

## THE EFFECT OF HEALTHCARE WORKER ON THE PATIENT'S SAFETY MEDIATED BY BURNOUT AT KARTINI MOTHER'S AND CHILD HOSPITAL IN PADALARANG

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### Abstract

This research has the intention to look for the mediated effect of burnout on healthcare workers against patient's safety. Respondents of this study were the healthcare workers of the Hospital of Mother and Child Kartini Padalarang. The testing of the hypothesis was conducted by using quantitative research method with the total sample of 100 healthcare workers. Datas were collected through electronic questionnaires that were given digitally to the respondents. The analysis technique that was used was the Partial Least Square - Structural Equation Modelling (PLS-SEM) from the SmartPLS program. Based on the analyzed data, it was found that there was a significant effect of workload and healthcare workers against the patient's safety and that healthcare workers had an important role in mediating it. Based on this research's result, it was found that the workload has a significant negative effect on the patient's safety, burnout on healthcare providers has no effect on patient's safety and the healthcare workers have a positive effect on the patient's safety. The Hospital of Mother and Child Kartini Padalarang needs to consider improving th wellbeing and professionalism of the healthcare workers in order to keep the job satisfaction well maintained. The Hospital of Mother and Child Kartini Padalarang also needs to hold a good working relationship with the healthcare workers and the patients, so that the patient's satisfaction and safety are well maintained.

*Keywords: Workload, Burnout, Patient Safety, Healthcare Worker*

### 1. INTRODUCTION

The hope of sick people coming to health services is healing. The main factor in fulfilling the patient's recovery expectations is the service of all HR (Human Resources) in general and Professional Care Providers (PPA) in particular. Health service management must ensure that every human resource involved in patient care is skilled in their respective fields.

Departing from personal experience that has been experienced by the author, as medical personnel we are expected to always provide qualified health services but in reality we are often faced with problems that are starting to emerge, where if we trace the reason, it is often based on the lack of sufficient medical personnel in the hospital. field. Problems vary from workload to issues concerning patient safety, these can often be overcome with sufficient medical personnel resources.

The hospital really hopes for the ability and expertise of its staff, both health staff and non-health staff. Hospital services consist of various components that may at first glance appear to work independently, but actually synergize with each other to create a harmony of health services needed by patients. The motor behind this harmony is driven by human resources who have various kinds of expertise in their respective fields, such as every cell in the human body that is busy working to support one another in order to create a quality life.

In line with the development of the quality of education and social economy of the community, the demand for better quality health services also increases. This can only be created with the presence of qualified human resources, especially qualified medical personnel and prioritizing a patient-centric view in serving each patient. (Rini Astuti et al, 2018).

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Quality health services are a benchmark and an important element in measuring patient satisfaction. Health services have an impact on Indonesia's health development. However, to achieve optimal service, especially in hospitals, it is certainly necessary to have a quality level of stakeholder satisfaction, especially patients. The feeling that patients want when they leave the hospital is calm, knowing how to take care of themselves at home and satisfied because they feel they have been heard, not only from the treating doctor but also from the hospital who has served professionally. However, problems often arise when demand exceeds supply (workload overload).

Workloads that exceed capacity (burnout) will have a negative impact on the ability of medical personnel to provide good and safe services to patients. Services that are not optimal will have a negative impact on the level of patient satisfaction, even to the point of endangering the safety of patients and medical personnel themselves. On normal days this will affect the potential for hospital income, especially private hospitals that have to compete with other private hospitals.

The phenomenon of workload overload or burnout is very much reflected lately in the midst of a pandemic, almost all private hospitals during the initial pandemic there was a decrease in the number of hospitalizations occurring in almost all hospitals in Indonesia and even in the world due to the mobility border policy by the government and public awareness about transmission of the virus outside the home, this forces the hospital management to implement savings in operational costs so as to reduce the number of its workforce, including doctors and nurses. Then rapidly the incidence of Covid-19 cases is increasing due to the Delta variant, this has resulted in the BOR (Bed-Occupancy Ratio) of hospitals being full in almost all hospitals in the world.

