



Factors Influencing The Teaching Learning Process On Academic Performance Among Nursing Students: A Review

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ABSTRACT

The Nursing profession is a noble profession. This profession is contributing rigorously in the health sector in Bangladesh as well as in the world. Teaching learning process has a very much significant role in the learning process of nurses. Because, nursing is a practical oriented technical education. In nursing education students learn by seeing and doing activities in practical classes. However the present study has conducted to identify the factors influencing the teaching learning Process on academic performance among nursing students and to review of literature about factors influencing the teaching learning Process on academic performance among nursing students. The study was documentary analysis type. Information and data were collected from secondary sources. Information and data were collected from books, research reports, journals, different annual reports, different government and non government websites and different websites. A literature review was conducted by using the Pubmed and Medline databases with the keywords: factors influencing the teaching learning process, academic performance among nursing students. A hand search was also undertaken to relevant journals identified by the electronic search and additional articles identified from the reference list of the key articles. A number of articles have been found on teaching learning process, academic performance of nursing students, attitude and Practice. By reviewing different journals and documents it is evident that if the nursing students are taught by providing latest techniques and methods by using modern learning process and by taking help of information and communication technologies then the nursing students will be able to learn more effectively and efficiently. So it is recommended that the government should provide latest and updated course curriculum for nursing institutions, good teachers by providing latest teachers' training, should provide latest class room by keeping information and communication technology facilities.

Key words: Factors, Patients, Practical learning, Education, Hospital, Training, Development

INTRODUCTION

Education is a consistently important national issue that frequently brings focus to bear on stakeholders in the education industry (Dimkpa & Inegbu 2013:2). Clearly too, the effort and resources that go into recruiting students will have little value if educative resources and curricula fail to prepare the students for academic success (Blackman, Hall & Darmawan 2007: 222). Academic performance involves the ability of students to cope with their studies with the various tasks assigned to them by their instructors (MacFarlane 2002, cited in Dimkpa & Inegbu 2013:2). It appears to be a problem at all academic institution, not just nursing colleges (Jafta 2013:1).

Nurse training institutions are a significant part of the South African educational landscape, playing an important role in preparing student nurses for professional competence in the field (Dimkpa & Inegbu 2013:1). Therefore, academic failure in colleges of nursing would not only frustrate the students and parents but also have a devastating effect on society in terms of workforce shortage in the nation's health sector (Aremu 2000, cited in Dimkpa & Inegbu 2013:2).

Numerous factors affect the academic progress and learning performance of students: age (Blackman et al. 2007:232), gender, school education, residential area students come from, medium of instruction in schools, tuition trends, daily study hours, accommodation and the socio-economic background of the parents or guardians (Ali et al. 2013:284).

OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

1. To identify the factors influencing the teaching learning Process on academic performance among nursing students
2. To review of literature about factors influencing the teaching learning Process on academic performance among nursing students.

METHODOLOGY OF THE STUDY

The study was documentary analysis type. Information and data were collected from secondary sources. Information and data were collected from books, research reports, journals, different annual reports, different government and non government websites and different websites. A literature review was conducted by using the Pubmed and Medline databases with the keywords: factors influencing the teaching learning process, academic performance among nursing students. A hand search was also undertaken to relevant journals identified by the electronic search and additional articles identified from the reference list of the key articles. A number of articles have been found on teaching learning process, academic performance of nursing students, attitude and Practice.

RESULTS AND DISCUSSION

According to available literature, there are some impediments to good academic performance by student nurses. They include excessive homework assignments for the students, poor facilities, inadequate provision of basic needs by parents and inappropriate student perceptions (Dimkpa & Inegbu 2013:4). Poor teaching (Manson 2014:37), misunderstanding of academic questions (Bradbury & Miller 2011:117–118) and time constraints when students have to read the question, translate it into the home language and then choose the correct answer (Doley 2010:1809) are some more.

In contrast, social and emotional lecturer student relationships (Creasey et al. 2009 cited in Nyadanu et al. 2015:266), a cohesive school atmosphere (Chowa et al. 2015:132), a welcoming atmosphere (Courtney-Pratt et al. 2011) and students with higher-level entry qualifications (McCarey, Barr & Rattray 2007) are some predictors of students' good academic performance. Moreover, a proper clinical education and an appropriate learning environment (Severinsson & Sand 2010) can lead to an adequate clinical performance.

In the personal condition, the factors with the highest mean in classes with high contact. The factors with the lowest factors which affect on education quality are environmental. This was found to have the lowest influence on the academic performance of the student nurses. The factors in education quality in the Pakistan 76% of the students in urban areas from educated parents where in case of rural this percentage is only 20%. The 80% of the students in urban area belongs to high-income families while in rural area 60% and 40% students in rural area belong to middle income and low-income families (Alos, Caranto, & David, 2015).

