

ACHIEVER'S EDUCATION CONSULTANT
08141710097
SUMMARY OF NSC111 WITH PAST QUESTIONS

Study Units 3

The ability to assess the patient is one of the most important skills of the nurse regardless of the practice setting. The course looks at the individual and his health care utilizing the holistic approach, cultural diversity, safety and comfort of care, sexuality and gender issues as well as the ethical issues in relation to nursing practice. It also identifies the legal responsibilities and their implications for nursing practice and impact on the nursing profession. Course Aim The aim of the course is to give you an understanding on the basic concepts and issues necessary for professional practice.

Demonstrate proficiently all the nursing skills acquired during the Course Objectives

In addition, each unit has specific objectives stated at the beginning of a unit. Learners are advised to read them carefully before going through the unit. You will have to refer to them during the course of your study to monitor your progress. You are encouraged to always refer to the Unit objectives after completing a Unit.

This is the way you can be certain that you have done what was required of you in the unit. The wider objectives of the course are set below.

[...]

Discuss four models of stress as they relate to nursing practice. Describe stress-management techniques that nurses can help patients/clients and use and that can benefit nurses themselves.

[...]

There are 20 assignments in this course with each unit having an activity/exercise for you to do to facilitate your learning as an individual. The assignments must be turned in to your tutor for formal assessment in accordance with the stated presentation schedules. The works you submit to your tutor for assessment will count for 30% of your total course work. At the end of the course you will need to sit for a final written examination of three hour's duration.

Tutor-Marked Assignment

You are advised in your own interest to attempt and submit the assignments at the stipulated time in study centre. You will be able to complete the assignments from the information and materials contained in your reading and study units. There is other self activity contained in the instructional material to facilitate your studies. Try to attempt it all.

Continuous self-assessment materials will be enclosed with the instructional materials so that you can monitor your progress through the v

How to Get the Most Out of the Course In distance learning, the study units replace the university lecture. This is one of the greatest advantages of distance learning. You can read and work through specially designed study materials at your own pace and at time and place that suit you best. Think of it as reading the lecture notes instead of listening to a lecturer.

In the same way that a lecturer might set you some reading task, the study units tell you when to read your other material. Just as a lecturer might give you an in-class exercise, your study units provide exercise for you to do at appropriate points.

Here is a list of practical strategy for working through the course

Stick to your own created study schedule. Keep in mind that you will learn a lot by doing all your assignment carefully. Review the stated objectives. Don't proceed to the next unit until you are sure you have understood the previous unit.

Keep to your schedules of studying and assignments.

UNIT 1 HEALTH AND HUMAN NEEDS

Humans need a number of essentials to survive. The assertion that all individuals irrespective of age, sex, race or creed have needs that they strive to satisfy is therefore no exaggeration.

[...]

discuss the nurses' role in assessing and meeting patient/client's need. They encompass both physical and nonphysical elements needed for human growth and development, as well as all those things humans are innately driven to attain. Primary needs otherwise known as Basic needs, are survival needs. They must be met to sustain life.

As such they take precedence over other needs called secondary needs. Unlike the basic needs, the Meta needs can be pursued in any order, depending upon a person's wants or circumstances, as long as the basic needs have all been met. There are at least five sets or categories of needs, which we can classify as Basic Human Needs. They are physiological, safety, love, esteem and self-actualization needs.

These needs are related to each other, being arranged in a hierarchy of prepotency. This means that the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, even forgotten or denied. The average member of our society is most often partially satisfied and partially unsatisfied in all of his wants .

This means that in the human being who is missing everything in life in an extreme fashion, it is most likely that the major motivation would be the physiological needs rather than any others. A person who is lacking food, safety, love, and esteem would most probably hunger for food more strongly than for anything else. Perhaps it should be mentioned that any of the physiological needs and the consummatory behavior involved with them serves as channels for all sorts of other needs as well. That is to say, the person who thinks he is hungry may actually be seeking more for comfort, or dependence, than for vitamins or proteins.

Conversely, it is possible to satisfy the hunger need in part by other activities such as drinking water or smoking cigarettes. By volume, dry air contains approximately 78.1% Nitrogen, 20.9% Oxygen, 0.9% Argon, and 0.03% Carbon Dioxide. Oxygenation is necessary to maintain life and health. The brain for instance cannot function without oxygen for longer than 4 – 5 minutes.

Oxygen is needed for internal respiration along side the metabolic processes occurring in the body. The body meets its oxygen need via external respiration or what is called gaseous exchange. Variables affecting oxygenation include age, environmental and lifestyle factors and certain disease process. Consequently anything that interferes with the airway, atmospheric oxygen content, human respiration and circulation can threaten the body's oxygen supply.

70% of the body cells are made up of fluids. However, body fluid is replenished by ingestion of liquids and food products such as meats and vegetables, which contain 65% to 97% water and through the chemical oxidation of food substances. This balanced internal environment is what is called homeostasis. Oedema may be caused by decreased serum protein level, altered functioning of the cardiovascular, renal, or hepatic system, or drugs.

'we are what we eat' is frequently used to signify that the composition of our bodies is dependent in large measures on what we have consumed. Today there is a greater awareness of the relationship between health and nutrition, nutrition and the onset of illness, nutrition and wound healing, and nutrition and effective immunity.

[...]

Lack of adequate nutrition produces specific identifiable diseases such as kwashiorkor, marasmus, rickets, e.t.c. Poor nutritional habits, inability to chew and swallow, nausea and vomiting equally pose a threat to nutritional status. These include the physique, body mass index, hair texture and colour, some laboratory data, and food intake patterns. To help individuals meet their nutritional needs, the nurse must have a good understanding of the various locally available foodstuffs and their nutritive values as well as the digestive and metabolic processes of the body. Elimination of Waste Products – This is essential to maintain life and comfort.

The integumentary, respiratory, urinary, hepatic, and digestive systems are the organs primarily concerned with elimination of wastes from the body. Any bedtime habits, such as reading, walking, bathing or drinking milk should be incorporated into the care plan. When possible the nurse should plan care to fit the patient's/client's usual sleep-wake-cycle. Activity and Exercise – Mobility or movement is an activity most people have taken for granted but the ability to move and be active brings about positive benefits to one's health status.

