HEALTH STATUS AND MENTAL CONDITION OF NURSES IN BANGLADESH

Submitted By

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Declaration by Research Candidate

I, Jakia Sultana Jui, hereby declare that the dissertation entitled "Health Status And Mental Condition Of Nurses In Bangladesh"**,** submitted by me to Department of Pharmacy at East West University, in partial fulfillment of the requirement for the award of the degree of Masters of Pharmacy is a complete record of original research work carried out by me during the period March 2015-December 2015 under the supervision and guidance of Farhana Rizwan, Assistant professor of East West university.

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Certificate by the Supervisor

This is to certify that the dissertation entitled "Health status and mental condition of nurses in Bangladesh" is a cross sectional type of study done by Jakia Sultana Jui, in a partial fulfillment of the requirements for the degree of Masters of Pharmacy.

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Abstract

Background: Nursing is associated with high levels of emotional strain and heavy workloads. Work-related behaviour is linked to health. Nurses with unhealthy work-related behaviour and experience have a higher risk of reduced mental & physical health. Prevention of burnout & illness needs to focus on both the individual & the working conditions. Changing working conditions raise the importance of investigating job satisfaction, stress & burnout & its consequences for nurses.

Objectives: Objectives of this study was to find out the health status and mental condition of nurses by presence or absence of different physical and mental symptoms. In addition to this, we also tried to know the lifestyle of nursing worker and their condition of working environment of nurses.

Materials and methods: It is a cross sectional study. The study was conducted in three private and two government hospitals. A sample of 400 nurses were interviewed using questionnaires regarding work-related behaviour and experience patterns, work stress, depression, anxiety and physical symptoms. Study period was From March to December, 2015. After explaining the purpose of the study to the nurses, randomly they were interviewed by asking question in Bangla and used thoroughly pre-tested questionnaires.

Results: The main result of this study was some health problems like weakness, decreased appetite, respiratory problems, neck stiffness, insomnia and depressive illness are more prevalent among nurses. Out of 400 nurses 65% (260) felt fatigue during their duty, 33.75% had decreased appetite, 68.75% suffered respiratory problems, 65% of them had neck pain or stiffness, 37.5% of nurses had depressive illness and 45.5% suffered insomnia.

Conclusion: Nurses are suffering from many health problems. And these health problems are because of working in an unhygienic environment, always exposed to infectious agents, insufficient nutrition and stress related to their job. Nurses play an important role in delivering health care services. So we should take measures to improve health status of our nurses to build a healthy nation.

Key word: nurses, health status, mental behaviour.

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Introduction

1.1 Background:

World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity and emphasizes that none of these dimensions has priority over the other. Mental health is one dimension of the overall concept of health and refers to all of the methods and measures used for prevention, treatment, and rehabilitation of psychological disorders. The statistics reported regarding the prevalence of psychological disorders in Iran and other countries around the world show the necessity to pay more attention to mental health. According to W.H.O almost 450 million individuals suffer from one type of psychological disorders, half of whom suffer from depression and anxiety. Furthermore, the studies conducted on the mental health status of the individuals of 15 years old and above in Iran have shown that an average of 21% of the society members have psychological disorders and females are more susceptible to such disorders in comparison to males. In general, paying attention to mental health is important in all aspects of life, including individual, social, and occupational life, mental disorders account for nearly 12% of the global burden of disease. By 2020 they will account for nearly 15% of disability-adjusted life-years lost to illness. Wilkinson quotes Britain's health education authorities and states that nursing, policing, social working, and teaching is high-tension jobs. In fact, occupational stress affects the individuals health, reduces the mental health, and increases the probability of damages resulting from working (Najmeh et al., 2011).

Moreover, working environments, such as operating rooms, burn units, and psychiatric departments, can highly affect the employees' mental health .Nurses are an indispensable component of the work force in the health care system. However, many of them are known to work in a stressful environment which may affect their mental well-being. Several studies have shown that, Nursing is a stressful job and nurses are often faced with a variety of stress at work . In addition, the nurses often have to witness many tragic events of life: disease, trauma or even death which can be physically demanding and psychologically stressful. A growing mass of evidence has pointed out the link between adverse psychosocial factors in the work environment and the psychological and physical health in nurses of other countries (Najmeh et al., 2011).

Considering the fact that nurses, as the main members of the health and treatment team, play a critical role in improving the society's health, lack of attention to their mental health can lead to reduction of efficiency, loss of workforce, and creation of physical as well as mental complications for both the nurse and patients. Up to now, several studies have investigated the mental health status in various situations and the findings have confirmed that assessment of the individuals' mental health status can provide the managers, authorities, and planners of service providing centers (Najmeh et al., 2011).

1.2 Definition

Nursing is a profession within the health care sector focused on the care of individuals, families, and communities so they may attain, maintain, or recover optimal health and quality of life (Wikipedia, Nursing definition 2015).

Nurses may be differentiated from other health care providers by their approach to patient care, training, and scope of practice. Nurses practice in a wide diversity of practice areas with a different scope of practice and level of prescriber authority in each. Many nurses provide care within the ordering scope of physicians, and this traditional role has come to shape the historic public image of nurses as care providers. However, nurses are permitted by most jurisdictions to practice independently in a variety of settings depending on training level. In the postwar period, nurse education has undergone a process of diversification towards advanced and specialized credentials, and many of the traditional regulations and provider roles are changing. Nurses develop a plan of care, working collaboratively with physicians, therapists, the patient, the patient's family and other team members, that focuses on treating illness to improve quality of life. In the U.S. (and increasingly the United Kingdom), advanced practice nurses, such as clinical nurse specialists and nurse practitioners, diagnose health problems and prescribe medications and other therapies, depending on individual state regulations. Nurses may help coordinate the patient care performed by other members of an interdisciplinary health care team such as therapists, medical practitioners and dietitians. Nurses provide care both interdependently, for example, with physicians, and independently as nursing professional Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of

suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities and populations.

Although nursing practice varies both through its various specialties and countries, these nursing organizations offer the following definitions (Wikipedia, Nursing definition 2015).

— International Council of Nurses:
Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles (International council of nurses, 2007).

— Royal College of Nursing UK:
The use of clinical judgment in the provision of care to enable people to improve, maintain, or recover health, to cope with health problems, and to achieve the best possible quality of life, whatever their disease or disability until death (RCN, defining nursing, 2007).

— American Nurses Association:
Nursing is the protection, promotion, and optimization of health and abilities; prevention of illness and injury; alleviation of suffering through the diagnosis and treatment of human responses; and advocacy in health care for individuals, families, communities, and populations (ANA, considering nursing, 2009).

— Virginia Avenel Henderson:
The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge (contemporary nurse VHR, 2009).

1.3 Nursing as a profession

The authority for the practice of nursing is based upon a social contract that delineates professional rights and responsibilities as well as mechanisms for public accountability. In almost all countries, nursing practice is defined and governed by law, and entrance to the profession is regulated at the national or state level.

The aim of the nursing community worldwide is for its professionals to ensure quality care for all, while maintaining their credentials, code of ethics, standards, and competencies, and continuing their education. There are a number of educational paths to becoming a professional nurse, which vary greatly worldwide; all involve extensive study of nursing theory and practice as well as training in clinical skills. Nurses care for individuals of all ages and cultural backgrounds who are healthy and ill in a holistic manner based on the individual's physical, emotional, psychological, intellectual, social, and spiritual needs. The profession combines physical science, social science, nursing theory, and technology in caring for those individuals (International Council of Nurses, 2007).

To work in the nursing profession, all nurses hold one or more credentials depending on their scope of practice and education. A licensed practical nurse (LPN) (also referred to as a licensed vocational nurse, registered practical nurse, enrolled nurse, and state enrolled nurse) works independently or with a registered nurse (RN). The most significant differentiation between an LPN and RN is found in the requirements for entry to practice, which determines entitlement for their scope of practice. For example, Canada requires a bachelor's degree for the RN and a two-year diploma for the LPN. A registered nurse provides scientific, psychological, and technological knowledge in the care of patients and families in many health care settings. Registered nurses may earn additional credentials or degrees (International Council of Nurses, 2007).

In the USA, multiple educational paths will qualify a candidate to sit for the licensure examination as a registered nurse. The Associate Degree in Nursing (ADN) is awarded to the nurse who has completed a two-year undergraduate academic degree awarded by community colleges, junior colleges, technical colleges, and bachelor's degree-granting colleges and universities upon completion of a course of study usually lasting two years.

The Bachelor of Science in Nursing (BSN) is awarded to the nurse who has earned an American four-year academic degree in the science and principles of nursing, granted by a tertiary education university or similarly accredited school. After completing either the LPN or either RN education programs in the USA, graduates are eligible to sit for a licensing examination to become a nurse, the passing of which is required for the nursing license. RNs may also pursue different roles as advanced practice registered nurses (NCLEX Exam, "National Council Licensure Examination". 2015-10-29).

1.4 Types of nurses

There are four types of nursing and they are

i. Public Health Nursing
ii. Midwifery
iii. Registered Nursing and Assistant Nursing.

Public health

This type of nursing is designed to help the public and is also driven by the public's needs. The goals of public health nurses are to monitor the spread of disease, keep vigilant watch for environmental hazards, educate the community on how to care for and treat themselves, and train for community disasters.

Midwifery

Nurses that are involved with midwifery are independent of any organization. A midwife takes care of a pregnant woman during labour and postpartum. They assist with things like breastfeeding and caring for the child.

Nursing Assistant

Individuals who are assistant nurses follow orders from a registered nurse. They report back to the licensed nurse about a patient's condition. Assistant nurses are always supervised by a licensed registered nurse (Wikipedia, 2015).

1.5 Nursing Theory and process

Nursing practice is the actual provision of nursing care. In providing care, nurses implement the nursing care plan using the nursing process. This is based around a

specific nursing theory which is selected based on the care setting and population served. In providing nursing care, the nurse uses both nursing theory and best practice derived from nursing research.

In general terms, the nursing process is the method used to assess and diagnose needs, plan outcomes and interventions, implement interventions, and evaluate the outcomes of the care provided. Like other disciplines, the profession has developed different theories derived from sometimes diverse philosophical beliefs and paradigms or worldviews to help nurses direct their activities to accomplish specific goals (Alligood Mr et al., 2013).

1.6 Places Where Nurses Can Work

- Ambulatory care centers
- Armed services
- Birth centers
- Business and industry
- Call centers
- Centers for nursing research
- Church-related mission services
- Clinics and medical centers
- Colleges and universities
- Community education programs
- Correctional facilities
- Daycare centers
- Diabetes care clinics
- Dialysis centers
- Educational institutions
- Embassies
- Health maintenance organizations
- Healthcare advertising agencies
- Healthcare staffing agencies
- Healthcare websites
- Home healthcare agencies
- Hospitals

- Humanitarian organizations
- Indian Health Service
- Insurance companies
- Large corporations
- Medical and health publications
- Medical centers
- Medical marketing firms
- Mental health facilities
- Military bases
- National Institute for Nursing
- National or international
- government agencies
- Non-governmental organizations
- Outpatient surgery centers
- Physicians offices and medical groups
- Private households
- Professional associations
- Public Health Service
- Red Cross
- Rehabilitation centers
- Religious organizations
- Teaching hospitals
- World Health Organization

(Brookhaven College, 2015)

1.7 Nursing practice acts, rules & regulation:

The practice of nursing requires specialized knowledge, skill, and independent decision making. Nursing careers take widely divergent paths - practice focus varies by setting, by type of client, by different disease, therapeutic approach or level of rehabilitation. Moreover, nurses are mobile and sophisticated and work in a society that is changing and asymmetrical for consumers. The result is that the risk of harm is inherent in the provision of nursing care.

Because nursing care poses a risk of harm to the public if practiced by professionals who are unprepared or incompetent, the state, through its police powers, is required to protect its citizens from harm. That protection is in the form of reasonable laws to regulate nursing. More than 100 years ago, state governments enacted laws which protect the public's health and welfare by overseeing and ensuring the safe practice of nursing.

All states and territories have enacted a nurse practice act (NPA). Each state's NPA is enacted by the state's legislature. The NPA itself is insufficient to provide the necessary guidance for the nursing profession, therefore, each NPA establishes a board of nursing (BON) that has the authority to develop administrative rules or regulations to clarify or make the law more specific. Rules and regulations must be consistent with the NPA and cannot go beyond it. These rules and regulations undergo a process of public review before enactment. Once enacted, rules and regulations have the full force and effect of law (Nursing times, 2015).

Although the specificity of NPAs varies among states, all NPAs include:

- Authority, power and composition of a board of nursing
- Education program standards
- Standards and scope of nursing practice
- Types of titles and licenses
- Requirements for licensure
- Grounds for disciplinary action and possible remedies
  (Nursing times, 2015).

1.8 Nurse's role:

Nurses spend the most time and have most contact with patients, doing 'connecting work' that complements doctors' consultations. Nurses provide the 'glue' – escorting a patient into the consulting room; identifying with challenges in adhering to lifestyle changes by reporting their own experience; allowing patients to disclose concerns not shared with doctors; being chatty; sharing a joke; and providing explanations where doctors' communication has failed.

Nurturing these qualities requires understanding of the essential ingredients of communication. Making meaningful use of 'communication skills' demands appreciation of the contexts in which skills are enacted in practice, to be able to translate them.
Environments are challenging: a busy hospital ward, a crowded waiting room, a lounge with the television constantly on. Language can be a barrier: labels attached to individuals such as 'just demented' crystallize judgmental attitudes, standing in the way of getting to know patients (Jones & Bartlett, 2009).

1.9 Worldwide perspective

Nursing in Australia

Catholic religious institutes were influential in the development of Australian nursing, founding many of Australia's hospitals - the Irish Sisters of Charity were first to arrive in 1838 and established St Vincent's Hospital, Sydney in 1857 as a free hospital for the poor. They and other orders like the Sisters of Mercy, and in aged care the Sisters of the Little Company of Mary and Little Sisters of the Poor founded hospitals, hospices, research institutes and aged care facilities around Australia ("Little Sisters of the Poor Oceania". Little sisters of the poor.org.au. 2012-07-31).

A census in the 1800s found several hundred nurses working in Western Australia during the colonial period of history, this included Aboriginal female servants who cared for the infirm. The state nursing licensing bodies amalgamated in Australia in 2011 under the federal body AHPRA (Australian Health Practitioner Registration Authority). Several divisions of nursing license is available and recognized around the country.

- Enrolled nurses may initiate some oral medication orders with a specific competency now included in national curricula but variable in application by agency.
- Registered nurses hold a university degree (enrolled nurses can progress to registered nurse status and do get credit for previous study)
- Nurse practitioners have started emerging from postgraduate programs and work in private practice.
- Mental health nurses must complete further training as advanced mental health practitioners in order to administer client referrals under the Mental Health Act.

Australia enjoys the luxury of a national curriculum for vocational nurses, trained at TAFE colleges or private RTO. Enrolled and registered nurses are identified by the department of immigration as an occupational area of need, although registered nurses are always in shorter supply, and this increases in proportion with specialization.

