COMPARATIVE STUDY OF PERCEPTION OF WORKLOAD ON NURSES WITH TYPE A AND TYPE B BEHAVIORAL PATTERNS IN THE EMERGENCY UNIT FLOOR I DR. HASAN SADIKIN GOVERNMENT HOSPITAL BANDUNG

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ABSTRACT

This is a study on the differences in perception of workload experienced by nurses with type A and type B behavioral patterns in the Emergency Unit on the First Floor of Dr. Hasan Sadikin Hospital, Bandung. The purpose of this study was to determine the differences in perception of workload between nurses with type A and type B behavioral patterns in nurses. Meanwhile, the purpose of this study was to obtain clarity regarding the differences between nurses with type A and type B behavioral patterns in experiencing a workload. The research method used is a comparative method, which is a way to find solutions through analysis of causal relationships, namely examining certain factors related to the situation. In this population study, the researcher compared two groups of subjects, with details of the first group being nurses with type A behavioral patterns and the second group being nurses with type B behavioral patterns. With the characteristics of these behavioral patterns, the researcher conducted a comparative study of 31 members of the population. The measuring instruments used in this study were in the form of a behavioral activity profile questionnaire from Matteson and Ivancevich, as well as a workload perception questionnaire whose items were derived from Cohen's theory. The data obtained are ordinal data and their processing uses non-parametric statistical methods, namely the U–Mann Whitney test. Based on the results of data processing, it can be concluded that there are differences in perceptions of the workload experienced by nurses with behavioral patterns type A and type B. Where the differences shown are not so striking. Both nurses with behavioral patterns type A and type B have the same perception of high workload. With the percentage of nurses with behavioral patterns type A who have a high perception of workload as much as 94.12% and 84.71% in type B.

Keywords: Perception, Workload, Behavior Patterns Type A & B.

INTRODUCTION

In order to carry out development in all fields, be it ideology, economy, socio-culture, education and health, the government is trying to increase existing resources, and the initial stage is to build public health as a whole. The basis of national health development aims to achieve the ability to live healthily for every resident in order to realize the level of public health. This can be achieved by improving health services and the quality of health services, which consist of: health institutions, community health centers and other health institutions. In line with that, it is also necessary to improve the provision and distribution of medical workers and health workers as well as the provision of drugs that are more evenly distributed and

affordable by the community and increase the procurement and utilization of other health facilities and infrastructure.

Hospitals are one of the facilities and infrastructure of facilities provided by the government in the regions. With the improvement of hospital services, public health will also improve and this can be said to be one of the determining factors for the quality of service and the image of hospitals in the community. Hospitals are a form of health service industry that includes health services by doctors, nurses and other health units. One of the most important factors in health services in hospitals is nurses who are professionals in the field of health care who are involved in patient care activities. Nurses are responsible for the care, protection, and recovery of injured people or patients with acute or chronic diseases, maintaining the health of healthy people and handling life-threatening emergencies in various types of health care. Nurses can also be involved in medical research and care and carry out various non-clinical functions needed for health care. Hospitals will be a comfortable place for patients if nurses and doctors are able to provide health services that prioritize the interests of patients (Client Centered).

Dr. Hasan Sadikin General Hospital Bandung is one of the largest government health service facilities in the city of Bandung. Inside the Dr. Hasan Sadikin General Hospital Complex there is an Emergency Unit which is the central life-saving center for patients in critical condition with the most complete medical equipment facilities among other units. This is because this unit receives many patients in critical condition. Located at the front of the hospital which consists of 4 parts, namely: floor I, floor II, SW (Supplement Wing) and floor III which functions as an office in the ER where data is stored regarding patients and the relevant workers, be it doctors, nurses and workers.

Emergency Unit is one of the organic units in the RSUP environment. Dr. Hasan Sadikin Bandung which is an installation of the Emergency Room of a government-owned General Hospital that provides emergency medical services for patients who are at risk of death and need immediate assistance (critically ill patients) and non-emergency patient services who come to the Emergency Room for 24 hours continuously. Also special disaster preparedness services and medical services during disasters.

Located in front of the Hospital, the Emergency Room functions as a place to organize emergency medical services such as surgical services, non-surgical services (medical), Obstetrics Gynecology and Pediatrics. In addition, the Emergency Room also functions to manage general administration units and Human Resources arrangements, nursing management, finance, support management and training. Then the Emergency Room also functions as a place to organize special disaster preparedness services. Overall, the Emergency Service Unit is divided into 3 parts, including:

1. Floor I
   This is the place for direct treatment once the patient enters the emergency room as an effort to restore heart and lung function.
2. Floor II
   This is the place for treatment rooms (observation before the patient's condition is declared to have recovered and may be transferred to the inpatient room) class I, VIP and VVIP.
3. Supplement Wing.
   This is the place for nurses (observation before the patient's condition is declared to have recovered and may be transferred to the inpatient room) class III.

Emergency Unit with a working procedure where the patient is taken by ambulance or by the patient's family from the scene of the accident or from another hospital (regional and private