According to (Perfect et al., 2010) find out that around 10% of youngsters finish optional school. It has been demonstrated that females constitute 60% of the out-of-school youths of lower optional school age in Pakistan among the school-related factors, all factors fall in the range of high impact with the indicator the time schedule is followed importance as the most impactful. One factor is location of classrooms is the very congested area.

In the teacher aspects, the teachers have knowledge of the subject had the greatest indicate with a very high impact. The education quality is very relevant to the management of higher education institution when there is a clear relationship between process and educational outcomes. The factors for quality evaluation in the process model of education quality include leadership, participation, social interactions, classroom environment, learning activities and experiences (Burchinal, 2018). This study in future to examine the factors effect of frequent testing on Iranian student's performance and classroom attendance.

The results revealed that the more frequently students were exposed to quizzes, the better their performance appeared. Moreover, the results showed that the administration of frequent quizzes had a positive correlation with Teachers. The effectiveness has been accepted as a multidimensional construct since it measures a variety of different aspects of teaching such as subject knowledge, effective communication, lesson preparation and presentation (Malubay & Daguplo, 2018).

In a recent survey the nurse leaders said their organizations hire BSN nurses, although just 32% BSN nurses at the time of hire. Lack of access to BSN nurses and lack of support from institute were recognized as the top barriers to such policies. Ninety-three percent of survey respondents noted that their institutions offer tuition benefits to support associate's degree-to-BSN improvement (Caramanica & Thompson, 2012).

Curricular design and planning with broad coverage reflects education quality the few studies analyzed the forms of assessment, both formative and summative, that teachers used in relation to the curriculum. Studies using a mixed methods approach to understand assessment practices and their relationships to student learning over time would fill this gap (Thygesen et al., 2012).

Teaching methods reflects education quality. The status of teachers as professionals with a body of knowledge to draw on, as experts with professional academic freedom, is challenged by curriculum. The teachers' status has the body of knowledge itself and challenged through increased numbers of unqualified and undereducated teachers passing through the classroom (Thygesen et al., 2012).

1. New Graduate Registered Nurses (NGRNs)

New graduate registered nurses (NGRNs) are the nurses who have work experience less than 1 year after registration. Researches indicated that NGRNs had the lower capability to incorporate their knowledge, skills, and evidence-based practice into their work (Jackson, 2016). New nurses needed support and training to speed their transition from new graduates to qualified practitioners and improve their retention (Asber, 2019). Standardized training is important for NGRNs to complete this transition between school education and clinical nursing work.

2. The Importance of Education in Nursing

The healthcare needs of older people require a multidisciplinary team (MDT) approach where all team members have knowledge of the ageing process. Specific skills are needed in the assessment and management of chronic illness in older people. Team members should have the ability to practice in an interdisciplinary environment to deliver appropriate care for older people, particularly those who are frail or at risk of adverse clinical events.

Nurses are the key members of the multidisciplinary team (MDT) and often the first point of contact for the patient and families. Education helps nursing staff to keep up-to-date and continue to develop professionally and, therefore, deliver best practice care. In addition, current training programmes are generating relatively low numbers of geriatricians, largely because students and residents lack interest in a career in geriatric medicine. The current number of specialists in geriatric medicine is insufficient to meet the healthcare needs for the increasing number of older people in acute hospitals. This can compromise the quality of care and increases the risk of harm for all older people. No single healthcare professional could possibly master the broad range of knowledge and skills needed to provide high-quality care for older adults. There is a responsibility to ensure that successful practices and essential skills are shared among all professional involved in the care of older people, although the general tendency is to train doctors. An understanding of the key principles and practices of geriatric medicine is essential for the nurses and HCSWs/healthcare assistants (HCAs) as well as medical students.

3. Key Areas for Training

Formal curricula for the training of nurses and HCSWs in geriatrics are needed to prepare health professionals from other non-physician disciplines to achieve effective interdisciplinary team working. Existing models of training such as the Geriatric Interdisciplinary Team Training (GITT) model showed that, when advanced practice nurses, medical residents, and social workers are educated together in geriatric teams, there is an improvement in attitudes towards teams and team skills.

The key aspects covered in this review include the most commonly encountered clinical scenarios in older people, including geriatric giants, and opportunities to achieve competence and skills in these clinical areas. The continued learning in key areas such as falls, incontinence, dementia, delirium, pain and nutrition is discussed to support learning experiences of nursing staff.