In 1986 there were a number of rolling industrial actions around the country, culminating when five thousand Victorian nurses went on strike for eighteen days. The hospitals were able to function by hiring casual staff from each other's striking members, but the increased cost forced a decision in the nurses' favor (Anu.edu.au 1983-11-19, Retrieved on 2013-07-28).

United Kingdom

To practice lawfully as a registered nurse in the United Kingdom, the practitioner must hold a current and valid registration with the Nursing and Midwifery Council. The title "Registered Nurse" can only be granted to those holding such registration. This protected title is laid down in the Nurses, Midwives and Health Visitors Act, 1997 (United Kingdom Government Nurses, Midwives and Health Visitors Act, 1997. London: HMSO, 1997)

First-level nurses make up the bulk of the registered nurses in the UK. They were previously known by titles such as RGN (registered general nurse), RSCN (registered sick children's nurse), RMN (registered mental nurse) and RNMS (registered nurse (for the) mentally subnormal). The titles used now are similar, including RNA (registered nurse adult), RNC (registered nurse child), RNMH (registered nurse mental health) and RNLD (registered nurse learning disabilities).

Second-level nurse training is no longer provided, however they are still legally able to practice in the United Kingdom as a registered nurse. Many have now either retired or undertaken conversion courses to become first-level nurses. They are entitled to refer to themselves as registered nurses as their registration is on the Nursing & Midwifery Council register of nurses, although most refer to themselves as ENs or SENs.

- Nurse practitioners – Most of these nurses obtain a minimum of a master's degree, and a desired post grad certificate. They often perform roles similar to

those of physicians and physician assistants. They can prescribe medications as independent or supplementary prescribers, although are still legally regulated, unlike physician's assistants. Most NPs have referral and admission rights to hospital specialties. They commonly work in primary care (e.g. GP surgeries), A&E departments, or pediatrics although they are increasingly being seen in other areas of practice. In the UK, the title "nurse practitioner" is legally protected.

- Specialist community public health nurses – traditionally district nurses and health visitors, this group of research and publication activities.
- Lecturer-practitioners (also called practice education facilitators) – these nurses work both in the NHS, and in universities. They typically work for 2–3 days per week in each setting. In university, they train pre-registration student nurses (see below), and often teach on specialist courses for post-registration nurses
- Lecturers – these nurses are not employed by the NHS. Instead they work full-time in universities, both teaching and performing research.

Many nurses who have worked in clinical settings for a long time choose to leave clinical nursing and join the ranks of the NHS management. This used to be seen as a natural career progression for those who had reached ward management positions, however with the advent of specialist nursing roles, this has become a less attractive option. In order to become a registered nurse, one must complete a program recognized by the Nursing and Midwifery Council. Currently, this involves completing a degree, available from a range of universities offering these courses, in the chosen branch specialty, leading to both an academic award and professional registration as a 1st level registered nurse. Such a course is a 50/50 split of learning in university (i.e. through lectures, assignments and examinations) and in practice (i.e. supervised patient care within a hospital or community setting) (“Nursing and Midwifery Council". Nmc-uk.org. 20 April 2010).

These courses are three (occasionally four) years' long. The first year is known as the common foundation program (CFP), and teaches the basic knowledge and skills required of all nurses. Skills included in the CFP may include communication, taking observations, administering medication and providing personal care to patients. The

remainder of the program consists of training specific to the student's chosen branch of nursing. These are:

- Adult nursing.
- Child nursing.
- Mental health nursing.
- Learning disabilities nursing.

As of 2013, the Nursing and Midwifery Council will require all new nurses qualifying in the UK to hold a degree qualification. However, those nurses who hold a diploma, or even a certificate in nursing are still able to legally practice in the UK, although they are able to undertake university modules to obtain enough credits to top up to a degree (Changes to pre-registration nursing programmes: Nursing and Midwifery Council. Nmc-uk.org.20 April, 2010).

Midwifery training is similar in length and structure, but is sufficiently different that it is not considered a branch of nursing. There are shortened (18 month) programs to allow nurses already qualified in the adult branch to hold dual registration as a nurse and a midwife. Shortened courses lasting 2 years also exist for graduates of other disciplines to train as nurses. This is achieved by more intense study and a shortening of the common foundation program (Nursing and Midwifery Council Pre-registration training. London: NMC, 2003).

Post-registration

After the point of initial registration, there is an expectation that all qualified nurses will continue to update their skills and knowledge. The Nursing and Midwifery Council insists on a minimum of 35 hours of education every three years, as part of its post registration education and practice (PREP) requirements ("Post Registration Education and Practice (Prep) requirements for midwives | Nursing and Midwifery Council". Retrieved 21 August 2011).

There are also opportunities for many nurses to gain additional clinical skills after qualification. Cannulation, venipuncture, intravenous drug therapy and male catheterization are the most common, although there are many others (such as advanced life support) which some nurses will undertake.

Many nurses who qualified with a diploma choose to upgrade their qualification to a degree by studying part-time. Many nurses prefer this option to gaining a degree initially, as there is often an opportunity to study in a specialist field as a part of this upgrading. Financially, in England, it was also much more lucrative, as diploma students get the full bursary during their initial training, and employers often pay for the degree course as well as the nurse's salary (Nursing and Midwifery Education,UK, 2007).

In order to become specialist nurses (such as nurse consultants, nurse practitioners etc.) or nurse educators, some nurses undertake further training above bachelor's degree level. Master's degrees exist in various healthcare related topics, and some nurses choose to study for PhDs or other higher academic awards. District nurses and health visitors are also considered specialist nurses, and in order to become such they must undertake specialist training. This is a one-year full-time degree.

All newly qualifying district nurses and health visitors are trained to prescribe from the Nurse Prescribers' Formulary, a list of medications and dressings typically useful to those carrying out these roles. Many of these (and other) nurses will also undertake training in independent and supplementary prescribing, which allows them (as of 1 May 2006) to prescribe almost any drug in the British National Formulary. This has been the cause of a great deal of debate in both medical and nursing circles (Enabling Cookies: BNF.org).

Nursing in Japan

Nursing was not an established part of Japan's healthcare system until 1899 with the Midwives Ordinance. From there the Registered Nurse Ordinance came into play in 1915. This established a legal substantiation to registered nurses all over Japan. A new law geared towards nurses was created during World War II. This law was titled the Public Health Nurse, Midwife and Nurse Law and it was established in 1948. It established educational requirements, standards and licensure. There has been a continued effort to improve nursing in Japan. In 1992 the Nursing Human Resource Law was passed. This law created the development of new university programs for nurses. Those programs were designed to raise the education level of the nurses so that they could be better suited for taking care of the public (Japan health service, 1992).

In 1952 Japan established the first nursing university in the country. An Associate Degree was the only level of certification for years. Soon people began to want nursing degrees at a higher level of education. Soon the Bachelor's degree in Nursing (BSN) was established. Currently Japan offers doctorate level degrees of nursing in a good number of its universities. There are three ways that an individual could become a registered nurse in Japan. After obtaining a high school degree the person could go to a nursing university for four years and earn a bachelor's degree, go to a junior nursing college for three years or go to a nursing school for three years. Regardless of where the individual attends school they must take the national exam.

Those who attended a nursing university have a bit of an advantage over those who went to a nursing school. They can take the national exam to be a registered nurse, public health nurse or midwife. In the cases of become a midwife or a public health nurse, the student must take a one-year course in their desired field after attending a nursing university and passing the national exam to become a registered nurse. The nursing universities are the best route for someone who wants to become a nurse in Japan. They offer a wider range of general education classes and they also allow for a more rigid teaching style of nursing. These nursing universities train their students to be able to make critical and educated decisions when they are out in the field. Physicians are the ones who are teaching the potential nurses because there are not enough available nurses to teach students. This increases the dominance that physicians have over nurses (Nursing in Japan, http://www.nurse.or.jp/jna/english/nursing/system.html,1952).

Students that attend a nursing college or just a nursing school receive the same degree that one would who graduated from a nursing university, but they do not have the same educational background. The classes offered at nursing colleges and nursing schools are focused on more practical aspects of nursing. These institutions do not offer many general education classes, so students who attend these schools will solely be focusing on their nursing educations while they are in school. Students who attend a nursing college or school do have the opportunity to become a midwife or a public health nurse. They have to go through a training institute for their desired field after graduating from the nursing school or college. Japanese nurses never have to renew their licenses. Once

they have passed their exam, they have their license for life (Nursing in Japan, http://www.nurse.or.jp/jna/english/nursing/system.html, 1952).

Nursing in India

Nursing in India is the practice of care for medical patients in that nation. Its history indicates that the principles and practices of nursing are ancient. These ancient nursing practices are so clear, intelligent and scientific, that many of them might fit into any of the modern textbook. Prior to the 20th century, Indian nurses were usually young men, with women acting as midwives for assisting with childbirth. The acceptance of nursing as a profession in India was obstructed by the low status of women, the caste system, illiteracy and political unrest.

There was a time when professional nurses had very little choice of service because nursing was centred in the hospital and bedside nursing. Career opportunities are more varied now for a numbers of reasons. Career options include:

- A staff nurse provides direct patient care to one patient or a group of patients. Assists ward management and supervision. Directly responsible to the ward supervisor.
- Ward sister or nursing supervisor, responsible to the nursing superintendent for the nursing care management of a ward or unit. Takes full charge of the ward. Assigns work to nursing and non-nursing personnel working in the ward. Responsible for safety and comfort of patients in the ward. Provides teaching sessions if it is a teaching hospital.
- Department supervisor/assistant nursing superintendent responsible to the nursing superintendent and deputy nursing superintendent for the nursing care and management of more than one ward or unit for example the surgical department or out-patient department.
- Deputy nursing superintendent responsible to the nursing superintendent and assists in the nursing administration of the hospital.
- Nursing superintendent responsible to the medical superintendent for safe and efficient management of hospital nursing services.
- A Director of nursing is responsible for both nursing service and nursing educations within a teaching hospital.

- Community health nurse (CHN) services focus on the reproductive child health programme.
- Teaching in nursing. The functions and responsibilities of the nursing instructor include planning, teaching and supervising the learning experiences for students. Positions in nursing education include clinical instructor, tutor, senior tutor, lecturer, and associate professor, Reader in nursing and professor in nursing.
- Industrial nurses provide first aid, care during illness, health education about industrial hazards and prevention of accidents.
- The Military Nursing service became a part of the Indian Army, and nurses became commissioned officers who earned ranks from lieutenant to major general.
- Nursing service abroad, salaries and professional opportunities have led to increases in nursing service abroad.
- Nursing service administrative positions. At the state level the Deputy Director of Nursing at the state health directorate. The highest administrative position on a national level is the Nursing Advisor to the Govt. of India.
- Nursing Informatics is also a scope for Nurses in India .Indian Nurses uses Information Technology for patient care, for example Digital thermometer to EHR.
- Independent Nurse Midwife Practitioner pilot project completed succefully. Four candidates are successfully trained (Nursing in India, 2015).

Nursing in Bangladesh

The Nursing profession is an indispensable piece of the health system. Nurses play a vital role in the treatment and recovery of patients. As a 93% women-majority profession in a traditional society like Bangladesh where many women may not seek care for themselves or their children without access to a female health care provider, the nursing profession represents an opportunity to bridge understanding of women-specific problems and the peculiarities of their utilization patterns. The Bangladesh Government has recently upgraded the status of entry-level nurses to Class 2 employees due to their contribution towards achieving MDG's 4 and 5 thru promoting health and reducing mortality, morbidity and fertility rates. As of January 2011, Bangladesh had 26,644 registered nurses with 17,605 posts in the public nursing services and education, of

which 15,086 nurses are working in the public sector and 2,513 posts are vacant. Vacancies in public sector posts are higher among nurses of higher qualification, with 96% of class 1 (senior) posts, 68% of class II (junior) posts, and 20% of class III (aide) posts being vacant. It is estimated that around 3,000 registered nurses are employed in the private sector, and about 3000 are working abroad. A study suggests that 99% of nurses are employed in hospitals while another source suggests 95% work in urban hospitals and clinics **(**Bangladesh nursing & midwifery council, 2013).

Bangladesh has a population-nurse ratio of 5000:1, a bed-nurse ratio of 13:1, and a doctor-nurse ratio of 2.5:1. These fall far short of the international standard for bed-nurse ratio of 4:1 and doctor-nurse ratio of 1:3. Thus, there is acute scarcity of nurses for providing inpatient care, where inadequacy of HCPs is a strong limiting factor of population health. Also, with more physicians than nurses, the role of the nurse is very circumscribed, and doctors perform many tasks that nurses are qualified to do, either as a job preservation strategy or due to a lack of confidence in the capability of nurses **(**Bangladesh nursing & midwifery council, 2013).

Bangladesh faces a shortage of 280,000 trained nurses, which is a major obstacle towards achieving its MDG targets, as well as national health goals outlined under the 2011-2016 Health, Population and Nutrition Sector Development Program (HPNSDP) and the 2008 Bangladesh Health Workforce Strategy. In other words, a tenfold increase of the current size of the nursing workforce is needed! Each year, public Nursing Institutes graduate 1250 nurses, while private Nursing Institutes graduate 530 nurses. This level of production is clearly inadequate to fulfill the current demand of trained nurses in Bangladesh without significantly increasing institutional capacity. Unfortunately, public Nursing Institutes face the following constraints in terms of establishing quality and increasing capacity:

Maldistribution and migration: Over 75% of the population of Bangladesh live in rural areas, but have less than 20% of the health workforce available to them. A gross imbalance in distribution of workforce favoring urban areas is exacerbated by both internal and international migration for Bangladesh. There is an overwhelming bias towards urban areas in the distribution of HCPs. The doctor to population ratio is 1:1500 in urban areas and 1:15000 in rural areas. There is also substantial variation among

different divisions, with Dhaka having the highest density of physicians followed by Chittagong, while this trend is reversed for nurses.

Another factor that contributes to rural-urban imbalance is the high rates of vacancy in the public health system (Bangladesh nursing council, 2013).

Teaching capacity: Scarcity of faculty with nursing specialty knowledge and clinical skills coupled with limited teaching and learning resources pose significant losses with regard to appropriate facilitation of learning and assessment. Most of the teaching institutions run by the deputed nursing staff. Students are also taught by physicians, medical assistants, and retired faculty who often work in more than one place. Curriculum: Principals, teachers, and students have reservations about the current curriculum and syllabus. Students cite complaints about outdated syllabus and limited knowledge of nursing received through training. Although there has been international support for curriculum development, teachers may simply continue with previous lectures because they lack capacity or resources to deliver the new courses.

There are two forms of pre-service education in nursing; one is Diploma in Nursing with 1570 seats and another is BSc in Nursing with 700 seats. In addition to pre-service education, the scope of in-service (post-basic) education for building the capacity of nurses as nurse manager; nurse teacher; nurse administrator and nurse leader is available in 4 Colleges with 500 seats. These are College of Nursing, Mohakhali, Dhaka; Bogra Nursing College, Bogra; Fouzderhat Nursing College, Fouzderhat, Chittagong; and Khulna Nursing College, Khulna. The scope for foreign students are (05 seats) available only in College of Nursing, Mohakhali, Dhaka.