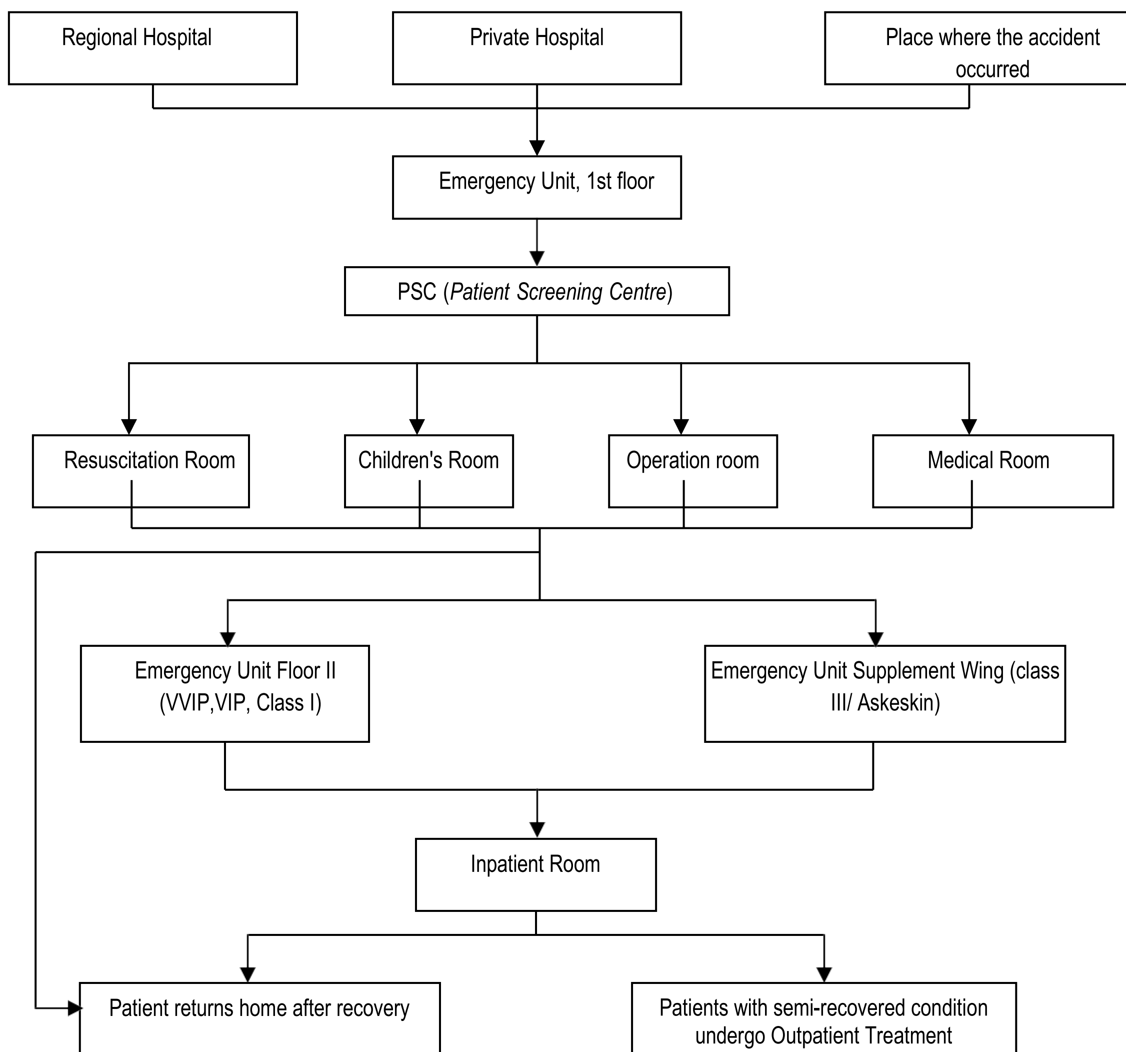
hospitals) to the Emergency Unit room on the first floor. Upon arrival at this unit, the PSC (Patient Screening Center) directs the patient to rooms according to their initial condition to receive assistance, including:

a. Resuscitation Room, which is a room for emergency category patients (airway disorders in the lungs and cardiac arrest) where in this room the procedure to restore heart and lung function to its original state will be carried out.
b. Surgery Room, which is a room for patients who need help by performing surgical procedures.
c. Children's Room, which is a room for handling special children's patients.
d. Medical Room, which is a room for handling patients with other disorders that are not included in the resus, surgical and children categories.

In each room, emergency patients will receive medical treatment according to their condition. After that, patients who have been treated are put into an observation room or what is commonly called the Emergency Unit treatment room according to the financial ability of the person responsible for the patient's medical expenses, namely VVIP, VIP, and class I classes located on the second floor, and class III located in the Supplement Wing. While in the ER treatment room, the patient will continue to be monitored by doctors and nurses for 24 hours, if the patient's condition is stable, the patient will be taken to the hospital's inpatient room to await the recovery process. When the patient's condition recovers, they are allowed to go home. Or patients with diseases that require further treatment can go home on the condition that they will continue to undergo outpatient treatment at the hospital. So if it is described in a chart it will look like the following.

Figure I

Emergency Unit Work Procedure Chart of Dr. Hasan Sadikin General Hospital:



Based on the results of the interview with the head nurse of the ER, it was found that among the three emergency care units, the first floor unit is the most important unit and the most determining for patient safety. However, in this unit there is only one head nurse, one deputy head nurse of the First Floor ER, 4 nurses in charge of each room and 52 implementing nurses and 7 workers.

Based on the interview results, it was said that after the implementation of the askeskin treatment system, patients coming for treatment to the hospital increased drastically starting in 2005. Where with the explosion in the number of patients entering the ER starting in May 2005, the medical team including nurses felt overwhelmed in dealing with it. Most of the patients received were patients with Askeskin, referral patients from the Regional Hospital who could actually still be handled by the hospital itself, or referral patients from Private Hospitals who could not be treated there or who could not afford the cost of treatment. This was not balanced with adequate unit capacity to accommodate all patients and carry out their duties properly. Due to the lack of human resources, nurses and head nurses often carried out tasks that should have been carried out by workers, such as nurses who cleaned and prepared medical equipment, brought food for patients, moved patients from the ER room on the first floor to the ER room on the second and SW floors, carried and filled oxygen tanks and the head nurse who sometimes became an ambulance driver. In addition, they also have to do their main tasks such as recording patient data, conducting anamnesis, taking care of the completeness of incoming

patient administration, taking care of patient referrals, arranging visitors, observing patient conditions, creating and maintaining an atmosphere to create a calm environment for patients and so on. This shows the burden of work or other tasks that are not included in the nursing duties that they do such as being an ambulance driver, cleaning medical equipment, replacing empty oxygen cylinders and so on. This illustrates the existence of excessive work (work overload).

Rooms and equipment are the means of work for nurses. Based on the observation results, this unit is only equipped with a treatment room with a capacity of 5 beds per room, which cannot accommodate patients whose numbers have increased sharply since May 2005 with an estimated number of 2830 to 3118 people in the ER each month, with an estimated number of patients handled by the ER on the 1st floor per day, namely: Surgery Department handles 30-40 patients, Medical 25-35 patients, Resuscitation 0-2 patients and Children's Department 23-30 patients. The average number of patients who come each day when compared to the number of nurses on duty on each shift is; morning shift at 07.00-14.00, afternoon at 14.00-21.00 and evening at 21.00-07.00, with 10-12 nurses who will later be divided into 4 treatment rooms and PSC (Patience Screening Center or Treage) which functions as a place to provide information to patient families who want to visit directly or by telephone. This is not balanced with the number of patients who are the responsibility of the nurses. Based on the results of observations, with the condition of the unit like this, the ER took the initiative to create an additional treatment room in the ER hallway using cloth partitions and mixing the position of the patient beds, for example, emergency surgical patients are put in the children's section because there are empty beds, this is because each section cannot accommodate a large number of patients. So the patient is placed in an additional bed with a distance of 50 cm from other beds. Patient beds are placed mixed and not grouped in their respective rooms according to their treatment. Physically, this kind of room layout makes it difficult for nurses to move around in handling emergency patients, while nurses' work requires high work accuracy to be able to help and provide health services to patients. In this case, with the many patients who need treatment, nurses are required to be responsive in moving from one patient to another. Meanwhile, this is not possible, considering the limited room for nurses to move due to the layout of the room. This illustrates a workspace design that is not conducive and effective, which interferes with the nurses' freedom to move from one patient to another. Patients who are no longer accommodated in the treatment room are placed in the corridor of the ER floor I, ER floor II, and the waiting room. This shows the lack of visual and acoustic privacy in working that is available for doctors and nurses to carry out emergency patient care procedures. Visitors who should be in the waiting room are crowded between patient beds. Sometimes they gather to watch doctors, nurses or co-assistants perform resuscitation, medical and surgical procedures. The room feels cramped and noisy with sounds of pain, medical equipment mixed with the smell of drugs makes nurses disturbed in carrying out their duties. In addition, the hysterical patient's family adds to the noise. This makes nurses have no acoustic privacy and visual privacy in working. With this condition, it will be impossible for nurses to create peace in the work environment for patients and their families. This describes the physical condition of the work environment that interferes with the comfort of nurses in working, and this indicates a workload from physical environmental factors.