As long as health workers, especially doctors, are faced with the large number of patients and bureaucratic matters, the challenges in the doctor-patient relationship will only become more tenuous. In the end he will be dealing with more bad days than good ones. Our healthcare system often reduces the quality time for doctors to get to know their patients better. recognize the problem holistically, consult with colleagues, and provide good advice without rushing. These are the things that patients want from their doctors. What's more, doing these things is a big part of the reason people want to become doctors. Unfortunately there are not many significant changes in this direction in our current health care system, so it is very likely that this fundamental problem will continue and is likely to get worse.

Agility and being able to adapt reflects the company's/hospital's response to the difficult situation of the Covid-19 pandemic. A good company/hospital should have two goals that need to be achieved, namely a) keeping every employee safe and healthy, b) monitoring operations for the needs of all stakeholders.

However, the agility and adaptability of a company/hospital is not possible without unity and collaboration between stakeholders. With the collaboration of various management and workforce during the pandemic, hospitals should continue to strive for inclusiveness and this has an impact on the expansion of stakeholders. Based on the description of the magnitude of the effect of burnout on medical personnel, and the importance of patient safety in the hospital industry, this study was conducted. Thus, the author will conduct research on The Effect of Healthcare Worker on The Patients Safety Mediated by Burnout at Kartini Mother's and Child Hospital in Padalarang.

## **2.LITERATURE REVIEW**

### **2.1.Workload (Burnout)**

The workload is basically a list of tasks or activities that are demanded or more precisely expected from employers to workers, Rini-Tarwaka (2018) & Minister for Administrative Reform (2008). The workload here is actually a positive thing but only becomes a problem when it

becomes too excessive and heavy to cause some negative effects to workers and consumers. Overload (burnout) occurs when the intensity of the load is too heavy, while boredom, saturation or understress occurs when the intensity of the load is low.

When viewed from its activities, a person's workload can include ranging from personal activities to the main work which is direct or indirect, Ilyas (2004). According to Franklin Covey burnout itself covers about 80% that comes from the organization and 20% that comes from individual factors respectively. In a Harvard study published by LANCET, it was found that 61% of doctors experienced burnout and had thought, tried, or had died by suicide. This situation is more severe for nurses who reach up to 80% report experiencing signs or symptoms of burnout.

Most of the complaints experienced by these health workers are in their work ties related to electronic devices such as the Hospital Management Information System (SIMRS) or messages and calls from cellphones that no longer recognize the boundaries of work and personal life anymore. But on the other hand, health workers are slowly losing their autonomy role with the arrival of the role of the government and insurance companies that have interests or motives that are not as altruistic as the health workers themselves. Coupled with the changing character of patients who are more critical and easily influenced by hoax news on the internet, all of these things add to the burden on health workers, especially doctors. But unfortunately, because not many raise this issue professionally in the workplace or in academia, indirectly today's health workers have considered this to be a common thing or commonplace in the health world, such as the Semmelweis reflex phenomenon, namely the tendency to reject evidence of an incident. or new facts against existing old traditions/customs/paradigms. It's as if the world of health is normally synonymous with burnout or high levels of stress.

It is undeniable that the workload of health workers in the midst of a pandemic will feel heavier. According to Gunardi (2021) this is very much explained through the shortage of experts, especially in the field of virology, the lack of lung specialists, the lack of detection and diagnostic equipment due to the very high price, the lack of sophisticated laboratories, not to mention the rising costs due to the large use of consumables, In addition, the examination of laboratory results is long and expensive, and the most frequent is the occurrence of cases of unreliable sampling resulting in false negatives for Covid-19 infection. Therefore, hospitals must strive to create a safe, comfortable, and accident-free workplace. During the Covid-19 pandemic, hospitals must further strengthen work plans for all employees which include personal hygiene and safety, social distancing, rotating testing, and medical guidance.

According to Mujiati & Yuyun Yuniar (2016). One of the effects of excessive workload is negligence. According to Chiara Conti et al, the impact of burnout or excessive stress on medical personnel, especially in the midst of difficult to predict situations such as a pandemic and decreased work motivation or fighting power and lack of quality rest or sleep can increase the risk of medical errors which ultimately affect patient safety. served.

Based on Pahlevi (2013), the workload of health workers is influenced by four factors, including 1) main tasks, 2) working time, 3) additional tasks and 4) the number of visits. According to Schultz and Schultz (2010), several factors that can affect the workload are time pressure, work schedules and working hours, job ambiguity, noise, information overload, extreme temperatures or heat, repetitive actions, ergonomic aspects in lay out the workplace.