Mobility though not absolutely essential for survival is needed to maintain optimum health. Mobility enhances muscle tone, increases energy levels, and is often associated with psychological benefits such as independence and freedom. Functional mobility is governed by body mechanics, the purposeful and coordinated use of body parts and positions during activity. Use of proper body mechanics maximizes the effectiveness of the efforts of the Musculoskeletal and neurological systems and reduces the body's exposure to strain or injury during movement.

[...]

Sexual Gratification – Everyone is a sexual being regardless of health status , and sexual integrity is an integral part of a person's well-being. Even though there are no universal values about sexuality, individuals do experience sexual needs but unlike other physiologic needs, sexual gratification may be sublimated . This to an extent underscores the fact that the sex need is not vital to survival of individuals but it is vital to the survival of the species. Nurses often encounter clients whose sexuality is threatened.

Some illnesses such as diabetes mellitus, chronic pain, some disabilities, certain surgeries and some medications like certain antihypertensives, and even hospitalization may impair a person's sexual integrity. Once the physiological needs are relatively well gratified, there then emerges a new set of needs, which we may categorize roughly as the safety needs. All that has been said of the physiological needs is equally true, although in lesser degree, of these desires. They may serve as the almost exclusive organizers of behavior, recruiting all the capacities of the organism in their service, and we may then fairly describe the whole organism as a safety-seeking mechanism.

Again we may say of the receptors, the effectors, of the intellect and the other capacities that they are primarily safety-seeking tools. Again, as in the hungry man, we find that the dominating goal is a strong determinant not only of his current worldview and philosophy but also of his philosophy of the future. A man, in this state, if it is extreme enough and chronic enough, may be characterized as living almost for safety alone . Whereas the physiological drive have certain limit to their satisfaction, security needs seems to be infinite in nature.

For example excessive indulgence in eating could be harmful to people. Freedom from harm, danger and fear, financial security, need for shelter and warmth all are therefore subsumed under safety and security needs. Physical Safety – Maintaining physical safety involves reducing or eliminating threats to body or life. The threat may be illness, accident, danger, or environmental exposure, lack of shelter and warmth.

The threat could even be orchestrated by medical or surgical complications following a protracted illness or surgical intervention. Although lack of shelter may not create an immediate threat to life, its cumulative effect may eventually squeeze out life out of people. Furthermore, it will thwart the ability of an individual to progress towards a higher level needs. The need for warmth is however predicated on the fact that the human body functions in a relatively narrow range of temperature and any deviation from this narrow range will spell doom for the whole body.

The fact that people rarely open up that their psychological safety is threatened makes assessment of psychological safety often difficult. To this end, the nurse will have to interpret the patient/client language and behaviour. The nurse may assist in alleviating psychological threat through explanation of procedures to patients before actual intervention, health education e.t.c. When both the physiological and the safety needs are fairly well gratified, then the affiliation needs will emerge and dominate the behaviour of human being. He will want to attain such a place more than anything else in the world and may even forget that once, when he was hungry, he sneered at love .

The drive to belong and be accepted by other people stems from the gregarious nature of human. Non-fulfillment of these needs may affect the mental health of the individual and indeed has implicated in the etiology of maladjustment and more severe psychopathology.

[...]

Since the attainment of highest level of health by any individual is predicated upon a complex maze of needs achievement, no effort should be spared at ensuring that individuals meet their basic human needs. Nurses, the set of health workers that spend the longest hours with the patients, therefore need to be equipped with knowledge and skill of assessing and meeting the multifaceted needs of their clients. This unit has taken a broad look at the relationship between health and human needs. It noted that all human need a number of essentials to survive and that all human beings are driven by physiologic and psychological needs.

Primary needs and Secondary needs noting that the first level needs must be met before a person can address higher level needs. Employing simple illustrations, the unit shows that physiological needs can control thoughts and behaviors, and can cause people to feel sickness, pain, and discomfort. Physiological, Safety, Love, Esteem and Self actualization.

UNIT 2 HEALTH AND HUMAN NEEDS II

Self Actualization Needs The preceding unit opens the discussion on the universality of needs and the relationship between health and human needs but fail to address all aspects of this all-important issue.

[...]

The term self-esteem is related to the person's perception of self / personal feeling of self-worth and recognition or respect from others. All people in every society have a need or desire for a stable, firmly based , usually high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others. This is because self-respect and dignity are essential to the psychological well-being of individuals who have reached some degree of satisfaction in the first three levels of human needs. Similarly, changes in body image whether obvious like amputation or hidden may also influence self-esteem.

When both of these needs are met, a person feels selfconfident and useful but thwarting of these needs produces feelings of inferiority, of weakness and of helplessness. These feelings in turn give rise to either basic discouragement or else compensatory or neurotic trends . What a man can be, he must be . It must however be stressed that the specific form that these needs will take, will of course vary greatly from person to person.

As a matter of fact, many psychologists believe that people continue striving to reach this level in life and very few people believe that they are self-actualized. Selfactualized individuals have mature multidimensional personality, frequently they are able to assume and complete multiple tasks, and the achieve fulfillment from the pleasure of a job well done. They do not totally depend on opinions of others about appearance, quality of work, or problem-solving methods. While it is true that they may have failings and doubts, they generally deal with them realistically .

However, self-actualizers may focus on the fulfillment of this highest need to such an extent that they consciously or unconsciously make sacrifices in the fulfillment of the lower level needs. Illness, injury, loss of loved one, change in role, change in status can threaten or disturb self-actualization sometimes manifesting in behavioral changes. The gal of nursing care is to assist individuals to reach their fullest potential. As such nursing care is planned to encourage individual to

make decisions when possible, particularly those that concern his health.

[...]

Quite a number of theories have been propounded on human needs but prominent among them are the Maslow Hierarchy of Needs and the Alderfer's Existence/Relatedness/Growth Theory of Needs. Maslow Hierarchy of Needs Abraham Harold Maslow was a renowned psychologist and philosopher who lived between April 1, 1908 and June 8, 1970. He was a scholar and was referred to as the father of humanistic psychology. When one set of needs is satisfied, it ceases to be a motivator.

[...]

These are followed by the need for safety and security, then belonging or love, self-esteem, and finally, personal fulfillment .