Based on the Regulation of the Minister of Health No. 262/Menkes/Per/VII/75, concerning the Standardization of Government Hospital Manpower, the ratio between nurses and patients is 1:3 or 1:4, meaning that the number of patients that must be served by a nurse is ideally 3 to 4 people. However, in reality at Dr. Hasan Sadikin General Hospital, Bandung, especially the Emergency Installation Section, especially the Emergency Unit on Floor I, where direct treatment for patients in emergency conditions and requiring first aid, where the ratio of nurses and patients reaches 1:20. This shows that there is excessive work assigned to nurses beyond

their capabilities, as well as time pressure to carry out work procedures with patients that exceed the service capacity that can be provided by one nurse. Nurses admit that they are sometimes overwhelmed and do not have proper rest time due to the large number of patients they have to treat. As a result, nurses often miss their break time and continue working, during their breaks they only eat snacks which are certainly unhealthy. In addition, they also often complain of fatigue, aches, dizziness, and drowsiness.

The ER is a place for emergency patients and requires fast and responsive treatment from doctors and nurses. So, the work of a nurse requires precision and full concentration. With such conditions, this interferes with their work. The percentage of mortality rates also increases every year. According to them, this is because, in addition to the fact that the patient's condition is beyond help, and again, referral patients from private or regional hospitals are patients who are already in poor condition before being taken to the hospital. In other words, patients whose condition is too late to be treated. This is usually done by private hospitals that refer to minimize the mortality rate in their place, by referring their patients to Hasan Sadikin Hospital. Nurses in this case as health workers who are influential in the success of health development programs are important and determining elements, therefore the development of health workers who are the largest in number and determine the success of health services are nursing staff. In reality, what is happening today shows that on the one hand, nurses are very much needed to play a direct role in saving patients' lives and playing a role in improving public health in hospitals, on the other hand, the number of nurses available is still far from sufficient.

Many complained about the absence of additional bonuses other than THR. Even though they feel that the tasks they have done so far are heavier than other nurses in terms of the number of patients and their movements, they get the same salary. This indicates a lack of feedback on work performance. This indicates a workload that comes from the psychological environment. Based on the data of ER patients, the mortality rate increases every year. In addition, in terms of service, based on the results of interviews with the Hospital Service Quality Ethics Committee, they always measure service satisfaction every year through questionnaires to patients and their families. Where in it there are aspects of nursing services such as: friendliness of nurses when serving, alertness of nurses, willingness of nurses to provide clear directions, and notification of nurses about the next steps of care. Based on the distribution of questionnaires this year that were collected, the results showed that the majority of patients and families of patients expressed dissatisfaction with the services provided by hospital ER nurses. Based on information from the Hospital Service Quality Ethics Committee, in providing health services, nurses must follow the principles in hospital service quality known as 5 S, namely: Smile, Greet, Say Hello, Be Polite, Courteous; and 2 P, namely: Care and Attention.

According to the latest assessment results, it was found that 81% of ER nurses did not provide satisfactory service while the remaining 19% continued to pay attention and carry out the 5S 2P procedure. Based on the questionnaire given to ER service users, 82% of these ER nurses were said by the Service Quality Ethics Committee to be unfriendly, rarely smiled, unfriendly, angry and often shouted when asking the patient's family to wait outside. This is supported by the results of observations that show indifferent and rude behavior in some nurses, for example when a patient's family comes to visit, or asks about administrative procedures.

When viewed from the interests of the hospital, the demands of the job are obligations that must be fulfilled by its members. Meanwhile, when viewed from the interests of nurses, the demands of the tasks imposed on ER nurses are so heavy that they can become a burden and pressure for nurses, thus affecting the quality of service provided. The conditions described previously illustrate the existence of a high and demanding workload. This can be responded to differently by each nurse. In work behavior, there are two groups of behavioral patterns, type A and B. A person with a type A personality who strives to complete as much as possible in the shortest time, is aggressive, ambitious, competitive and pushy. Type A speaks explosively,

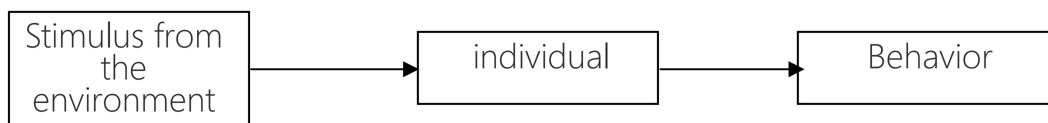
strongly encourages others to complete the things they say, is impatient and does not like to wait, because waiting is a waste of time. On the other hand, individuals with type B personalities are free from type A characteristics, and generally do not feel the pressure of time or people conflicts.

Based on the observation results, nurses with type A behavioral patterns are more often seen actively working than type B. Nurses with type A behavioral patterns mostly provide explanations and instructions quickly to the patient's family. In contrast to type A, type B nurses are more patient and clear in providing instructions and explanations to the patient's family. Nurses with type A behavioral patterns are rarely seen taking a break in the PSC to eat snacks and chat with other nurses as is often done by nurses with type B. When speaking, nurses with type A behavioral patterns speak with a higher tone and intonation compared to nurses with type B. In handling patients, nurses with type A behavioral patterns are more agile in working and appear effective when handling two patients at once.

