

Understanding Philippines Nurses' Competency in the Delivery of Healthcare Services

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Abstract

Background: Growing rates and causes of medical errors made by nurses have just arisen as a substantial concern that can consequence to mortality and frailty of numerous individuals annually. Evaluating nurses' competency is challenging as no single method is deprived of its assessment. Thus, it led to recognize influencing characteristics towards nurses' competency in healthcare services delivery.

Methods: This descriptive, cross-sectional study assessed nurses' competency of a purposive sample of 211 registered nurses employed in selected private and public hospitals of Central Luzon, Philippines.

Results: Most of the respondents were under 21-60 years old (mean=31.64, SD=2.46), predominantly single 146 (69.20%), female 131 (62.10%), registered nurses 162 (76.80%) that were permanently employed as staff nurses 128 (60.70%) for 1-30 years in service (mean=6.43, SD=1.85) that earned Php 6,000-60,000 (mean=17.951, SD=3.68) which is less than expected to receive. Overall, nurses had positive perceptions toward their competency (mean 4.49 ± SD 0.88). Among the seven-dimension competency scale, 'legal/ethical practice' was the highest mean score (mean 4.60 ± SD 0.55) reported, while 'teaching-coaching' (mean 4.36 ± SD 0.62) the lowest. Permanent nurses revealed higher self-perceived competencies than non-permanent ones. Comparing nurses' nature of work, nurses had better self-perceived competencies than other field of work. It was also emphasized that demographic and work-related characteristics towards perspective on nursing competency had significant differences using multivariate analyses.

Conclusion: This study highlighted nurses' competency in delivering healthcare services in the Philippines. Demographic (marital) and work-related (nature of work, salary, length of service) characteristics affect their competency level. They have greater competency level in their workplace with permanency at work. Finally, the results provided unique theoretical underpinning that expands on previous knowledge and literature on factors that affect the nurses' competency level.

Keywords: Competency; Healthcare services; Nursing competency; Philippines

Introduction

The use of previously acquired knowledge makes a person behavior act appropriately [1]. Competencies are an important part of the continual process [2] for being a competent person is possessing the knowledge, skills and abilities necessary to perform a task [3] and has the ability to perform professionally [4,5] in an environment that lives with organizational role and standards. A registered nurse must participate consistently in events that will cultivate one's competency and clinical performance. To perform competently, a registered nurse should seize knowledge, skills and abilities prerequisite for permissible, harmless and effectual practice. One should recognize the restrictions of one's professional competency and merely assume practice and acknowledge accountabilities for those actions in which one is competent. If a phase of practice is afar or outside his competency level or registration, the need to achieve support and guidance from an expert to help the professional to acquire the requisite knowledge and skills. The obligation to offer care in an evidence-based best practices and proven research is vital. Unfortunately, inaccuracies, negligence or malpractices made from incompetence can take risk of patient's life. It was reported that there is an increasing rate of medical error committed by nurses. Medical errors have recently emerged as a significant issue as they result to death and disability of patients each year [6]. Other literatures that explore medication administration error recurrently relates inaccuracies to certain professional characteristics, attributes,

skills and competencies [7]. The deficiency of knowledge may contain the incompetence to precisely determine medication dosages which, concurring to research suggestively provides to a nurse's probability of making an inaccuracy [8]. However, another study recommends that due to absence of a vibrant delineation of competency occurs, entire influences place forward in the literature must be perceived as competency components [9].

Maintaining the quality of care to the patients is one of the indispensable roles of competent healthcare practitioners including nurses. The focus in the commitment to serve people competently which aim towards health maintenance, health promotion, disease prevention and improvement of well-being. Therefore, this study serves as a starting point of aiding nursing administrators in facilitating a more comprehensive evaluation in the level of competency of aspiring

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applicants. Moreover, the findings of the study target to an idea on what area of his or her profession he or she could improve on to be considered a competent nurse.

