The Influence of Knowledge, Attitudes and Work Motivation on Nurse Performance through Caring in Prevention of Nosocomial Infection in the Inpatient Room of the Makassar City Hospital

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Abstract:- This research was conducted to analyze the influence of Knowledge, Attitudes and Work Motivation on Nurse Caring and the performance of nurses in the Prevention of Nosocomial Infections in the Inpatient Room of Makassar City Hospital, to analyze the effect of caring nurses on nurse performance, to analyze the influence of Knowledge, Attitudes and Work Motivation through Caring the performance of nurses in the Prevention of Nosocomial Infections in the Inpatient Room of the Makassar City Hospital. This study used a quantitative approach using primary data through a questionnaire of 200 respondents. The study was conducted in July 2019. Data were analyzed using the SEM AMOS program. The results of this study indicate that: Nurses’ knowledge has a negative and significant effect on nurse caring. Nurses' attitudes have a positive and significant effect on nurse caring. Nurses' work motivation has a positive and insignificant effect on nurse caring. Nurses' knowledge has a positive and significant effect on nurse performance. Nurses' attitudes have a negative and insignificant effect on the performance of nurses, the work motivation of nurses has a negative and significant effect on the performance of nurses, caring of nurses has a positive and significant effect on the performance of nurses, knowledge of nurses has a negative and significant effect on performance through caring, Nurses' attitudes have a significant effect on the performance of nurses through caring. The work motivation of nurses has no significant effect on the performance of nurses through caring.

Keywords:– Knowledge, Attitudes, Work Motivation, Caring, Nurse Performance.

I. INTRODUCTION

The hospital is a health service facility that is currently growing, along with the development of science and technology; on the other hand, the hospital is faced with increasingly large challenges. Hospitals are demanded to be able to provide quality, accountable and transparent health services to the public, especially for patient safety assurance. The main indicator of the quality of health services in the hospital, among others, is patient safety and one of the important points in it is the high incidence of nosocomial infections which will affect the image of hospital services.

According to John M (2011), three factors influence the performance of nurses, namely individual factors (ability, knowledge, skills, background and demographics), psychological factors (perceptions, attitudes, personal, learning and motivation), organizational factors (resources, leadership, and job design). A description of the results of these studies can be concluded that the factors that influence nurse performance are influenced by individual characteristics, level of knowledge and skills, education level, workload, motivation, job design, attitudes, perceptions and supervision. That is by the opinion of Gibson, Ivancevich (2017) that three factors affect performance, namely individual factors, organizational factors, and psychological factors. Psychological, organizational and individual factors also affect employee engagement which can improve performance (Hilmi, 2015).

Prevention and control of nosocomial infections is a worldwide challenge because nosocomial infections can increase morbidity and mortality and increase health costs due to increased treatment time and hospitalization. (MOH, 2011). A survey conducted by the World Health Organization (WHO) of 55 hospitals in 14 countries showed that 8.7% of these hospitals had patients with nosocomial infections. Also, the survey said that 1.4 million people worldwide suffer from infections due to hospitalization (WHO, 2015). In Indonesia, the incidence of inpatient nosocomial infections in surgical wards is in the range of 5.8% -6% and the rate of nosocomial infections in surgical wounds is 2.3% -18.3% (Hermawan, 2017).

The results of the nosocomial infection survey at the Makassar City Hospital, namely the Haji Hospital of South Sulawesi Province in March 2018, found the incidence of phlebitis was 3.05%, the incidence of decubitus was 5.02%, and the incidence of surgical wound infection was 5.37% so that The total nosocomial infections that occurred in Makassar City Hospital, namely the Haji Hospital of South Sulawesi Province in 2018 were 8.44%. The incidence of nosocomial infections at the Makassar Regional General Hospital Labuang Baji in 2013-2015 was 1.59%, 2.08% and 2.38%, respectively. Among them, there is phlebitis, decubitus, ILO / IDO (Surgical Wound Infection / Operation
Area Infection), and urinary tract infection. Phlebitis and decubitus often occur in intensive care rooms (Bag. Nursing at Labuang Baji Makassar Hospital, 2015). The incidence of nosocomial infections at Stella Maris Hospital is also high, namely in the third quarter of 2013 in the Bernadeth room 11.4%, Bernadeth II 5.8%, Bernadeth III 22.8%, Santa Maria II 5.47%, Santa Maria III 10.73%, Theresia 11.76%, Elisabeth 3.16%, and Santa Joseph 5.12%.

Wulandari, Ahsan and Kristianto (2018) conducted a study entitled Factors Analysis Related to the Nurse Role as a Care-Giver in the Implementation of Patient Safety Using Compliance Model Approach in the Emergency Department (ED). The analysis variables consisted of Knowledge (X1), Attitude (X2), and Motivation (X3) on Nurses Role as Caregiver in Patient Safety in the ER. The analytical tool used is multiple linear regression. The results showed that all independent variables had a positive and significant effect on Nurses Role as Caregiver in Patient Safety. The variable with the greatest influence is Attitude (X2).