A. Pre-service Education:

- **Diploma in Nursing**

There are 43 Nursing Institutes with 1570 seats are operationalized and providing 3-years Diploma in Nursing Science and Midwifery course since 2008. In meeting the demand of the country approval has already been obtained from the ECNEC for establishing 05+02 more nursing institutes (it is also included in the RPIP) where 250

seats will be available for admission. Beside these 50 seats are available in Armed Forces Nursing Institute and 1520 are in private NIs (39 NIs).

- **B.Sc in Nursing**

Nursing Institute attached to Dhaka Medical College Hospital; Mymensingh Medical College Hospital; Rajshahi Medical College Hospital; Chittagong Medical College Hospital have been upgraded to Nursing Colleges and providing 4-years B.Sc in Nursing since 2008. Other 3 (Three) attached to the Medical College Hospital, Barisal; Medical College Hospital, Rangpur; and Medical College Hospital, Sylhet have also been upgraded to Nursing Colleges and providing 4-years B.Sc in Nursing since 2011. A total of 700 seats are available for the candidates having H.Sc with science background. There are 12 Nursing Colleges in the private sector also opens the scope for 365 students to study 4-years BSc in Nursing.

B. Post -Basic (In-service) Education:

The College of Nursing with 125 seats was established in 1970. It has been affiliated with the Dhaka University under the Faculty of Medicine in 1977 as a constituent College for the B.Sc in Nursing and BSc in Public Health Nursing Degrees. There are other colleges at Bogra, Khulna and Fowzderhat with 375 seats (among them 475 are for home and 5 for foreign students) started the same programme from 2011. Approximately 1500 nurses have been qualified with B.Sc. in Nursing and Public Health Nursing from the College of Nursing since its birth.

The affiliated hospitals for clinical practice include Dhaka Medical College Hospital; The National Institute for Cardio-Vascular Diseases; The Institute of Diseases of the Chest and Hospital; National Institute of Cancer & Research; Institute of Child and Maternal Health, Matuail; BIRDEM; Drug Addiction Hospital, Tejgaon; Paediatric hospital; Ad-din Hospital; and National Institutes of Kidney Diseases and Urology. In addition to these, students are also been placed in the communities for community practice. Having the B.Sc. Degree few nurses get the chance of promotion either in education or services sector (Bangladesh nursing & midwifery council, 2013).

1.10 The Nurse –Patient relationship:

The nurse–patient relationship is an interaction aimed to enhance the well-being of a "client," which may be an individual, a family, a group, or a community. Peplau's theory is of high relevance to the nurse-client relationship, with one of its major aspects being that both the nurse and the client become more knowledgeable and mature over the course of their relationship. Peplau believed that the relationship depended on the interaction of the thoughts, feelings, and actions of each person and that the patient will experience better health when all their specific needs are fully considered in the relationship. The establishment of the nurse–patient relationship is a conscious commitment on the part of the nurse to care for a patient. It also symbolizes an agreement between the nurse and the patient to work together for the good of the patient (White K et al., 2001).

While the nurse accepts primary responsibility for setting the structure and purpose of the relationship, the nurse uses a patient-centered approach to develop the relationship and meet the patient's needs. The nurse functions within professional, legal, ethical, and personal boundaries. The nurse also respects the uniqueness of each patient and strives to understand his or her response to changes in health. Nurses establish relationships with patients by integrating the concepts of respect, empathy, trust, genuineness, and confidentiality into their interactions. One of the earliest nursing theorists to explore the nurse–patient relationship and nursing communication was Hildegard Peplau (1952, 1991,1992,1997). Peplau developed a landmark theory, the theory of interpersonal relations, which emphasizes reciprocity in the interpersonal relationship between the nurse and the patient. Peplau's theory moved thinking about nursing from what nurses do to patients to thinking about what nurses do with patients, thereby envisioning nursing as an interactive and collaborative process between the nurse and the patient (Miller E et al., 2011).

1.11 Therapeutic nurse behavior:

Nurses are expected to always act in the best interests of the patient to maintain a relationship that is strictly with all intent to only benefit the client. The nurse must ensure that their client's needs are met while being professional. Extensive research and clinical observation has shown that the body, mind and emotions are in unity. Therefore, in order

to help another person, one must consider all these aspects; this means not neglecting the person and strictly just treating the illness. Caring for patients is beyond the treatment of disease and disability (Brown E. L, 1961).

The necessary knowledge aspects that are needed to maintain a therapeutic nurse-client relationship are: background knowledge, knowledge of interpersonal and development theory, knowledge of diversity influences and determinants, knowledge of person, knowledge of health/illness, knowledge of the broad influences on health care and health care policy, and knowledge of systems (Virani T, et al., 2002).

Background knowledge is the nurse's education, and her life experience. Knowledge of interpersonal and development theory is the knowledge of theories of the sense of self and self influence on others. The specific theories are: The Interpersonal Theory, Object relation theory, Developmental theory, and Gender/developmental theory. Knowledge of person explains that nurses must take the time to understand the client, and their world; what is meaningful to them, and their history. Knowledge of Health and Illness is the knowledge that the nurse must attain about their client's health issue. Knowledge of the broad influences on health care and health care policy explains that nurses need to be aware of the influences of the client's care; social/political forces, expectations of health-care system, and changes in accessibility, and resources. Knowledge of Systems explains that the nurse needs to know about the health-care system so they can help their clients access services. Effective communication in nursing entails being empathic, non-judgmental, understanding, approachable, sympathetic, caring, and having safe and ethical qualities.The first statement of the CNO Standard is Therapeutic Communication, which explains that a nurse should apply communication and interpersonal skills to create, maintain, and terminate a nurse-client relationship (Burnard, P. Gill, P. 2008).

1.12 Communication is the cornerstone of the nurse–patient relationship:

The focus of communication in the nurse–patient relationship is the patient's needs—that is, patient-centered care. To meet these needs, the nurse must take into consideration multiple factors, including the patient's physical condition, emotional state, cultural preferences, values, needs, readiness to communicate, and ways of relating to others.

The timing of communication is also important when working with patients. For example, teaching about a low-cholesterol diet and aerobic exercise is not appropriate during the acute phase of a myocardial infarction. The patient is not in the appropriate physical or emotional state to absorb this information regardless of its importance for overall cardiovascular health. Later, when the patient is preparing for discharge, the nurse may begin teaching about health-promoting behaviors, such as diet and exercise (Miller, E, & Nambiar-Greenwood, G. 2011).

Chapter Two

Occupational Health Problems of Nurses

2.1 Occupational hazards

Internationally, there is a serious shortage of nurses. One reason for this shortage is due to the work environment in which nurses practice. In a recent review of the empirical human factors and ergonomic literature specific to nursing performance, nurses were found to work in generally poor environmental conditions. Some countries and states have passed legislation regarding acceptable nurse-to-patient ratios (Institute of Medicine, The National Academy Press; 2004).

The fast-paced and unpredictable nature of health care places nurses at risk for injuries and illnesses, including high occupational stress. Nursing is a particularly stressful profession, and nurses consistently identify stress as a major work-related concern and have among the highest levels of occupational stress when compared to other professions. This stress is caused by the environment, psychosocial stressors, and the demands of nursing, including new technology that must be mastered, the emotional labor involved in nursing, physical labor, shift work, and high workload. This stress puts nurses at risk for short-term and long-term health problems, including sleep disorders, depression, mortality, psychiatric disorders, stress-related illnesses, and illness in general. Nurses are at risk of developing compassion fatigue and moral distress, which can worsen mental health. They also have very high rates of occupational burnout (40%) and emotional exhaustion (43.2%). Burnout and exhaustion increase the risk for illness, medical error, and suboptimal care provision (Lipscomb Ja, et al., 2004).

In the United States, the Occupational Health Safety Network (OHSN) is an electronic surveillance system developed by the National Institute for Occupational Safety and Health (NIOSH) to address health and safety risks among health care personnel, including nurses. It focuses on three high risk and preventable events: musculoskeletal injuries from patient handling activities; slips, trips, and falls; and workplace violence. Hospitals and other healthcare facilities can upload the occupational injury data they already collect for analysis and benchmarking with other de-identified facilities, in order to identify and implement timely and targeted interventions (Ariens GA et al., 2002).

Nurses are also at risk for violence and abuse in the workplace. Violence is typically perpetrated by non-staff (e.g. patients or family), whereas abuse is typically perpetrated

by other hospital personnel. 57% of American nurses reported in 2011 that they had been threatened at work; 17% were physically assaulted (Lipscomb JA, et al., 2004).

2.2 Chemical Occupational Exposures

There are thousands of chemicals and other toxic substances to which nurses are exposed in practice. Hazardous chemical exposures can occur in a variety of forms—including aerosols, gases, and skin contaminants—from medications used in practice. Exposures can occur on an acute basis, up to chronic long-term exposures, depending upon practice sites and compounds administered; primary exposure routes are pulmonary and dermal. Substances commonly used in the health care setting can cause asthma or trigger asthma attacks, according to a recent report (California Department of Health Services, 1996).

2.3 Mental health effects of nursing work:

Working in nursing increases the risk of experiencing both minor and major psychiatric morbidity with job strain contributing to this outcome. Minor psychiatric morbidities include feelings of tension, anger, anxiety, depressed mood, mental fatigue, and sleep disturbance; these are classified variously as burnout, subthreshold depression, or adjustment disorders. Mental disorders such as major depression, anxiety disorders, and psychotic disorders are less common, but they can be induced or exacerbated by work stress. Several types of psychosocial risk factors can contribute to this overall allostatic burden. High physical demands, fast-paced work, adverse work schedules, role stressors, career insecurity, difficult interpersonal relationships, nonstimulating jobs and lack of autonomy have been associated with symptoms of anxiety and depression, several psychoses, and with substance use disorders (van der Klink JJ et al., 2001).

Extended work schedules have been associated with a variety of mental health indicators in nursing and in other occupations where these schedules are common. Depression and anxiety have also been shown to vary with the level of work pace, variety, control, social support, and conflicting demands made on workers. Thus with both unfavorable work conditions and extended work hours, the effect on mental health may be multiplied. Fatigue is thought to be a central nervous system stressor (Proctor SP et al., 1996).

Nursing is emotionally demanding, with both emotional labor and the need to witness and bear with suffering taking its toll. Emotional labor is necessary to display socially appropriate emotions that are congruent with the job requirements in face-to-face interactions with patients. The more frequent and intense the interpersonal interactions are with others (staff, visitors, patients), requiring the nurse to expend emotional effort, the more likely the nurse will experience symptoms of burnout, including depersonalization and emotional exhaustion. Witnessing the suffering of others occurs in a variety of nursing care settings, but is common when end-of-life suffering is unrelieved. Intense feelings of emotional pain can result and, if unresolved, can affect both physical health and family life (White K et al., 2001).

Interventions to reduce work-related mental changes have focused on either changing the organization of work to reduce the stressors, or changing the workers' ability to cope with stress by providing cognitive-behavioral interventions, relaxation techniques of various types, or multimodal strategies. Although several nationwide initiatives on the prevention of mental disorders have emphasized the importance of addressing work organization factors, only a small number of studies have evaluated this approach, and results have not shown an overall strong relationship. In nursing, Two of the reviewed studies used organizational interventions (changing to individualized nursing care and primary nursing), and only one of the two was deemed "potentially effective." Seven studies of strategies to help nurses manage their stress were presented; music, relaxation, exercise, humor, role-playing assertiveness, social support education, and cognitive techniques were among the stress-reducing strategies studied. The authors stated that no recommendations on the most effective approach were possible due to the small number of studies. In a larger meta-analysis of both nurses and other workers, a moderate effect for cognitive-behavioral interventions and multimodal interventions was found, along with a small but significant overall effect for relaxation techniques. Organizational interventions were not significant; however, the authors posit that combining individual-level skills (e.g., cognitive-behavioral) with organizational changes may be a fruitful area for future research (Muntaner C et al., 1998).

2.4 Nurse injury& disease outcome

Extended schedules and increased work pace, along with increased physical and psychological demands, have been related to musculoskeletal injuries and disorders (MSD). These demands have been found in laboratory and worker studies to increase the risk of musculoskeletal pain/disorders. Definitions for MSD vary, though most include pain in the affected body region (e.g., back or neck) for a specified duration or frequency, along with other related symptoms such numbness and tingling (Ariens Ga et al., 2002).

Health care workers are at extremely high risk of MSD, especially for back injuries. Health care workers are also overrepresented for upper extremity MSDs among workers' compensation (WC) claims. In 2001, U.S. registered nurses (RNs) had 108,000 work-related MSDs involving lost work time, a rate similar to construction workers. In 2003, the incidence rate for nonfatal occupational injuries, many of which were MSDs, was 7.9 per 100 full time equivalents (FTEs) for hospital workers (Bureau, 2003).

2.5 Physical/postural risk factors& musculoskeletal injury & disorders (MSD)

Health care work is highly physically/posturally demanding and tasks requiring heavy lifting, bending and twisting, and other manual handling have been implicated in health care worker back injuries. In one study, nurses were found to be at particular risk of back injury during patient transfers, which require sudden movements in non neutral postures. Patient transfers also require flexion and rotation, increasing the injury risk due to a combination of compression, rotation, and shear forces (Forde MS et al., 2002) (Hoozemans M et al., 1998).

Highly demanding physical work was associated with 9–12 times the odds of having a neck, shoulder, or back MSD among nurses. Hoogendoorn and colleagues,using video observations and questionnaires in a 3-year study of health care workers, found that extreme flexion and frequent heavy lifting had a strong impact on worker low-back pain. Other analyses found that physical/postural risk factors were related to impaired sleep, pain medication use, and absenteeism (Trinkoff A et al., 2001).

Fewer studies have examined physical/postural risk factors in relation to health care worker neck and shoulder MSDs. Risk factors related to neck and shoulder pain include body placement in awkward postures that need to be maintained for long periods of time. Using direct observation, Kant and colleagues found that surgeons had extensive static postures, along with operating room nurses who were required to maintain tension on instruments, leading to substantial musculoskeletal stress of the head, neck, and back. Lifting and stooping were significantly associated with health care worker arm and neck complaints, whereas shoulder complaints were associated with pushing and pulling motions. Heavy lifting and actions with arms above shoulder height were associated with shoulder pain or injury in health care workers and in other occupational groups. The evidence indicates that preventive interventions for MSD need to address physical/postural risk factors (Nahit ES et al., 2001) (Punnett L et al., 2000).

2.6 Work schedule& Musculoskeletal injuries & disorders

The work schedule can affect the sleep–wake cycle, and working extended hours, such as 12+ hour shifts, can lead to MSD due to extended exposure to physical/postural risk factors and insufficient recovery time. As physical/postural demands on the job increased for nurses, the likelihood of inadequate sleep also significantly increased. Workers on schedules requiring frequent shift rotation and long hours may also be at higher risk for MSD. In a survey of 1,428 RNs, more than one-third had extended work schedules, and such schedules were associated with an increased likelihood of MSD.A later study found that long work hours were related to incident musculoskeletal injuries in nurses (Waersted M et al., 1991).