In modern life tends to increase the emergence of type A behavior patterns, because it presents rewards for more aggressive and fast appearance and thinking. British researcher, Osler revealed that people who have type A behavior display the habit of working to maximum capacity. According to him, people like this are not neurotic people, but people who are strong in thought and energetic, ambitious and like machines that are always at full speed. They also found that there was good organization and more orderly, had good self-control and self-confidence and preferred to work alone in facing challenges, were not easily distracted or confused in doing tasks, went all out (out going), always alert (hyperactive), stubborn (fast faced), competitive (competitive), time conscious (time conscious), seriousness in work, did not slacken in work and work and seriousness of effort and high and great drive to control the environment (Rosenman & Chesney, in Happy Sudaryanto's thesis). On the other hand, type B also has a real drive, wants to finish something and work hard, and has a self-confidence pattern that allows them to work at a steady pace and not race against time. Nurses with type A or B behavioral patterns affect the way they feel the degree of stress where in work stress there is a workload that acts as a stressor in the work environment. Type A and B behavioral patterns affect the way they perceive the size of the workload. How they respond to the tasks they get from their work environment affects their perception of their work, whether it is a burden or not. Based on the problems that have been described, I am interested in researching "Differences in perception of workload with Type A and Type B Personalities in nurses in the Emergency Unit on Floor I at Dr. Hasan Sadikin Hospital, Bandung".

PERCEPTION

Around an individual's environment there are various stimuli, such as situations, people, objects and so on. Individuals will react to the stimuli that come to them. This means that individuals are not passive in receiving the stimulus, where perception, attitude and values influence their sensitivity in responding to the stimulus. These factors influence individual behavior (Milton, 1981:22), this can be explained by the following scheme:



Understanding Perception

According to Gibson (in Rasimin, 1986), perception is the process of giving meaning to the environment. Each individual will give meaning to the stimulus in different ways even though what is perceived is the same. Then Gibson explains that perception includes cognition which

includes the interpretation of objects, signs and people from the perspective of the relevant experience.
In other words they say that perception includes stimuli organized in a way that can influence behavior and shape attitudes.
While Branca (1965) explains perception as someone giving a pattern or color to the behavior or actions by someone then Branca explains again that perception is discrimination and interpretation of stimulus. Crow (1972) explains that perception is the process of organizing and interpreting data based on the results of previous experiences. Perception describes "Mental Identification" or experience of humans, conditions or situations that are within the range of sensory stimuli. Perception not only includes the touch of sensory nerves but also mental associations that directly accompany it. Perception includes the interaction and final interpretation that takes place in the cerebellum.
Eysenck (1975) defines perception as a psychological function (through sensory organs) that allows individuals to receive, process information from the environment and make changes in their environment. While Pareek (1984) defines perception as the process of receiving, selecting, interpreting, testing and reacting to stimuli from the five senses. Morgan et al., (1984) stated that perception is one of the determining factors of behavior.
Hilgard (1983:201) put forward the definition of perception as the process of sensing events in the environment and accompanied by giving meaning to the event. Milton (1981:22) explained "Perception is the process of selection organization and interpretation of stimuli from the environment" which means perception is the process of selection, organization and meaning of stimuli from the environment. From the explanation of the understanding proposed by the experts above, it can be concluded that perception is an organizational process that allows individuals to receive stimuli from the environment, then select and then provide interpretation or provide interpretation of objects.

The Process of Perception

Allport (Mar'at, 1981) said that the perception process is a cognitive process influenced by experience, horizons and individual experiences. Experience and the learning process will provide form and structure for objects captured (perceived) by individuals and finally the individual's conation component will play a role in determining the availability of answers in the form of individual attitudes and behavior towards existing objects. So perception is an active process. Its occurrence does not only depend on the stimulus captured by the five senses, but the stimulus is also processed by the individual concerned by involving his experiences to then be given the right meaning. Tajfel (Sadli, 1977) put forward 3 social variables that are most influential in individual social perception, including:

1. Functional Salience, meaning that functional objects are different for each individual environment, according to the number and variety of functions, so the emphasis is on the functional aspect of the object.
2. Familiarity, meaning that people in a cultural environment have experience with cultural products that may not be known in other cultures.
3. Communication System, related to the richness of vocabulary that influences individual perception.

Factors Influencing Perception

Kreck and Crutchfield (1977) explain the factors that influence perception as follows:

1. Functional factors, these factors come from outside the individual and what determines perception is the criteria of the person who responds to the stimulus that enters him.
2. Structural factors, these factors come from within the individual which are caused by the individual's nervous system.

In this structural factor, Gibson (1990) stated that the structural factors that influence individual perception include:

1. Situational factors, this is related to time pressure, a person's attitude in working with a manager and other situational factors that affect the accuracy of perception.
2. Needs factors, this is greatly influenced by the needs and desires that exist in the individual in meeting needs.
3. Emotional factors, a person's emotional state greatly influences individual perception.

From the explanation above of the factors that influence the perception above, it can be concluded that there are two factors that influence a person's perception. First, factors from within the individual or external factors, such as the physical environment and social environment where the individual is located.

WORKLOAD

To explain the concept of workload, it cannot be separated from two issues, namely, mental workload and physical workload. Singleton (1989) said, there is no knowledge that confirms that mental workload and physical workload are the same, although experts agree that mental workload and physical workload have general characteristics in common such as, heavy work, demanding responsibility whether the work is done manually or using intellectual abilities or using a combination of both. Furthermore, Singleton (1989) explained that mental workload is usually associated with stressors. Some of the definitions of workload put forward by several experts include:

Gibson and Ivancevich (1993:163) explain workload as follows: "Pressure as a response to maladjustment, which is influenced by individual differences or psychological processes, namely a consequence of any external action (environment, situation, event, or physical) on a person".

According to Ghoper and Donchin (1986), workload consists of the difference between the capacity of the information processing system needed to carry out tasks according to expectations (expected performance) and the capacity available at that time (actual performance).

Meanwhile, Knowles (1990) said: "If a worker is able to complete additional tasks and at the same time is able to maintain performance on the main task, it means that the workload is actually still light or at least moderate. On the other hand, if a worker is unable to maintain performance on the main task, it means that the workload of this main task is heavy compared to the workload of the first main task".

Grandjean (1988) explained that physical activity is associated with work (tasks) that emphasize more on physical activity, so according to him physical workload is estimated by using the energy consumption needed to do the work. Then Granjean (1988) explained that mental activity is associated with human brain activity that processes information processes in humans with a work equipment system (man-machine system), Grandjean (1988) also explained that mental workload in the workplace is usually associated with working conditions, including; the work requires a high level of alertness in a fairly high period, a high level of concentration and is monotonous and so on.