Leading and managing a hospital in a crisis era requires special skills. Hospital management must be able to show that services can still run with a convincing safety protocol, one way is by analyzing the workload on existing human resources (HR). This is in accordance with the findings of Hartono's dissertation, Budi (2011) through the Mission Achievement Tools in Hospital (MATH) model from The Joint Commission, 2008.

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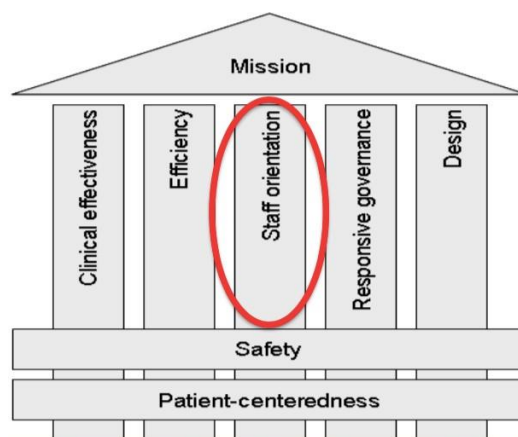


Figure 1. MATH Model

Source: The Joint Commission, 2008

Leading and managing a hospital in a crisis era requires special skills. Management of workload problems must also subjectively be proven by objective workload calculations because if this problem is prioritized to be resolved without definite clarity, it will cause errors in making a decision. Therefore, several workload analysis methods other than WISN were created (workload indicators staff need) such as: work sampling (Barnes, 1980), Time and motion study, daily log.

Excessive workload (burnout) on the other hand will create a vicious circle to the poor performance of workers. The level of misunderstanding will increase, they have less time to answer patient needs, lack of motivation to innovate, cause inconsistencies in performance caused by disturbed mood, become lazy to work and take the initiative.

It is undeniable that almost all lines of work in the hospital industry have a challenging workload and can fall into the heavy category, this is because the health industry is a risk-based industry, therefore good governance is needed to protect the rights and interests of both shareholders and other stakeholders.

## 2.2. Patient Safety

Patient safety assessment is usually obtained from 5 service outcomes such as: infection, injury, error, advanced complications, and death. The challenge here is how to avoid the incidents above. Health workers are faced with a trend of work that is increasingly difficult and dangerous, especially with the increasing demand for high-quality health services. There are five main concepts for improving patient safety:

1. Educational reform. medicine.
2. The service is provided by a team that has various disciplines and is integrated into one platform.
3. Medical personnel need to work in a safe work environment and can find pleasure and meaning in their work.
4. Patients must be partners in designing and delivering services.
5. Transparency is the basic value primary.

Several important components of quality health services include aspects of safety, effectiveness, patient-centered approach, timely, efficient, and active and safe care. According to George (2017), almost millions of patients die each year due to unsafe health services. Increasing the number of guidelines will not be effective without also being followed by more qualified and reliable health workers.

Patients who are in the intensive care unit (ICU) tend to face problems related to safety issues more often. New advanced tools, updated treatment methods, and unstable and



unpredictable patient conditions will add to the workload of health workers. The same thing happened in the NICU (Neonatal Intensive Care Unit) treatment room.

According to Shoorideh, 2021, therefore, in a high-stress situation as above, it is important for health workers to return to the basics of every action procedure step by step to prevent unwanted events, especially when carrying out emergency invasive procedures that need to be done quickly. . The appropriate method in this case is to use a checklist of procedures observed by 2 people to avoid individual bias.

One situation that is often found as the initial cause of frequent errors in patient safety is when transferring patients from one room to another. Here, the aspect that plays a big role is clear and effective communication, because the success of the continuation of the therapy plan from one team of health workers to another depends on the complete information conveyed between one team and another.

In order to create continuous monitoring of patient safety, usually the supervisory team from the hospital will carry out several monitoring and assessments of several medical and clinical performance indicators which include:

- Patient satisfaction
- Adverse clinical incidence rate
- Health care related infection rates
- Morbidity rate
- Mortality rate of hospitalized patients
- Planned and unplanned operating procedures

However, according to Bambang Wijayanto, in the midst of progress in developing the IT world, especially in terms of AI (artificial intelligent) in super computers, we should not be trapped in a situation where too much data fulfills the work process even if the data obtained is of less quality or meaningful, because this will can lead to bad decisions for decision makers. action. (Tejal K Gandhi, 2018).