Kourorian Z, Azarkeivan A, Hajibegi B, Oshidari and Shirkavnd A (2019) have conducted research entitled The Effect of Knowledge, Attitude and Practice on the Function of Thalassemic Patients. The analysis variables consisted of Knowledge (X1), Attitude (X2), and Practice (X3) on the Function of Thalassemic Patient. The analytical tool used is chi-square. The results showed that all independent variables were positively and significantly associated with the Function of Thalassemic Patient. Increasing knowledge, attitudes and practice awareness among thalassemic patients considering the disease and their treatment methods have a positive influence on their quality of life. That will improve their performance to cope with lifelong illnesses and challenges during treatment.

In assessing the performance of nurses, one of them is the head of the room to evaluate or supervise the activities of nurses in providing nursing care by standard operating procedures and standards of nursing care, especially in the prevention of nosocomial infections. Nosocomial infections are serious infections and have a detrimental impact on patients because they have to stay in the hospital for longer. As a result, the costs incurred are greater, and the severity of nosocomial infections can also result in death. The effects of nosocomial infections vary widely, ranging from prolonged discomfort to death.

II. THEORETICAL REVIEW

A. Knowledge

Knowledge is the result of knowing, and this occurs after people sense a certain object. I am sensing a certain object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Knowledge is a very important domain in shaping one’s actions. Most of the human knowledge is obtained through the eyes and ears. Knowledge can also be obtained from formal and informal education (Notoatmodjo, 2013).

Behavour-based on knowledge will be more lasting than behaviour that is not based on knowledge. However, increased knowledge does not necessarily reflect a change in behaviour. Some of the factors that influence a person’s behaviour are knowledge and attitudes, but the formation of behaviour itself is not solely based on this but is still influenced by many very complex factors (Notoatmodjo, 2013).

B. Attitude

According to the Oxford Advanced, Learner Dictionary states that attitude comes from the Italian language attitude, namely “Manner of placing or holding the body, and way of feeling, thinking or behaving”. Cambel (1950) in Notoadmodjo's book (2010: 29) states that attitude is “a syndrome of response consistency about social objects”. That is means that attitudes are a set of consistent responses to social objects. In the book, Notoadmodjo (2010: 124) states that attitude is a reaction or response that is still closed from someone to a stimulus or object.

According to Eagle (1993) in the book Mangunegara (2010: 20) suggests that attitudes can be positioned as a result of evaluating attitude objects that are expressed in cognitive, affective (emotional and behavioural) processes. From the above definitions it is shown that attitudes generally consist of cognitive components (ideas that are generally related to speech and learning), behaviour (tends to influence inappropriate responses and emotions (leading to consistent responses).

C. Work Motivation

According to Ngailim Purwanto in Kuntoro (2010: 71), motivation is anything that encourages someone to do something. Motivation is to provide stimulation or encouragement to a person or group to be willing to work properly and with enthusiasm. Kuntoro A (2010: 71-74) defines motivation as a feeling or thought that encourages someone to do work or exercise power, especially in behaviour. According to Ishak A (2003), motivation is essential, which encourages someone to work. According to Sunario in the psychology book for nursing (2012: 17), motivation is the desire and need of an individual, to motivate the individual to meet their needs and direct their behaviour towards everything they aim at.

According to Stoner and Freeman in Kuntoro A (2010: 71), motivation is all verbal, physical, or psychological things that make someone do something in response. According to Sboetel and Kaluzny (2010: 49) motivation refers to the process of movement, including encouraging situations that arise from an individual, the behaviour caused by these situations and the ultimate goal of movement or action. Mangunegara (2010: 94) Work motivation is an influential condition to generate, direct and maintain behaviour related to the work environment.

The motivation that comes from within a person or motive has two elements, Moenir (2002: 130). The first element is the form of the impulse to act, and the second element is the target or objective to be directed by the
action. Two elements in this motive make a person want to carry out activities and at the same time, achieve what he wants through these activities. And the two elements cannot be separated, because if one of the elements is not present, then no activity will arise. The feeling of satisfaction from someone which is an internal motivation can come from a challenging job, the existence of responsibilities that must be carried out, personal achievements, recognition from superiors, and hope for one’s career advancement.

D. Nurse Performance

According to Nursalam (2011: 285) Performance is the result achieved by a person according to the size applicable to the job concerned and the nurse’s performance, namely the work behaviour displayed by someone based on the motivation and behaviour of a nurse. According to Mangkunegara (2010: 67) performance comes from the word job performance or actual performance (work performance or actual achievement achieved by a person) and performance (work performance) is the quality and quantity of work achieved by an employee in carrying out his duties according to his responsibilities. The answer was given to him. Job appraisal is the tool most trusted by nurse managers in controlling human productivity resources. The performance appraisal process can be used effectively in directing employee behaviour to produce higher quality and volume nursing services (Swanbrung: 1987, quoted by Nursalam, 2011: 307).

Meanwhile, according to Sikula quoted by Mangkunegara (2010), performance appraisal is a systematic evaluation of the work of employees and the potential that can be developed ". Likewise, according to Divine Blessings (2010). Performance appraisal is a process that evaluates the performance of nurses using a predetermined format, which can be used by developing valid and reliable assignments and producing several important and positive things.