In workers with employment-related myalgia, symptoms increased with each successive workday, and remitted only by the second day off. These workers had shorter periods of muscle rest, suggesting that continuous muscle tension was associated with musculoskeletal symptoms. In a British study of doctors-in-training, the fewer hours they slept and the more hours they worked, the more somatic symptoms, including MSD, they reported (Baldwin PJ et al., 1997).

Schedule components significantly related to MSD include long work hours, mandatory overtime, working while sick or on days off, and having fewer than 10 hours between

shifts. The new Institute of Medicine report, Keeping Patients Safe: Transforming the Work Environment of Nurses, incorporated Wave 1 findings on nurse scheduling. More than one-third of staff nurses typically worked 12 or more hours per day. Among those working 12+ hours, 37 percent rotated shifts. On-call requirements were also very common (41 percent of the sample). Despite the long hours, few nurses took breaks; two-thirds typically took one or no breaks during their shift (The National Academy Press, 2004).

2.7 Long-term effects and vulnerable groups

Although the specific contribution of shift work to other illnesses is not clear, several diseases have been associated with these work schedules. Gastrointestinal (GI) complaints are common in nurses and could be due to changes in circadian rhythms of GI function, sleep deprivation leading to stress response and changes in immune function, or the types of foods that are available during these shifts (Knutsson A, 2003).

Psychological complaints are frequently reported, including depression and other mood disturbances, personality changes, and relationship difficulties. Shift work also may exacerbate preexisting chronic diseases, making it difficult to control symptoms and disease progression. Shift work interferes with treatment regimens that involve regular sleep times, avoiding sleep deprivation, controlling amounts and times of meals and exercise, or careful timing of medications that have circadian variations in effectiveness. Several conditions that may be exacerbated by shift work: unstable angina or history of myocardial infarction, hypertension, insulin-dependent diabetes, asthma, psychiatric illnesses, substance abuse, GI diseases, sleep disorders, and epilepsy requiring medication (Sood A, 2003).

2.8 Social and familial disruptions

Because shift workers often work in the evening and sleep during the day, they frequently sacrifice participation in social and family activities. Furthermore, shift workers in continuously operating organizations such as hospitals are regularly required to work weekends and holidays, when much social and family interaction occurs. Consequently too little time with family and friends is the most frequent and most negatively rated complaint among shift workers. The extent to which such disruptions

occur depends both on the worker's schedule, type of family, gender, presence of children, and the degree of flexibility in the nursing worker's social contacts and leisure pursuits. For families, shift work often conflicts with school activities and the times when formal child care services are available, making arranging for the care of children more challenging, affecting both the nurses and the family's social adjustments (Walker J, 1985) (Colligan MJ, 1990).

2.9 Personal safety for nurse:

Workplace safety is a topic of major concern and discussion for workers and employers in a variety of occupations and workplace settings. In nursing, patient safety is an essential and vital component of quality nursing care. However, the recent Ebola outbreak and the growing risks of antibiotic-resistant microorganisms have created a heightened awareness around the fact that nursing is still one of the most dangerous occupations in the United States. In this 21st century, one may easily assume that nurse safety has been addressed.

Data from the Bureau of Labor Statistics (BLS) show that the health care sector continues to be the most dangerous place to work in America. According to the Occupational Safety and Health Administration (OSHA), health care workers are confronted with the following job hazards: blood borne pathogens and biological hazards; potential chemical and drug exposures; waste anesthetic gas exposures; respiratory hazards; ergonomic hazards from lifting and repetitive tasks; laser hazards; workplace violence; hazards associated with laboratories; and radioactive material and X-ray hazards. In 2010, there were 653,900 workplace injuries and illnesses in the health care sector, which is more than 152,000 more injuries than the manufacturing sector, according to a 2013 Public Citizen report (Hughes RG, Rockville MD, 2008).

2.10 Helping patient with personal hygiene

Helping patients with their personal hygiene will often be one of your responsibilities when you work as a certified nursing assistant. (CNA) This will include helping the patient wash, or washing them; helping them with their oral hygiene or providing it yourself; helping them with elimination; and other aspects of personal hygiene and grooming.

These tasks are not complicated, but they are very important. Good personal hygiene helps the patient maintain a sense of dignity and independence. Assisting the patient with personal hygiene or doing these tasks for them also gives the patient a sense of safety and security; the patient will be assured that his/her basic needs are understood and are being met (C. A. Kofoid, 1925).

Oral hygiene

Providing oral hygiene or helping the patient perform oral hygiene, is an important part of nurse's responsibilities. People who are ill often need greater attention to oral hygiene than they normally might. They may be dehydrated, they may mouth breath, or they may be taking a medication that causes a dry mouth or a bad taste. Oral hygiene is important for several reasons. Without good oral hygiene:

- The patient's mouth will be dry and unpleasant.
- The lips and tongue may crack and bleed.
- The patient's appetite may be affected.
- The patient's dignity and self-image will be affected.

For the person who needs greater attention to oral hygiene and can perform it without assistance, your responsibility will be to provide him/her with mouthwash, toothpaste, towels, etc., and encourage them. For other patients, you will need to do some or all of their oral hygiene. Many people who need greater attention to their oral hygiene may not be able to perform it; they may be weak, disabled, or unconscious. Either way, it is important that oral hygiene is performed (A Van Dyk D.Cur, 2004).

Oral Hygiene for the Conscious Patient

This procedure is relatively simple, and it usually does not take a log time to complete.

- Wash hands.
- Put on disposable gloves.
- Identify the patient by checking his/her name band.
- Inform the patient that you will be helping him/her perform oral hygiene.
- Spread a towel across the patient's chest in order to keep the patient dry.

- Offer the patient a glass of mouthwash/water mix. Instruct the patient to rinse and spit.
- Put toothpaste on the toothbrush. If the patient is able, let him/her do the brushing. If not, will need to do it.
- Have the patient rinse and spit again.
- Offer floss. If the patient is unable to use the floss, you will need to perform this task.
- After flossing, have the patient rinse and spit again (A Van Dyk D. Cur, 2004).

Oral Hygiene for the Unconscious Patient

Oral hygiene is perhaps more important if the patient is unconscious. This procedure is identical to the procedure of providing oral hygiene for a patient who is conscious, but there are some differences (Judith Allen & Monica Dennis, 2008).

Body hygiene:

Body hygiene should be performed every day; at times, some parts of body hygiene may need to be performed several times a day. This procedures help the patient relax, eliminates body odors, helps prevent skin breakdown, and can stimulate the circulation. Being clean and having good body hygiene is also an issue of dignity and self-respect. Body hygiene includes giving/assisting with a bath, providing perineal care, washing the hair, shaving, and caring for the nails (Judith Allen & Monica Dennis, 2008).

Chapter Three

Literature Review

3.1 The mixed attitudes of nurse's to caring for people with mental illness in a rural general hospital

In 2003, 10 nurses from two wards in a rural hospital in Australia were interviewed. Participants from one ward had education and support from mental health nurses. Attitudes were found to be inextricably linked to issues that influence nurses' ability to provide care. Mental health services are limited and nurses have less access to support and education. Little is known about how these factors influence attitudes and the care of people with mental illness in rural hospitals. A qualitative descriptive study was used to investigate nurses' attitudes to caring for people with mental illness, the issues that impact on their ability to provide care, and the effect of education, experience & support nurses who suggested it was not their role.

The last half century has seen major change in mental health service policy and delivery in Australia in line with within Mental Health Strategy goals (National Mental Health Strategy, 2000). The trend towards care and treatment the general health system and the community due to the increased emphasis on the rights of people with mental illness has led to the closure of many psychiatric institutions. This process combined with financial restraints on mental health services and the high prevalence of mental health disorders (Australian Institute of Health and Welfare 1999a), has increased demands for care from the general health field. More than ever before people with mental health problems are cared for in Emergency Departments and general hospital wards. In addition, co morbid physical and mental disorders are common in people being treated in general hospitals. Rural areas are affected more by the demand for mental health care because of limited mental health resources (Auditor General Victoria, 2002).

Research conducted in urban areas has found that many nurses responsible for care feel unprepared to support mental health needs, and have negative attitudes to caring for people with mental health problems (Brady 1976; Brinn 2000; Roberts 1998). The need to explore how attitudes affect nursing care has been identified from findings that negative attitudes lead to social distancing that reduces the ability to provide effective care (Frances Reed and Les Fitzgerald, 2005).

3.2 A study on Situational Influences Perceived in Nursing Discipline on Health Promotion:

In 2013 (Meimanat Hosseini et al., 2013) reported that 20 nursing students from nursing faculties of medical universities of the city of Tehran participated in individual semi-structured interviews. The participants were 6 male and 14 female nursing students who were studying in the 1st to 8th semesters of Bachelor's Degree course of studies. Four of the participants were married and sixteen were single. Six of them were working as nurse, one was working in a profession other than nursing and thirteen were unemployed. Five participants were living in dormitory, fourteen were living with their families, and one was living with friends. Data analysis indicated that the main theme of nursing's situational influence on health promotion included 227 meaning units, 35 subcategories, and 7 categories as follows: choosing the field, unfavorable environmental factors, negative impacts of studies in nursing, discipline on health positive effects of studies in nursing, discipline on health, needs, attractiveness of nursing discipline and coping with negative situational influences in nursing discipline.

In the study, nursing discipline has been selected mostly due to its good job opportunity. In other words, the feeling of financial safety was the reason for choosing this field. In this connection, 68 interviews have been made about Saudi Arabian nurses' conception of nursing as a job. The findings indicated that despite negative conceptions of gender in nursing, the conception of good job opportunity of this field was increasing.

In this research, nursing's negative impacts on the students' health were mostly mental problems and feeling of tiredness, in such a way that intensiveness of the courses had made them unable to have good nutrition, meet their physical and mental needs and have sufficient entertainment and rest. In this matter, the studies performed on nurses have indicated several themes that evaluate health promotion in nurses as weak. Among the things expressed are insufficient sleep, smoking and improper nutrition in surgery room nurses, the need to improve health activities in special care units nurses, improper nutrition and exercise in American-African nurses, and the need to concentrate on nutrition, exercise, and stress management (Meimanat Hosseini et al., 2013).

3.3 Behavioral Problems among Patients in Skilled Nursing Facilities

Estimates from secondary analyses of the National Nursing Home Survey of 1977 suggest that about 30 per cent of all nursing home residents had a "diagnosable mental disorder," and that 61 per cent had one or more "mental impairments or conditions."5 Nevertheless, only 1.5 per cent of all patients discharged from nursing homes alive were discharged to a mental hospital; even in the case of those with primary diagnoses of mental illness on admission to nursing homes ("Mental disorders, and senility without psychosis"), only 9.2 per cent were discharged to mental hospitals.7'8 Clearly, mental and behavioral problems are a major reality in nursing homes, and cannot be resolved by discharge; they are generally poorly understood and poorly served in these Facilities.

The study reported here resulted from growing concern in the local long-term care community over the difficulties experienced in managing some of the more disturbed patients by staff of the SNFs, and their discouragement over the near impossibility of making transfers to the state psychiatric hospital. In facilities which are accustomed to a client composed of physically disabled elderly patients without significant behavioral problems, even one or two severely disturbed patients would provide a disproportionately great burden of care on staff.

The findings of this study support concerns expressed in analyses and recommendations made at the national level. Improved psychogeriatric care is essential in nursing homes which have become the major institutional source of care for the mentally impaired elderly. This care must be broadly conceived, and include availability of informed psychiatric consultation where needed; it should be based on adequate primary care physician evaluation, skilled nursing supported by inservice training programs in psychiatric and behavioral care, and sensitive and imaginative recreational & social program (James G. Zimmer et al., 1984).

3.4 A study on Occupational stress and self-rated health among nurses

In 2010 in the city of Campo Grande, capital of the state of Mato Grosso do Sul the cross-sectional study was carried out. The study’s target population was made up of 169 health professionals from the nursing team (registered nurses, nurse technicians, nurse assistants), of both sexes, belonging to the workforce of nine public health units which

attend emergency cases 24 hours/ day. Employees seconded to other institutions and those on leave of absence for non-health-related or health-related reasons for over six months were excluded. The study's final population was made up of 134 nursing personnel.

The study was approved by the National School of Public Health's (ENSP/FIOCRUZ) Research Ethics Committee under protocol and the employees who presented the highest exposure to occupational stress were individually informed of the fact. A study carried out among nurses in the city of Rio de Janeiro tested the two models for their ability to measure occupational stress, and its results showed that, irrespective of the model used, a strong association was observed between self-rated health and job stress. Similarly, research undertaken with nurses in a large Chinese city showed strong predictive power for both models with high levels of burnout.

In the present study, the variables which were most directly related to work characteristics, such as time in the institution or undertaking on-call shifts, were not associated with job stress, nor with worse self-rating of health – a fact also reported in a study of nurses in Greece. This study demonstrated the importance of factors related to the working environment as potential sources of job stress among nurses. Individual characteristics were less expressive in explaining the phenomenon (Mariza Miranda Theme Filha et al., 2013).

3.5 The therapeutic role of the mental health nurse: implications for the practice of psychological therapies

In 2007–2008, mental health-related prescriptions, subsided by the Pharmaceutical Benefits Scheme, accounted for just over one in ten of all prescription claims (AIHW, 2009). The Burdekin Report found that ten times more dollars per patient are spent on heart disease research, and 50 times more dollars per patient are spent on cancer research, compared to the amounts spent on mental health research (HREOC, 1993). Resources remain a problem today, despite the fact that mental health expenditure rose by 65 per cent from 1993 to 2002. Professor Mc Gorry, Australian of the Year and a prominent psychiatrist, believes the recommendation by the 2006 Senate Committee on

Mental Health that nine to twelve per cent of the health budget be spent on mental health will not be realised from the currently (2010) proposed budget.

(Senate Select Committee on Mental Health, 2006; SANE Australia, 2002). Research evidence has established that psychological treatment is essential for effective mental health care and that Mental Health Nurses (MHNs) should employ evidence-based practices (EBPs) in order to improve health outcomes (Buckley, Pettit & Adams, 2007; Jeffery, Ley, McLaren & Siegfried, 2000; Lewis, Tarrier & Drake, 2005) & MHNs are well positioned to practice psychological therapy and teach these therapeutic and preventive practices to their patients. Currently, the mental health nursing practice is dominated by bio-medical treatments such as the administration of medication and custodial care of the acutely ill. Other roles such as health promotion, illness prevention and patient education and rehabilitation are given less priority (Clinton & Hazelton, 2000; Select Committee on Mental Health, 2002). Nurses make up 77 per cent of the total clinical workforce in mental health care in Australia. Therefore, they are critical for improving the quality of care received by people with major mental illness.

Evidence-based nursing and evidence-based psychology have evolved from evidence based medicine (EBM). EBM aims to create a system of clinical decision making and practice where practitioners can readily access an evidence base for their clinical practice rather than reverting to intuitive and possibly ill-informed decisions (Sackett, Straus, Richardson, & Rosenberg, 2000; Sackett, William, Rosenberg, Muir Gray, Haynes, & Richardson, 1996). Sackett and his colleagues believe acquiring and evaluating the research evidence should include reviewing clinical guidelines, alongside systematic reviews and meta analyses of research findings as provided by organisations such as the Cochrane Collaboration (Fisher J, 2011).