4. Most Common Clinical Scenarios

a) Falls: Falls are common at all ages, particularly in the elderly and are the second commonest cause of unintentional injury and death worldwide. A fall is an unexpected event in which the participant comes to rest on the ground, floor or lower level with no associated loss of consciousness. The occurrence of falls increases progressively with age, from 35% in older adults (>65 years) to 45% in adults over the age of 80.

Harmful falls in older people result in loss of independence, socioeconomic burden to families, and increased costs to the healthcare system. The psychological burden of falls is not only related to the fear of falling or loss of confidence, but it also impacts on the physical well-being of a person.

Although most falls do not result in serious injury but annually approximately 5% of older people living in the community who fall experience a fracture or need hospitalization. Approximately 1% of falls in older people results in a hip fracture. Nearly one-tenth of those with a hip fracture will die within a month, and a third will die within a year. Half of hip fracture survivors fail to regain their previous level of independence and another half need long-term institutional care. Thus, falls and fragility fractures in older people remain a significant public health concern, particularly important as the proportion of elderly people worldwide is ever increasing.

b) Falls assessment and care plan: Older people who present with a fall, report a history of recurrent falls in the past year, or who demonstrate abnormalities of gait and/or balance should undergo a detailed but targeted evaluation for risk factors. Common falls risk factors include leg muscle weakness, balance problems, postural hypotension (defined as a drop in blood pressure - systolic by 30mm or diastolic by 10 mm after standing for 3 minutes), sensory impairment (e.g. deafness or blindness), acute confusion (delirium), medical illness (e.g. urinary tract infection), incontinence (e.g. urgency), polypharmacy or memory problems (dementia).

Nurses and HCSW are usually the first point of contact on admission to hospital and falls screening on admission could be another milestone towards improved quality of care and patient safety. Nursing teams are encouraged to record the risk factors leading to fall and a formulate care plan with the MDT members.

The care plan should incorporate appropriate footwear, regular toileting and ensuring mobility aids/calls bells are in close proximity. Bed rest in the hospital may result in loss of muscle strength of up to 11-12% per week. In other words, each extra day in bed in older adults in the hospital can lead to approximately 1% loss of muscle strength. Consequently, older people should be encouraged to mobilise to minimise the risk of inpatient falls. Patients who are confused or have memory problems should be re-oriented and sedation should be avoided. Nurses should be supported to withhold antihypertensives including nitrates (e.g. isosorbide mononitrate), Calcium channel blockers (e.g. amlodipine) followed by diuretics (e.g. furosemide) in this order if postural blood pressure drop is noted on admission. If there is concern about any medications or if nursing staff feel a drug is inappropriately prescribed, this should be raised to the pharmacist or doctor.

c) Incontinence: Incontinence is defined as loss of control or inability to contain or retain the natural evacuation of urine or faeces. The prevalence of urinary incontinence (UI) depends on the age and gender. For older women the estimated prevalence of UI ranges from 17 to 55%, in comparison, prevalence for older men ranges from 11 to 34%.

There is a strong association of faecal incontinence (FI) with age. FI increases from 2.6% in 20 to 29 year olds up to 15.3% in 70 years or above. Incontinence is not only a burden for older people but also for the caregiver and is associated with fear of odour, social isolation, depression and falls. Incontinence is one of the potential complications of acute illness or hospitalization in older people.

Incontinence is a serious issue as it not results in poorer quality of life or sexual dysfunction but also associated with adverse outcomes including pressure sores, long-term increased dependency, institutionalization and death.

d) Continence assessment and care plan: Lower urinary tract symptoms (LUTS) are the name given to a group of symptoms including storage, voiding and post-micturition symptoms affecting the lower urinary tract. Storage or filling symptoms includes frequency, urgency, dysuria, nocturia, stress incontinence, urge incontinence. Obstructive or voiding problems comprise of hesitancy, weak or poor urinary stream, or overflow incontinence. The postmicturition symptoms present as incomplete emptying often in women or post-void or terminal dribbling, often in men.

The two most important predictors of incontinence in the hospital setting are the severity of cognitive dysfunction and the degree of immobility. Continence problems can be secondary to urinary tract infections, medications (e.g. diuretics or sedatives), arthritic pain, inappropriate clothing or dexterity. Lack of a healthy balanced diet or hydration can lead to constipation or FI. Patients with advanced dementia usually encounter UI initially; followed by FI. They have difficulty in expressing their needs to use the toilet, identifying the bathroom and its appropriate use.