According to Nursalam (2012: 310), various kinds of measuring instruments have been in research on the implementation of nursing employee work. The effective, evaluation tools should be designed to reduce bias, increase objectivity and ensure validity and robustness. Each supervisor exhibits some degree of bias in the evaluation of subordinates' work. Some supervisors usually underestimate the performance of foreign nurses. Some overestimate the knowledge and skills of attractive nurses, including neatness and politeness.

Objectivity, namely the ability to emotionally divert yourself from a situation to consider facts without distortion by personal feelings. Validity is defined as the level of the tool to measure the subject matter as well as what is measured, the measuring instrument used in assessing the implementation and work and the tasks that are in the job description of the nurse need to be detailed one by one and carried out accurately.

E. Caring

Caring, in general, can be defined as the ability to be dedicated to others, monitoring vigilantly, showing concern, feeling empathy for others and feelings of love or affection which is the will of nursing (Potter & Perry, 2005). Mayeroff (1872, in Morrison & Burnard, 2008) explains that caring is a process that provides opportunities for someone, both caregiver and recipient of care for personal growth. The main aspects of caring, according to Mayeroff, include knowledge, experience, patience, honesty, trust, humility, hope and courage. Benner (1984, in Potter & Perry, 2009) also describes the essence of good practice is caring.

Caring is central to nursing practice. Caring is a universal phenomenon that affects the way people think, feel, and have relationships with others. Caring facilitates the nurse’s ability to get to know clients, makes nurses aware of client problems and find and implement solutions (Potter & Perry, 2009). Caring is a direct activity to provide assistance, support, or behaviour to or for individuals or groups through the anticipation of the need to improve human or life conditions (George, 1990 in Anjaswarni, 2005).

Marriner-Tomey, 1994 in Anjaswarni, 2005 explains that caring is the essence of nursing which also means the accountability of the relationship between nurse-client, where the nurse helps client participation, helps clients gain knowledge, and improves health. Meanwhile, Chitty, 1997 in Anjaswarni, 2005 describes that professional caring is someone who cares, takes care of, and provides or provides assistance to others. He explained that the emphasis of nursing is on humanitarian nursing care, which is based on a view of the professional relationship of humans to humans rather than nurses to patients, and the patient experience is an important aspect of humanitarian nursing.

From some of the above definitions, it can be concluded that caring nurse behaviour is the basic nature of nurses as humans to help, pay attention, care for, and provide assistance, as well as provide support for client independence through therapeutic nurse-client relationships, and are nursing interventions to achieve a degree of welfare. Higher with a sense of humanity and moral aspects.

III. RESEARCH METHODS

This research was conducted using several approaches to answer various problems that have been formulated previously according to the objectives to be achieved through hypothesis testing. This research is explanatory research, which is a study that seeks to find new relationships, and an explanatory one, namely research conducted by trying to explain the various symptoms it causes from a research object. Judge from the aspect of research objectives, the research is a causality study that seeks to explain the relationship between endogenous (dependent) variables and exogenous (independent) variables consisting of Knowledge (X1), Attitudes (X2), and Work Motivation (X3), Caring (Y1), ), and the performance of nurses (Y2) in the prevention of nosocomial infections in
the inpatient room of Makassar City Hospital. In terms of the data aspect, this research is ex post facto, which means research that has passed or has occurred. In other words, research is a systemic empirical search, in which the researcher cannot control the independent variables due to past events so that the nature of the data cannot be manipulated.

This research was conducted for 3 (three) months starting in July 2019. The study was conducted at the RSUD. Labuang Baji, RSUD. Haji South Sulawesi Province, RSI. Faisal, RS. Grestelina Makassar, RS. Stella Maris and RSUD. Makassar City. The plan for making the report is estimated to be approximately three months. The population is the whole set of elements that have several general characteristics, which consist of areas to be researched. In other words, the population is a generalisation area composed of objects or subjects that have certain qualities and characteristics that the researcher uses to study them, which concludes (Sugiyono, 2014). The population in this study were nurses in the inpatient ward of the hospital. Labuang Baji Makassar, RSUD. Haji South Sulawesi Province, RSI. Faisal Makassar, RS. Grestelina Makassar, RS. Stella Maris and RSUD. Makassar City. The method of analysis used in this research is descriptive analysis and quantitative analysis using structural equation modelling (SEM).

IV. RESULT AND DISCUSSION

Instrument testing is carried out to test whether the instrument used in this study meets the requirements of a good measuring instrument or is following the standard research method. Given the data collection in this study using a questionnaire, the seriousness or seriousness of the respondent in answering the questions is an important element in the research. The validity or validity of research data from a social perspective is largely determined by the instruments used.

A. Instrument Validity Test

The instrument in this study can be said to be valid if it can measure what you want to measure and can reveal the data and variables studied consistently. Validity is a measure related to the level of accuracy achieved by an indicator in measuring what should be measured. The validity test is the accuracy of the scale of the measurement of the instrument used with the intention of ensuring that the measuring instrument used, in this case, the questionnaire question is seen as appropriate to the object to be measured.