Fig 3 – 1 Schematic Representation of Maslow Hierarchy of

These needs are met by personal development. A person's job, career, or profession provides significant satisfaction of growth needs. Contrarily to Maslow's idea that access to the higher levels of his pyramid required satisfaction in the lower level needs, Alderfer declared that the three ERG areas are not stepped in any way. ERG Theory recognizes that the order of importance of the three Categories may vary for each individual.

Managers must recognize that an employee has multiple needs to satisfy simultaneously. According to the ERG theory, focusing exclusively on one need at a time will not effectively motivate. In addition, the ERG theory acknowledges that if a higher-level need remains unfulfilled, the person may regress to lower level needs that appear easier to satisfy. That is, if the gratification of a higher-level need is frustrated, the desire to satisfy a lower level need will increase.

The relevance of this on the job is that even when the upper-level needs are frustrated, the job still provides for the basic physiological needs upon which one would then be focused. If, at that point, something happens to threaten the job, the person's basic needs are significantly threatened. If there are not factors present to relieve the pressure, the person may become desperate and panicky.

[...]

As rightly noted by Huitt , a common trait or regular feature of all these theories however is bonding and relatedness. Notice that there do not seem to be any other that are mentioned by all theorists. Franken suggests this lack of accord may be a result of different philosophies of researchers rather than differences among human beings. In addition, he reviews research that shows a person's explanatory or attributional style will modify the list of basic needs.

Maslow concept of needs had been subjected to considerable research. For example, in their extensive review of research that is dependent on Maslow's theory, Wabha and Bridwell found little evidence for the ranking of needs that Maslow described or even for the existence of a definite hierarchy at all but rather are sought simultaneously in an intense and relentless manner. Some have contend that Maslow does not mention time period between various needs and that people do not necessarily satisfy higher order needs through their jobs or occupations. Besides, the concept of self-actualization is considered

vague and psychobabble by some behaviourist psychologists.

They asserted that the concept is based on an aristotelian notion of human nature that assumes we have an optimum role or purpose. In their words, 'self actualization is a difficult construct for researchers to operationalize, and this in turn makes it difficult to test Maslow's theory. Even if self-actualization is a useful concept, there is no proof that every individual has this capacity or even the goal to achieve it'. Other counterpositions suggest that satisfaction which Maslow viewed as a major motivator has been found not to be directly related to production which is main goal of the manager.

Huitt citing the works of Norwood submitted that Maslow Hierarchy of needs could be used to describe the kinds of information that individual's seek at different levels. For example, individuals at the lowest level seek coping information in order to meet their basic needs. Individuals at the safety level need helping information. They seek to be assisted in seeing how they can be safe and secure.

Enlightening information is sought by individuals seeking to meet their belongingness needs. Quite often this can be found in books or other materials on relationship development. Empowering information is sought by people at the esteem level. They are looking for information on how their ego can be developed.

Finally, people in the growth levels of cognitive, aesthetic, and self-actualization seek edifying information. Maslow's theory of human needs has also gain a universal application in nursing care of patients/clients of all ages. Its wide applicability in nursing is predicated upon the fact that illness often disrupt patients the ability to meet needs on different levels, hence patients/clients come up with many needs. It should however be noted that Maslow's hierarchy is a generalization about the need priorities of most but not all people.

As such when the nurse applies this theory in practice, the focus should be on the needs of the individual rather than rigid adherence to Maslow's hierarchy. As Cox suggests the provision of most effective nursing care therefore entails an understanding on the part of the nurse, the relationship among different needs for the individual. Indeed in some nursing situations, it is unrealistic to expect a patient's/clients basic needs to be fulfilled in the fixed hierarchical order. The example given by Cox of a person who possibly enters the health care system as a result of chronic respiratory infection but presents with multiple related unmet needs for nutrition, sleep, e.t.c. aptly buttress this assertion.

Similarly, people with unmet needs for self-esteem may be unable to seek fulfillment of the need for love if their self-esteem is so low that they feel inferior and fear rejection. In these and many other ways, needs on different level may be closely related for individuals. When assessing needs and planning care, the nurse must not assume that lower-level need always takes priority. As with all other aspects of providing care, the nurse individualizes the nursing care plan to provide for the unique needs and desires of the patient / client .

A frail looking anaemic patient for example, should not be encouraged to resume physical activities related to need for self-esteem until need for physical safety and security have been met. To make any meaningful impact in meeting the hydra-headed needs of clients/patients, the nurse must therefore take into consideration all the aforementioned factors. It discusses the esteem and self-actualization needs with particular reference to how nurses could assist patients/clients to meet these needs. The unit acknowledges that Maslow hierarchy of needs is a theoretical representation of the need priorities of most people and not all people and therefore cautioned that when the nurse applies this theory in

practice, the focus should be on the needs of the individual rather than rigid adherence to Maslow's hierarchy.

Discuss the application of Maslow's Hierarchy of Needs in a clinical setting.

[...]

To many people health and illness virtually means the same thing or as accompanying one another. In fact most individuals and societies in the past have viewed good health or wellness as synonymous to, absence of illness. To this end, this unit employs a comprehensive and integrated approach of health, wellness and illness. It particularly examined illness behaviour, models of health and wellness, as well as the health-illness continuum.

[...]

How each person perceives and defines health varies, and it is important to respect these individual differences rather than impose standards that may be personally unrealistic. In Watinson words 'Health' is a slippery concept to grasp in comparison with ill-health, which seems so solid and tangible. Nonetheless, the World Health Organization asserts in the preamble of its constitutions that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being regardless of race, religion, political belief, economic, or social conditions. According to WHO, health 'is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.

By this definition, health is much more than physical wellbeing. It means more than not having a physical disease but to be in harmony. Conception of health is therefore ultimately based on the perception of the original and intended fashion of humanity.

[...]

They noted that mental processes determine people's relationship with their physical and social surroundings, their attitudes about life, and their interaction with others.

[...]

Physical health – physical fitness, the body fixing at its best. Social health – a sense of responsibility and caring for health and welfare of others. He stressed that individuals must however have sufficient knowledge to make informed choices about his or her health and also income and resources to act on choices. Dubo's statement by arguing that it is important to take into account people's own perceptions and views on health and that different people will see and express these in different ways.

The person is seen as a complete unit that cannot be reduced to the sum of its parts. Health in holistic sense therefore is total wellness – wellness of mind, spirit as well as body. Simply put, wellness is a state of well-being.