Continence assessment is an essential part of person-centred care plan where care should be equally centred on the cognitive deficits, physical abilities, functional capabilities and its psychological impact. Treatment should begin with non-pharmacological therapy. The most important and initial step in the management of continence is directed at ameliorating the predisposing causes with the ultimate goals of maintaining independence, dignity and self-esteem of the person. Promoting regular toileting, easy accessibility to toilet and use of walking aids can reduce elimination problems. Use of appropriate continence pads or containment methods should be ensured to avoid skin breakdown or incontinence associated dermatitis.

There is evidence for other measures such as reduced fluid/ caffeine intake in the evenings, which may reduce nocturnal incontinence. Bladder training exercises can help strengthen the pelvic floor muscles. Tightening the muscles that control urine flow by holding for a count of 10 when urinating could help with both UI and FI. The general advice is to do 10 repetitions, 3 times a day. Medical teams often disregard continence issues and leave it to nurses to address. The nursing staff should be encouraged to raise this with all members of the MDT. Drug review, assessments of urinary tract infections, constipation or an enlarged prostate; all contribute to a broad appraisal of continence issues. Drugs are available for overactive bladder but need very careful prescribing after formal assessment.

e) Dementia: Dementia is a syndrome of a chronic and progressive nature in which there is a disturbance of multiple domains of brain functioning. These impairments may include memory loss, mood changes, learning capacity, calculation, language, judgement or problems with communicating and reasoning. Dementia is best described, regardless of the underlying cause, as cognitive deficits having impact on activities of daily living (ADLs) or social interaction, often associated with Behavioural and Psychological Symptoms of Dementia (BPSD).

Dementia is much more common in hospitalized patients and 42.4% of acute medical admissions of those aged over 70 years have been reported to have dementia, only half of whom were diagnosed prior to admission. Older people with cognitive impairment are also more likely to die during hospitalization, and increasing severity of cognitive impairment is associated with higher mortality.

Mild dementia may not present with obvious functional impairments and cognitive deficits can be hidden by carer support. However, it is not uncommon to see older people with worsening dementia presenting to healthcare services with 'inability to cope' or 'social admission', due to increasing functional dependence after the death of a spouse.

f) Dementia assessment and care plan: The diagnosis of dementia relies on accurate history taking, in conjunction with a relative or carer. The impact of cognitive impairment should be demonstrated to affect ADLs. The poor performance or low scores on formal cognitive screening e.g. mini-mental state examination (MMSE) in the absence of functional disability is not sufficient to diagnose dementia. The ADLs initially affected are complex or instrumental ADLs, like shopping, handling finances, driving, cooking, or using the telephone, followed by basic ADL including bathing, dressing, toileting, transfer, continence or feeding.

Nursing colleagues are encouraged to screen all emergency admissions for cognitive deficits with Abbreviated Mental Tests (AMT). AMT is a simple test to perform and score. It has been very widely used by all levels of healthcare professional in the hospital setting. A further interview with the relative or carer is recommended if AMT score is 7 or less.

Nurses are more likely to observe early signs of the person's abilities or cognition during their direct observation. The clues that may raise concerns for underlying cognitive impairment include: "I m worried about my memory", relatives talking, confabulation, repetitive talk or use of wrong words. The sharing of such information with the MDT will not only improve dementia care but also favour the early diagnoses of dementia.

Dementia is associated with impaired mobility and is an independent risk factor for falling. People with dementia are 2–3 times more likely to fall therefore falls risk factors should be addressed. The people with dementia benefit from integrated assessment for oral and dental hygiene; skin problems; elimination and toileting needs; vision and hearing; pain; nutrition and psychological needs. The agitation in people with dementia can be managed by simple measures like pain control, adequate hydration, orientation or good sleep hygiene.

g) Delirium: Delirium is as an acute confusional state and can be commonly superimposed on pre-existing dementia. Delirium in the hospital is usually secondary to underlying medical illnesses including infection, pain, dehydration, acute coronary syndrome, bowel ischaemia, constipation, hypoxia or polypharmacy. Delirium is more common in persons with pre-existing dementia and if not recognised, can result in poor outcomes including death.

h) Delirium assessment and care plan: The Confusion Assessment Method (CAM) is commonly used tool to screen delirium. CAM supports a diagnosis of delirium if there is history of acute onset of confusion with fluctuating course and inattention in presence of either disorganized thinking and/or altered level of consciousness. Delirium can be hyperactive, hypoactive or mixed. Collateral history from the family member or carers is helpful to detect a recent change in cognition.

i) Pain: Nurses and HCSWs are used to recording four vitals: blood pressure, temperature, respiratory rate and pulse. Pain is common in older people, and could be due to several reasons, most common being osteoarthritis. Therefore, pain should be treated as the fifth vital sign in older people and an accurate assessment of pain is essential to provide good nursing and medical care. Nurses play a pivotal role in the assessment of pain, owing to the nature of their relationship with patients.