Validity is how much accuracy and accuracy a measuring instrument is in performing its measuring function; in other words, a test or instrument can be said to have high validity if the tool performs. Its measuring function or provides measuring results that are following the purpose of measuring it. The instrument is said to be valid if it can measure what should be measured or measure what is desired precisely (Supranto, 2005: 89). Testing the validity of the instrument is calculating with a correlation coefficient between item score and total score at the 95% significance level or $\alpha = 0.05$. The instrument is said to be valid and has a correlation significance value of $\leq 95\%$ or $\alpha = 0.05$ (Santoso, 2014: 71).

B. Instrument Reliability Test

Reliability test is a measure of the internal consistency of the indicators of a construct showing the degree to which each variable indicator identifies a common latent factor. Reliability test aims to determine the reliability of measuring instruments the consistency of measuring instruments when used to measure the same object more than once. This reliability test can be interpreted as the level of confidence in the measurement results.

Reliability testing was carried out on the statement items used in this study using the Alpha Cronbach method. The cut-off point accepted for the Cronbach Alpha level is $\geq 0.60$. The instrument is considered to have an acceptable level of reliability if the measured reliability coefficient value is 0.60. The instrument is said to be reliable if it can be used to measure a variable repeatedly, which will produce the same data or only slightly varies (Uma Sekaran, 2003: 112).

C. Inferential Statistical Analysis by SEM

This study uses descriptive statistical analysis and inferential statistical analysis, namely Structural Equation Modeling (SEM) with the help of software AMOS (Analysis of Structural Moment) version 18.0, with the hope that a synthesis process occurs for the improvement of the findings. The first step in SEM (AMOS) analysis is to test the assumptions before evaluating the measurement model (confirmatory factor analysis) and assessing the feasibility of the structural model or evaluating the deviations from the estimation parameters. In this study is to assess whether the data obtained has met the structural equation model assumptions.

D. Model Fit Test

Model testing in SEM aims to see the suitability of the model. According to Kline (2006), the model can be continued if the results of the overall model test or F-Test at $\alpha = 5\%$ are outside the $\pm 1.96$ limits in a two-way test, meaning that the indicator shows no relationship between exogenous variables. Chi-Square test shows the difference between the expectation and observed covariance matrix. A value close to zero indicates a low difference between expectations and observations; besides that, the probability level must be greater than 0.05 when the Chi-Square approaches zero.
The results of data processing show that the model suitability test criteria are carried out by comparing the cut-off value of the goodness of fit index obtained from the model estimation results, that the model does not meet the requirements criteria. The results of the feasibility test of the structural model through the path diagram are presented in Figure 1. Based on Figure 1 shows that the overall model test results, which are the basis for comparing the model suitability index (Goodness of Fit Index) with the cut-off value.

Based on the analysis conducted, the Chi-Square value = 531.378 with df = 199 and a probability of 0.000. The Chi-Square results indicate that the null hypothesis which states that the model is the same as empirical data is acceptable, which means the model is fit (Model 1 (Initial)). Because Model 1 (Initial) that was built did not meet the goodness of fit tests, namely the suitability of the model with the cut-off value, probability value, TLI, CFI, CMIN, it was necessary to modify the model (modification indices) through improvements to the covariances and variances and regression weights (Hair et al., 2010; 271). Furthermore, the test results can be seen in the relationship between variables in the following figure 2.

In the Figure shows the results of the structural model modification, which are used as the basis for comparing the model suitability index with the cut-off value after Modification Indices are carried out, the results of the Goodness of fit tests show that model 2 (Final) has met the conformity test (Goodness of fit tests), namely the suitability of the model with the cut-off value, because of the six existing model suitability criteria, model 2 (final) has met 6 (six) of the 7 (seven) model suitability criteria.

### Table 1: Goodness of Fit Index

| Criteria     | Cut-Off Value | Model Result* | Conclusion |
|--------------|---------------|---------------|------------|
| Chi_Square   | Expected small| 189.076 (0.05:161=191.6084) | Good       |
| Probability  | ≥ 0.05        | 0.064         | Good       |
| CMIN/DF      | ≤ 2.00        | 1.174         | Good       |
| RMSEA        | ≤ 0.08        | 0.030         | Good       |
| GFI          | ≥ 0.90        | 0.923         | Good       |
| AGFI         | ≥ 0.90        | 0.879         | Marginal   |
| TLI          | ≥ 0.94        | 0.965         | Good       |
| CFI          | ≥ 0.94        | 0.975         | Good       |

### E. Discussion

Based on the results of data analysis in this study, the discussion of the results of this study combines theory, previous research results and empirical facts that occur on the object being studied to confirm the results of this study to strengthen or reject the theory or results of previous research or are new findings. The results of the feasibility test of the structural models designed and estimated in this study are proven to be by the observed data. The discussion on each variable, both exogenous and endogenous variables, in this study combines some of the results of empirical data analysis from the descriptive approach and multivariate analysis through structural equation modelling so that a synthesis process occurs for the improvement of the results of this study. The results of the analysis from testing the hypothesis are described as follows:

- **The Effect of Knowledge on Caring on Nurses in Preventing Nosocomial Infection in Inpatient Rooms of Hospitals in Makassar City**

Based on the results of the structural equation model (SEM) analysis, it shows the path coefficient from knowledge to Caring for nurses in the prevention of nosocomial infections in the inpatient room of a hospital in...
Makassar City which has a significant negative direction with the yardstick used to test the hypothesis is the p-value. = 0.008 which means significant with a coefficient value of -0.306. These results indicate that there is a significant influence of knowledge with indicators of rational thinking, educational relevance, job insight, job suitability and work competence, on caring with indicators of understanding workload, nurse character, workplace conditions, patient characteristics and patient cooperation. The results of this study concluded to reject hypothesis 1 that knowledge has a significant positive effect on nurse caring in preventing nosocomial infections in the inpatient room of a hospital in Makassar City.