Concepts of Wellness

Burke, drawing on the work of Leddy and Pepper contend that people do confuse the process of health

with the status of wellbeing. Well-being they declared is a subjective perception of vitality and feeling well. It is a state that can be described objectively and can be plotted on a continuum. In synopsis, wellness can be interpreted as full and balanced integration of physical, emotional, social and spiritual health i.e. the condition in which an individual functions at optimal level.

Rosata as the basis, they declared further that there are five dimensions to wellness and for people to realize optimal health and wellness, individuals must take cognizance of the factors within each dimension.

Let us examine these factors one by one

It encompasses the ability to recognize, accept, and express feelings and to accept one's limitations.

[...]

In conclusion, they noted that the five components overlap to some extent, and factors in one component often directly affect another but nonetheless wellness involves working on all aspects of the model.

List the five factors that contribute to wellness?

Any deviation from the accepted standard of well-being is regarded as illness. To Kozier, Erb, Berman & Burke illness is highly personal state in which the person's physical, emotional, intellectual, social, developmental, or spiritual functioning is thought to be diminished. For instance an individual may have a disease, say hypertension and not feel ill. By the same token a person can feel ill, that is feeling uncomfortable, yet have no discernible disease.

By extension, illness may or may not be orchestrated by pathological abnormality. Therefore illness can be described as a situation in which somebody fails to perform his/her normal roles in the society. Disease on the other hand is a biological parameter of non-health a pathological abnormality that is indicated by a set of signs and symptoms. It could also be defined as a state of discomfort that results when a person's health becomes impaired through disease, stress or an accident or injury.

Implicit in the above statement is that this state of discomfort or abnormality may be the aftermath of one organism invading another with predictable negatively valued outcomes or consequences on the host. It could also be a result of breakdown of anatomic structures of an organism or a result of stress that the body cannot cope with. It may even not be organic phenomenon interfering with body function but the fabric of antisocial behaviour. For instance among the Yoruba ethnic group of western Nigeria, distasteful behaviour are labeled as sickness as this has something to do with the state of mind.

In other words such behaviour tends to exhibit the relationship between the mind and the body thus reflecting the state of disharmony between the mind and the body. This explains why the first line of action when somebody falls sick then is to appease the gods. This was later replaced by the single causation theory. Today we however know that multiple factors are considered to be instrumental to causing disease.

[...]

Sequelae are ill effects that result from permanent or progressive organ damaged cause by a disease or its treatment. A chronic illness on the other hand, is one that is gradual in onset and last a relatively long time. A terminal illness is one in which there is no known cure. A 1o illness is one that has developed independently of any other disease.

Hereditary illnesses may be manifested immediately after birth or develop at some time later.

List the two main classification of illness?

The Health – Illness Continuum A continuum is defined as a continuous whole. Our health is in a dynamic state of continuity and change constantly being challenged, stressed, abused and even enhanced by our genetic make-up and lifestyle, and by our wider ecological environment . Consequently, fluctuations of health and illness can be illustrated on a health-illness continuum.

Fig 4 – 2 Illness–Wellness Continuum

There is no exact point at which health ends and illness begins. Both are relative in nature, and for each individual there is range and latitude in which he may be considered ill or well . When needs are blocked or threatened, one moves towards the "illness" end of the continuum and vice versa. The body adapts to change in an attempt to maintain homeostasis but high-level wellness is optimum.

This unit has shown that health is a dynamic state and its conception/perception is highly varied. Though usually associated with disease may occur.

Critical illness Illness Normal health Good health

This unit examined the concept of health and illness. The unit employed a comprehensive and integrated approach to health, wellness and illness. It also examined the health-illness continuum. Nursing as a holistic and humanistic discipline is therefore concerned with promotion, maintenance and recovery of health.

The subsequent chapter expatiates on how this is achieved.

Defining Health Promotion and Illness Prevention

Nurses Role in Health Promotion and Illness Prevention The popular axiom – prevention is not only better than cure but also cheaper than cure – cannot be more relevant than in today's world. This is because the recent past had witnessed more natural disasters than ever recorded. Emerging infectious diseases had been on the rampage with the resurgence of those hitherto eradicated communicable diseases, that have not only become more virulent but resistant to the simple therapeutic agents. All these coupled with the global economic recession and depreciation of currencies in many African states had compounded the already precarious level of people in the African nation.

Therefore, health promotion becomes a veritable weapon to stem the all time high morbidity and mortality rate that has been trailing the African nation. Interestingly health promotion is an important component of nursing practice. ' Implicit in the above statement is that there is a level of commitment that should be displayed by the individual, community, organization, and the government if the goal of

health promotion is ever to be achieved. The role of each of this player and how the nurse can assist in health promotion therefore forms the focus of this unit.

What Affects Health?

This is because human traits are transmissible from parents to offspring via the genes. Personal Lifestyle/Behaviour – This is the area that exerts the most influence on health and well-being, and it is controlled entirely by the individual. As such it is the individual's decision whether these factors will promote health or lead to ill health.

Simply put health promoting habits encompasses such things as

Environmental Influences – The aggregate of people, things, conditions, or influences surrounding man is what is referred to as the environment. It could be physical, biological or social. Man and his environment are constantly interacting. The environment influences man and man influences his environment at all times i.e. the relationship is never static but always changing.

Interestingly, health and the quality of life are greatly affected by this interaction. Human beings enjoy optimum functioning when the air they breathe, the food they eat, the houses they live in, indeed the neighbourhood in which they stay is of good quality. If they are bad, they tend to promote disease, disability and discontent. For instance in metropolitan cities where domestic and industrial pollution is high, tarry particles, which contain cancer-producing chemicals, may exist.

As such irritation to the eye and respiratory tissue may be rampant. Noise can produce alteration in respiration and circulation, in the basal metabolic rate, and in muscular tension. Even the fetus is affected by certain factors in the mothers' environment. For instance the baby's well-being to a large extent depends on her mother's capability and knowledge of standard of hygiene, good nutrition, and avoidance of harmful substances e.g. some drugs.