j) Pain assessment and care plan: Pain assessment can be challenging in acutely unwell older people particularly in the presence of cognitive impairment or associated acute confusion. It involves holistic evaluation of the person on the first presentation of pain and then following up with regular pain assessment. Pain assessment should include the site of pain, type, precipitating factors and impact of pain on the individual. There is several pain scales available, visual analogue scale (0 to 10) and the numerical rating scales (0 to 10) are the most useful. Older people with cognitive impairment who cannot verbally communicate, observation or collateral history from caregiver or change in person's behaviour often helps in the evaluation of the severity of pain. Nursing staff may notice skin bruise or infection, constipation, reduced range of joint movement, vertebral tenderness or a recent injury and this should be escalated to the medical team for detailed physical assessment.

k) Nutrition: Poor nutrition is one of the major health problem faced by the care of the elderly teams. Nutrition is often overlooked in favor of other aspects of care in the acute hospitals. There can be a loss of taste, appetite and smell with acute illness making it more challenging to maintain good nutrition. Older people with cognitive impairment cannot always communicate their needs. The national UK dementia audit report in 2013 showed disappointing results overall and a lack of attention to basic care needs. Nutritional assessments were undertaken in fewer than 10% of patients in some hospitals.

l) Nutritional assessment and care plan: The nutritional assessment should start with estimating the degree of malnutrition (weight loss or change of fit in clothing), dietary intake and habits. The nutrition history should explore the type, quantity, and frequency of food eaten. The risk factors that leads to poor nutrition includes dry mouth, poor oral hygiene, presence of any behavioral problems, constipation, pain or simply needs for assistance during meal time due to arthritis, reduced vision or tremors. In older people with dementia, understanding of their feeding skills could play an important role in maintaining nutrition and wellbeing. Regular nutritional assessments using Malnutrition Universal Screening Tool (MUST) can be helpful to identify those who are malnourished or at risk of malnutrition. It is a five-step screening tool and has been validated to be used both in hospitals and community by all health care workers.

Simple things like offering familiar, well-liked food, different seasoning, protected meal times, involvement of friends and relatives, bright colourful plates/napkins/mats often stimulate appetite and make meal time more enjoyable for older people. The person with dementia may simply forget to eat or drink, therefore, needs regular prompting or assistance at mealtimes. Better interaction between the nurse or carer providing assistance and person with dementia is associated with a better dietary intake. The other members of the MDT, like Speech and Language therapist, Dietician and Psychologist should be involved, depending on the needs of the patients.

5. Opportunities to Achieve Clinical Competence

i) Training and development

Regular nursing training is essential in achieving an excellent quality of care for older people. However, it could be challenging for most nursing staff to complete academic programmes such as a certificate or diploma in geriatrics or gerontology. Regular nursing education showed a significant reduction in stress from their routine workload in managing complex and frail older people.

Regular support and extra training opportunities for nurses and HCSW could also enhance their knowledge and confidence. Most acute hospitals have regular medical unit meeting and nurses are encouraged to participate actively in such clinical meetings. In addition, senior nurse managers should motivate nurses/HCSW to teach other multidisciplinary members including doctors and collate feedback.

ii) Case-based discussion

A Case-Based Discussion (CBD) is principally a workplace based assessment tool which tests reasoning, generates prompts for discussion and management decisions. CBD could be used by the nursing staff to improve understanding on the normal physiological changes of ageing, associated co-morbidity burden and impact of acute illness and treatment. CBD should be structured to define the key issue and associated challenges. The facilitator encourages discussion of available information and explores advantages and disadvantages of the options considered. The facilitator helps to consider implications of the decisions made in a justified manner. CBD should be recorded and nurses should use such an opportunity to formulate a personal developmental plan.

iii) Apprenticeship

Apprenticeship can be used to gain new skills and build careers. Most of the training is done whilst working in a clinical area, establishing a good foundation for good practice and achieving measurable competencies. Specialist nurses have added values to the health care system by extra training in various specialities like palliative care, stroke, Parkinson's disease etc.

iv) Secondment

Nurses or experienced HCSWs could consider an “allocated period of time” to gain new experience and skills. For example, staff member working in a care of the elderly ward may consider gaining experience on use of restraints and application of mental health and capacity legislation in practice and thus consider secondment in an older person mental health unit. Following secondment, sharing new skills and experience will improve values and beliefs which ultimately lead to actions and thus improved outcome.