The results of these findings explain that the greatest contribution of knowledge indicators that have been fulfilled is the indicator of Work Insights. The caring actions of nurses are influenced by several factors, one of which is the nurse's Work Insights. Nurses who have good work insights such as communication, coordination and advocacy can increase patient satisfaction and reduce length of stay (Sommer, 2012). Nurses are required to have broad insight in providing services to patients, especially problem solving abilities, namely the ability of nurses to solve problems for patients, whether it is done by the nurses themselves or in the form of information from nurses to patients in solving the problems at hand (Nursalam, 2011). The results of this study are in line with Watson's (2008) theory which explains 10 traits of carrative caring. Caring action is influenced by the problem solving ability of the nurse, while the smallest contribution of the knowledge indicator is the relevance of education.

An indicator of the relevance of education, which is included in the next individual factor is education. education is what underlies nurses in applying caring behavior. The higher the education of nurses on caring, the hope is that the nurse will increasingly know what kind of attitude can show himself to be caring for clients. This assumption is based because nurses who have a good cognitive level of caring have a sufficient theoretical basis for themselves in practicing caring. The results of research at RSU Dr. H. Koesnadi Bondowoso show that there is a relationship between the cognitive level of nurses about caring and the application of caring practice (Bondowoso, Prabowo, Ardiana, & Wijaya, 2014).

The Effect of Attitudes towards Caring on Nurses in Preventing Nosocomial Infection in the Inpatient Room of a Hospital in Makassar City

Based on the results of the structural equation model (SEM) analysis, it shows the path coefficient from Attitude to Caring for Nurses in preventing nosocomial infections in the inpatient room of a Hospital in Makassar City, has a significant positive direction with the benchmark used to test the hypothesis is the value p = 0.001 which means significant with a coefficient value of 0.352. These results indicate that there is a significant positive effect of attitude with indicators of accepting patient complaints, responding to patients, appreciating without discrimination, being responsible, for caring with indicators of understanding workload, nurse character, Workplace conditions, patient characteristics and patient cooperation, the results of this study conclude to accept hypothesis 2 that nurses' attitudes affect nurse caring in preventing nosocomial infections in inpatient rooms of hospitals in Makassar City.

These findings explain that the biggest contribution of the nurse's attitude indicator that has been fulfilled is the indicator of Respect without discrimination, as in nursing tips it focuses more on the ability of a nurse to provide comprehensive nursing care through the touch of art which means that using certain tips aimed at to provide satisfaction and comfort for patients. One form of nursing tips is nursing is caring, where nurses play a role in providing nursing care, care for patient complaints, respect, do not differentiate between patients, and prompt and appropriate services (Asmadi, 2016).
One of the nursing tips is nursing is caring. A professional nurse should be able to apply nurse caring tips in carrying out nursing care. If the caring tips for nurses are not implemented properly, for example nurses who do not care about patients, do not respect patients, differentiate between patients, or services that are slow and not up to standard, it will have an adverse impact on the patient, the nurse and also the hospital where the nursing care is provided. The nurse must be able to learn to appreciate the sensitivity and feelings of the client, so that she herself can become more sensitive, pure, and behave naturally towards others because acceptance of self-feelings is a personal quality that nurses must have as a person who provides assistance to patients.

The smallest contribution of the nurse's attitude indicator is responding to the patient. Understanding the client will help the nurse respond to the client's problem. Understanding the client means the nurse avoids assumptions, focuses on the client, and participates in caring relationships with clients who provide information and provide clinical judgment. Understanding the client is at the heart of the process that nurses use in making clinical decisions. Nurses who make accurate clinical decisions in the context of a good understanding, will improve the client's health outcomes, clients will receive personal, comfortable, support, and recovery services (Potter & Perry, 2009).

**The Effect of Work Motivation on Caring for Nurses in Preventing Nosocomial Infection in Inpatient Rooms at Hospitals in Makassar City**

Based on the results of the structural equation model (SEM) analysis, it shows the path coefficient from work motivation to Caring for nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City which has a positive and insignificant direction with the benchmarks used to test the hypothesis are p value = 0.306 which means insignificant with a coefficient value of 0.104. These results indicate that there is an insignificant positive effect of work motivation with indicators of power motivation, affiliation motivation and achievement motivation on caring with indicators of understanding client, workload, nurse character, workplace conditions, Patient characteristics and patient cooperation, the results of this study concluded to reject the hypothesis 3 that the work motivation of nurses affects the caring of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City.