Background of the study

Producing a positive change in one's environment is the capability of a competent person. Using previously acquired knowledge, one can behaviorally act appropriately [1]. It has been demarcated that competency is an application of knowledge, skills and ability of a professional nurse. However, further study reveals that competence is not just knowing but also the association to act responsibly with the recognition of knowing how to mobilize, integrate and transfer resources, knowledge and professional competencies [10]. This is likewise especially true in a study which reveals a significant relationship between clinical competencies and their compliance to patient safety standards among staff nurses [11]. However, whatever inaccuracies, negligence or malpractices made from incompetence can take risk of patient's life. According to a report, it examines and found that 88.5% of the claims filed towards registered nurses' malpractice between 2010 to 2014 [12]. It is alleged caused by nurses, who are fatigued, tired, or stressed that led to incapability of providing quality care that they are essential to offer and are at an excessive risk of making mistakes leading to damage, or even worse, patient mortality. Consequently, medication inconsistencies and mistakes occurring from deficiency of care synchronization for healthcare is a great challenge [13]. Moreover, another study uses public data of 1990-2014 National Practitioner Data Bank and identifies the highest fraction of malpractice that indicates implicating nurses were diagnosis-related (41.46%) and treatment-related (30.79%) [14]. Though these figures made the researchers viewed these numbers as far too large to be left unnoticed. This unfortunate mishap can be prevented, if not reduced, by the provision of accurate care made by competent health care providers. Nurses' actions will have a direct and frequently substantial consequence on the patients' prognosis. Much the same, competence must be maintained or enhanced for continued delivery of quality care.

Nurses practice in complex environments which may feature highly advanced technology that calls for enhanced education and training; scarce resources that may call for resourcefulness and compromise; or unfavorable working conditions that may call for adjustments and consequently demanding hold to greater competencies in delivering and sustaining quality care [15]. Much the same, competence must be maintained or enhanced for continued delivery of quality care. However, competence regarded holistically cannot constantly be perceived but reasonably concluded through competent tasks performance; determination of the fundamental competencies compels the appraisal of concepts that reinforce the available and measurable accomplished tasks [16]. Determining competencies in nursing is challenging several methods are essential to use [17]. However, few literatures relating to measuring nursing competency exists which therefore, a challenge and a great opportunity for the researcher to take part in this commendable quest. Maintaining quality of care to the patients is one of the essential roles of competent health care providers including nurses. The interest is founded in the commitment to serve people competently as possible which aim towards maintenance and promotion of health, prevention of possible complications and improvement of well-being. However, no locally published studies were found and therefore the study entails this intention that the researchers decided to continue to identify significant relationship between registered nurses' profile and their competency in healthcare delivery.

This study aimed to serve as a starting point which may help the nursing administrators to facilitate a more comprehensive evaluation in the level of competency of the aspiring applicant. Furthermore, the results of the study will have targeted to an idea on what area of his/her profession he/she could improve on to be considered a competent nurse. The assessment of competency level includes the ability of the nurse in ensuring a safe environment for the patient considering also the quality and effectiveness of care service together with building a harmonious relationship within the members of health care team to implement necessary needs, sharing of information regarding the recent trends within the profession, being guided by a code of ethics that will be a basis in preventing flaws and probable malpractices to be able to safeguard the patient and one's credibility. Finally, this study aimed to serve as a guide in conducting research identifying factors that might affect competency that is applicable in the evaluation of the competency of nurses in the community setting and in different levels of hospitals either public or private or both which were also included in the locale of current study, and other fields of nursing.

Objectives

This study aimed to identify registered nurses' demographic and work-related characteristics as factors to influence their dimensions of competency in healthcare services delivery. It assessed nurses' competency in selected private and public hospitals of Central Luzon, Philippines.

Materials and Methods

Study design

This study utilised a descriptive, cross-sectional design.

Setting and samples

This study was conducted in different hospitals both private and public (150-250 bed capacities). A purposive sample of 211 nurses, in various fields of practice, was recruited as the respondents of this study. This study recruited nurses who (1) are registered nurses; (2) are permanent, casual, job-order and staff nurses, either in wards or special areas; (3) consented to partake in the study and (4) presently employed in identified healthcare settings.

Research instrument

A self-administered survey was used for data collection that has two sections. Demographic and work-related characteristics considered the respondents' age, gender, marital status, employment status, length of service, salary, number of years from graduation, and present field/unit/area assigned. The use of Competency Inventory for Registered Nurses (CIRN), a 59-item standardized questionnaire [18,19] enclosed the seven dimensions: critical thinking and research aptitude (10 items), clinical care (10 items) leadership (10 items), legal and ethical practice (8 items), professional development (6 items), interpersonal relationships (8 items), and teaching and coaching (7 items). The CIRN used a five-point Likert Scale (0=not competent, 1=slightly competent, 2=somewhat competent, 3=competent enough, and 4=very competent). Raw scores were organized in the range in each specific dimension (low nursing competency, relatively low nursing competency, moderate nursing competency, relatively high nursing competency and high nursing competency).