Failure to undergo such treatment could spell doom for the body with serious adverse consequences on healthy living. Defining Health Promotion The concepts of health promotion, self-care and community participation emerged during 1970s, primarily out of concerns about the limitation of professional health. The Ottawa charter, an important milestone in Health Promotion practice worldwide, defines Health Promotion as the process of enabling people to increase control over, and to improve, their health. Health is a positive concept emphasizing social and personal resources, as well as physical capacities.

Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to well-being . This no doubt, settles any storm about the genesis of Health Promotion but has not addressed what Health Promotion is all about and how it is different from illness prevention. Health promotion and illness prevention are closely related concepts, and in practice, overlap to some extent. The active health promotion strategies on the other hand, involves active participation of individuals i.e. individuals are motivated to adopt specific health programs.

Others are independently operated. Whichever, the point to be made is that health promotion and illness prevention activities are important to both the consumer and the health care provider . The avian influenza that recently broke out in certain parts of Nigeria presents an excellent picture of the how there could be an interplay of actions among the major actors in the health sector. The avian influenza

epidemics, being a deadly disease that can be transmitted to man, arouse the society concern about the disease.

Being a communicable disease and one that affect poultry farming, it also arouses the interest of commercial organizations and agriculture.

Levels of Preventive Care The three levels of prevention are

The goal is to decrease person's vulnerability to disease. Secondary Prevention – Focuses on individuals who are experiencing health problems or illness or who are at risk of developing complications or worsening conditions. Secondary prevention includes screening techniques and treatment of early stages of disease to limit disability or delay the consequences of advanced disease . Tertiary Prevention – Instituted when a defect or disability is permanent and irreversible.

The focus is to help clients reach and maintain their optimum level of functioning.

Have you heard such phrase like habit is stronger than information?

Good health habits help to prevent disorder and/or enhance total wellness.

The answer to this is obvious as practicing healthy habits cut across practically all aspects of our life viz

There is no alternative, nor substitute that increases the potential for a happier, healthier and improved quality of life. Exercise is necessary to maintain muscle tone, to stimulate circulation and respiration, and to help control body weight. A person's age, occupation and general condition help to determine the appropriate amount and kind of exercise . A moderate amount of daily exercise is better than occasional sports of strenuous activity.

JAMA, 277 included 11,470 women to determine the numerous benefits that ensues when a sedentary level is increased to merely a normal level – daily routine movement. " The study revealed that the life preserving aspect of this minor change is huge". One without the other is like eating fries without catsup – it just doesn't work as well. Intake of salt, sugar, fat and red meat should be limited while liberal intakes of fruits, vegetables, and grains should be encouraged.

Water intakes do assist the kidney in getting rid of liquid wastes. Avoidance of cigarette smoking and polluted air helps in preserving your lungs and your cardiovascular system . Sometimes after a day's work, rest is needed rather than sleep. Try lying relaxed and letting your thought drift.

Some people find that meditation or 'emptying the mind of all thoughts' is restful . Nails should be trimmed to comfortable length. Shoes should be well fitted and comfortable. Clothes should be clean, well fitting and comfortable too.

They should be appropriate for the type of activity being performed. Teeth to be brushed regularly and regular dental check-up encouraged. Fluorination of water to lessen tooth decay and consumption of food rich in calcium, phosphorus, vitamins A, C, and D for healthy and normal teeth formation and growth is expedient. The cutting down on consumption of sugary foods that is often overlooked is vital to the prevention of dental caries.

Good posture improves your health saves your energy and prevents unnecessary muscle strains and back disorder . Safer sex involves carefully choosing one's sexual partner, mutual fidelity and the use of condom where in doubt. [...]

Speaking in the same vein, Delaune & Ladner asserted that nurses play a key role in promoting health and wellness. Delaune & Ladner identified health education/health counseling and motivation as two key components of health promotion strategies employed by nurses. Board's Higher Award document observed the health promotion stands out as the 6th key characteristic of that document. Inherent in the said document , are salient features considered as essential to the performance of health promotion activities by nurses.

Promote understanding of health promotion, preventative care, health education and healthy living. Understand and apply the principles and practice of health promotion in the work setting and create, maintain and take responsibility for a healthy work environment. Facilitate responsibility and choice among clients for healthy living, and their ability to determine their own lifestyles. Develop and implement strategies for health care based on understanding of the impact of health trends on resources.

Consequently, Watkinson illustrated the many sided roles of the nurse in health promotion with this schematic diagram .

[...]

As a nurse in a remote village, you observed that majority of the pregnant women becomes anemic during pregnancy with frequent incidence of malaria in pregnancy, and besides, over 90% are already genitally mutilated.

[...]

The healthy person engaging in his daily activities is relatively unconscious of much chemical process going on at all times in his body. A never-ending production of energy in the form of heat is taking place. The fuel we supply to our body as food is continuously being burned away when it meets the oxygen in the air we breathe. This process is called oxidation.

These functions are all related and in delicate balance. When this balance is disturbed by such things as heavy exercise, the rate of heat production, blood flow, and breathing will vary from normal. This variations in temperature, pulse, respiration, and blood pressure give nurses and doctors their most important clues to the state of the body's

functioning. Consequently, Temperature, Pulse, Respiration, and Blood pressure are referred to as vital signs because they are indicators of vital functions of the body that are necessary to sustain life.

On admission to a healthcare agency to obtain baseline data.

[...]

Body Temperature The term temperature is defined as the state of heat or coldness within a substance, which can be measured against a standard scale i.e. The degree of hotness or coldness of an

object measured against a standard scale. Man and other mammals unlike fishes, reptiles, and other poikilothermic animals are homoeothermic, that is warm blooded and maintain their body temperature independently of the environment.

Thermoregulation

When the body temperature deviates from the set point, the temperature center of the hypothalamus either activates heat loss or heat production to ensure that the core temperature remains within the safe physiological range .

Heat Production

Heat is produced in the body through the chemical oxidation of food substances that results in the release of energy, and this is a continuous process. The body converts energy supplied by metabolized nutrients to energy forms that can be used directly by the body. Really, energy is measured in terms of heat. It should be mentioned that heat production increases when a person is active and most heat production comes from the deep tissue organs and the skeletal muscles .

Heat production in the body is however increased by epinephrine, nor epinephrine, thyroxine and triiodothyronine. Vasoconstriction in human's internal organs produces heat and blood flow from the internal organs carries heat to the body surface. The thyroid hormones thyroxine and triiodothyronine increase basal metabolism by breaking down glucose and fat. This effect is called chemical thermogenesis .