The difficulty in separating the differences between mental workload and physical workload has occurred since the problem of workload was further studied by experts. The conclusion of the experts agreed that mental workload and physical workload have common characteristics, namely, heavy or hard work and responsibility whether the work is done manually or intellectually or using a combination of both, Singleton (1989).

Rohmert (1987) stated that workload is all factors that affect people who are working. Another definition states that workload is part of the worker's capacity ability given to do his/her task (O'Donnel & Eggermeier, 1986).

From some of the definitions of workload above, it can be concluded that workload is a psychological or physical demand that affects a person. If a person is able to adjust to the demand, then this does not become a workload, but if the effort to adjust is unsuccessful, then this will become a workload.

Workload is often interpreted as something that is burdensome or pressing in working. The burden has a figurative meaning, namely something that is difficult to do, pressure, responsibility or obligation that must be done by the worker who is the task. The burden is usually identical to pressure or pressing so that the workload is the same as the pressure that arises in someone in doing work.

In general, workload is often associated with stressors and the effects they cause. Stressors themselves can come from physical aspects (such as work environment, temperature, work space) or can also come from psychological and organizational aspects (time pressure, excessive work, role ambiguity). Henry R. Jex formulated that mental workload is an assessment of the margin arising from the attention load (between the operator's work capacity and the demands of his task) when performing a particular task (Hancock & Meshakti, 1988:11):

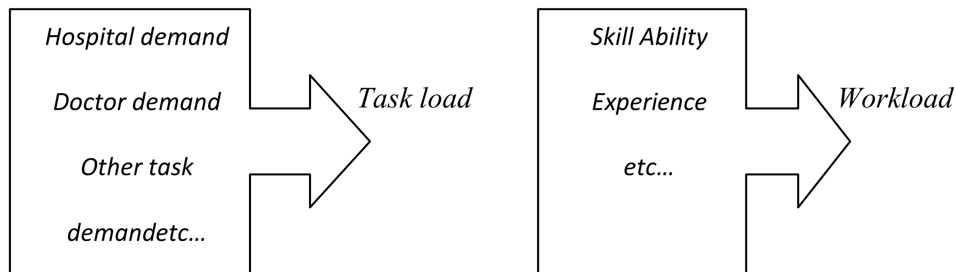
Mental workload is the operator’s evaluation of the attentional load margin (between their motivated capacity and the current task demands) while achieving adequate task performance in a mission relevant context.

Wickens & Hollands (2000) emphasized the concept of mental workload as a "relationship between resources supply and task demand", the relationship between work ability and task demands. This means that mental workload is a description of the gap between the definitive task and its implementation in the field. So mental workload in this study is defined as a discrepancy between the level of performance displayed by nurses to perform a task, compared to the level of performance according to task demands. And because the measurement of mental workload is based on the nurse's subjective appreciation of their workload, it is said that this study measures the perception of workload, both from the physical and psychological environment. Workload will shape the nurse's perception of their work. The higher the workload experienced by the nurse, the harder their work will be considered.

This perception of workload then influences the nurse's work behavior which includes; selection of thinking strategies, mental abilities, and sensory motors, and commitment to carrying out tasks. This means that the more reluctant nurses are to work due to the pressure of heavy workloads, the worse their performance is, because workloads can cause disturbances in nurse performance (Kalimo & Mejman, 1987).

However, performance is not only influenced by low work ability. Good ability if not accompanied by high work motivation will also affect the level of performance (Berry, 1998). Hilburn and Jorna (1998) proposed another theory explaining the factors that induce workload. Workload is stated as a result of the existence of task load. Task load is the job demands that come from the task, while workload is the nurse's subjective experience of the demands of his/her job (Hilburn & Jorna, 1998).

Figure II



The workload is caused by all factors that are external to the nurse such as task demands, technology, company organizational systems and so on. This workload will interact with all subjective factors of the nurse such as skills, abilities, experience and so on. The result of this interaction is called workload.

Workload is something beyond the worker's ability to do his job. In addition, workload is a work condition felt by workers related to physical and psychological factors.

Nurses as individuals experience the workload differently, this is related to the understanding, appreciation, experience and ability of each individual that is different about the workload. This is also related to the way nurses assess the content or work demands given by the hospital to the work itself, so that it will cause a sense of pleasure or displeasure for nurses in working.

The Process of Workload Occurrence

Workload arises because of limitations in human ability to process the information they receive. In psychology, this is known as the "bottleneck theory" phenomenon. Limitations in human attention ability indicate a bottleneck in the ability to process information.

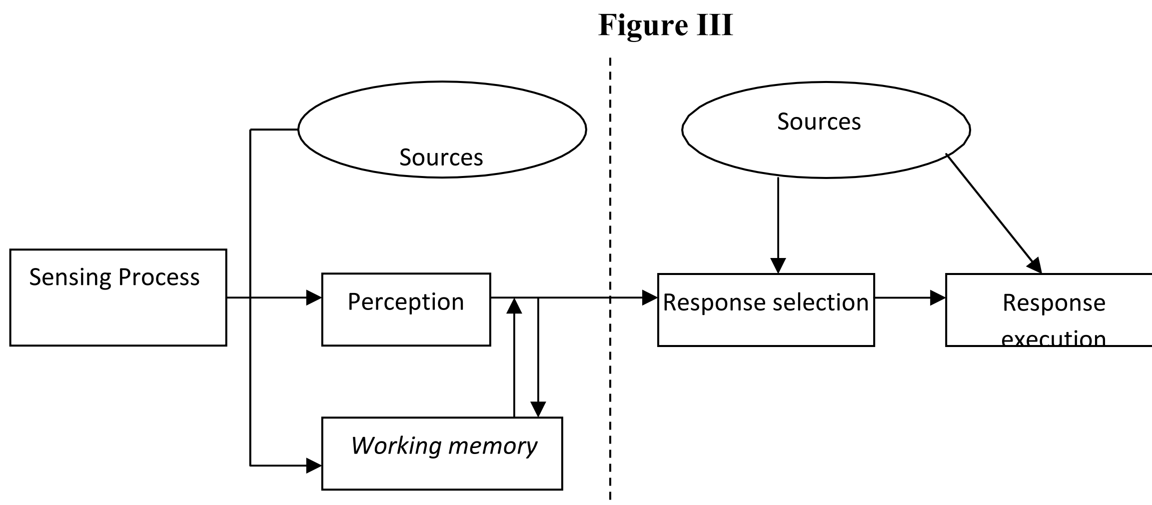
Wickens and Hollands (2000) describe three main problems related to the limitations of human attention, including:

1. Selective Attention. Sometimes humans tend to choose less important things from our environment to process. As a result, important stimuli are ignored. This cognitive trap is often called cognitive tunneling.
2. Focused Attention. At certain times we fail to concentrate on one source of information in the environment unless we are strongly motivated to do so. Humans tend to be easily distracted. For example, when the guide's attention is focused on one conflict item on the radar, even though at the same time there is also a conflict in another item. The difference between failed selection and focused attention is that in the first case, the intention to do it is there, it's just that the choice of action is not appropriate. In the second case, the failure is caused by a stronger stimulus from elsewhere (Yantis, 1993).
3. Divided Attention. When the problem occurs in the focused attention, some of our attention is inadvertently directed to stimuli that we do not expect to process, whereas when the problem occurs in divided attention, we are unable to divide our attention between the various stimuli, because we want to do everything. This means that the limit of human attention-sharing ability can be described as the ability to display time-share (towards tasks) and sometimes can also describe a person's integration ability to process information from many sources at once.