Ethical consideration

Research ethics was primarily observed and maintained throughout the duration of conducting the study. Ethical approval was obtained from the Ethical Committee of Mindanao State University – College of Health Sciences. More so, informed consent was taken from all individual respondents included in the study prior to its implementation. The right to self-determination, confidentiality and anonymity, benefits and risks of the study were highlighted.

Data analysis

Statistical Packages for Social Sciences (SPSS) version 24 software package was utilised for data analysis. Descriptive statistics were used in determining the respondents’ demographic and work-related characteristics. Data were described using mean and standard deviation. ANOVA, t-tests and Pearson product moment correlation were utilised to test the relationship between demographic characteristics and nurses’ competency in delivering health care services. A standard multiple linear regression (multivariate test of significance) analysis was accomplished to assess the effect of demographic and work-related characteristics among staff nurses on their nurses’ competency in delivering health care services.

Results

Respondents’ demographic and work-related characteristics (n=211)

The nurses’ demographic and work-related variations were illustrated in Table 1. In this table, it presented that most of the respondents are under 21-60 years old (mean 31.64, SD 2.46), predominantly single 146 (69.20%), female 131 (62.10%) registered nurses that were permanently 162 (76.80%) employed as staff nurses 128 (60.70%) for 1-30 years in service (mean 6.43, SD 1.85) that earn Php 6,000-60,000 (mean 17,951, SD 3.68) which is less than expected to receive [4].

Perspective on nurses’ competency (n=211)

Table 2 presented the perspective on nurses’ competency among the respondents. An overall mean score 4.49 ± 0.88 for their overall perceptions was reported, indicating that the nurses had positive perceptions toward their overall core competency components. Among the seven-dimension scale, ‘legal/ethical practice’ was the highest mean

Variables		n	%
Gender	Male	80	37.9
	Female	131	62.1
Marital status	Single	146	69
	Married	65	30.9
Employment status	Permanent	162	76.8
	Non-permanent	49	23.2
Nature of work	Staff Nurses	128	60.7
	Nursing educators	41	19.4
	Occupational Health Nurse	25	11.9
	Public health Nurse	17	8.1
	Range	Mean	SD
Age	21-60	31.64	2.46
Salary (Php)	Php 6,000-60,000	17,951	3.68
Length of service (years)	1-30	6.43	1.85

Table 1: Respondents’ demographic and work-related characteristics (n =211).

score (mean $4.60 \pm SD 0.55$) reported, while ‘teaching-coaching’ (mean $4.36 \pm SD 0.62$) was rated as the lowest dimension competencies by the respondents.

Association between respondents’ demographic and work-related characteristics towards perspective on nursing competency (n=211)

As seen in Table 3, the association between respondents’ demographic and work-related characteristics towards perspective on nursing competency. Results revealed permanent nurses exhibited higher self-perceived competencies than non-permanent nurses. Comparing nurses’ nature of work, staff nurses had better self-perceived competencies than other field of work.

Multivariate test of significance (Wilk’s Lambda test) towards CIRN seven dimensions domains (n=211)

Finally, the differences between demographic and work-related characteristics towards perspective on nursing competency using multivariate analyses was highlighted (Table 4).

Dimension	Mean	SD
Critical thinking and research aptitude	4.41	0.60
Clinical care	4.49	0.58
Leadership	4.56	0.54
Interpersonal relationships	4.54	0.54
Legal/ethical practice	4.60	0.55
Professional-development	4.47	0.56
Teaching-coaching	4.36	0.62
Overall	4.49	0.88

Table 2: Perspective on nurses’ competency (n = 211).

Demographic and work-related characteristics	Nurses’ competency		
	Mean \pm SD	Statistical test	p
Gender			
Male	4.47 ± 0.76	$t = -1.52$	0.188
Female	4.60 ± 0.31		
Marital Status			
Single	4.47 ± 0.037	$t = 1.51$	0.352
Married	4.49 ± 0.092		
Employment Status			
Permanent	4.60 ± 0.89	$t = 1.07$	<.001***
Non-permanent	4.49 ± 0.76		
Nature of work			
Staff Nurses	4.89 ± 1.54	$F = 2.35$.025*
Nursing educators	4.67 ± 2.31		
Occupational Health Nurse	4.75 ± 2.89		
Public health Nurse	4.23 ± 3.67		
Age			
21-60	31.64	$r = -0.01$	0.279
Salary (Php)			
Php 6,000-60,000	17,951	$r = 0.11$	0.812
Length of Service (years)			
1-30 years	6.43	$r = 0.04$	0.921

Note. *Significant at 0.05 level, **Significant at 0.01 level, ***Significant at 0.001 level
Table 3: Association between respondents’ demographic and work-related characteristics towards perspective on nursing competency (n=211).