The results of these findings explain that the biggest contribution of work motivation indicators that have been fulfilled is the indicator of achievement motivation, work motivation greatly influences nurse caring and becomes very important in influencing service quality and patient satisfaction, especially in hospitals, where service quality determines the image of service institutions. later it will be able to increase patient satisfaction and service quality (Potter and Perry, 2009). This is supported by Irawan's (2010) statement that a nurse's caring behavior is closely related to motivation (intention). Supported by Irawan's (2010) statement that a nurse's caring behavior depends on what the nurse has, namely good intentions and knowledge. Nursalam (2012) states, motivation is the giving or the creation of a motive, it can also be interpreted that things or circumstances become motives.

**The Effect of Knowledge on Nurse Performance in Preventing Nosocomial Infection in the Inpatient Room of a Hospital in Makassar City**

The definition of performance or work performance is the result achieved by a person according to the size applicable to the job concerned and the nurse's performance, namely the work behavior displayed by someone which is based on the motivation and behavior of a nurse. Nursalam (2011: 285).

According to Bernadin and Russel (1993: 379) in Gomes (2013: 134) Performance is a work that can be achieved by a person or group in an organization, in accordance with their respective authorities and responsibilities, in order to legally achieve the goals of the organization concerned, does not violate the law and is in accordance with norms and ethics.

Based on the results of the structural equation model (SEM) analysis, it shows that the path coefficient from knowledge to performance of nurses has a positive direction with the benchmarks used to test the hypothesis is the value of p = 0.003, which means significant with a coefficient value of 0.324. These results indicate that there is a significant influence of knowledge with indicators of
rational thinking, educational relevance, job insight, job suitability and job competence, on performance with indicators of willingness to work, skill levels, the relationship between labor, efficiency and creativity in work. This study concluded to accept hypothesis 4 that knowledge has a significant positive effect on the performance of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City.

The results of these findings explain that the greatest contribution of Knowledge indicators that have been fulfilled is the indicator of Work Insights, as nurses are required to have broad work insights in providing services to patients, considering that nurses are the most important resource in running the services of a hospital, especially in terms of preventing nosocomial infections. Therefore, nurses are required to have work insight through intellectual abilities, interpersonal communication, technical skills, rational and moral thinking. The characteristics of nurses who always determine the direction and strength of work are motivation and others such as: work skills, given authority, innovative values, dedication and dedication to each other in the profession.

➢ The Effect of Attitudes on Nurse Performance in preventing nosocomial infections in the inpatient room of a Hospital in Makassar City

Based on the results of the structural equation model (SEM) analysis in table 18, it shows that the path coefficient from attitude to performance has a negative and insignificant direction with the benchmarks used to test the hypothesis is the value of $p = 0.079$ which means significant with a coefficient value of $-0.206$. shows that there is an insignificant negative effect of attitude with indicators of accepting patient complaints, responding to patients, respecting without discrimination, being responsible, on performance with indicators of willingness to work, skill level, the relationship between labor, efficiency and creativity in work, results This study concludes to reject hypothesis 5 that the attitude of nurses affects the performance of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City.

These findings explain that the biggest contribution of the nurse's attitude indicator that has been fulfilled is the indicator of Respect without discrimination, Respect is an attitude that respects something, but not to change one's own behavior. For example, when a patient asks for something contrary to the conditions of the situation. So what the nurse has to do is tell the patient that: the request can be fulfilled when the patient's condition returns to normal.

The smallest contribution from the nurse's attitude indicator is responding to patients, responding means giving answers when asked by patients, doing and completing given tasks is an indication of attitude, nurses at hospitals provide services to clients in accordance with professional beliefs and established standards (SOP) especially in terms of prevention of nosocomial infections. This is intended so that the nursing services provided are always safe services and can meet the needs and expectations of clients. On the other hand, the nurse is expected to have a role at the client's bedside, ready at any time when needed, responsive to patients, and also carry out what the client is experiencing.

Receiving indicator means that the person (subject) wants and pays attention to the stimulus given (object). Receiving patient complaints means that nurses provide services to patients, which is appropriate to provide assistance with complaints from patients. Acceptance includes the attitude of nurses who are always friendly, cheerful, always smiling, greeting all patients. Nurses need to have an interest in other people, accept patients regardless of class, rank, socio-economic and cultural background, so that the person is intact. In order to be able to provide services according to the aspects of admission, nurses must have an interest

Indicator of Responsibility (Responsible), Responsible for everything that has been chosen with all the risks is the highest attitude, nurses who are honest, diligent in their duties, able to devote time and attention, sporting in duties, consistent and appropriate in acting. According to Sagir 2012, responsibility is a sense of belonging that will motivate someone to work, meaning that a low sense of belonging causes nurses to be less responsible for achieving infection control programs in hospitals.

➢ The Effect of Work Motivation on Nurse Performance in Preventing Nosocomial Infection in the inpatient Room of a Hospital in Makassar City

Based on the results of the structural equation model (SEM) analysis, it shows that the path coefficient from work motivation to performance has a significant negative direction with the benchmarks used to test the hypothesis is the value of $p = 0.024$ which means significant with a coefficient value of $-0.220$. shows that there is a significant negative effect of work motivation with indicators of power motivation, affiliation motivation and achievement motivation on performance with indicators of Willingness to Work, Level of Skills, Relationship between Labor, Efficiency, and Creativity at work, the results of this study conclude to reject hypothesis 6 that the work motivation of nurses affects the performance of nurses in the prevention of nosocomial infections in the inpatient room of a hospital in Makassar City.

