
3	Completion of patient's admission database is easy and simple, this includes consent for admission.	3.03	Sometimes	2
4	Medical history is systematically taken; laboratory results and diagnostic findings are speedy to release.	2.35	Rarely	5
5	Initial medical orders are all noted and carried out promptly prior to endorsement.	3.55	Very Often	1
	Transfer	2.55	Sometimes	4
1	Order/request for transfer is properly	2.42	Rarely	3

	coordinated to the attending physician, relative and agency/institution/area where patient is to be transferred.			
2	Transfer summary (e.g. medical abstract) and other documents are complete prior to transfer.	2.08	Rarely	4
3	Orders of medical treatments and medications are fully carried out prior to transfer.	3.41	Sometimes	1
4	Personnel responsible for patient's transport are prepared anytime.	1.94	Rarely	5
5	Medical condition of the patient is completely and accurately endorsed to the receiving agency/institution/area.	2.92	Sometimes	2
	Home Against Medical Advice	2.64	Sometimes	3
1	Risks of HAMA are well translated to the patient and/or relatives.	2.95	Sometimes	2
2	Attending physician is properly informed of the patient's request for HAMA.	3.20	Sometimes	1
3	Consent for HAMA is detailed and easily understood.	2.61	Sometimes	3
4	Few hospital staffs are involved in the HAMA process.	2.52	Sometimes	4
5	Processing request for HAMA is simple.	1.92	Rarely	5
	Discharge	2.92	Sometimes	1
1	Discharge orders (e.g. home medications, follow up consultation) are complete.	3.59	Very Often	1
2	Final diagnosis is complete prior to billing out.	2.36	Rarely	4
3	Auditing and billing out are correct and fast.	2.86	Sometimes	3
4	Discounts/deductions, if any, are easily conversed to concern party.	3.47	Sometimes	2
5	Vacated rooms are immediately cleaned to prepare for next admission.	2.32	Rarely	5
Legend: 1.00-1.49 Never		3.50-4.49	Very Often	
1.50-2.49 Rarely		4.50-5.00	Always	
3.49 Sometimes				

Table 2 recaps the computed weighted means for nursing workloads. As shown, sub concept documentation was ranked first with a general weighted mean of 3.25, second was sub concept medication administration with a general weighted mean of 3.06, third was sub concept assessment with a general weighted mean of 2.90, next was sub concept discharge planning with a general weighted mean of 2.67, followed by sub concept health education with a general weighted mean of 2.66, and lastly sub concept activities of daily living with a general weighted mean of 1.92.

All the sub concepts under nursing workloads were interpreted as sometimes except for sub concept activities of daily living which was interpreted as rarely. With the computed general weighted means and interpretation, it may draw out that nursing workloads are affected by the existence of poor patient turnover. Sub concept activities of daily living is the sub concept that was greatly compromised while documentation is the sub concept nurse respondents note they are much precise to perform. Although other sub concepts have higher computed weighted means, it is still unacceptable to have sometimes as interpretation for all. For a care to be of quality it should be consistent at all aspect, not just for a certain task, as we are to deal our patients holistically.

Table 2. Weighted Means of Nursing Workloads

Item No.	Indicator	Weighted Mean	Interpretation	Rank
	Assessment	2.90	Sometimes	3
1	Gathers baseline assessments of patient to include VS, medical history, and level of understanding.	3.26	Sometimes	2
2	Assesses patient thoroughly prior to any medication to be administered and treatment to be rendered.	2.67	Sometimes	3
3	Evaluates response of patient to medications administered and treatment rendered.	2.47	Rarely	5
4	Assesses patient carefully before making any referrals.	3.56	Very Often	1
5	Correlates subjective data with objective data (e.g. laboratory results, diagnostic findings).	2.56	Sometimes	4
	Documentation	3.25	Sometimes	1
1	Charts initial and transitory assessment of patient's condition throughout hospitalization.	3.24	Sometimes	3
2	Notes any untoward medical presentations of the patient.	3.35	Sometimes	1
3	Records patient's responses to medications administered and/or treatments rendered.	3.30	Sometimes	2
4	Documents consent/waiver signed by the patient and/or relative.	3.18	Sometimes	4
5	Writes and verifies verbal and telephone orders. Have said orders signed.	3.17	Sometimes	5
	Medication Administration	3.06	Sometimes	2
1	Verifies doctor's order of medication.	2.92	Sometimes	3
2	Checks label, expiration, consistency, route of medication to be administered.	2.55	Sometimes	4
3	Prepares, personally, medication to be administered.	4.41	Very Often	1
4	Adheres to the seven rights of	3.03	Sometimes	2