v) National Health Service knowledge and skills framework

The National Health Service Knowledge and Skills Framework (NHSKSF) define and describe the knowledge and skills that NHS staff need to apply in their work in order to deliver high-quality services. The purpose of the NHS KSF is to support effective learning and development of teams. It also aims to support the development of individuals in the post they are employed in so that they can be effective at work and deliver good quality patient care. This includes an annual system of appraisal known as the Personal Appraisal Development Review (PADR) and applies to all staff covered by Agenda for Change contracts. There is clear evidence to show that where individuals and teams are undertaking effective PADRs and appraisal is undertaken against clear objectives, effectiveness and efficiency improves.

vi) Education and Development

The current employer may also support a pre-registration programme at the university. It is recommended to explore various work-based learning opportunities which a health board is able to fund course fees for access to higher education for nursing and healthcare professionals.

vii) Quality improvement project

Initiating and participating in Quality Improvement (QI) projects could help nursing staff to learn, develop and embed new skills. QI projects could achieve measurable changes and make a real difference to patients' experience in the hospitals and improve patient care. They also lead to greater patient safety and reduced cost.

Nurses should be encouraged to identify a specific aspect of clinical practice that could be done better and work as a group to plan, implement and evaluate chosen quality improvement intervention. Use a simple but systematic approach to define what you want to accomplish, changes to be made and measurements to ensure change has led to an improvement. This may then be tested on a small scale using Plan-Do-Study-Act (PDSA) cycles. Once you know what works, share your findings to make it sustainable and deliver over long terms more widely.

viii) Critical incident reporting

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care. The National Patient Safety Agency (NPSA) encourages reporting of all patient safety incidents including that you have been involved in; you may have witnessed; caused no harm or minimal harm; caused a more serious outcome or prevented patient safety incidents (known as ‘near misses’). Reporting a clinical incident not only improves patient safety and but also create an opportunity for enhanced learning process into the causation of the incident and implementation of systemic changes which could prevent it from recurring.

ix) Champions

Savings can be made by looking into an opportunity in 95% things rather than 5% gaps. Leadership is a skill to motivate a group of people and mapping out where one needs to go to accomplish a common goal. For example, to develop dementia champion role, one needs to be confident, show commitment and engagement with the team. Nursing staff have a range of qualities including team working, good communication skills and ability to delegate. Nursing staff could be mentored by senior medical consultants or ward managers to further develop leadership skills to become champions.

x) Continued professional development

This section aims to unpack the notion of CPD, which exists in different forms and is driven, in part, by top-down requirements, but also, bottom-up, from the needs of practitioners. Continuing professional development (CPD) programmes are central to nurses' lifelong learning and are a vital aspect for keeping nurses' knowledge and skills up-to-date. The requirement for nurses to participate in CPD differs between

European countries and elsewhere in the world and can be mandatory or voluntary. For example, CPD is mandatory in the U. K, Belgium, Spain, Australia and in some states in the United States of America,. In these countries, nurses engage in CPD because it is a mandatory condition by nurse regulators for remaining registered to practice. However, in Sweden, Netherlands and Ireland nurses participate in CPD of their own volition. Table-1 provides an overview of some of the European countries which provide mandatory and non-mandatory CPD.

In jurisdictions where CPD is mandatory, nurses engage in continuing education by participating in professional development that is relevant to their areas of practice. Mandatory CPD, refers to "...the process of ongoing education and development of healthcare professionals, from initial qualifying education and for the duration of professional life, in order to maintain competence to practice and increase professional proficiency and expertise". CPD can sometimes refer to a learning framework and activities of professional development which contribute to the continual professional effectiveness and competence.

Broadly, CPD is related to continuing education, and continual learning, both formal and informal, which results in the acquisition of knowledge and skills transfer by the practicing nurse with the aim of maintaining licensure and competent practice. Learners can utilize a mixed style approach to learning depending on the circumstances and context of the learning environment. To succeed in providing comprehensive care for their patients, nurses need to utilize the best evidence available to them. This requires different modes of learning and ways of knowledge acquisition and construction. To achieve this, nurses can engage in different approaches of acquiring knowledge through CPD, through formal learning, courses or workshops as well as workplace informal learning, through self-reflection, appraising literature for best evidence through journal clubs and giving feedback to each other. Informal learning is often volitional and is largely initiated and controlled by individual nurses with the intention to develop their knowledge and skills. Due to its unstructured and, at times, unintentional manner, such learning is often acquired during interactions with colleagues and patients. One of the advantages of on-site learning, both formal and informal is that learners can utilize expertise which are already available on the ward.