Muscular activity also produces heat from breakdown of carbohydrates and fats and through shivering. The skin is well supplied with heat and cold receptors but because cold receptors are more plentiful, the skin functions primarily to detect cold surface temperature. When the skin becomes chilled, its sensors send information to the hypothalamus, which initiates shivering and vasoconstriction. This leads to increased muscular tone, which enhances further metabolism.

Physical exercise, often found comforting in cold weather also increases heat production by increasing muscle tone and stimulating metabolism. Heat is dissipated from the body primarily through physical processes. As much as 95% is lost through radiation, convection, and evaporation of water from the lungs and skin.

Heat Loss Mechanisms The various physical processes through which heat is lost from the body are

The amount of heat lost by radiation from the skin varies with the degree of dilation of surface blood vessels when the body is overheated, and with the extent of vasoconstriction when the body is chilled. Notice that conductive transfer cannot take place without contact between the molecules of both objects. The amount of heat transferred depends on the temperature difference and the amount and duration of the contact. As earlier stated, conduction accounts for minimal heat loss from the body except, when a body is immersed in cold water.

The body usually has a small amount of warm air adjacent to it. The physicist makes us to understand that heat energy is needed to effect this change. Mountcastle reported that for each gram of water that evaporates from the body surface, approximately 0.6kilocalorie of heat is lost. In view of the continuous

evaporation of water from the respiratory tract, the skin and the mucosa of the oral cavity tagged insensible water loss, there is also accompanying insensible heat loss which medical experts claim to accounts for about 10% of basal heat loss.

Behavioral Control of Body Temperature In addition to heat production and heat loss mechanisms described above, the body has potent mechanism for temperature control known as the behavioral control. This encompasses voluntary acts that people take to maintain comfortable temperatures in response to body signaling conditions of either being overheated or too cold . C for a variety of reasons, such as inadequate diet, loss of subcutaneous fat, lack of activity, and reduced thermoregulatory efficiency . This increased metabolism causes increase in heat production and consequently the body temperature.

Circadian Rhythms – Body temperature normally changes throughout the day, varying as much as 10

In fact one the cardinal symptoms of the post-menopausal syndrome are the experience of periods of intense heat and sweating lasting from 30 seconds to 5 minutes. The amount of thyroxine, triiodothyronine, epinephrine/adrenaline, and norepinephrine/noradrenaline circulating in the body also affect heat production and basal metabolic rate . These physiological changes like the release of adrenaline with associated increase in heart rate causes increased metabolism, which in turn increases heat production. Nurses may therefore anticipate that individuals who are anxious about entering the hospital or undergoing a surgical procedure could register a higher than normal temperature .

Table 5 – 1 Levels of Pyrexia

In some cases a slightly above normal temperature may be useful to fight microorganisms. For this reason, it isn't always desirable to treat fever immediately .

C - Low Pyrexia C - Moderate Pyrexia C - High Pyrexia

A drug fever can be hypersensitivity reaction accompanied by allergy symptoms such as rash, itching . Bacterial growth slowed by trace metal levels.

[...]

After the cause of fever is removed the hypothalamic set point drops and the body initiates the heat loss mechanisms earlier on described.

Potters and Perry's Foundations in Nursing Theory and Practice

A temperature that alternates between fever and normal or subnormal is called intermittent fever. In remittent fever, there are wide fluctuations in body temperature over the 24hr period, all of which are above normal or at best near normal. When the body temperature fluctuates minimally while still being elevated, the condition is termed constant fever. Relapsing fever on the other hand, is characterized short febrile periods of a few days interspersed with periods of, 1 or 2 days of normal body temperature.

Clinical Signs of Fever

Fig 6 – 2 therefore presents an outline of the varied manifestation of fever.

[...]

Remove excess blankets when the client feels warm, but provide extra warmth when the client feels chilled. Provide adequate nutrition and fluids to meet the increased metabolic demands and prevent dehydration. Clients who sweat profusely can become dehydrated. Reduce physical activity to limit heat production, especially during the flush stage.

Administer antipyretics as ordered. Provide oral hygiene to keep the mucous membranes moist. They can become dry and cracked as a result of excessive fluid loss. Provide a tepid sponge bath to increase heat loss through conduction.

Roark submitted that such temperature often precedes normal death and may occur as a result of overexposure to extremely cold environment or cold water, as in drowning.

[...]

Each has its own merit and demerits, which are summarized in Table 6 – 2.

Rectal Most reliable measurement

A rectal glass thermometer does respond to changes in arterial temperatures as quickly as an oral thermometer, a fact that may be potentially dangerous for febrile clients because misleading information may be acquired. Presence of stool may interfere with thermometer placement. If the stool is soft, the thermometer may be embedded in stool rather than against the wall of the rectum. If the stool is impacted, the depth of the thermometer insertion may be insufficient.

In newborns and infants, insertion of the rectal thermometer has resulted in ulceration and rectal perforations. Many agencies advise against using rectal thermometers on neonates.

Membrane

Presence of cerumen can affect the reading.

Inspect the thermometer to ensure that it is clean and reading below 350

If appropriate, apply the disposable cover according to the manufacturer's instructions and remove the backing paper. Ask the patient to open his/her mouth and gently insert the thermometer under their tongue next to the frenulum. This is adjacent to the sublingual artery, so the temperature will be close to core temperature.

Leave in position for

Remove the thermometer taking care to touch only the part that has not been in contact with the patient's mouth. If applicable, remove the disposable cover according to the manufacturer's instructions

and dispose of appropriately of the mercury.

Axilla

Insert the thermometer into the axilla and ask/assist the patient to keep their arm close against the chest wall to ensure good contact with the skin. Of the mercury The rectal site is no longer recommended unless an electronic probe is being used. C. This may take several shakes to achieve. Unlike a room thermometer the mercury in the thermometer does not go down as the temperature falls as there is a kink in the column, which confers on it a selfregistering property.

Post-Procedure

Use of Electronic Thermometers Electronic oral thermometers are increasingly being used in hospitals. They are efficient and easy to use, with an audible signal indicating when the maximum temperature has been reached. The probe, covered by a disposable plastic cover, is placed under the tongue in the same way as a mercury thermometer. Each cover is for use by one patient only and is usually kept clean and dry on the patient locker between use.