The results of these findings explain that the biggest contribution of work motivation indicators that have been fulfilled is the indicator of achievement motivation, to be able to generate high motivation for work performance in an organization, there are several phenomena that must be considered by managers, namely the ability of managers to create a good work atmosphere, providing equipment, and provide rewards for work performance itself, thereby stimulating the morale of nurses and will spur to achieve the highest possible, while the smallest contribution of work motivation indicators is power motivation.
Judging from the motivational factor due to power, which is intended as an encouragement in the nurse to be able to influence other people and situations in their work environment. The state of work motivation due to this power illustrates how a nurse feels motivated to work due to the desire to fulfill her egoistic needs. These needs include feeling important and having a role and recognition in social life in his work environment. From the results of the study, it is known that respondents who stated that they have low motivation because of power, this situation is because most of the respondents are young. In this age they still have a strong urge to show their identity and achieve their egoistic satisfaction and want to be seen as individuals who have an important role in their environment.

Judging from the motivation factor due to affiliation. The results showed that respondents who stated that they had low motivation due to affiliation. The conclusion that can be drawn is related to motivation due to affiliation is that most respondents have high motivation because of affiliation. Motivation due to high affiliation is shown by respondents with their awareness that by working with peers they are able to complete work, especially in terms of preventing nosocomial infections. This is due to the basic nature of humans as social beings with their various social needs. These social needs include the need to be accepted and respected by others where they live and work and the need to participate. The existence of this need ultimately makes individual nurses in the Hospital inpatient room in Makassar City motivated by their enthusiasm to work to find satisfaction by building relationships with other people in their work environment.

➢ The Effect of Caring on Nurse Performance in preventing nosocomial infections in the inpatient room of a Hospital in Makassar City

Based on the results of the structural equation model (SEM) analysis, it shows the path coefficient from caring to the performance of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City has a significant positive direction with the benchmark used to test the hypothesis is the value \( p = 0.021 \) which means insignificant with a coefficient value of \(-0.150\). These results indicate that there is a significant positive effect of caring with indicators of understanding workload, nurse character, workplace conditions, patient characteristics and patient cooperation on performance with indicators of Willingness to Work, Skill Level, Relationship between Workers, Efficiency, and Creativity at work, the results of this study conclude to accept hypothesis 7 that nurse caring affects the performance of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City.

These findings explain that the biggest contribution of caring indicators that have been fulfilled is the indicator of workplace conditions, workplace conditions have an influence on the performance and psychology of a nurse. Workplace conditions, like other environments, also require adjustment from the individuals who occupy them. Physical conditions can be a stressor (stressor). Noise can not only cause temporary or permanent disturbance in our hearing aids, it can also create a source of stress which causes an increase and our psychological alertness and imbalance in providing services. Such conditions facilitate accidents, for example not hearing warning voices resulting in accidents, excessive noise that is repeatedly heard can disturb the peace of patients in the hospital. (Anonymous, 2018).

Factors that need to be considered in the workplace conditions appropriate to a particular organizational situation include how work is usually done, the characteristics of the nurses involved and the appropriate external standards. Poor working conditions have the potential to cause workers to get sick easily, experience psychological stress and reduce performance. The smallest contribution of the caring indicator is understanding workload, physical and mental excess workload is a possible source of job stress. The element that creates an overload is time pressure, that is, every task is expected to be completed as quickly as possible precisely and accurately. At certain times, in certain cases the deadline can actually increase motivation and produce high performance. However, if the pressure of time causes many errors or causes a person's health condition to diminish, then this is a reflection of a quantitative overload.

➢ The Effect of Knowledge on Performance through Caring of Nurses in the prevention of nosocomial infections in the inpatient room of a Hospital in Makassar City

Based on the results of the structural equetion model (SEM) analysis, it shows that the path coefficient of the indirect effect of Knowledge on Performance through Caring of Nurses in preventing nosocomial infections in the inpatient room of the Hospital in Makassar City has a significant negative effect with the measure used to test the hypothesis is the value \( p = 0.021 \) which means insignificant with a coefficient value of \(-0.150\). These results indicate that there is a significant negative effect between Knowledge on Performance if through the caring variable, the results of this study conclude to accept the eighth hypothesis that Knowledge of Performance through Caring Nurses in infection prevention nosocomial in the hospital inpatient room in Makassar City.

This is in line with the research conducted by Armilah (2016) which shows caring behavior in internal medicine and surgery class III, most of the respondents studied had good caring behavior (71.8%) of respondents. In line with research with Iriemi and Ugochukwu (2013) which states that knowledge has a positive influence on nurse performance. This is also in line with research which states that knowledge has a positive relationship with nurse performance.

The indirect effect of knowledge on nurse performance through caring is \(-0.150\). This means that knowledge has a negative and significant effect on nurse performance through caring of 0.021. If it is related to the direct effect of Knowledge on Nurse performance of 0.324, it can be concluded that the influence of Knowledge on Nurse performance is greater if it is through caring (indirect effect)
than direct effect. While the total effect (total effect) is 0.174, which means that the direct or indirect effect of knowledge on nurse performance.