Effect	Value	f	Hypothesis df	Error df	p
Gender	.959	1.469(a)	6	205	.190
Marital Status	.160	176.792(a)	6.000	202.000	<.001***
Employment Status	.961	1.402(a)	6.000	205.000	.215
Nature of work	.672	2.292	6	198.	<.001***
Employment Status					
Age	.755	1.374	6	932.154	.059
Salary (Php)	.730	1.186	6	196.000	.024**
Length of Service (years)	.817	1.384	6	802.000	<.001***

Note. *Significant at 0.05 level, **Significant at 0.01 level, ***Significant at 0.001 level, a. Exact statistic

Table 4: Multivariate test of significance (Wilk's Lambda test) towards CIRN seven dimensions domains (n=211).

Discussion

Most registered nurses displayed a high nursing competency in legal and ethical practice is bound to the law and his or her professional nursing license. These data were gathered based on the score of the respondents on test items focusing on adherence to institutional policies, respect to patient's rights and decides and acts based on legal and ethical principles. This would certify that they are to become registered states to practice professional nursing. Each nurse is conscientious for confirming that one's education and experience are sufficient to meet the responsibilities described in one's profession [20]. It would indicate that what he or she had learned is sufficient enough to his or her job. To exercise competently, a registered nurse requisite to hold the knowledge, skills and abilities essential for legitimate, secure and successful practice unsupervised. It supports the data of present study by indicating that a registered nurse possesses the needed knowledge, skills and abilities in terms of legal and ethical practice. Moreover, this may indicate that the respondents have awareness in their responsibilities to perform professional obligations in compliance with prevailing rules and regulations and mostly acknowledged principles of moral conduct and appropriate modesty [21]. Nurses are necessary to deliver care that is within the legal borders of their training and within the margins of organization policies and procedures whereby permission is granted by a legal authority to do an act, without such permission, action would be illegal, trespass, a tort, or otherwise not allowable [20,22,23]. Competency always includes care that guard clients from injury in which the application of the nursing process is another indispensable characteristic of delivering safe patient care. However, nurses do not always report all potentially unsafe practice they have witnessed to responsible persons [24]. It also stipulates reluctance in recording malpractices in the nursing profession [25]. Most nurses fright embarrassment from superiors and their peers when reporting unsafe practices, though it is the nurse's ethical and legal responsibility to detail such incidences. On the other hand, taking up preceptor role to help new nurses in adopting an unfamiliar working environment, developing a precise teaching tactic to educate patients and families and initiating the suitable orientation programs for new nurses were viewed with not as much regard. Teaching-coaching skills coincides with both in clinical care and interpersonal relationship. Clinical care is effective if one would have a good interpersonal relationship to attain the trust of the clients thus, the plan of care is being met. As with the acquisition of interpersonal relationship, communication is established for nurses to coach their clients in achieving lifestyle changes in their benefits as well as teaching them vital information in order to achieve their optimum level of functioning for the chief function of the nurse is reestablishing health, supporting health and

counteracting illness. A nurse who demonstrates things to a patient beneficial to him can help with hasty recovery [26]. This indicates that the nurse who has an innate role in rendering care would always accompany with teaching in it. This would increase the effectiveness of what the nurse plan for the healthcare of the patient and attaining optimum health needed. Consequently, all these exemplify a nurse's goal with the interventions carried out – to promote independence to the patient and the achievement of the patient's optimum level of functioning [27]. Nurses' functions include demonstrating things to a patient beneficial for recovery [26] and promoting independence with the achievement of optimum level of functioning [27]. Accordingly, communication is essential as a critical nursing skill because this is regarded as a relatively high nursing competency that is previously presented to collect assessment data for nursing diagnoses, to educate and influence, and to precise care and wellbeing [19]. However, nurses are reported to have work overload, deficiency of time and shortage of support from coworkers [28].