On-site learning occurs often at the discretion and the willingness of managers to facilitate by providing time and space for learning to occur within the clinical areas. Even so, the fact remains that informal on-site learning is not an event but a continuous process, which draws from daily professional experiences. Lack of CPD trained nurses and ward needs, coupled with poor staffing levels, are cited as main barriers to informal workplace learning. Evidence from CPD literature indicates that many nurses prefer informal work-based methods of Table 1 Examples of mandatory and non-mandatory CPD in nursing in Europe (EFN, 2012) Mandatory CPD.

Countries Non-mandatory CPD Countries

1. Belgium Denmark
2. Cyprus Finland
3. Czech Republic Germany
4. France Greece
5. Italy Ireland
6. Latvia Netherlands
7. Lithuania Norway
8. Romania Poland
9. Slovakia Portugal
10. Spain Sweden
11. United Kingdom

Learning, noting that most meaningful learning occurs through interactions with their colleagues. From a study by Clarke, it was noted that nurses found informal learning methods such as supervision, attending team meetings/briefings, mentoring and observations to be important. Ultimately, whichever delivery method is used for CPD, continuous professional development extends the practitioner's professional ability beyond preregistration training, qualification and induction, thereby potentially enhancing the practitioner's practice.

Continued professional development: the UK example this next section aims to illustrate the different mechanisms that arise in one specific health care setting when implementing CPD on a national scale. We

recognize that other mechanisms will exist in other contexts, and in places where CPD is not a formal requirement.

Today, nurses in the U.K. are required to engage in continuous learning in order to maintain competence as a means of keeping their licensure with their professional body, the Nursing & Midwifery Council (NMC). Since the 1980s, UK nurses and other allied health care professionals such as physiotherapists and occupational therapists have been required to engage in continuous professional development. A justification for CPD has been the need to maintain professional registration to practice. For registered nurses in the UK, the requirement to engage in CPD came to the fore of continuing education in 1995. It was introduced by the then licensing body, the United Kingdom Central Council (UKCC) for Nursing, Midwifery and Health Visiting as Post Registration Education and Practice (PREP).

Further to that, the Agenda for Change Reforms in 2003 introduced a system for linking pay and career progression to competency called the National Health Service Knowledge and Skills Framework. The framework is linked to the individual nurse's ability to demonstrate that they possess the necessary knowledge and skills to get promoted and be remunerated accordingly. In the UK, further reforms to CPD were introduced in 2012 through the introduction of the Health Education England (HEE) in England. Its mandate was to equip the NHS (National Health Service) workforce, including nurses with appropriate knowledge and skills to deliver high standard care to patients. The HEE's role was to support workforce development by providing funding largely for nurses' CPD. In 2016, PREP was replaced with revalidation, which still requires nurses to attend 35 h of CPD every 3 years. Revalidation is the process through which nurses and midwives continue as registrants with the Nursing and Midwifery Council (NMC). However, comprehensive HEE budget cuts have had a negative effect on nurse CPD initiatives.

CPD funding in UK was cut from 205 million pounds in 2015–16 to 83 million in 2017–18. Consequently, nurses have struggled to fulfill revalidation requirements due to some authorities freezing access and refusing to give nurses time to attend CPD activities. This previous section offers an insight into different push-pull mechanisms, in the UK alone. Statutory requirements are underpinned by the need for nurses to maintain and develop the knowledge and skills to meet the expected competence standards of practice in response to expanding nursing roles and global trends. Our experience suggests that local governing bodies may enforce similar measures in contexts where CPD measure is not formalized. Nurses may find themselves caught between a patchwork of statutory requirements and a need to develop their skills and knowledge. Consequently, while we know about the need for nurses' continuing professional development, less is known about how nurses experience and perceive continuing professional development. Therefore we propose that a metasynthesis of the qualitative literature could be a part of forming such a comprehensive view and use the following three questions to examine the literature: What is the reported value of CPD for nurses' lifelong learning and its impact on nursing knowledge?, What are the conditions necessary for CPD?, and, What are the challenges faced by nurses when engaging in CPD?

6. Effectiveness of a standard clinical training program in new graduate nurses' Competencies

People's health problems and their need for health services are becoming more diverse and complex than ever due to epidemiologic, socio-demographic, and socio-economic changes, which have increased the importance of ensuring patient safety and patient-centered care. To adequately respond to patients' diverse demands, nurses are required to be equipped with higher competencies, regardless of the types of countries and health facilities in which they work. Thus, clinical training is recommended to increase and maintain competencies among nurses. Clinical training has been recognized as an essential part of continuing professional development for nursing professionals. Certain forms of clinical training are implemented often as the mandatory programs for obtaining and renewing licenses or other types of professional qualifications for registered nurses in a number of countries. These qualifications also help ensure employment opportunities and job security among nursing professionals.