3.6 Effort–reward imbalance and depressive state in nurses

In (Tokyo 180-8610, Japan) conducted a self-report survey among nurses to investigate the influence of ERI on their mental health. The aim of the present study was to investigate the relationship between ERI and depressive state in nurses at a Japanese general hospital. The study was approved by the Committee for the Prevention of Physical Disease and Mental Illness among Health Care Workers in our hospital. Study

subjects consisted of nurses at a general hospital in Japan. This surveyed their age- and work-related variables (work style, occupational status and overtime work) Age was coded into a four-category classification in order to prevent identifying individuals.
The ERI consists of three subscales: efforts, rewards and over commitment. The reward subscale is further divided into three subgroups: esteem, job security and money. The validity of this questionnaire has been confirmed. The ERI model indicates that work stress is related to high effort with low reward. Higher ERI ratio and over commitment scores indicate high-risk conditions for physical or mental disorders.

The strength of the study is that we investigated in detail the independent associations of the subgroup ratios of ERI (effort–esteem, effort–job security and effort–money) and over commitment. Depression and anxiety were significantly associated with a higher effort–money ratio and higher scores for over commitment. According to the studies ERI and over commitment predicted mental health. We found no significant differences for age- and work-related factors between the two groups. Therefore, in accordance with previous studies, reducing nurses' overcommitment and improving their work situation (e.g. better promotion prospects or higher salary) may predict a reduction of their depression and anxiety (Y. Kikuchi et al., 2010).

3.7 Perceptions of mental health nurses and patients about health promotion in mental health care:

The findings indicate that, according to the perceptions of mental health nurses and patients, healthy lifestyles including PA and eating habits contribute to a better physical and mental health. However, several barriers to integrate PA and healthy eating habits into daily life are reported. In general, both mental health nurses and patients are positive towards the potential of integrating health promotion targeting PA and eating habits into daily care. Nevertheless, beliefs and attitudes specifically towards the promotion of this lifestyle issues for patients in mental health care appear to be in need of change.
The target population of the study (Fogarty & Happell, 2005) consisted of patients with a specific diagnosis. The other studies on perceptions of patients, participants could be included irrespective of their psychiatric diagnosis. However, the results of this review indicate that barriers to participate in lifestyle interventions may vary according to the MD itself. In their review, (Richardson et al.2005) argued that health promotion

interventions in mental health care targeting specific groups or tailored to the individual are more effective in increasing level of pa.

In the general population, the effectiveness of such interventions is already well established (Clark et al., 2004) (Eriksson et al., 2006). Furthermore, several guidelines already emphasized the importance of PA and healthy eating as contributing to a better physical and mental health (World Health Organization 2004, NICE 2006, U.S. Department of Health and Human Services, 2008). The relevance of health promotion in mental health care is also acknowledged by the European Psychiatric Association declaring that maintaining a healthy body weight and shape by healthy eating and regular PA is a key component in order to reduce the risk of some important somatic diseases and to improve the overall health and well-being of persons with MD (De Hert et al., 2009). According to the results of several studies of weight management programmes including exercise and healthy eating in mental health care, significant weight reduction in this population is possible (N .Verhaeghe et al., 2011).

3.8 Evaluation of effectiveness and satisfaction outcomes of a mental health screening and referral clinical pathway for community nursing care.

A systematic review conducted by the research team (Thompson et al., 2008) concluded that valid evidence regarding generalist community nursing involvement in mental health care and identification of mental health problems for referral to specialists is limited. Studies have found that generalist nurses do not accurately identify people with mental health problems when using clinical judgement alone (Jackson & Brown et al., 2003).

According to best-practice guidelines (Registered Nurses' Association of Ontario 2003, 2004), nurses should use valid and reliable screening tools to identify people with actual or potential mental ill health. In a recent survey of community nurses' attitudes to mental health problems (Haddad et al. 2005) respondents identified that mental disorder recognition and anxiety management were the most important areas for mental health education and training. Generalist nursing actions could also include emotional support and referral to mental health professionals for focused assessment and treatment.

In Australia, community nursing care for veterans and for war is provided by various public and private health services and is funded by DVA. The care is guided by a suite of evidence-based clinical pathways and assessment tools in a clinical pathways manual (Common wealth Department of Veterans Affairs, 2009). Clinical pathways are plans of the process of providing necessary care with a specific focus, including client outcomes to be achieved and records of variance from the pathway.

In 2006, a mixed-method study was conducted in one urban and several rural or semi-rural sites in Australia. The Australian Standard Geographical Classification Remoteness Areas classification (Australian Bureau of Statistics, 2001) was used as the basis for defining metropolitan, rural and semi-rural locations. The classification allocates one of five remoteness categories to areas depending on their distance from different sized urban centres, where the population size of the urban centre is considered to govern the range and type of services available (J ALLEN et al., 2011).

3.9 The prevalence and related factors of depressive symptoms among junior college nursing students.

An epidemiological study by Miller (2007) observed that 20% of adolescents in the United States suffered from a major depressive disorder. In Taiwan, around 22.2% of college students had suffered from depression and required professional help (John Tung Foundation, 2008). Young students have previously been shown more likely to exhibit depression and anxiety (Morrison & O'Connor 2005). Nursing students have particularly experienced stressful lives during nursing education training (Shikai et al. 2009). In Greece, 43.9% of the nursing students suffered from depressive symptoms (Chrysoula et al. 2011). In Cyprus, 61.8% of nursing students suffered from depressive symptoms, with 30.9% as mild, 24.5% as moderate, 6.4% as severe level (Papazisis et al., 2014).

It was reported that learning experiences and stress during clinical placement affected nursing students' performance, emotional state, and their willingness to pursue a career in nursing (Lei et al., 2000). In Taiwan, nursing students from 5-year junior colleges constitute over half of the nursing student population, and they are the majority of newly employed nursing workforce. Similar to many Asian countries, such as China, this group of nursing students are younger, aged around 16–20 years, fresh graduates from junior

high schools, with different learning and coping patterns compared to matured nursing students.

A survey indicated that 65.4% of nursing students in Taiwan reported that they would not choose nursing as a career after graduation due to many reasons, such as stress and unpleasant experiences during clinical placement (Lai et al., 2006). This can further devastate the nursing shortage problems in Taiwan. World Health Organization (2006) estimated a shortage of over 4.3 million nurses worldwide. As the problems of nurse shortage and increase of nursing student graduates who tend not to pursue nursing career continue to exist, it is important for nursing educators to find out the factors which may cause depressive symptoms among nursing students, and further develop strategies to effectively manage nursing students' stress and depressive problems during their nursing education .Therefore, this study aimed to explore the problems of depressive symptoms and related factors among junior college nursing students (Hsiao et al., 2012).

3.10 Enabling professional development in mental health nursing: the role of clinical leadership

In (Armstrong, 2008) a supportive approach to the professional development of nursing staff and students has been identified in this study as an important attribute of effective clinical leaders in mental health nursing. Participants describe how clinical leaders use role modeling characterized by professionalism, honesty, willingness to share knowledge and approachability to influence the professional growth and development of staff. While other studies identify the importance and benefits of supporting professional development through the use of practice-based learning and role modeling (Armstrong, 2008), it has not been previously identified specifically as an important characteristic of clinical leaders in mental health nursing.

This approach to learning may in fact have increased importance in mental health nursing as it relies heavily on good communication skills and the therapeutic use of self (Dickinson et al., 2009). This study establishes new evidence on the links between these attributes and effective clinical leadership in mental health nursing. These are significant new findings as they contribute to the growing evidence base on the relevance and importance of clinical leadership for nurses. Nurses working in mental health identify an

interrelated and codependent set of attributes of clinical leadership as opposed to individual characteristics.

The findings that emerged in this study focus on clinical leadership and its impact on the professional development of junior staff. Further research is required to consider the relevance of these attributes across larger and broader samples of nurses in mental health settings, including eliciting the views and experiences of peer-identified clinical leaders and consumers of mental health service (Cleary et al., 2012).

3.11 Health status, preventive behaviour and risk factors among female nurses

In 2005, the National Survey of the Work and Health of Nurses was conducted with a focus on their health status and working conditions. Comparisons of the survey results with the health status of employed Canadians aged 21 or older revealed an excess risk of back problems and arthritis, pain severe enough to prevent activities of daily living, and depression among nurses.

By contrast, in a 2007 study of mortality and cancer risks among British Columbia nurses, (Dimich-Ward et al., 2007) found that, compared with the general population of women in the province, female registered nurses were at lower risk of all-cause, cardiovascular-related, and cancer mortality. And with the exception of malignant melanoma, the nurses had a lower incidence of cancer. The authors speculated that these relatively good health outcomes for nurses arose from a "healthy worker effect," and possibly, better uptake of cancer screening programs and healthy lifestyles (Pamela A et al., 2009).

3.12 Service user involvement in nurse education: perceptions of mental health nursing students

In 2010, Schneebeli suggested that the professional desire to maintain power over the dominant philosophical viewpoint is in part due to the perception that mental health professionals see themselves as self-oppressed and this is projected into the nurse patient relationship.

There is general agreement that modern mental health services and professionals including those in nurse education must demonstrate respectful systems of patient-centred care and recognize the value of collaborating more closely with users of mental health services. Meaningful collaboration with mental health service users will only become a reality when there is evidence of real accountability, recovery-focused care becomes a reality and when service users become involved in quality of care decisions.

The need for user participation in all fields of nursing is clearly articulated by the NMC (2010) who determined that all nurses are personally accountable for actions and omissions in practice and must always be able to justify decision-making. Professional accountability requires the practitioner to have relevant knowledge and to apply this knowledge appropriately to achieve successful patient care outcomes. In addition, it involves putting the needs of service users at the centre of professional work, while collaborating with users to achieve health improvement.

The relationship between professional accountability and enhanced user involvement in health care is obvious as true accountability requires fidelity and a respect for human dignity, especially when actions affect the lives of others (H.O Donnelll & K. GORMLEY, 2013).

3.13 Effects of Job Stress on Health, Personal and Work Behaviour of Nurses in Public Hospitals in Ibadan Metropolis, Nigeria.

In 2005, (Albar Marin and Garcia-Ramirez) in their study examined the effect of social support on job stress and emotional exhaustion among hospital nursing staff in serville, south of Spain.

They found that social support had significant buttering effect on the level of stress and emotional exhaustion experienced by the nurses at work. Nurses that received high kin support, and high levels of co-workers and supervisors support experienced low level of job stress and emotional exhaustion than those who did not.

In their study among female registered nurses in America, examined the association between psychosocial characteristics and health functioning. They found that examined

separately, low job control, high job demands and low work related social support were associated with poor health status at baseline as well as greater functional decline over the four year follow up period. When examined jointly, they found that those with low job control, high job demands and low work related social support had the greatest functional declines. They concluded that adverse psychosocial work conditions are important predictors of poor functional status and its declines over time.

Findings from the study revealed that the highly stressed nurses (85 or 55.5%) exhibited personal and work behavioural problems like bullying, absenteeism, resignation or turnover. Due to being stressed or frustrated, some of the nurses engage in aggressive hostile or vindictive behaviour on their wards. It should be noted that negative personal and work behaviour may not bring about positive treatment outcomes. The patients and their families may become afraid of negative attitude and behaviour of the nurses. For this reasons, the patients may not receive best treatment from them (J. K. Mojoyinola, 2008).

3.14 The mental health of nurses in acute teaching hospital settings: a cross-sectional survey

In 2015, several studies have explored mediating effects on nurses mental health. Mental health status as a component of job strain can be predictive of propensity to leave, with nurses' mental health being favourably influenced by coping behaviours. A number of strategies are available. The compatibility of a person's characteristics with those of their work ('person-environment fit'), can moderate perceived stress, work-family conflict and mental health. The negative relationship between work overload and mental health may be improved by intervention to reduce incivility and bullying behaviour in the workplace clinical supervision has been suggested to mediate nurse distress, stress and mental health and reductions in psychological stress.

This study demonstrates that while nurses consider themselves to be generally healthy, there are several areas where, as a workforce, they could benefit from support, including management of fatigue through positive strategies such as self-rostering and sleep support programs. As the average age of a nurse participating in the workforce continues to increase it is likely that, without intervention, the health issues raised here will persist,

hampering workforce participation and exacerbating projected shortages. For patients, there may be serious consequences for their safety and for those nurses at work in less than ideal health. This aspect warrants further investigation (Perry et al., 2015).

Chapter Four

Materials & Method

4.1 Type of study:

It is a cross sectional study. In this study, 400 nurses were taken. The information from both private & government hospital were included in the study.

4.2 Place of study:

The study was conducted in five hospitals. It includes three private and two government hospitals. Private hospitals are Uttara Adhunik Medical college hospital, Uttara Crescent Hospital and Jahurul Islam Medical college hospital.Government hospitals are Jamalpur Medical college hospital and BIRDEM Hospital.

4.3 Study period:

To complete the study in time a work schedule is prepared depending on different task of the study, from March 31 to December 30, 2015. Nine months were used to collect data. Subsequent months spent on report writing and submission of report.

4.4 Sample size:

The data collected from 400 nurses from three private and two government hospitals

4.7 Research approach:

After getting the approval of the research proposal from the honorable faculty members for data collection. Research work was approached by collecting information from different nurses and who were agreed to give the information.

4.8 Data collection method:

After explaining the purpose of the study to the nurses randomly they were interviewed by asking question in Bangla and used thoroughly pre-tested questionnaires. The questionnaire contained general information and socio-economic status and personal question of nurse.

4.9 Data analysis:

After collecting all data, data were analyzed with Microsoft office excels (Pie Charts & Bar Diagrams). Then we analyze the all data by different strategies based on our target of study. The results were presented in tabulated from as well as figures & drawings.

Chapter Five

Results

5.1- Percentage of the average age of the nurses

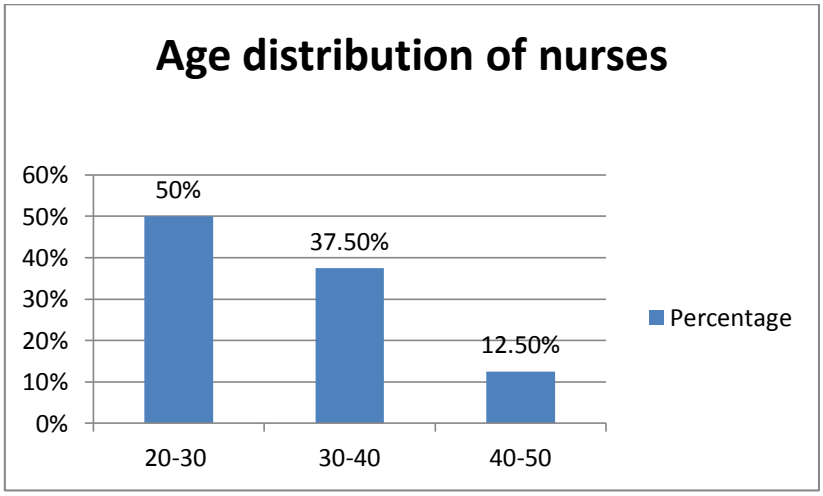

Figure-1 : Percentage of the average age of the nurses

In age distribution of nurses most of them (50%) are in the age group 20 to 30 years, 37.5% in the age group 31 to 40 years and 12.5% of nurses in the age ranges from 40 to 50 years.