According to WHO, patient safety lies in the absence of a hazard that should be prevented when providing health services and reducing the risk for unnecessary things/hazards to a minimum. Patient safety targets based on Kepmenkes No. 1691 of 2011, patient safety targets are as follows:

1. Determination of patient identification;
2. Improved effective communication;
3. Increased drug safety that needs to be watched out for;
4. Precise-location, right-procedure, right-patient operations;
5. Reducing the risk of infection related to health services;
6. Reduction of the patient's risk of falling.

According to Chriswardani Suryawati et al. (2006). Patient safety is not only important for the level of patient satisfaction but is something that is protected by the state. In creating patient safety, medical negligence should be avoided as much as possible.

According to Articles 3-6 of Law 44/2009. The hospital management arrangements aim to: Provide protection for the safety of patients, the community, the hospital environment and human resources in the hospital.

Several efforts to improve patient safety aspects in hospitals usually lead to clear and well-controlled standard operating procedures (SOPs) for hospitals and regularly implemented risk management. It's not enough, employees from top to bottom also need to set an example with a clean and healthy lifestyle (PHBS) and cultivate a culture of prudence in their every action.

The lack of a risk mitigation system in the hospital can cause harm other than to patients or other people but will also have an impact on the reputation of the hospital itself so that

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eventually it will cause material and immaterial losses to the company/hospital both in the short and long term. In accordance with ISO 31000: 2009 and OHSAS 18001: 2007 standards in running a risk and hazard monitoring and review system, the first thing that needs to be done is to determine the context of each potential hazard in the day-to-day operations of the hospital, then identify what the potential hazards are, analyze the accompanying risks, evaluate these risks, then handle these risks with a smooth communication and consultation system.

Risk management that is carried out correctly and routinely will be able to improve the quality of a service in a hospital, for the quality improvement model itself it is usually done with the PDCA system (plan, do, control, action). Meanwhile, if the quality is difficult to improve then improve the customer or patient experience that is pleasant and easy.

The core experience of focusing on patient satisfaction, according to Haryono (2018), comes from services that are from the heart, humanizing humans. Humans are elements and sources of emotions that cannot be replaced by any technology. That is why customer-centric services must be demonstrated by the workforce, especially those who deal directly with patients. According to Maya Khaerani et al. (2021), effective communication that has been done by nurses to patients will increase patient satisfaction.

In the end, the right hospital security technology must be able to provide certainty of the hospital's promise to patients, namely the provision of quality health services. Not only for patients, it also gives confidence to staff, administrators, health workers, and patients' families that the hospital is able to detect and handle the situation before it actually becomes an accident/case.

### **2.3. Healthcare Worker**

Indonesia is one of 57 countries with a shortage of health workers. Although 80 percent of the success of health development is determined by HRK. The lack of HRK in Indonesia can actually be interpreted as more than just a lack of HRK numbers but more often because of unequal distribution. In 2019, the availability of specialist doctors is expected to reach 24 per 100,000 population, general practitioners 96 per 100,000 population, dentists 11 per 100,000 population, nurses 158 per 100,000 population, midwives 75 per 100,000 population, sanitarian 30 per 100,000 population, nutritionist 48 per 100,000 inhabitants. (Arman Rifat Lette, 2020).

One of the points in TERRA's concept of health services that is most relied upon by a medical professional is the 'responsiveness' aspect. According to Yudo Setiawan et al. (2017) health workers are willing to provide fast and appropriate health medical services to visiting patients, because the speed and accuracy of service will affect patient satisfaction. Patient responsiveness can also be used as a tool in determining the performance of hospital health services from the perspective of HR. The next challenge faced by medical personnel is to maintain optimal service quality or quality. Therefore, the quality of health services for professional standards needs to be maintained by utilizing various existing resources properly, so that customer needs and goals to achieve optimal health status can be achieved. (Anita Santi Widyastuti, 2013).