Hospitals persist the greatest usual employment setting for registered nurses (RNs). Mostly critical thinking skill can be built and developed with practice over time through experience which hospitals being the most common employment setting where most registered nurses work and practice critical thinking skills and research aptitude [20,29-31]. It suggests the use of an evidence-based practice for the responsiveness of nursing skills desirable in hospital setting where primary care is provided directly to patients [4,32]. Philippines has an oversupply of nurses as "world-class schools" in the country continue to produce thousands of them [33]. Seemingly, this reflects greater nurses employed in a regular status. However, the exodus of Filipino RNs for a high-paying employment abroad is a very alarming reason which by a decade, more hospitals, clinics and even the teaching staff of the colleges and universities may be emptied of competent nurses [34]. Nurses were tagged with a practice to work as volunteers for needed experience, and to be awarded a certificate of completion to qualify only for posting abroad [35]. Furthermore, because of the lack of better job prospects or employment opportunities, Filipino nurses have branched out and compelled into other, not necessarily related fields. Studies would infer that annually, graduates entering nursing professional path felt contained, and that the similar year involved both personal and professional qualities prompting professional turnover for these reasons, approximately new nurses depart their work within limited years of entering the profession [36-38]. However, most registered nurses work in hospitals while others work primarily in either hospitals or nursing homes [30]. US hospitals remain the most common employment setting for nurses [31]. Highest working RNs account a primary career title of "staff nurse" or "direct care provider" [38]. Routine of evidence-based practice and understanding of nursing skills desirable in particular hospital setting made inclusion of clinical educators who play a substantial function in assisting the competent care that patients anticipate and deserve. Preferably, district hospitals offer the initial level of outpatient or inpatient care for patients who have been denoted by their primary care providers. District hospitals likewise mention people who require more specialized care to regional or national-level health facilities [32]. Though most of the nurses are expected to be seen in hospital and few in other fields of nursing as seemingly reflected in the study, a group of academicians are evidently observed in colleges and universities. It is often a challenge for educators in planning nursing students for practice in response to continuously varying educational strategies, methodologies and knowledge, a BSN nursing program determined that a curriculum redesign was necessary and is known for being responsive to the development of the

significant educational standard that greatly affects registered nurses' employability in the academic field. To cope with internationalization and globalization of educational institutions is to redesign of curriculum development [39]. Consequently, downsizing of student population in nursing education is drastically felt that universities or schools are confronted to manage through reduction of nurse educators being hired. More so, most of the nurses are expected to be seen in the health care setting or in any other field of nursing where they can practice their profession. As one of several issues that nursing profession is being confronted, Philippines' persistent production of nurses for the global market is a state approach to improve an export industry for economic progress [4]. Immigration services and nursing licensing authorities support the production of nurses for export instead.

Nonetheless, single category constitutes the highest percentage of respondents, which in turn are also young and new graduates in one's profession. The marked increase rates of graduates that accept their nursing qualification, and finally likewise hold a nursing position which reflects existing trends internationally; and are not in their marriage years [40]. However, no much literature review revealed marital status as an indicator of competency. A commendation based on this current research finding incorporates the development of research exploration into explicit determinants of competency with nurses delivered healthcare among individuals of diverse marital and living accommodation statuses. Nevertheless, finding verifies consequence which confirmed a positive predictive capability of higher levels of education in defining improved patient satisfaction [41]. Salary, on the other hand, is suggested with correlation as according to recent studies signifying that nurse turnover provides to superior organizational charges and may compromise quality care [42-44]. This is one of the several factors that attracts, motivates, satisfies and improves the performance of registered nurses. The greater the salary the registered nurses receive, the greater level the registered nurses' competency is successfully achieved. In the Philippines, the Nursing Law of 2002 mandated that an entry-level nurse should receive about Php 13,300 monthly [4]. However, registered nurses only receive monthly salary between Php 6,000 to 10,999 which is considerably less than what is expected to be received by regular employed nurses with one to four years of service in the hospital setting. More so, the amount recommended as the minimum salary for government nurses is a key provision of Republic Act 9173, the Nursing Act of 2002, has never implemented since its promulgation. It is a painstaking fact that the salary received by nurses in the Philippines is not sufficient to the work they render and to secure financial stability [45]. Furthermore, patients as well as nurses define a good nurse primarily by "actions directed at maintaining physical comfort, hygiene, and medical treatment". Proficient staff members can offer esteemed discernment into the competencies that essential to be measured. Competencies are an imperative part of work arena [22]. They are a fragment of a persistent process to aid in ensuring that the organization delivers a patient high-quality care [2]. More so, further usual among young nurses has the intention to depart the profession for the first five years after graduation [41]. Moreover, every individual has at least some level of critical thinking skill that can be built and established with practice over time through experience [20,46]. This would support that new graduates are currently in the stage of gaining experience with the application of what they have learned as well. This is further exemplified that about a year, graduates entering nursing professional practice experienced being adjusted and elaborate both personal and professional qualities [35-37]. The leaders must require a suitable work environment to guarantee staff competency by unceasingly measuring employees to preserve and improve nursing competency levels [47].