The psychological concept that explains the workload phenomenon is the concept of divided attention. According to this concept, problems arise when there are various perceptual channels that must be given attention, so that human attention becomes divided. Now if the perspective is changed, namely what happens is a variety of tasks that must be done (not just the stimulus) while the number of information processing channels remains the same, then a phenomenon

called bottleneck occurs. Wickens & Hollands (2000) explain the bottleneck theory phenomenon as follows:
To achieve success in work that requires optimal division of attention and time (time-shared), humans must develop the ability to allocate their abilities or resources in each of these tasks. This is indeed not easy, especially because the structure of human cognition is very limited. This time-sharing ability is analogous to the human ability to display two performance tasks that require high reaction time (two reaction-time tasks) at the same time. Perfect results are almost impossible to achieve. Pashler (1989) describes his bottleneck theory as a stage of the stimulus processing process one by one. The process to confirm previous data is located at the response selection stage. Namely that two free (independent) responses, originating from two previously unexpected stimuli, cannot be selected at the same time, one of them must be postponed.
Meanwhile, other studies have also found that the resources available to select responses must be allocated in one or all or none at all, to a particular task only. This means that selecting responses at the same time for two or more tasks is impossible, according to this theory. Reading and listening at once (two perceptual activities), cannot be divided into two parts (attention) that are perfectly even.
So a more appropriate model of this information processing structure is described as follows:

Figure III



It appears that the resources available to carry out the perception process are very limited and often have to be divided among several perceptual pathways, just as the resources available to carry out the response selection process.
The concept of workload that has been widely used by system designers is the level of task difficulty or complexity. However, such descriptions actually still have many questions. Workload is indeed difficult to define, especially because of its multidimensional nature. But there is one determining factor that always appears in every description of workload, namely "human cost", the effort expended by humans to achieve a certain performance selection under a specific work condition. Performance will be low if work demands exceed capabilities.

Workload as a Situational Factor
The workload felt by a worker can be a stress factor that produces certain conditions, thus requiring humans to provide more energy or attention. This stress factor is the burden caused by their work that is felt by the worker.
Cohen (1980) conducted a study on a number of people who were faced with unpleasant conditions in their work. These conditions were in the form of loud noises, electric shocks, obstacles in work, bureaucracy and assigned tasks. The results showed that the people in the

study became less effective in carrying out tasks that required precision and concentration, tolerance for frustration and the ability to observe perceptual disturbances. They showed decreased sensitivity to others and increased aggressive behavior.

The stress factors above are grouped into situational factors and worker self-factors. Situational factors consist of the physical environment and the psychological environment.

Ivancevich and Matteson (Munandar; 1990) argue that excessive noise that is repeatedly heard, for a long period of time, can cause stress. The psychosocial impact of excessive noise is reducing the tolerance of workers to other stressors, and reducing work motivation. Exposure to noise is associated with fatigue, headaches, irritability and inability to concentrate.

In general, excessive work is stressful and can cause tension, this is often a burden or pressure for some people, but it can also not be a pressure for others. This depends on the individual's appreciation of the workload they face. How someone appreciates and assesses an object in this case the workload, cannot be separated from the characteristics of each individual.

A task is considered heavy (overload) if the main energy has been used up and reserve energy must still be used to complete the task. Conversely, a task is considered light (underload) if the main energy is still abundant after the task is completed. (Ghoper and Donchin, 1986).

In the world of work that can be observed, is that workers can often complete work even though the tasks assigned are considered quite heavy (overload). Responding to this problem, Singleton (1989) explains that the workload of this job is a culture, meaning that the workload is a payment to workers that describes the nature of ambivalence. Thus, the workload of a type of job will be considered heavy (overload) or light (underload) greatly influenced by individual perception.

From a conventional perspective, perception is generally said to be a collection of senses that are united and coordinated in a higher nerve center (brain) so that humans can better recognize and assess objects (Wirawan, 1992). The results of individual interactions with objects, other individuals, or situations produce individual perceptions of the object. If something is perceived within optimal and normal limits, then the individual is said to be in a state of balance (homeostasis). Conversely, if it is perceived as outside the optimal limits (too heavy, too big, too hard, too cold, too hot, too strange and so on), then the individual will experience stress. If this condition is prolonged, the individual will experience distress or burn out (prolonged stress). If we apply this condition to emergency room nurses, the following can be stated; for an emergency room nurse, if the workload is perceived as something that is within normal and optimal limits, then the nurse will likely always try to be in a state of balance (homeostasis) in carrying out her duties. However, on the other hand, if the workload is perceived as something that is outside the normal and optimal limits, then it is possible that stress will occur and if this condition continues, it is possible that it will influence the nurse's negative behavior in the form of unpleasant behavior, such as acting unfriendly towards patients and their families.

To explain the concept of workload, it cannot be separated from two issues related to workload, namely, mental workload and physical workload. Singleton (in Wisnu Zaroh's thesis) said that there is no knowledge that confirms that mental workload and physical workload are the same, although experts agree that mental workload and physical workload have general characteristics in common, such as heavy work, demanding responsibility whether the work is done normally or using intellectual abilities or using a combination of both. Furthermore, Singleton (in Wisnu Zaroh's thesis) explained that mental workload is usually associated with "stressors" and its effects can be detected with a tension meter, while physical workload is associated with manual tasks that must be done. Then Singleton (in Wisnu Zaroh's thesis) explained that there is an agreement that it is almost impossible to separate mental workload from physical workload, as is the difficulty of separating the "cognitive" and emotional aspects of workload.

Workload and Job Stress

Stress is a topic that remains interesting and current to discuss, especially in relation to the world of work, it is usually associated with work productivity. Kreiner and Kinicki (1992) explain that work productivity is influenced by a number of factors, one of the important factors is stress.