Health workers in their attitude should also not be careless or careless to prevent medical negligence. When viewed from the causal factors, it can be divided into 3: Lack of knowledge, lack of experience, and lack of understanding (C. Berkhouwer and L. D. Vorstman). According to (Jongkers) there are 4 elements of negligence:

1. Against the law (*wederrechtelijkheid*)
2. Consequences of actions that can be imagined (*voorzienbaarheid*)
3. The consequences of actions can actually be avoided (*vermijdbaarheid*)
4. The act can be blamed on him (*vermijtbaarheid*), because in fact the perpetrator can already imagine and can avoid it.

According to Simon Sinek, (2014). When we talk about workforce, we are actually talking about humans and not robots/machines, this is very important to remember because sometimes in the business aspect we are so used to talking about efficiency and effectiveness that

we forget that workers in this case health workers are also humans. Ordinary people who can make mistakes, they are parents, children, and brothers to their respective families.

For this reason, it is the responsibility of hospital leaders to balance aspects of hospital services with aspects of the lives of medical personnel in order to create a harmony in the hospital environment for the long term. A good organization is an organization that if found guilty of its employees can serve an honorable sentence and does not mean that they will lose their job. If everyone who works always feels scared every time they work then it is an unsafe work environment.

Medical personnel are also ordinary human beings who have their own characteristics and character as well as their own limitations. This will certainly affect patient satisfaction. One of the problems often encountered by patients is the lack of medical personnel, so that services are hampered, this is sometimes contradictory to the calculation of hospital management in measuring the patient: medical personnel ratio which is often felt to be sufficient, but in fact due to the many procedures in dealing with one particular patient will can result in new patients not being served or new transfer patients to outpatients not being welcomed by medical personnel in the treatment room.

According to Watson Wyatt, the determination of employee position evaluation can be determined by several factors such as: education, work experience, scope of activity, responsibility in decision making, consequences of mistakes, internal business contacts, external business contacts, complexity of supervision, number of employees employed. monitoring, research and analysis. The interesting thing here is at the point of error consequences, in practice there are still not many companies / hospitals that can apply the consequences of errors in writing to a worker, even though by clarifying the consequences of errors at the beginning and always being supervised by risk management mitigation training, a worker will be able to feel more responsible for his work and become more sensitive to every detail of his actions.

To protect employees' work performance to remain optimal and not always anxious, a company needs to provide a sense of security for any potential errors that can occur to employees. This form of protection can take various forms, ranging from the protection provided by the HRD team through internal company regulations to trade unions as written in the Manpower Act no. 13/2003.

Organizations in the health care sector have considered burnout to clinicians as an urgency. Today the phenomenon of burnout has spread widely among health professionals, the effect of this can have an impact on patient safety and quality of service. In a report circulating in several major health organizations in Massachussets have even labeled this as "a public crisis".

According to Shawn C Jones, MD, more than half of the physician population suffers from burnout so that they become less enjoying their profession, they tend to become rigid, lose enthusiasm in their practice and become more cynical. This also has an impact on hospitals such as:

1. Patient satisfaction decreases
2. More doctors are leaving the practice
3. Lack of cooperation
4. Increased errors that can lead to malpractice cases.

It is rare to find an initiative from the management of an organization or hospital that comes to health workers and says "what can we do to help?". Organizations that are rigid and have difficulty responding to these challenges will more often experience high employee turnover, because basically every employee wants to be appreciated and feel supported by his company.

According to Evan Falchuk in his research it was found that on days when doctors feel positive moods, they tend to talk more to patients, write fewer prescriptions, order fewer lab tests and plan fewer referrals, but when doctors are in a bad mood, they do the opposite.

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According to Donabedian, the quality aspect is the same as all things consumed by humans depending on how much of a sacrifice a person has given to be able to enjoy this welfare. We cannot define a service as a quality service if the sacrifice that must be made by a patient is greater than the benefits he will receive. The quality of health services here is related to the process of getting the service in the first place.

The goal or goal of obtaining quality health services is to maximize patient well-being. Welfare here of course consists of the physical, psychological, and economic of the patient. By understanding the various dimensions of quality health care, a medical worker will be able to be more empathetic and effective in their work.

To maintain the quality of this health service, hospitals need to always conduct an assessment of their daily operations, this can be in the form of supervision, audit, or accreditation. Accreditation should be used as a means or tools to improve quality and patient safety. To build an optimal work environment culture requires mutual trust, and trust arises from mutual transparency, mutual respect and mutual respect, hospital leaders can start this culture by setting an example for the first time and proving to their subordinates that they care.