5.2- Distribution of nurses by marital status

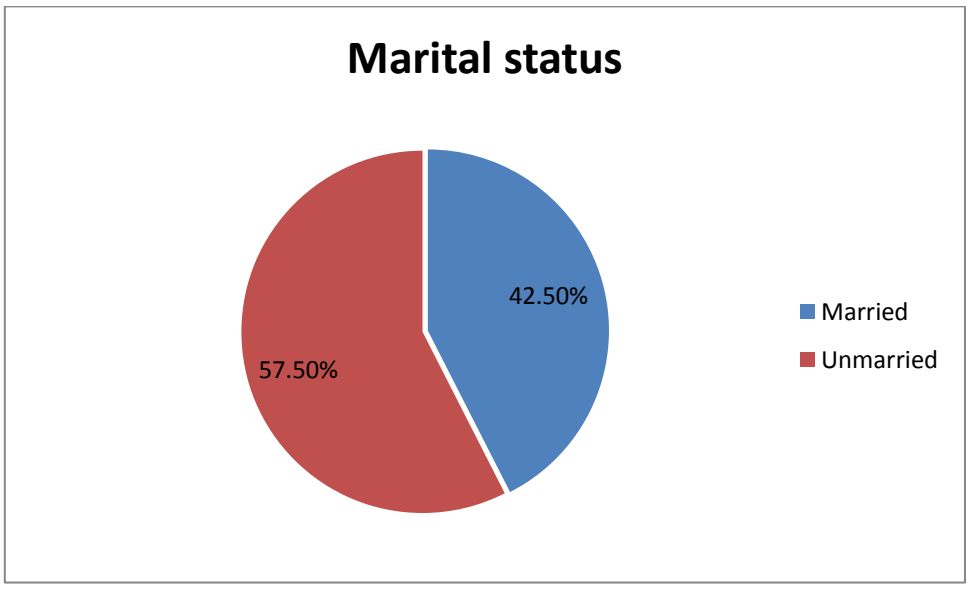

Figure-2 : Distribution of nurses by marital Status

Out of 400 nurses, we found 170 (42.2%) nurses are married and 230 (57.5%) nurses are unmarried.

5.3- Works places of nurses

A. Private hospitals

Name of hospital	No. of nurses
Uttara Adhunik Medical College Hospital	90
Uttara Crescent Hospital	30
Jahurul Islam Medical College Hospital	150

B. Govt. Hospitals

Name of hospital	No. of nurses
Jamalpur Medical College hospital	60
BIRDEM Hospital	70

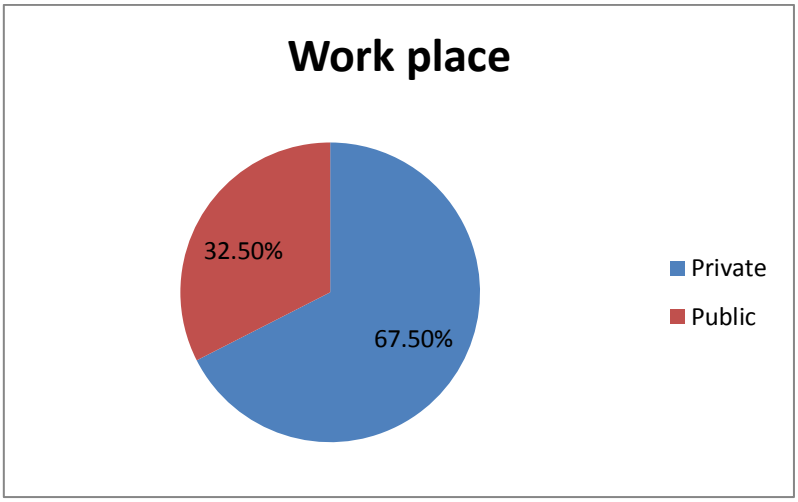

Figure-3 : Work place of nurses by percentage

Among 400 nurses 67.5% were working in private hospital & other 32.5% were working in public hospital. This study includes 90 nurses from Uttara Adhunik Medical College hospital, 30 from Uttara crescent hospital, 150 from Jahurul Islam Medical College hospital, 60 from Jamalpur medical college hospital and 70 nurses from BIRDEM hospital.

5.4- Caffeine intake of nurses

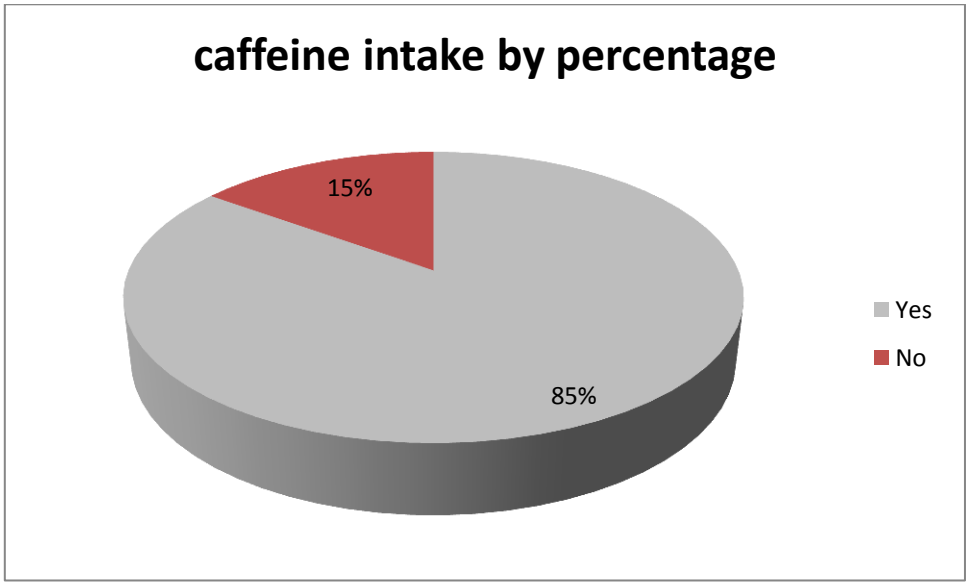

Figure-4 : Caffeine intake of nurses

Out of 400 nurses we found that 85% (340) nurses intake caffeine & 15% (60) nurses didn't intake caffeine.

5.5- Immunization status of nurses

Variables	Frequency	Percentage
DPT (Diptheria, Pertusis, Tetanus)	380	95%
Tuberculsis	281	70.25%
Measles	272	68%
MMR	00	00%
Hepatitis B	310	77.5%
Others	00	00%

Table-01 : Immunization Status of nurses

In this study, we found that 97.5% were vaccinated against Diptheria Pertusis and Tetanus (DPT Vaccine), 97.5% were vaccinated against Tuberculosis (BCG vaccine), 95% were vaccinated against measles, 77.5% were vaccinated against hepatitis B virus. No one was vaccinated by MMR.

5.6- Transfusion history of nurses

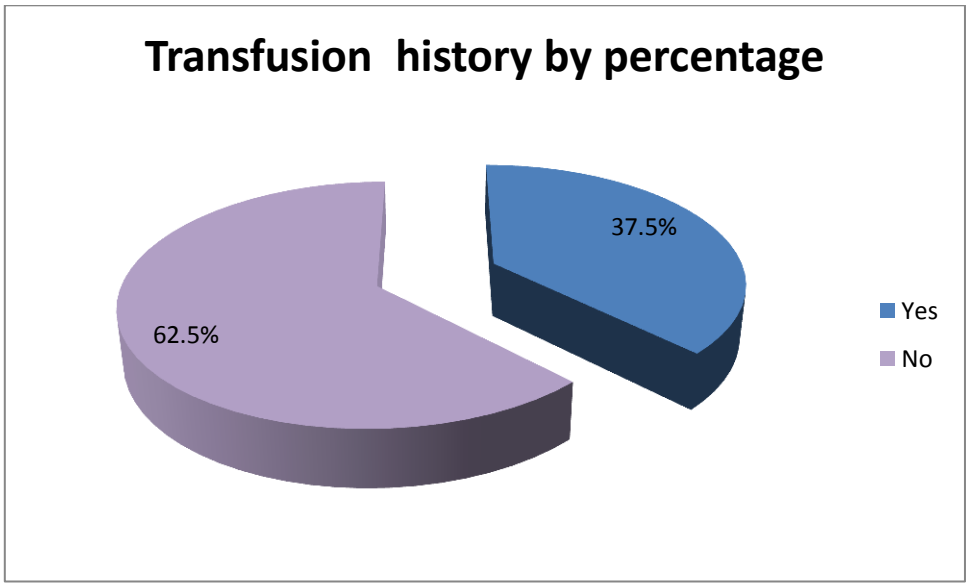

Figure-5 : Transfusion history of nurses by percentage

Among 400 nurses 37.5% (150 nurses) had history of blood transfusion and 62.5% (250 nurses) never received blood transfusion.

5.7- Average weight of nurses

Variables	Frequency	Percentage
40-50	150	37.5%
51-60	240	60%
61-70	10	2.5%
71-80	00	00%

Table-02 : Average weight of nurses

In this study, most of the nurses (60%) had weight ranging 50 to 60 Kg. 150 nurses (37.5%) in the weight range 40 to 50 Kg and 10 nurses (2.5%) in the weight range 60 to 70 Kg.

5.8- Work Hours of nurses

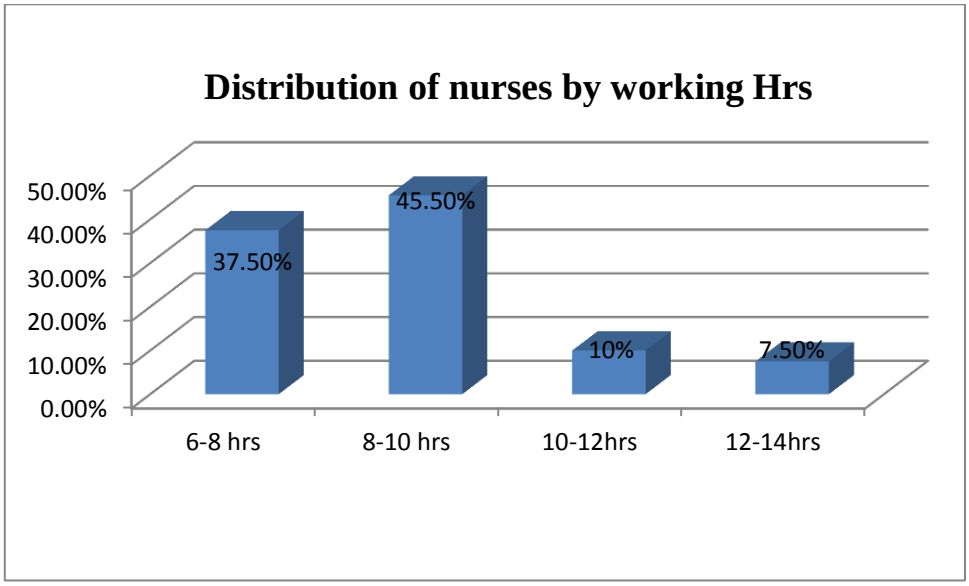

Figure-6 : Percentage distribution of nurses by working hrs

This study showed that most of the nurses (45.5%) worked 8 to 10 hours per day, 150 nurses (37.5%) worked 6 to 8 hrs per days, 40 nurses (10%) worked 10 to 12hrs per day, and only 30 nurses (7.5%) worked 12 to 14 hrs per day.

5.9- Fatigue/ weakness of nurses by percentage

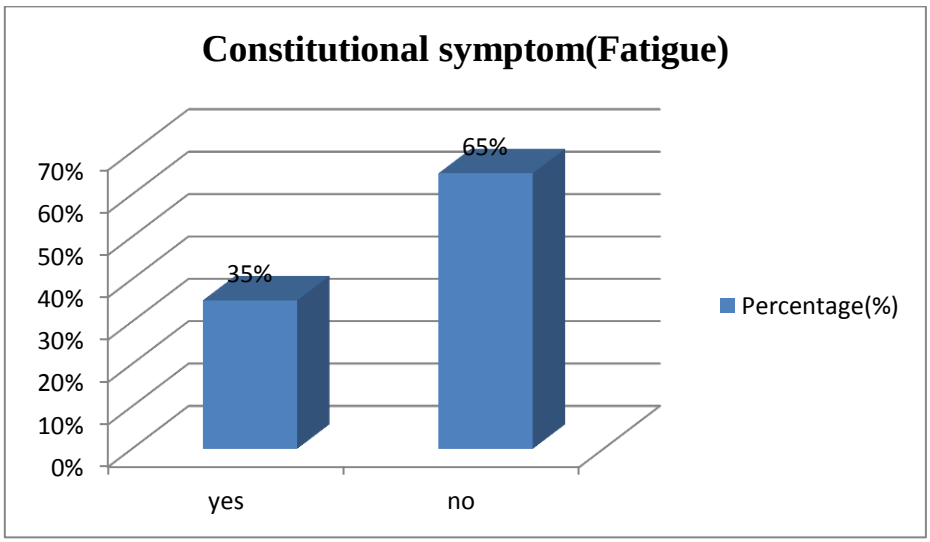

Figure-7 : Fatigue/weakness of nurses by percentage

Studying constitutional symptoms we have seen that out of 400 nurses 65%(260) felt fatigue during their duty and 35% (140) did not feel fatigue.

5.10- Blurred vision of nurses

variable	frequency	Percentage(%)
Yes	40	10%
No	360	90%

Table-03 : Blurred vision of nurses

Out of 400 nurses 10% (40) complaints blurred vision and 90% (360) nurses had no difficulty in vision.

5.11- Neck pain/stiffness of nurses

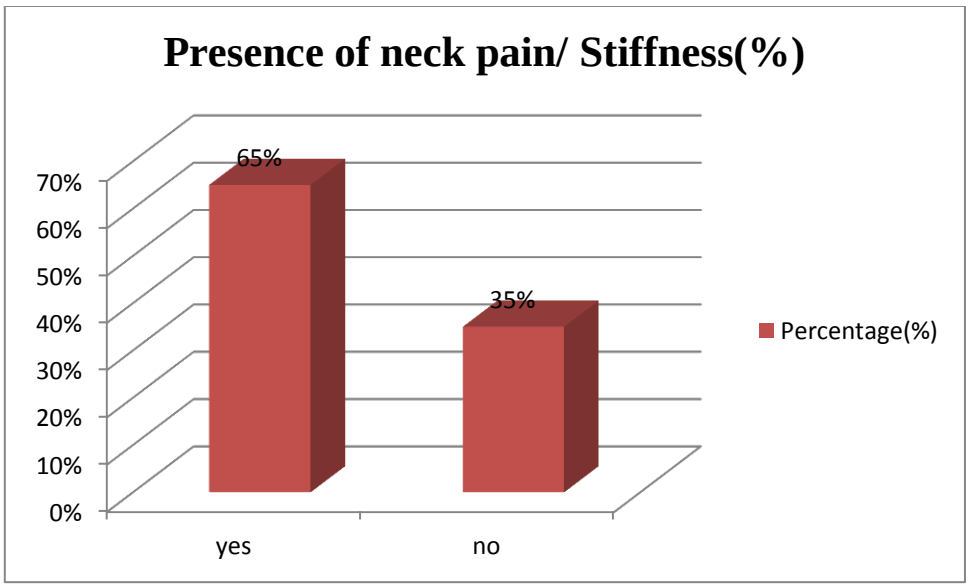

Figure-8 : Presence of neck pain / stiffness by percentage

Among 400 nurses 260(65%) complaints of neck pain,stiffness or sore throat and 140 nurses(35%) had no history of neck pain, stiffness or sore throat.