It is discarded when the patient is discharged from the ward. Some electronic thermometers are designed to measure the temperature by inserting probe into the outer ear, adjacent to the tympanic membrane. Again a special cover is used for each patient to prevent cross-infection. An infrared light detects heat radiated from the tympanic membrane and provides a digital reading.

This provides a more accurate measure of body core temperature as it is close to the carotid artery.

Conversion of Temperature Scales

Depending on your country of practice you will be expected to be familiar with either of these measuring scales. However, since nursing is an international occupation, it is better to be conversant with the use of both scales. You can easily convert centigrade to Fahrenheit by multiplying the centigrade temperature by the fraction $9/5$ and adding 32. But to convert Fahrenheit to centigrade, first subtract 32 from the Fahrenheit temperature, and then multiply by $5/9$.

The importance of vital signs in health monitoring and evaluation of client's health status cannot be over-emphasized. Knowledge of factors affecting heat production and heat loss helps the nurse to implement appropriate interventions when the client has an altered body temperature. Vital signs are signs reflecting the body's physiological status. Baseline values establish the norm and variation from normal may indicate possible problems with client's health status.

The four sites commonly used for assessing body temperature are oral, rectal, axillary, and tympanic membrane, each with its advantages and disadvantages. The nurse selects the most appropriate site according to the client's age and condition. Factors affecting body temperature include age, sex, diurnal variation, exercise, hormones, stress and environmental temperatures. Apart from these normal deviations in health, altered temperature may develop and it is the nurses' responsibility to institute appropriate therapy.

ANSWER TO SELF ASSESSMENT EXERCISE

Sade, a 6-year old girl was brought to your hospital following an episode of high fever. Discuss your management of Sade during the pyrexia phase.

UNIT 1 ASSESSING HEALTH II – VITAL SIGNS

References/Further Reading This unit examines the other components that make up the vital signs, which are respiration, pulse and blood pressure.

[...]

explain how to measure a blood pressure and differentiate between systolic and diastolic pressure. Human survival depends on the ability of oxygen to reach body cells and carbon dioxide to be removed from the cell. Respiration is generally defined as the act of breathing. Unlike external respiration that is restricted to the alveoli of the lungs and pulmonary blood, internal respiration takes place throughout the body.

External respiration is made up of inspiration – the intake of air into the lungs and expiration – the breathing out or the movement of gases from the lungs to the atmosphere. The term ventilation is also used to describe this movement of air in and out of the lungs. Ventilation can be hyper or hypo. The nurse can directly assess only the process of external respiration, specifically by assessing ventilation.

Though can be controlled momentarily, such willful control are usually too transient and automatic control soon takes over. This automatic control is governed/regulated by respiratory centers in the medulla oblongata and the pons of the brain, and chemoreceptors located centrally in the medulla and peripherally in the carotid and aortic bodies. These centers are sensitive to amount of CO₂, pH, and low level of O₂. An elevation in the CO₂ pressure of arterial blood causes the respiratory center to increase the rate and depth of breathing.

This increased ventilatory effort removes excess PCO₂ during exhalation. Similarly, if the arterial O₂ levels fall, the chemoreceptors signal the respiratory center to increase the rate and depth of ventilation. A low level of arterial O₂ then becomes the primary stimulus to breathing in such patients. Let us quickly look at what deviation from normal can occur across these characteristics.

Respiratory Rate – Respiratory rate is usually described in breathes per minute. It is the number of ventilations that take place in 1 minute. Breathing that is normal in rate and depth is called eupnoea. Respiratory rate have however been observed to vary considerably in healthy people.

The rate varies with age, tending to drop as a person grows older.

Factors Influencing Respiratory Rate

Body Position – Straight, erect posture promotes full chest expansion.

[...]

In a bid to make up for reduced oxygen concentration at high altitude the body therefore increases the rate of breathing. This volume is called tidal volume. Deep respirations are those in which a large volume of air is inhaled and exhaled, following a full expansion of the lungs with full exhalation. The

capacity of the lungs to take in air depends on gender and age.

Lung capacity is determined by taking as deep a breath as possible and then blowing it entirely into a spirometer, a device that measures air volume. The amount of air exhaled after a minimal full inspiration is the lung's vital capacity and is about 4800ml of air. Men tend to have a larger vital capacity than women of the same age. Certain drugs such as barbiturates that depresses the respiratory center also affect the respiratory depth by depressing both respiratory rate and depth.

Depending on the level of oxygenation, respiratory alterations may bluish discoloration of the skin and altered level of consciousness. The sound of breathing is also significant. Normal breathing is silent but when breathing becomes noisy, it is an indication of some respiratory disorder. This will be discussed in fuller detail in the next section.

Rhythm

The respiration becomes deeper and deeper until they reach a climax, after which they decline until there is complete cessation of breathing for a few seconds and then the cycle is repeated. Often associated with cardiac failure, increased intracranial pressure, and drug overdose.

Ease or Effort

The difficulty may be transient and may or may not be accompanied by pain. Dyspneic patients usually appear anxious and worried. The nostrils flare as the patient struggles to fill the lungs with air.

[...]

In many cases, it is helpful to pull a bed table up to the patient, cover it with pillow, and allow the patient to lean forward.

Breath Sounds

This occurs in shock following hemorrhage.

Chest Movements

Substernal Retraction – Indrawing beneath the breast bone. Resting respirations should be assessed when the patient/client is at rest.

Planning

Plan to assess the patient's respiratory rate after a 5-minute period of inactivity. Facilitates the ability to observe breathing. Note the position of the second hand on the wrist watch. Prevents conscious control of breathing during the assessment.

Observe the rise and fall of the patient's chest for a full minute, if breathing is unusual. If breathing appears noiseless and effortless, count the ventilations for a fraction of a minute and then multiply to calculate the rate.

Evaluation Focus

This is accomplished through the heart's contraction and ejection of blood into the aorta and distensibility of the arterial system. Otherwise, blood would flow to the tissues only during systole with an absence of blood flow during diastole. The circulatory system consists of the heart, the network of blood vessels, and the blood that brings oxygen and nutrients to body cells and carries away waste products. At the onset of systole the increase in ventricular pressure causes the mitral and tricuspid valves to close.