	medication administration.			
5	Acquires knowledge about the effects, side effects and interactions of medications to be administered.	2.39	Rarely	5
	Activities of Daily Living	1.92	Rarely	6
1	Assists patient in movement in bed.	1.91	Rarely	3.5
2	Assists patient in transfers and locomotion.	1.97	Rarely	2
3	Assists patient in dressing.	1.70	Rarely	5
4	Assists patient in personal hygiene.	1.91	Rarely	3.5
5	Assists patient in feeding.	2.11	Rarely	1
	Health Education	2.66	Sometimes	5
1	Informs patient of hospital policies and safety evacuation plan.	2.55	Sometimes	4
2	Provides brief discussion of patient's health status, nature of health condition, and medical options to adhere.	2.65	Sometimes	3
3	Discusses to patient importance of medications and/or treatments ordered.	2.76	Sometimes	2
4	Educates patient of what to expect after a medication is administered and/or a treatment is rendered.	2.83	Sometimes	1
5	Teaches patient of efforts to take in achieving optimal condition (e.g. diet, activities/exercises).	2.53	Sometimes	5
	Discharge Planning	2.67	Sometimes	4
1	Identifies health care needs to be continued at home.	2.64	Sometimes	4
2	Teaches about self-care at home.	2.80	Sometimes	3
3	Completes discharge instructions of patient to include medications/treatments to be continued at home and follow up consultation.	2.85	Sometimes	2
4	Assists in referral to health agencies/institutions for out-patient rehabilitation and support.	2.02	Rarely	5
5	Ensures complete medical documents needed by the patient prior to discharge.	3.05	Sometimes	1
Legend: 1.00-1.49 Never 3.50-4.49 Very Often 1.50-2.49 Rarely 4.50-5.00 Always 3.49 Sometimes				

Table 3 outlines the computed weighted means for outcomes of care. Ranked first was the sub concept patient complication with a general weighted mean of 2.74, next was sub concept length of stay with a general weighted mean of 2.61, and last in the rank was sub concept patient safety which garnered a general weighted mean of 2.57. All the sub concepts were interpreted as sometimes, these suggest that all sub concepts share fair chances of being a

concern as gauge for having good outcomes of care. In this concept, the higher computed weighted mean suggests higher risk it may pose to the outcomes of care, as indicators were stated negatively. Sub concept patient complication was seen to be of great concern by the nurse respondents while sub concept patient safety is the least, however, nurse respondents reported that patient identification is an issue and this may put our patients in danger. But despite of the ranking it was obvious that all three sub concepts share narrow mean difference which entails that all three are concern factors to outcomes of care in the existence of increased nursing workloads due to poor patient turnover.

Table 3. Weighted Means of Outcomes of Care

Item No.	Indicator	Weighted Mean	Interpretation	Rank
	Length of Stay	2.61	Sometimes	2
1	Patient stays in the hospital in short period of time. Usually 1-2 days of hospitalization.	3.97	Very Often	1
2	Short hospitalization time is just enough to manage patient’s medical condition by the attending physician.	2.36	Rarely	3
3	Hospitalization depends on the severity of the patient’s medical condition.	2.83	Sometimes	2
4	Nursing plan of care is well executed in short hospitalization time.	2.23	Rarely	4
5	Short hospitalization time ensures delivery of quality of care to patients.	1.64	Rarely	5
	Patient Complication	2.74	Sometimes	1
1	Patients develop other medical condition while in the hospital.	2.70	Sometimes	3
2	Patients are readmitted after few days.	2.76	Sometimes	2
3	Patients failed to adapt to the course of treatment.	2.56	Sometimes	5
4	Patients mistrust health care provider.	2.64	Sometimes	4
5	Patients transfer service after hospitalization.	3.03	Sometimes	1
	Patient Safety	2.57	Sometimes	3
1	Medication errors are common.	2.42	Rarely	3
2	Patient identification is an issue.	3.53	Very Often	1
3	Injuries secondary to fall are common incidents.	3.00	Sometimes	2
4	Medical equipment are substandard.	2.08	Rarely	4
5	Practices emergency evacuation plan.	1.83	Rarely	5
Legend: 1.00-1.49 Never		3.50-4.49	Very Often	
1.50-2.49 Rarely		4.50-5.00	Always	
3.49 Sometimes				

Shown in Table 4 are the computed Pearson’s r and p value for patient turnover – nursing workloads and nursing workloads – outcomes of care.

For patient turnover–nursing workloads, computed $r = 0.94$ indicates that there is a strong relationship between patient turnover and nursing workloads. Since the computed coefficient has a positive sign this suggests that as the patient turnover improves so as the nursing workloads, however, when patient turnover declines nursing workloads are compromised.

Researchers reject the null hypothesis (H_0) there is no significant relationship between patient turnover and nursing workloads as the p value (0.01) is less than the set level of significance ($\alpha = 0.05$).