5.12- Respiratory problem of nurses by percentage

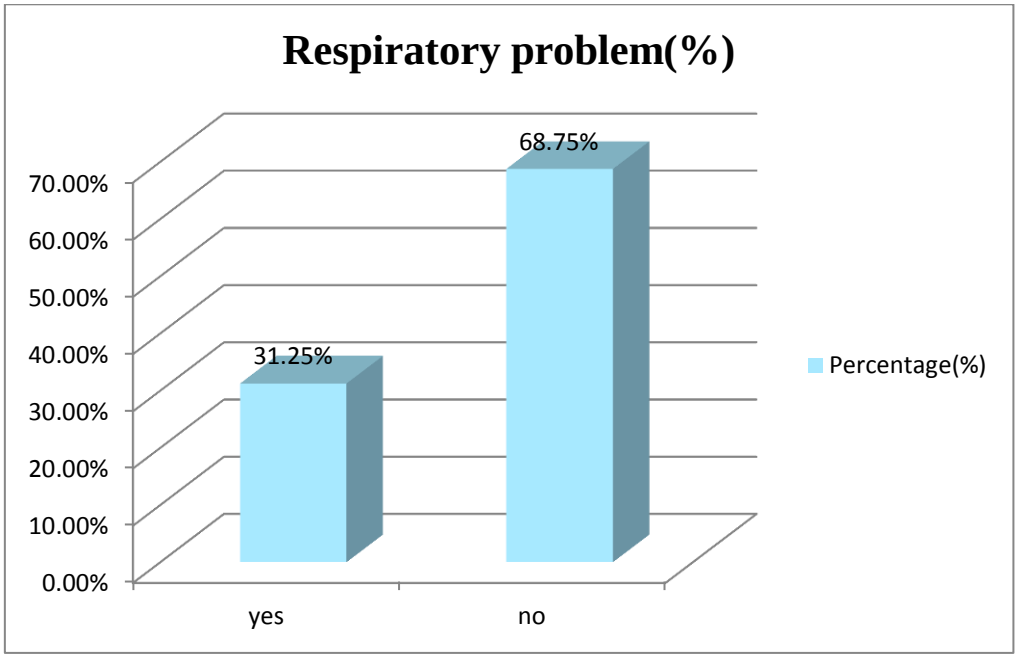

Figure-9 : Respiratory problem of nurses by percentage

This study showed that 68.75%(275 nurses) suffered respiratory problems and 31.25% (125 nurses) had no respiratory diseases.

5.13- Loss of appetite of nurses

variable	Frequency	Percentage(%)
yes	135	31.25%
no	265	66.25%

Table-04 : Loss of appetite of nurses

Studying state of appetite 135 nurses(33.75%) had loss of appetite and 265 nurses (66.25%) had normal appetite.

5.14- History of abdominal pain of nurses

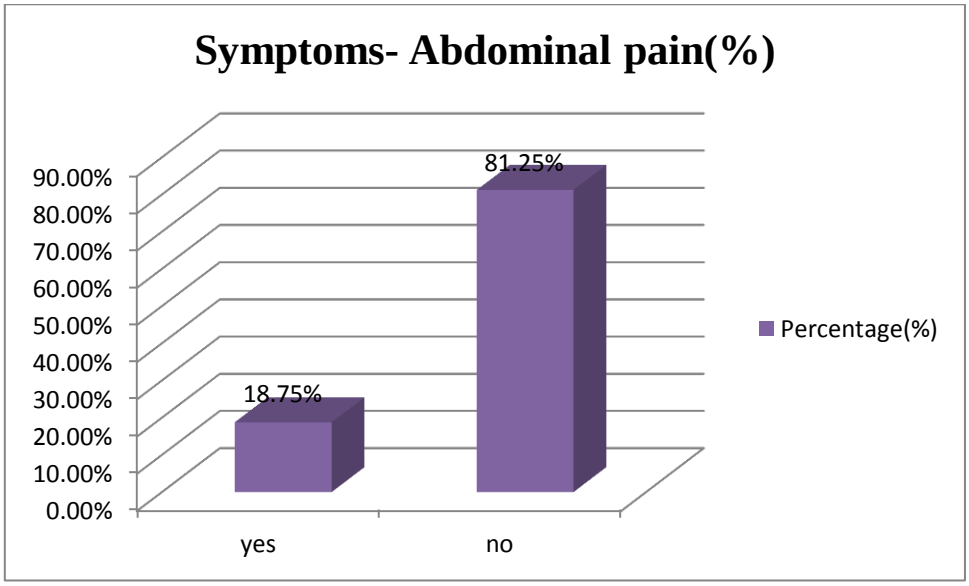

Figure-10 : History of abdominal pain of nurses

Among 400 nurses only 75 nurses (18.75%) suffered abdominal pain and 325 nurses (81.25%) had no history of abdominal pain.

5.15- Presence of burning in urination of nurses

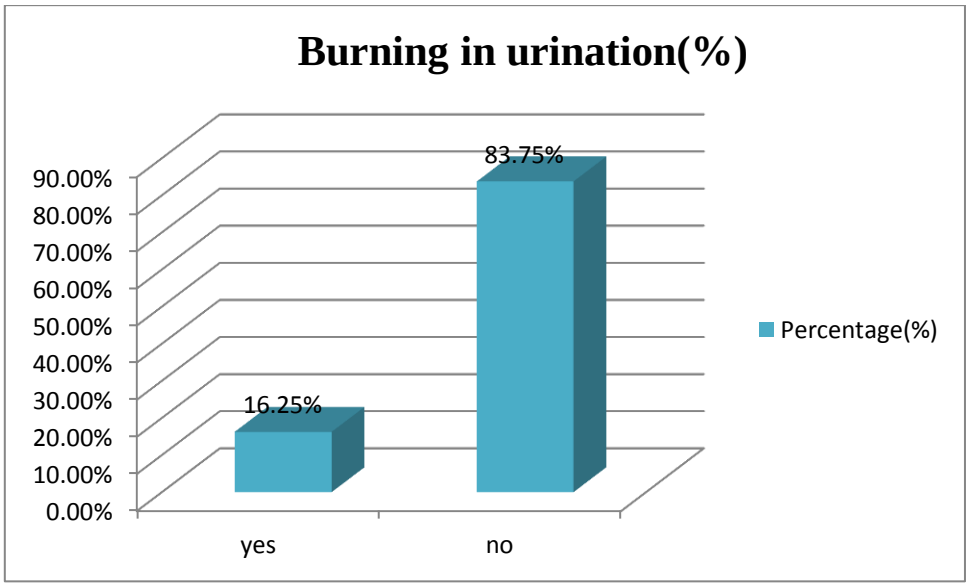

Figure-11 : Presence of burning in urination of nurses

Out of 400 nurses 83.75% (335 nurses) had no burning pain in urine during micturation and 63 nurses (16.25%) complaints burning as micturation.

5.16- Irregular period of nurses

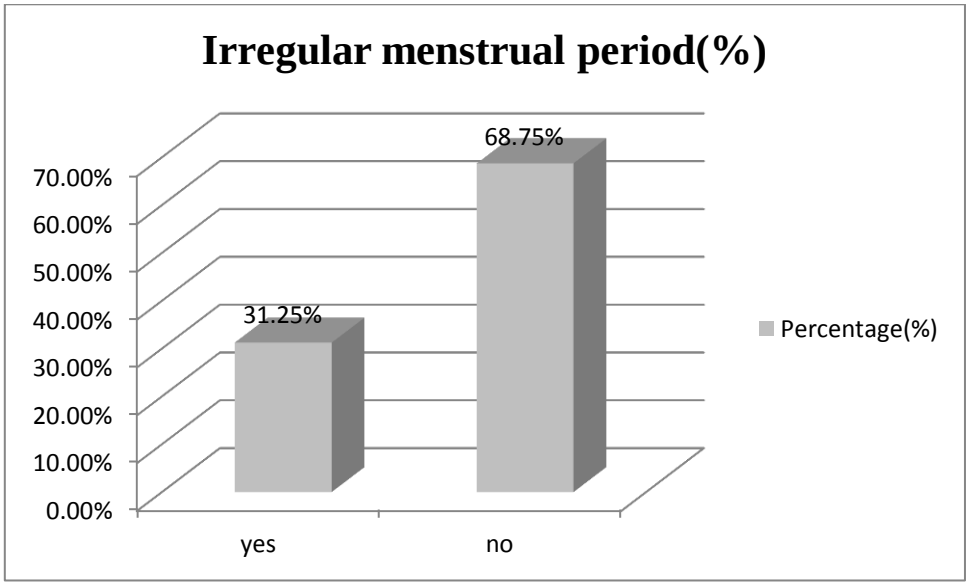

Figure-12 : Irregular menstrual period of nurses by percentage (%)

Studying menstrual history of nurses, this study showed that 125 nurses (31.25%) had irregular menstrual cycle and 275 nurses (68.75%) had normal menstrual cycle.

5.17- Vaginal discharge of nurses

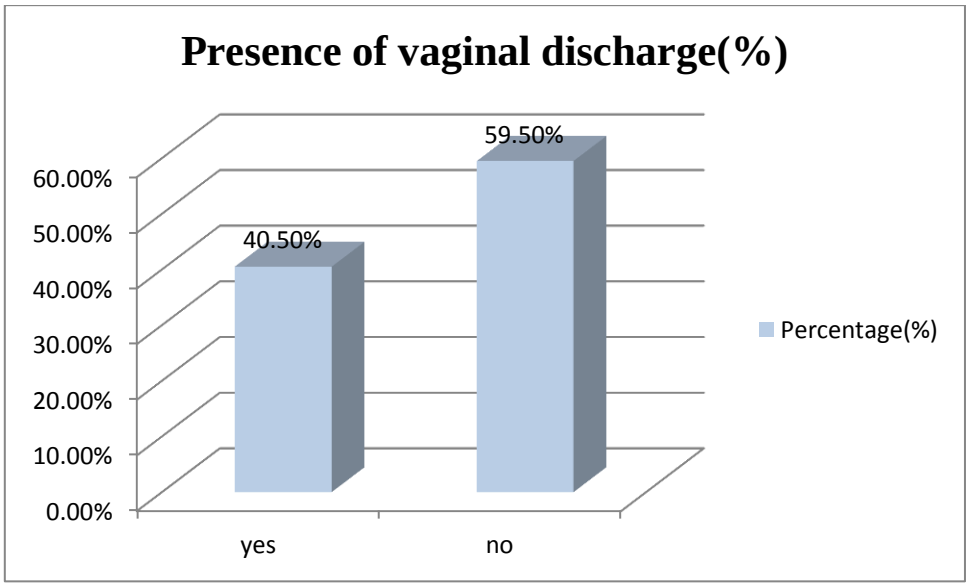

Figure-13 : Presence of vaginal discharges of nurses

Out of 400 nurses 162 nurses (40.5%) complaints of vaginal discharge and 238 nurses (59.5%) had no history of vaginal discharge.

5.18- History of back pain of nurses

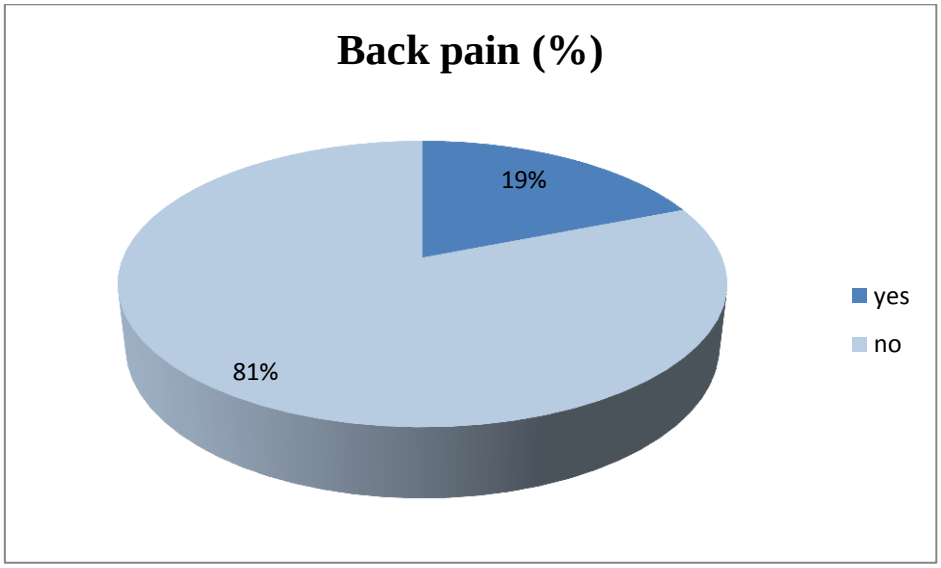

Figure-14 : History of back pain of nurses

Out of 400 nurses, 19% (76 nurses) suffered of back pain and 81% (324 nurses) had no musculoskeletal pain.

5.19- Skin changes among nurses

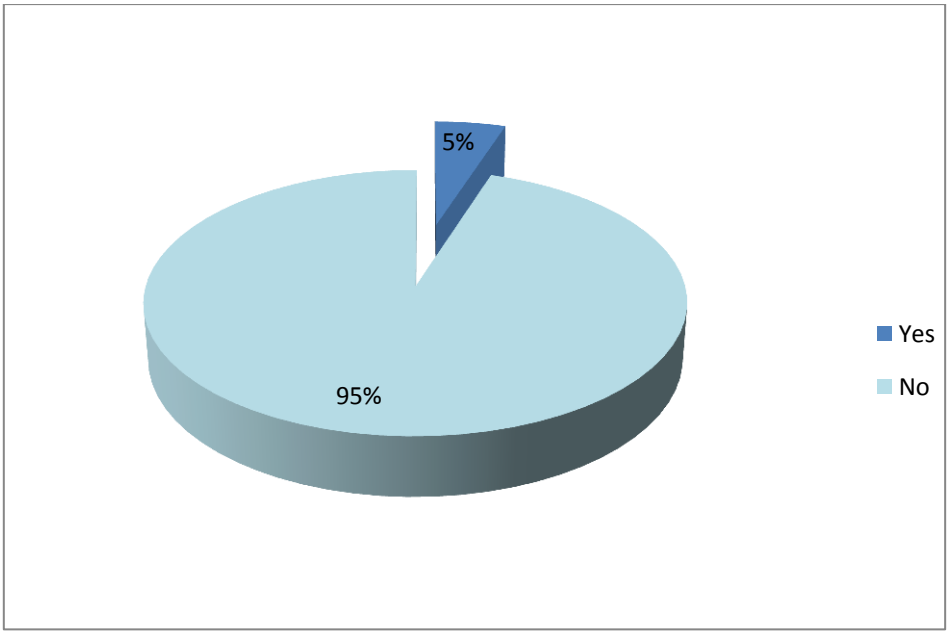

Figure-15 : Changes of skin among nurses

This study showed that among 400 nurses, 95%(380) nurses had no history of skin changes and 5%(20) nurses complaint skin problem such as skin rash, allergy etc.