New graduate nurses are one of the major target groups of clinical training programs. Their specific training needs are focused primarily on bridging gaps between nursing theories and nursing practices since new graduate nurses often encounter professional dilemmas and psychological conflicts derived from discrepancies between theory-based education at nursing education institutions and clinical practice realities at health facilities. Several earlier studies reported that clinical training programs for new graduate nurses contributed to increasing and diversifying their competencies (e.g. clinical skills, decision making skills,

critical thinking, and leadership). It was also known that these impacts of clinical training programs are attributable to improved curricula, appropriate lengths of the clinical training periods, inter-departmental rotation systems, supportive cultures in workplaces, and capacities of preceptors. A majority of these studies were literature reviews of small-scale quasi-experimental or descriptive studies. There are few large-scale experimental studies that identified causalities between new graduate nurses' competencies and clinical training programs.

In Vietnam, completion of a nine-month clinical training is the requirement for a new graduate nurse to obtain a national nursing practicing certificate. This certificate is a professional qualification equivalent to a national nursing license in other countries. They are required to gain competencies to respond to increasingly diverse patients' demands due to the country's rapid epidemiologic transition and aging. In addition, Vietnam is committed to producing an adequate number of competent nurses, to meet the Southeast Asian regional nursing professional needs under the Mutual Recognition Arrangement, the framework in which intra-regional mobility of nursing professionals is encouraged and promoted among the Association of South East Asian Nations (ASEAN) member states. Yet, Vietnam is PLOS ONE Clinical training for new graduate nurses' competencies that no competing interests exist.

Currently unable to meet even domestic nursing workforce needs and is suffering a critical shortage. The number of physicians, nurses, and midwives per 100,000 population in Vietnam (=2.27) remains smaller than its international threshold (=4.45), thus making the shortage of the domestic nursing workforce more significant than in other countries. In addition, parallel implementations of three different nursing pre-service education programs (i.e. a two-year vocational program, three-year diploma program, and four-year bachelor program) and the absence of nationally standardized curricula for pre-service education programs are likely to further prevent the quality of nursing professionals in the country from being adequately ensured. In view of this critical situation, the Government of Vietnam requires new graduates of all three types of nursing educational institutions to complete nine-month clinical training to obtain a national nursing practicing certificate, by the Law on the Medical Examination and Treatment, a Vietnamese legal act that regulates health professional licensing.

In response to the government's policy, the Basic Competency Standard for Vietnamese Nurses (the Competency Standard) was developed in view of the ASEAN competency standard by the Vietnamese Ministry of Health (MoH). However, the contents and quality of the clinical training programs are not necessarily in line with the basic competency standard but rather significantly differ according to recipient health facilities to which new-graduate nurses are assigned.

This is attributable primarily to the absence of a nationally standardized curriculum for new graduate nurses' clinical training.

To address the long-standing issues related to the quality assurance of the clinical training for new graduate nurses, the MoH, in collaboration with the Japan International Cooperation Agency (JICA), implemented the Project for Strengthening Clinical Training System for New-Graduate Nurses (the Project), during the period from 2016 to 2020. The Project developed and piloted a series of technical tools based on the Competency Standard: specifically,

- (i) a standard curriculum and textbooks;
- (ii) a preceptor training manual; and
- (iii) clinical training management guidelines.

The standard clinical training program for new graduate nurses (incl. a standard curriculum) was designed and further piloted at 20 provincial and city hospitals located in four provinces and one city in Vietnam. Thus, the effectiveness of the standard clinical training program needs to be assessed to make an informed policy decision on the nationwide scaling-up of the post-graduate clinical training program. Furthermore, there is a need for a scientific contribution to estimate the effectiveness of standard clinical training programs in competencies required for new graduate nurses, beyond the Vietnamese context.

This study aimed to estimate the effectiveness of the standard clinical training program by employing a difference-in-differences (DID) approach to compare new graduate nurses' competencies in the intervention group with those in the control group between pre- and post clinical training stages. This study serves as the

first study of its kind in Vietnam and one of the few studies worldwide that estimated the effectiveness of clinical training programs exclusively for new graduate nurses.

CONCLUSION AND RECOMMENDATIONS

By reviewing different journals and documents it is evident that if the nursing students are taught by providing latest techniques and methods by using modern learning process and by taking help of information and communication technologies then the nursing students will be able to learn more effectively and efficiently. So it is recommended that the government should provide latest and updated course curriculum for nursing institutions. If the course curriculum becomes modern then the nursing students will be able to learn modern education related to nursing. Government should recruit good teachers and by providing latest teachers' training. Government should provide latest class room by keeping information and communication technology facilities.

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