Conclusion

This study highlighted the nurse's competency in delivering healthcare services in the Philippines. Nurse perceived greater competency level in their workplace. Permanent status staff nurses are related to greater competency level. Meanwhile marital status, nature of work, salary (Php), length of service (years) affects their competency level. Finally, the results provide unique theoretical underpinning that expands on previous knowledge and literature on factors that affect the nurses' competency level.

References

1. Lowen IMV, Peres AM, Crozeta K, Bernardino E, Beck CLC (2015) Managerial nursing competencies in the expansion of the family health strategy. *Revista da Escola de Enfermagem da USP* 49: 967-973.
2. Whelan L (2006) Competency assessment of nursing staff. *Orthop Nurs* 25: 198-202.
3. Kieft RA, de Brouwer BB, Francke AL, Delnoij DM (2014) How nurses and their work environment affect patient experiences of the quality of care: A qualitative study. *BMC Health Services Research* p: 249.
4. Tan J, Sanchez F, Balanon V (2005) The brain drain phenomenon and its implications to health. LIP Alumni Council Meeting on 24 June 2005 at Diliman, Quezon City, Philippines.
5. Tschudin V (2003) Ethics in nursing – The caring relationship. Edinburg, N.Y.: Butterworth and Heinemann p: 79.
6. Kahriman I, Öztürk H (2016) Evaluating medical errors made by nurses during their diagnosis, treatment and care practices. *J Clin Nurs* 25: 2884-2894.
7. Preston R (2004) Drug errors and patient safety: The need for a change in practice. *British J Nurs* 13: 72-78.
8. Oldridge G, Gray K, McDermott L, Kirkpatrick C (2004) Pilot study to determine the ability of health-care professionals to undertake drug dose calculations. *Intern Med J* 34: 316-319.
9. Mustard LW (2002) Caring and competency. *JONA's Healthcare law, ethics, and regulation* 4: 36-43.
10. Sousa JM, Alves ED (2015) Nursing competencies for palliative care in home care. *Acta Paulista de Enfermagem* 28: 264-269.
11. Mejia PC, Osman A, Yngente AK, Feliciano E (2019) The relationship between professional nursing competencies and key performance indicators (KPIs) for patient safety outcomes among the Filipino staff nurses in selected private secondary hospitals in the Philippines. *Euro J Pharm Med Res* 6: 404-409.
12. Nurses Service Organization (2016) More nurses, hospitalists being sued for malpractice, studies say.
13. Wheeler AJ, Scahill S, Hopcroft D, Stapleton H (2018). Reducing medication errors at transitions of care is everyone's business. *Australian prescriber* 41: 73-77.
14. Sweeney CF, LeMahieu A, Fryer GE (2017) Nurse practitioner malpractice data: Informing nursing education. *J Prof Nurs* 33: 271-275.
15. Tzeng HM, Ketefian S (2003) Demand for nursing competencies: An exploratory study in Taiwan's hospital system. *J Clin Nurs* 12: 509-518.
16. Clinton M, Murrells T, Robinson S (2005) Assessing competency in nursing: A comparison of nurses prepared through degree and diploma programmes. *J Clin Nurs* 14: 82-94.
17. Redfern S, Norman IJ, Calman L, Watson R, Murrells T (2002) Assessing competence to practice in nursing: A review of literature. *Research Papers in Education* 17: 51-77.
18. Ming L (2007) Development of competency inventory for registered nurses in the people's republic of china: Scale development. *Science Direct: Intern J Nurs Stud* 44: 805-813.
19. Ying L, Kunaviktikul W, Tonmukayakal O (2007) Nursing competency and organizational climate as perceived by staff nurses in a chinese university hospital. *Nurs Heal Sci* 9: 221-227.
20. Kozier B, Berman A, Erb G, Snyder S (2004) Fundamentals of nursing. 7th Edition. Philadelphia: Pearson Prentice Hall 254: 442-443.