Workload, both excessive workload and too little workload are stress generators. Workload can be further divided into 'quantitative' excessive or too little workload, which arises from too many or too few tasks being given to the workforce to complete in a certain time and qualitative excessive or too little workload, which is when people feel unable to do a task, or the task does not use the skills and/or potential of the excess or too little workforce. In addition, quantitative and qualitative excessive workload can create the need to work for a very large number of hours, which is an additional source of stress (Munandar).

According to lay observations and empirical evidence, stress causes various disorders, both physical and psychological. Research that supports this statement is as research conducted by Robin (1996) which concluded that the level of absenteeism and requests to stop working increased sharply between 1983 and 1993 in the United States and Japan due to their very stressful jobs. Likewise, research conducted by Nelson and Quick (in Suwondo, 1993) reported that the relationship between stress, especially stress at work with various diseases such as heart disease, cancer, brain attacks, also related to accidents and suicide. Research in Indonesia conducted by Ilsiana Jatipurba (in Soewondo, 1993) on employees in the Jabotabek area of 100 men with heart disease found that work stress was in second place as the main cause of their illness.

The empirical evidence described above shows that stress causes various disorders, both physical and psychological, which ultimately lead to a decrease in work productivity.

Stress is not always bad. Although stress is usually discussed in a negative context, stress also has positive values. At a certain level, stress can be a path to success, optimal work requires a certain level of stress. Situations that can affect optimal work are positive situations. While negative stress is stress that is low or high.

Ricelson (1981) argues that stress is a condition where a person experiences fatigue or frustration because they feel that what is expected is not achieved. Then Morch and Chesnut (1984) argue that work stress is psychological pressure felt by someone who is working.

From the description above, it can be concluded that stress occurs because individuals are faced with situations that put pressure on them. And it seems that in such stressful situations, stress arises because individuals are faced with an opportunity and constraint. As explained by Robin (1996), stress as a dynamic condition in an individual is faced with an opportunity, constraint, or demand that is associated with what they really want and the results are perceived as uncertain and important. Furthermore, Robin (1996) explains that constraints are forces that prevent individuals from doing what they really want. While demands are the loss of something that is really desired. According to Robin (1996), potential sources of stress include; environmental factors, organizational factors and individual factors, which include the environment such as economic uncertainty, political uncertainty, psychological uncertainty. Then organizational factors such as task demands, role demands, interpersonal demands, organizational structure, organizational leadership, organizational standard of living. While individual factors include; family problems, economic problems, and interest problems.

From the explanation above, it appears that work stress occurs due to factors that affect people at work, such as the work environment, organizational environment, and individual factors. This explanation is closely related to aspects of the understanding of workload. Such as the understanding of workload put forward by Rohmert (1987), that workload is all factors that affect people at work. If so, then work stress can be predicted from the level of workload, as explained by the following experts. Jackson, Schuler and Shwab (1986) explain that burnout

(prolonged stress) is a symptom of emotional exhaustion caused by high work demands, which is often experienced by someone who works in a situation serving the needs of many people and is followed by a tendency to treat others as objects. Likewise, Bridger (1996) explains that stress can occur when a worker is in a situation that exceeds his capacity, then affects his behavior.

Perception of Workload

Based on the understanding of perception defined by Gibson (in Rasimin, 1993), and Morgan et al. (1984), it is concluded that perception is the process of organizing and interpreting through sensory organs in the environment, then receiving and processing information which then creates impressions, patterns and colors in behavior or actions.

Meanwhile, the definition of workload based on the definition put forward by Rohmert (1987), O'Donnel and Eggermaier (1986), Ghoper and Donchin (1986) states that workload is all factors that determine people are working based on the capacity of the worker's abilities to be given to a task with the demands of the skills expected from the task.

From the explanation above, it can be concluded that workload perception is the process of interpreting a job based on consideration of the capacity possessed with the expected ability demands of the task. This process will produce positive or negative attitudes, impressions and behavior or actions. The impression, color pattern, attitude, behavior or actions between one individual and another will be different even though the perceived object is the same.

BEHAVIOR PATTERNS TYPE A AND B

Discussion of behavioral patterns is interesting, because behavioral patterns are seen as having an influence on appearance and are related to certain work groups (Robbin, 1996). This is because personality influences the way individuals think, act and feel. Therefore, individuals who have certain personalities, when faced with a job, will tend to be consistent with what they do (Allport, 1992).

One of the important findings about the impact of stress on new individuals occurred in the early 1960s. By Friedman and Rosenman (in Atkinson, 1991). From the study, two behavioral patterns were obtained which were said to be behavioral patterns of type A and B. Behavioral pattern type A is a behavioral syndrome or lifestyle that appears, not a personality trait, but a reaction from people who are characterologically predisposed to a situation that is perceived as threatening or challenging. People who have a behavioral pattern of type A are characterized by competitiveness, a strong drive towards achievement, aggressive, unable to stay still, and a sense of being chased by time. Individuals with type A tend to ignore other aspects of their family life, social environment or reactive activities. People who do not develop this behavioral syndrome are called behavioral patterns of type B, with characteristics that are more relaxed, easygoing, quickly satisfied, patient, prefer not to have much work, not in a hurry. Individuals with behavioral patterns of type B may be as ambitious as individuals with type A, but they are more relaxed and accept the situation as it is. Type B individuals tend to want to work comfortably without trying to combat the situations they face competitively (the opposite of type A).

In modern life tends to increase the emergence of type A behavior patterns, because it presents rewards for more aggressive and fast appearance and thinking. British researcher, Osler (in Happy S. Sudaryanto's thesis) revealed that people who have type A behavior display the habit of working to maximum capacity. According to him, people like this are not neurotic, but people who are strong in thought, energetic, ambitious and like a machine that is always at full speed. They also found that there was good and more orderly organization, had good self-control and self-confidence and preferred to work alone in facing challenges, were not easily distracted or confused in doing tasks, went all out (out going), always alert (hyperactive),