Table 4. Computed Pearson's r and p value for Patient Turnover– Nursing Workloads and Nursing Workloads–Outcomes of Care

	Pearson's r	p value
Patient Turnover – Nursing Workloads	0.94	0.01
Nursing Workloads – Outcomes of Care	0.88	0.05
Legend: $\alpha = 0.05$		

For nursing workloads–outcomes of care, computed $r = 0.88$ directs that there is a strong relationship between nursing workloads and outcomes of care. Since the computed coefficient has a positive sign this suggests that as nursing workloads advance so as the outcomes of care, however, when nursing workloads falloff outcomes of care degrade.

Researchers reject the null hypothesis (H_0) there is no significant impact of nursing workloads to outcomes of care as the p value (0.05) is equal to the set level of significance ($\alpha = 0.05$).

Discussion

In this study, researchers wanted to examine the interrelationship of patient turnover to nursing workloads to outcomes of care. Researchers strongly believe that quality of care is dictated by the consistency and coherence of the preceded concepts. As a whole, result shows that patient turnover to nursing workloads to outcomes of care share strong interrelationship.

Nurse respondents agreed that faulty patient turnover results for nursing workloads to fail, and alternatively, nursing workloads are effectively performed when patient turnover is well organized. Result of the study affirms that patient turnover, policies and protocols behind its processes, affects nursing workloads by increasing working demands and time to process admission, transfer, HAMA, and discharge. A study to explicitly examine the effect of nurse staffing on patient outcomes based on patient turnover levels and found out that high patient turnover contributes to increased demands and resources for care, [19] likewise, The Labor Management Institute found that nursing care units with higher patient turnover had a higher rate of overtime for nursing staff and more adverse events [11]. Nursing workload is an aspect of nursing that must not be taken for granted as this may be the determinant of nurse resignation. Some of the reasons why nurses resign are work schedules and stress [18].

Nurses get stressed due to work environment and this includes increased nursing workloads along with poor compensation, long-hour duty, shift changes, not being and involved in the decision-making process. [6, 21]. Researchers assert that policies and protocols behind the processes of patient turnover should be reviewed for any inconsistencies in the actual procedures of admission, transfer, HAMA, and discharge. Processes in patient turnover should be concise and simple; also only few people should be involved in the said processes.

The Institute for Healthcare Improvement recommends that health care facilities modify organizational work processes that have the potential to impede patient flow [7]. Effectively managing the flow and optimizing resources will improve the experience for patients and nurse [10]. Processes in patient turnover should be tailored in a manner that it will not greatly affect nurses' performance of nursing workloads. Processes should not take much of nurses' working time and increase working demands. Thus, Creating measures to assure competent performance of nursing workloads are necessary and a must. Nurses should only perform tasks related to care and non-nursing tasks (e.g. audit, equipment monitoring) should be limited. No nursing workloads should be interrupted by other responsibilities outside nursing care.

Also, nurse respondents acceded that inconsistent nursing workloads result to poor outcomes of care, conversely, positive outcomes of care arise from proficient nursing workloads. Nurse respondents seen nursing workloads uptight to be performed consistently due to increased working demands and time the patient turnover brings, thus, quality of care is done haphazardly. There is strong association between the quality of nursing workloads and nurse satisfaction and quality of care [12]. Identifying and addressing themes that affect nursing workloads is a need to enhance nurse satisfaction, patient satisfaction, and outcomes of care. There is increased in nursing workloads, outcomes of care declined [1]. Therefore, researchers suggest that outcomes of care should be reviewed, probably monthly, to ensure delivery of quality care. Patients should be informed of policies and protocols in delivering care, recognition of those may help improve outcomes of care as they may take understanding of why certain services are delayed or least prioritized. Outcomes of care have been linked to the nursing work environment and patients' negative perceptions of the environment have the power to influence their level of satisfaction or dissatisfaction with the hospitalization experience [3]. Administrators should work collaboratively with nurses to identify work environment strategies that ameliorate workload demands at different levels. [14].

This is the first study that had concept patient turnover as the predictor of outcomes of care, nursing workloads as the bridging concept. Hospital administrators and nurse managers should be sensitive to the findings of this study as high patient turnover is a silent felon in increasing demands to nursing workloads putting quality of care at stake manifested by poor outcomes of care. Hospital authorities and nursing service should work together in addressing this concern to assure that quality care is always serve to our patients. Nurse managers may assign charge nurses to facilitate processes (completing the charts, securing consent) to admissions, transfers, HAMA, and discharges, once done they may endorse it to staff nurses, in this way, staff nurses will get to focus in their respective patients only. Further research may field the study in a public hospital to account for differences it has from data retrieved from a private hospital, thus, future researchers may plan and recommend specific measures in addressing the concern.

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