The Effect of Attitude on Performance through Caring of Nurses in Preventing Nosocomial Infection in Inpatient Rooms at Hospitals in Makassar City

Based on the results of the structural equation model (SEM) analysis, it shows the path coefficient of the indirect effect of attitudes on performance through caring of nurses in the prevention of nosocomial infections in the inpatient room of a hospital in Makassar City has a significant positive effect with the measure used to test the hypothesis is the value $p = 0.008$ which means significant with a coefficient value of 0.173. These results indicate that there is a significant positive influence between attitudes towards performance if through the Caring variable, the results of this study conclude to accept the ninth hypothesis that attitudes towards performance through Caring Nurses in preventing nosocomial infections in Hospital Inpatient room in Makassar City. This means that attitudes have a positive and significant effect on nurse performance through caring of 0.008. If it is related to the direct effect between attitudes on nurse performance of -0.206, it can be concluded that the effect of attitudes on nurse performance has a significant effect if it is through caring (indirect effect) compared to direct effect. While the total effect (total effect) of -0.033, which means that the direct effect is not significant to the performance of nurses.

By comparing the direct and indirect effects according to this study, it can be concluded that attitudes do not play a significant positive role on nurse performance. Therefore, the results of this study can be used as a reference for hospitals in Makassar City. Attitude is a reaction to one's feelings towards an object, this reaction can be in the form of feelings of support or not. The attitude of nurses in responding to caring has an influence on the caring behavior of nurses, this is based on the nurses who respond to caring positively and will support all activities related to caring and will easily implement caring behavior, and vice versa. Gibson (1987) in (Faizin & Winarsih, 2008) states that a person's attitude towards an object will influence one's behavior towards that object. A positive caring attitude for nurses is not only formed from good knowledge but also from the culture, work environment and educational institutions that have been taken by nurses (Ramadhan, 2017).

The Effect of Work Motivation on Performance through Caring of Nurses in the prevention of nosocomial infections in the inpatient room of a Hospital in Makassar City

Based on the results of the structural equation model (SEM) analysis, it shows that the path coefficient of the indirect effect of work motivation on performance through caring of nurses in preventing nosocomial infections in the inpatient room of hospitals in Makassar City has a positive and insignificant effect with the benchmarks used to test the hypothesis. is the value of $p = 0.314$ which means it is not significant with a coefficient value of 0.051. These results indicate that there is a positive and insignificant influence between Work Motivation on Performance if through the Caring variable, the results of this study conclude to reject the tenth hypothesis that Work Motivation on Performance through Caring Nurse in prevention of nosocomial infections in the inpatient room of a Hospital in Makassar City.

A person's behavior in making decisions is influenced by the personality factors of the patient concerned. Based on the perception of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City, in general the performance of nurses is supported by the achievement motivation of nurses.

Every action taken by the nurse to behave in caring is closely related to motivation (intention). Nursalam (2012) states, motivation is the giving or the creation of a motive, it can also be interpreted that things or circumstances become motives. Research conducted at the Regional Mental Hospital of North Sumatra Province, Medan on the Effect of Achievement Motivation on Nurse Performance in Nursing Care for Mental Disorders Patients. The results showed that of the five sub-variables of achievement motivation, there were four variables that influenced the performance of nurses, namely promotion ($p = 0.000$), challenge ($p = 0.000$), rewards ($p = 0.016$) and recognition ($p = 0.012$), while work performance variables have no effect on nurse performance (Amelia, 2009).

The work motivation of nurses greatly influences the caring behavior of nurses and becomes very important in influencing the quality of service and patient satisfaction, especially in hospitals, where the quality of service determines the image of service institutions which in turn can increase patient satisfaction and service quality (Potter and Perry, 2009). This aims to see whether there is a relationship between work motivation and caring behavior of nurses in the Inpatient Room of the Tampan Mental Hospital, Riau Province in 2013.

V. CONCLUSION AND SUGGESTION

Based on the results of the analysis and discussion of the research results as stated in the previous section, the authors feel the need to draw some conclusions as follows: Nurses' knowledge has a negative and significant effect on nurse caring. Nurses' attitudes have a positive and significant effect on nurse caring. Nurses work motivation has a positive and significant effect. Insignificant towards nurse caring, nurse's knowledge has a positive and significant effect on nurse performance, nurse's attitude has a negative and insignificant effect on nurse performance, nurse's work motivation has a negative and significant effect on nurse performance, Nurses' knowledge negative and significant effect on the performance of nurses in preventing nosocomial infections in the inpatient room of a hospital in Makassar City through caring and preventing nosocomial infections in inpatient rooms of hospitals in Makassar City through caring. Work motivation of nurses
has no significant effect on the performance of nurses in preventing nosocomial infections in inpatient rooms of hospitals in Makassar City through caring.

For hospitals in Makassar City to continue to improve the knowledge of nurses to increase their insight in providing services to patients, especially handling nosocomial infections, Hospital Nurses in Makassar City continue to maintain and improve caring behaviour for good caring nurses to be very good and improve their performance, to become nurses who are professional and able to compete in the world of work and can improve the health status of the Indonesian people. Improvement efforts, as a systematic effort to make improvements, refinement gradually and continuously so that the caring of nurses for patients can benefit.

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