Ventricular pressure continues to increase until it exceeds the pressure in the pulmonary artery and the aorta, causing the aortic and pulmonic valves to open and allowing the ventricles to eject blood into these arteries. During diastole the pressure in the ventricles becomes lower than that in the atria, causing the mitral and tricuspid valves to open. This together with atrial contraction allows the blood to flow into the ventricles. The amount of blood pumped out into circulation at each systole is known as the stroke volume.

When adult is resting, the heart pumps about 5 litres of blood each minute. This it does through the action of the cardiac center located in the medulla of the brainstem. Upon receipt of sensory impulses from sensory receptors, the cardiac center either speeds up or slows down the heart rate through sympathetic and parasympathetic innervation. In assessing pulse, the nurse is not just interested in the rate but the rhythm, volume and tension as well.

[...]

Older Adult 60 – 70 65 to the strength or amplitude of force exerted by the ejected blood against the arterial wall with each contraction.

Intervention

Select the pulse point and assist the client to comfortable and relaxed position. For clients in supine/dorsal position, the arm can rest alongside the body with palm facing downward or over the abdomen except where contraindicated. For clients who can sit, the forearm can rest across the thigh, with the palm facing downward or inward. Having the parent close or holding the child may decrease anxiety and yield more accurate results.

Using a thumb is contraindicated because thumb has a pulse that the nurse could mistake for client's pulse. Feel the pulsation but before counting the pulse, note the rhythm, volume, and the state of the vessel wall. This is found in certain heart conditions and in some anaemias. Tachycardia may be continuous or paroxysmal.

A pulse is described as irregular when the interval between successive beats is uneven. Intermittent pulse means that a pulsation is being missed and it may occur at regular or irregular intervals. Extra systoles are actually extra beats produced by an excessively irritable cardiac muscle with resultant irregularity. Blood pressure is the force exerted by the blood against the walls of the vessels that carry it measured by an instrument called sphygmomanometer.

Bp = CO x TPR

Bp is highest during ventricular contraction. Bp is measured in millimeters of mercury and recorded as fraction, the systolic pressure written over the diastolic pressure. The difference between the two readings is called pulse pressure.

[...]

When the arterial pressure becomes great, these baroreceptors are stimulated excessively, and impulses are transmitted to the medulla of the brain. Here the impulses inhibit the vasomotor center, which in turn decreases the number of impulses transmitted through the sympathetic nervous system to the heart and blood vessels. Lack of these impulses causes diminished pumping activity of the heart and an increased ease of blood flow through the peripheral vessels both of which lowers the arterial pressure back to normal. Conversely, a fall in arterial pressure relaxes the stretch receptors, allowing the vasomotor center to become more active than usual with resultant rise in Bp.

The kidney by virtue of its receptors that are very sensitive to changes in blood volume secretes a substance called rennin. Renin while circulating in the blood acts on a protein component and convert it to angiotensin.

[...]

In old age, as part of the degenerative process, the arterial wall becomes more rigid and less yielding to pressure and no longer retract as flexibly to decreased pressure, hence the high Bp associated with this group. The aftermath is increased Blood pressure.

[...]

To this end the nurse needs to be conversant with the actions and side effects of drugs and consider their possible impact on the health status of their client. Diurnal Variations – Bp is usually lowest early in the morning, when the metabolic rate is lowest, then rises throughout the day and peaks in the late afternoon or early evening. Since blood pressure can vary considerably, it is expedient for the nurse to know a specific clients baseline Bp.

[...]

No special preparation is necessary unless required by the patient's condition.

Assess the patients knowledge of the procedure and explain as necessary

If a comparison between lying and standing blood pressure is required, the lying recording should be done first.

When applying the cuff, no clothing should be underneath it if clothing constricts the arm remove the arm from the sleeve

Apply the cuff so that the center of the bladder is over the brachial artery 2 - 3cm above the antecubital fossa. This is easier to do if the cuff tubing is disconnected from the sphygmomanometer.

The arm should be positioned so that the cuff is level with the hear and may be more

comfortable resting on a pillow

The sphygmomanometer should be placed on a firm surface, facing you, with the center of the mercury column at eye level. Connect the cuff tubing to the sphygmomanometer. Squeeze the bulb slowly to inflate the cuff while still feeling the pulse. Observe the mercury column and note the level when the pulse can no longer be felt.

Curving the ends of the stethoscope slightly forward, place the earpieces in your ears. Check that the stethoscope is turned to the diaphragm side by tapping it with your finger. Palpate the brachial artery, which is located on the medial aspects of antecubital fossa. Place the diaphragm of the stethoscope over the artery, and hold it in place with your thumb while using your fingers to support the patient's elbow.

Ensure that the valve on the bulb is closed firmly but not too tightly, so that it can be loosened with one hand. Inflate the cuff to 20 - 30 mmHg above the level noted in step 7. Open the valve to allow the column of mercury to drop slowly. Once the sounds have disappeared, open the valve fully, to completely deflate the cuff, and remove it from the patient's arm. The assessment of physiological functioning provides specific data regarding the client's current condition. It also provides a basis for evaluating response to nursing interventions.

However, most accurate values could only be obtained when the client is at rest, the environment. The sphygmomanometer may be mercury or an aneroid type. The bladder of the cuff must cover at least three quarters of the circumference of the upper arm. If the patient is receiving intravenous therapy, avoid using the arm that has the intravenous cannula or infusion in progress. Be aware that the patient may feel dizzy on getting out of bed.

Electronic blood pressure recording machines are now often used. The cuff should be positioned in the same way as described in step 4 but no stethoscope is required because the machine provides a digital display of the systolic and diastolic pressures. The assessment of the other components of vital signs is as crucial as that of temperature and various sites and methods can be used to obtain them. Respirations are normally quiet, effortless, and automatic and when assessing respiration care must be taken to ascertain the respiratory rate, depth, rhythm, and sound.

Although the radial pulse is the site commonly used, eight other sites may be used in certain situations. Blood pressure which is a product of cardiac output, peripheral resistance, blood volume and blood viscosity can be measured by auscultation using a sphygmomanometer and a stethoscope.

A 6

You have been assigned to check the vital signs. Differentiate between normal and abnormal breathing patterns stating their implications.