21. Aiken TD (1994) *Legal, Ethical, and political laws in nursing*. 2nd Edition. Philadelphia: F.A. Davis Company: 45.
22. Boese T, Butcher HK, Haynes LC (2004) *Nursing in contemporary society – Issues, Trends, and transitions to practice*. New Jersey: Pearson Prentice Hall.
23. Leddy S, Pepper JM (2003) *Conceptual bases of professional nursing*. 5th Edition. Philadelphia: Lippincott Williams and Wilkins: 334.
24. Wirtz V, Taxis K, Barber N (2003) An observational study of intravenous medication errors in the United Kingdom and in Germany. *Pharmacy World Science* 25: 104-111.
25. Alkhenizan AH, Shafiq MR (2018) The process of litigation for medical errors in Saudi Arabia and the United Kingdom. *Saudi Medical J* 39: 1075-1081.
26. Western Pacific Region (2008). *The Role of the nurse on the health care team*.
27. Bally J (2007) The role of nursing leadership in creating a mentoring culture in acute care environments. *Nurs Econ* 25: 143-148.
28. Adejumo P, Guobadia P (2013) Nurses attitude to reading research articles and their perception of research utilization in clinical practice in a Nigerian City. *J Biomed Sci* 12: 46-56.
29. Rischel V, Larsen K, Jackson K (2008) Embodied dispositions or experience? Identifying new patterns of professional competence. *J Advan Nurs* 61: 512-21.
30. Keenan P (2003) The nursing workforce shortage: Causes, consequences, proposed solutions. *Issue Brief* 20: 1-8.
31. U.S. Department of Health and Human Services, Spetz J (2011) *Registered nurses survey of 2010*. Conducted for the California Board of Registered Nursing by the University of California, San Francisco School of Nursing.
32. McCormack B, Slater P (2006) An evaluation of the role of the clinical education facilitator. *J Clin Nurs* 15: 135-144.
33. Tranquillino C (2012) Republic of the Philippines. House of Representatives.
34. Cuartero N (2014) *Nursing different career paths*.
35. Lavoie-Tremblay M (2008) Addressing the turnover issue among new nurses from a generational viewpoint. *J Nurs Stud* 16: 724-733.
36. Buerhaus PI, Staiger DO, Auerbach DI (2000). Implications of an aging registered nurse workforce. *JAMA* 283: 2948-2954.
37. Buchan J, Seccombe I (2005) *Past trends, future imperfect? A Review of the UK Nursing Labour Market 2004 to 2005*. London: Royal College of Nursing (RCN).
38. Spetz J (2011) *Registered Nurses Survey of 2010*. Conducted for the California board of registered nursing by the University of California, San Francisco School of Nursing.
39. Elliott S, Rees G, Shackell E (2017) Making it work – A BSN Faculty's process of curriculum redesign. *Intern J Nurs Educ Schol* p: 14.
40. Rudman A, Omne-Pontén M, Wallin L, Gustavsson PJ (2010) Monitoring the newly qualified nurses in Sweden: The longitudinal analysis of nursing education (LANE) study. *Human resources for health* 8: 10.
41. Agosta LJ (2009) Patient satisfaction with nurse practitioner-delivered primary healthcare services. *J Am Acad Nurs Pract* 21: 610-617.
42. Unruh L (2008) Nurse staffing and patient, nurse, and financial outcomes. *Am J Nurs* 108: 62-71.
43. O'Brien-Pallas L, Griffin P, Shamian J, Buchan J, Duffield C, et al. (2006) The impact of nurse turnover on patient, nurse, and system outcomes: A pilot study and focus for a multicenter international study. *Policy, Polit Nurs Prac* 7: 169-179.
44. Griffiths P, Murrells T, Maben J, Jones S, Ashworth M (2010). Nurse staffing and quality of care in UK general practice: Cross-sectional study using routinely collected data. *Brit J Gen Prac* 60: 36-48.
45. Gamolo NO (2008) Nurses: Hike pay will deter us from leaving the country.
46. Rischel V, Larsen K, Jackson K (2008) Embodied dispositions or experience? Identifying new patterns of professional competence. *J Advan Nurs* 61: 512-521.
47. Joint commission on accreditation of healthcare organizations (2002) *Nursing shortage poses serious health care risk*. Washington DC: JCAHO.