5.20- History of breast pain of nurses

variable	frequency	Percentage(%)
yes	28	7%
no	372	93%

Table-05 : History of breast pain of nurses

Among 400 nurses, only 28 nurses (7%) complaints occational breast pain and 372 nurses (93%) had no history of breast pain.

5.21- Percentage of insomnia among nurses

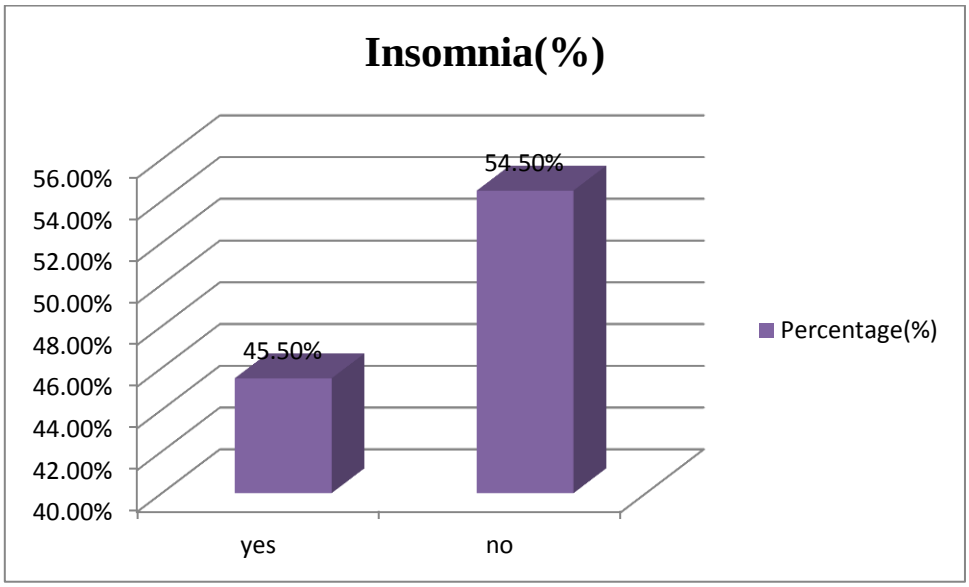

Figure-16 : Percentage of insomnia among nurses

In this study we see that many nurses, about 182 (45.5%) suffered insomnia and 218 (54.5%) did not complains of insomnia.

5.22- Method of birth control of nurses

variables	frequency	Percentage(%)
Oral contraceptive	30	17.64%
Injectable contraceptive	40	23.53%
Barrier method	55	32.35%
No contraception	45	26.47%

Table-06 : Method of birth control of nurses

This study showed that out of 170 married nurses 32.35% (55 nurses) use barrier method of contraception, 40 nurses (23.53%) use injectable contraceptive, 30 nurses (17.5%) uses oral contraceptive pill and 45 nurses (26.47%) do not use any method of contraception.

5.23- Screening for HIV of nurses

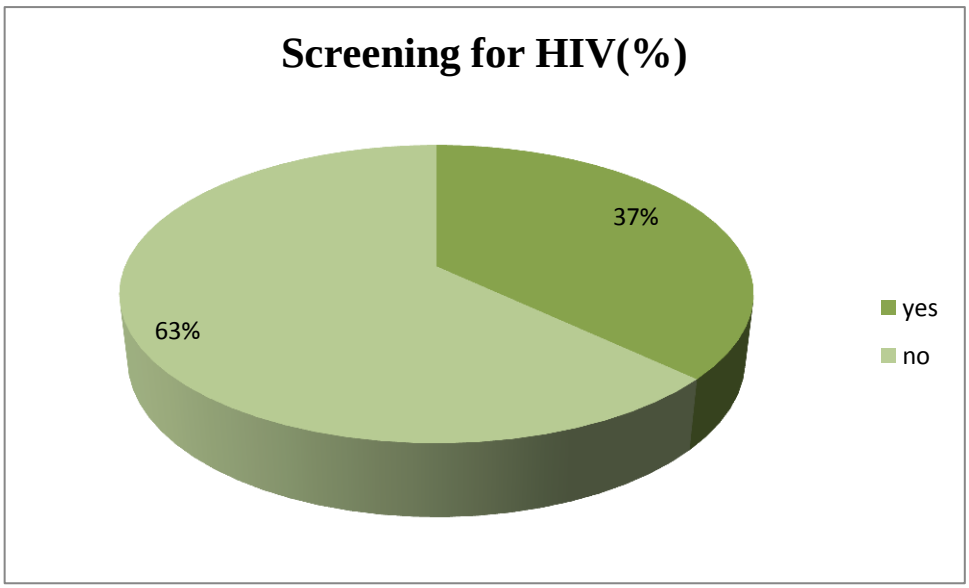

Figure-17 : Screening for HIV of nurses

This study showed that out of 400 nurses 148 (37%) underwent screening test for HIV and 252 (63%) were not tested for HIV.

5.24- Hygenic environment of workplace of nurses

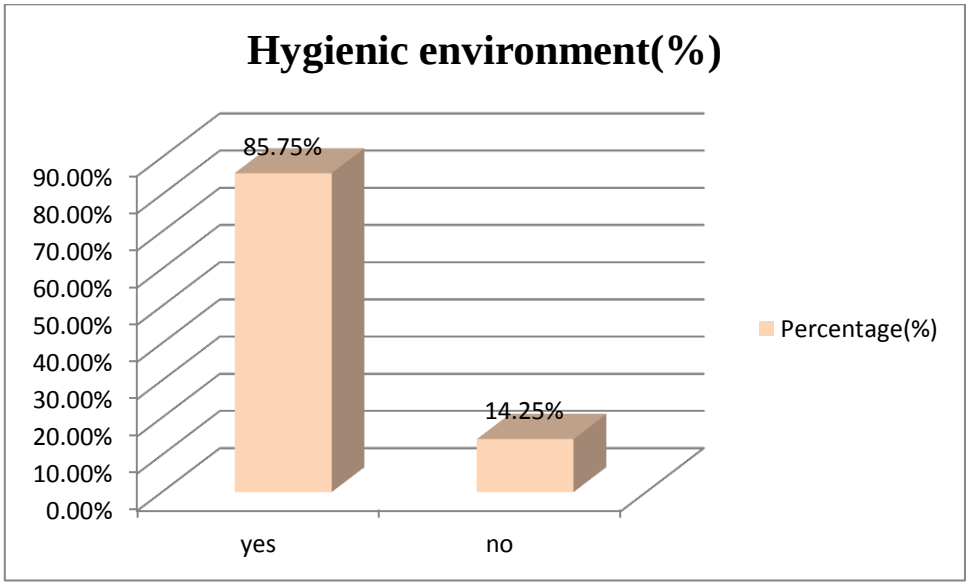

Figure-18 : Percentage of hygenic environment of nurses

This study showed that most of the nurses (85.75%) worked in a hygienic environment and 57 nurses (14.25%) worked in unhygienic environment

5. 25- History of Depressive illness of nurses

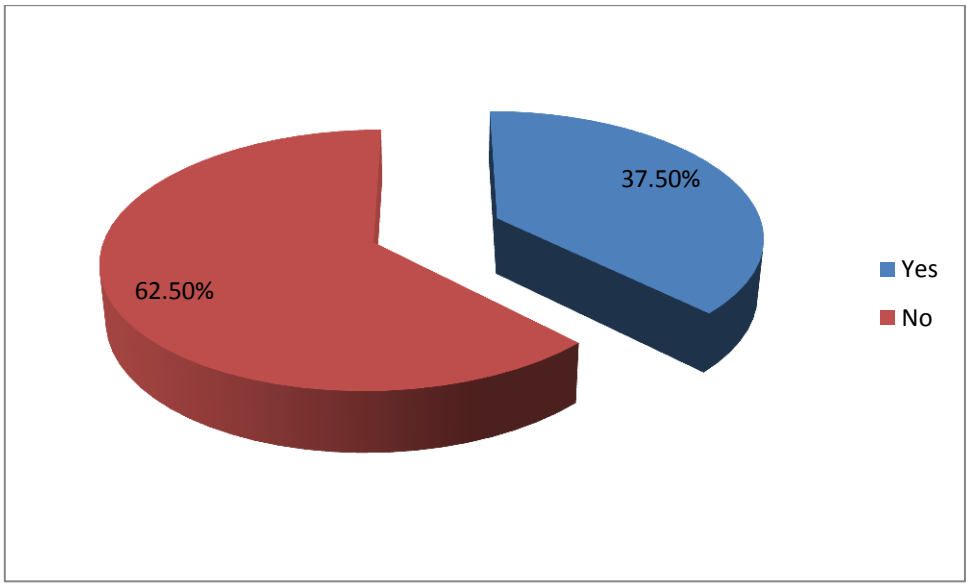

Figure-19 : History of depressive illness of nurses

We found that 150 nurses (37.5%) had depressive illness and 250 nurses (62.5%) had no symptoms of depressive illness.

Chapter Six

Discussion

Nurses face occupational health hazards that include exposure to infectious diseases, biological hazards and carcinogens; psychological demands; and shift work. A study commissioned by Health Canada's Office of Nursing Policy found that registered nurses who were employed full-time had an illness and injury related absenteeism rate 83% higher than that of other occupational groups (Pamela A et al., 2009).Our study was aimed to find out the health status and mental behavior of nurses working in different public and private hospitals of Bangladesh.

In our country both male and female are working as nurse. As most of the nurses are female, this study includes only female nurses. This is a limitation of this study. Most of them (50%) are in the age group 20 to 30 years, 37.5% in the age group 31 to 40 years and 12.5% of nurses in the age ranges from 40 to 50 years. We found that 170 (42.2%) were married and 230 (57.5%) were unmarried. Most of them (67.5%) were working in private hospital. In this study, most of the nurses (60%) had weight ranging 50 to 60 Kg. Majority of the nurses (45.5%) work 8 to 10 hours per day and 37.5% work 6 to 8 hours per day.

Vaccination is important for all health care workers including nurses. WHO also recommends vaccination for health care workers. Australian Immunization Handbook 2013 and Queensland Health policy recommends vaccination against diphtheria, pertusis, tetanus, poliomyelitis, measles, mumps, rubella, tuberculosis, influenza, hepatitis A and hepatitis B for all nursing students (Australian Immunization Handbook, 2013). This study showed that 97.5% were vaccinated against Diptheria, Pertusis and Tetanus (DPT Vaccine), 97.5% were vaccinated against Tuberculosis (BCG vaccine), 95% were vaccinated against measles, 77.5% were vaccinated against hepatitis B virus. The results of this study support international guidelines. In a study conducted in a nursing school in Turkey showed that 85.3% had received HBV vaccine and 9.1% had received HAV vaccine (Yamazhan T et al., 2011).

Blood transfusion increases the risk of transmission of infectious agent. In our study 37.5% (150 nurses) had history of blood transfusion. This result is quite high and this is a cause of infectious diseases.

Studying constitutional symptoms we see that out of 400 nurses, 65% (260) felt fatigue during their duty, 10% (40) complaints blurred vision and 260(65%) complaints of neck pain, stiffness or sore throat. Study reported that nursing's negative impacts on the students' health were mostly mental problems and feeling of tiredness, in such a way that intensiveness of the courses had made them unable to have good nutrition, meet their physical and mental needs and have sufficient entertainment and rest (Meimanat Hosseini et al., 2013).

This study showed that 68.75% suffered respiratory problems. Study showed that 9.1% of female nurses are asthmatic (Pamela A et al., 2009). The result of our study does not match those of that study. This is because of we grouped all respiratory complaints including simple cough to bronchial asthma.

In this study we have analyzed gastrointestinal problems. Studying state of appetite 265 nurses (66.25%) had normal appetite. Out of 400 nurses only 75 nurses (18.75%) suffered abdominal pain and 325 nurses (81.25%) had no of abdominal pain.

We have taken history regarding health status of Genitourinary system. Only 65 nurses (16.25%) complaints burning during micturition. Menstrual history of nurses showed that 31.25% had irregular menstrual cycle and 40.5% had vaginal discharge. Irregular menstrual cycle may be due to hormonal contraceptives (oral or injectable). Vaginal discharge may be due to fungal or bacterial infection which she may received from her sexual partner.

Analyzing musculoskeletal problems of study population we see that out of 400 nurses 70 (19%) suffered back pain. Previous study showed that 14.2% of nurses faced back pain during their working period (Pamela A et al., 2009). The result of our study supports those of that study. In our study 0nly 28 nurses (7%) complaint occasional breast pain.

Health care workers including nurses are always exposed to disinfecting materials, different kind of soap, detergents and latex. So working at the health care sector is a risk factor for developing occupational skin disease. In a study, it was revealed that 47.3%

nurses were suffering from occupational skin diseases (Ruta T, Vidmantas J, 2003). In our study only 5% of nurses suffered from skin problem. The result of our study does not match with those of previous studies. This may be due to our nurses are better conscious about their personal hygiene.

This study showed that 45.5% nurses suffered insomnia. This may be due to stress or they are not satisfied with their job.

Majority of the nurses live in hostel. They stay with their family at weekend. So they also use contraceptive methods. Studying contraceptive method among 170 marrried nurses, we see that 32.75% use barrier method of contraception. Next to this are injectable contraceptive (23.5%) and oral contraceptive pill (17.5%). 26.47% do not use any method of contraception. Only 148 Nurses (37%) underwent screening test for HIV.

Most of the nurses (85.75) mentioned that they worked in a hygienic environment. But our observation is environment of hospitals or maintenance of hygiene by health care workers during their professional work was not standard. Although this is quite better in private hospitals. Previous study demonstrated the importance of factors related to the working environment as potential sources of job stress among nurses (Pamela A et al., 2009).

Nursing students have particularly experienced stressful lives during nursing education (Shikai et al., 2009). In this study 37.5% nurses suffered depressive illness. In Greece, 43.9% of the nursing students suffered from depressive symptoms (Chrysoula et al., 2011). In Cyprus, 61.8% of nursing students suffered from depressive symptoms, with 30.9% as mild, 24.5% as moderate, 6.4% as severe level (Papazisis et al., 2014). The results of our study is similar to that of those studies.

Chapter Seven

Conclusion

Conclusion:

In this study we have tried to analyze different aspects of physical and mental health of nurses. Although occupation is not associated with many of the health indicators, some health problems like weakness, decreased appetite, respiratory problems, neck stiffness, insomnia and depressive illness are more prevalent among nurses. We also found that our nurses are accoustommed to work in an unhygienic environment. And these health problems are because of working in an unhygienic environment, always exposed to infectious agents, insufficient nutrition and stress related to their job. Nurses play an important role in delivering health care services. So we should take measures to improve health status of our nurses to build a healthy nation.

Chapter Eight

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