stubborn (fast faced), competitive (competitive), time conscious (time conscious), seriousness in work, did not slacken in work and seriousness of effort and high and great drive to control the environment (Rosenman & Chesney, in Happy Sudaryanto's thesis).
Basically, humans cannot be divided into behavioral patterns. The mention of type A and B is actually only to make it easier to characterize each of these behavioral patterns. The classification of types A and B is based on a person's tendency, whether a person tends to behave like a type of behavioral pattern A or B. In individuals who fall into the type A category, they usually have an aggressive personality, are very competitive, impatient and hasty. On the other hand, type B is more relaxed, likes to relax, is not in a hurry, is a little easily provoked to anger, speaks and acts calmly, and is more open to expanding life experiences (Smet, 1994).
It is also stated that individuals who belong to the type A behavioral group are more involved in work, so that aspects of their lives are often neglected (Cooper, Cooper and Eaker, 1988). Type A individuals, although often aware that they are burdened with too much work (environmental over-burdering), do not have much sympathy for themselves and are tolerant of other people's weaknesses than their own. Fontana (1989) said that the consequences of type A personality tend to have a greater heart attack.
Characteristics of type A are constantly trying to fit as much work as possible in the shortest time, aggressive, ambitious, competitive, powerful, explosive talk, impatient, hate planned activities, fight hard against others (Atkinson, 1991); Gibson, Ivancevich, Donelly (1986). While the behavioral pattern of type B, speaks softly and relaxed, patient, does everything one by one, can be calm after work, can appreciate something that deserves to be appreciated, always does something without forcing yourself, finds it difficult to be frank for fear of hurting others (Hanson, 1986). An overview of the behavior displayed by type A individuals is:

a. They enjoy working hard, really dislike being idle, enjoy thinking and doing many tasks at once, and feel unhappy doing repetitive tasks.
b. They tend to work excessively and feel restless or guilty if they allow themselves to relax.
c. They always set targets and time limits so that they constantly feel chased by time.
d. Mental and physical functions work quickly, so that in doing anything they tend to be in a hurry, for example in eating behavior, walking, talking, etc.
e. They easily feel impatient with the speed and progress of the situation.
f. They have high standards of achievement and will try to get awards.
g. They are ready to compete and are aggressive which is often accompanied by hostility. However, their strong ambition often lacks clear details and goals. Because of this ambition, they often reject other aspects of life such as family, social activities and entertainment activities.
h. They often do not realize that their depressed feelings are actually the result of their own behavior and not because of the environment.

Four characteristics of behavioral types are described by Beech, Burns and Sherfield (1982) as follows:

a. Multiple behavior patterns
   That is, there is a tendency to work on two or more tasks simultaneously. As a consequence of this behavior pattern is the failure to complete the task satisfactorily.
b. Time urgency
   Type A has a habit of planning too much work in a limited time. The habit of racing against time is often inappropriate because it is not accompanied by clear and important reasons.
c. Aggression
   Hospitality and inappropriate competitive attitudes. Aggression often occurs against frustration or small stimuli. Excessive competitive activities that are often involved even in discussion activities and in sports matches.

d. Lack of clarity of purpose
   They tend to busy themselves with work without determining clear goals and methods. The consequence is unfinished work or incorrect completion.

And the four characteristics can be briefly concluded that: "Type A behavioral patterns are based on traits, high work involvement, tenacity, prioritizing achievement, always feeling pressed for time and enjoying working hard." (French, Chaplan, & Harrison; 1982). In contrast, type B individuals are described as follows:
a. They are more relaxed and don't want to bother.
b. They can accept the work situation as it is, do not oppose the situation and try to compete.
c. They will not feel pressured by time constraints (Davis & Newstrom, 1985; 476).
d. They are more passive & not too ambitious, are able to restrain themselves and do not easily develop stress-related disorders (Beech, Burns, & Sheffield, 1982; 12).

Many authors have written that the A behavior pattern is synonymous with the emergence of stress. In contrast, the more relaxed and aversive type B will rarely feel disturbed or stressed.
Two aspects of the statement above seem to be inaccurate. The first is that type B individuals are more carefree and in a hurry. They may also be very eager for success and achievement. The difference is that type B individuals seek satisfaction of these needs by trying not to cause psychological and physiological disturbances as type A individuals do.
The second aspect that is not right is the equation of stress with type A and less stress with type B. This statement is an oversimplification and is not true. However, it cannot be denied that there is a close relationship between type A behavior and negative stress consequences.
From a number of studies it has been known that type A behavior is related to heart disease. Although the clarity of the role is not yet known, the relationship has been proven in the medical field and behavioral science.
There are at least two explanations regarding the effects of type A behavior and this is the most frequently used. The behavioral characteristics of type A individuals create stress for themselves by continually confronting themselves with stressors, which type Bs always avoid.
As stated above, there is a conclusion that stress can arise in both type A and type B behaviors, although there are differences in how to deal with existing stressors and also the types and manifestations of stress that will arise.
In fact, this division of behavioral patterns does not indicate static personality traits, but rather describes a behavioral style accompanied by several habitual reactions of a person in dealing with situations around him. Thus, the predisposition of type A behavioral patterns may be potential habits as a source of stress. Indirectly Sales (in Nia Kurniasih M.'s thesis) stated that the characteristics of type A behavioral patterns are not simple habit factors.
Some experts associate stress with strong associations of type A behavior patterns. If type A individuals are in a threatening situation, they tend to over-express it. Other experts do not fully agree with the assumption that type B individuals are truly ‘easy going’ people.
Research conducted by WGCS (Western Collaborate Group Study) shows that there is a strong relationship between an individual's environment and the behavioral patterns they form.
Behavior patterns type A and type B seem to have real implications when associated with perceptions of workload on nurses in the emergency unit. The conclusion that is suspected is that behavior patterns type B are less resistant to the stress of the workload of ER nurses, so they will perceive the workload of ER nurses as something that is outside normal limits and outside optimal limits. Conversely, personality type A is more resistant to the pressures of the workload of ER nurses because they are used to working quickly. Both behavior patterns in responding to the workload of ER nurses will give rise to differences in attitudes and behavior

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at work. Adjustment and psychological adjustment to the workload of ER nurses with behavior patterns type A are probably better than behavior patterns type B.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the results of data processing and discussion, it can be concluded that there is a difference in perception of workload between nurses with behavioral patterns type A and type B, nurses in the Emergency Unit Floor I of Dr. Hasan Sadikin Government General Hospital, Bandung. Where in this case, nurses with behavioral patterns type A have a higher perception of workload compared to nurses with behavioral patterns type B. Although there is no such striking difference. There is a difference in perception of high workload between Behavior Patterns Type A and Type B with a difference of 8.41%. There is a difference in perception of low workload between Behavior Patterns Type A and Type B as much as 8.41%.

Suggestion

Based on the results obtained from the research that has been conducted, the following are some suggestions that can be considered, including:

1. One way to overcome the perception of high workload is to increase nurses' work facilities, both in terms of medical equipment, beds and expansion of treatment rooms.
2. In addition, with the hospital adding medical workers such as increasing the number of nurses and workers, so that nurses avoid doing work that is not their job. And avoid doing work that exceeds their abilities and can work better.

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