### **3. RESEARCH METHOD**

This research was conducted at the Mother and Child Hospital (RSIA) Kartini Padalarang, which is located in Padalarang, West Bandung. RSIA Kartini Padalarang is one of the most trusted private hospitals in Padalarang that prioritizes service quality as its selling point, starting from a maternity clinic now RSIA Kartini Padalarang continues to grow and has a target to become a General Hospital, with increasing demand from the community for Hospital facilities are still lacking in the West Bandung area, especially Padalarang, the management of RSIA Kartini Padalarang is collaborating with several investors to develop a larger Mother and Child Hospital (RSIA) in the Kota Baru Parahyangan area called RSIA Parahyangan. Seeing this strategic business phenomenon, hospital management is faced with preparing a sufficient number of qualified and qualified medical personnel in the long term. So it is hoped that there will be some developments in a better direction starting from the management aspect to health services.

The research population is the entire research object, from medical personnel who provide health services at the Kartini Padalarang Mother and Child Hospital, however, the research can only be conducted for a limited number of subjects with not too many medical personnel. In testing the Chi Square model, the SEM (Structural Equation Model) is very sensitive to the number of samples, so the research sample will refer to the criteria proposed by Hair et al. (2010:637), namely the Maximum Likelihood Estimation (MLE) technique. According to Arikunto (2006), if the number of research subjects is less than 100, it is better to take all of them so that the research is a population study, but if the number is greater than 100, then 10-15% or 20-25% are taken.

The population of this study were employees (medical staff) RSIA Kartini Padalarang totaling 100 people. In this study, the number of samples determined was 100% of the population, namely 100 respondents. So the sample of this study amounted to 100 employees at RSIA Kartini Padalarang. The sampling method in this research is purposive sampling. The purposive sampling method is a sampling method that is carried out based on what has been determined by the researcher (Ferdinand, 2013).

As stated by Sugiyono (2008). This study uses a quantitative approach with three types of variables, namely independent variables, dependent variables, and mediating variables. The independent variable in this study was medical personnel, the dependent variable in this study was patient safety and the mediating variable in this study was workload (burnout).

In this study, a random sampling technique was used from the population because the population was considered homogeneous. Data were collected through questionnaires distributed to the research sample using GoogleForm. The questionnaire was prepared using a measuring instrument which was specially developed to examine the indicators of each variable.



Respondents will be given a questionnaire with written questions that are given directly to the respondent. The time used to distribute and collect the questionnaires is approximately 4 weeks.

The scale used in the study to fill out each question item uses a Likert scale with 5 (five) alternative answers. The Likert scale is a scale based on the sum of the attitudes of respondents in responding to questions based on indicators of a concept or variable being measured. The weighting in scoring is 100 in total. This weighting aims to determine the level of importance of the variables consisting of several indicators.

The data analysis technique in this study uses Partial Least Square (PLS) with SmartPLS software. According to Ghazali (2015), the purpose of PLS-SEM is to develop several theories or build theories. SmartPLS is used to explain whether or not there is a relationship between latent variables (prediction). SmartPLS can also be used to confirm a theory. In this study, the validity test is used to measure the validity of an indicator. An indicator will be declared valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire (Ghozali and Latan, 2015). This validity test is used for all question items in each research variable so that there are several stages of testing to be carried out, namely the convergent validity, average variance extracted (AVE) validity, and discriminant validity. Reliability test is used to ensure that the variables used in this study are completely free of errors and can show consistent results over and over again. This method is used to test the reliability of the questionnaire in this study with the Cronbach Alpha statistical test, and composite reliability. A variable is said to be reliable if it gives a Cronbach Alpha value and composite reliability exceeds  $> 0,70$ .

According to Ghazali (2008), the estimated parameters obtained by PLS can be divided into three. The first is the estimated weight used to create the value of the latent variable. Second, it reflects the path estimate that connects the latent variable and its indicator block (loading). The third is related to the average and position indicators (regression constant value). Indirect or intermediate testing aims to see how much the value of the indirect influence between variables is. The mediating variable is said to be able to mediate the effect of the extrinsic (independent) variable on the intrinsic (dependent) variable if the t-statistical value is greater than the t-table and the p-value is smaller than the significant level used (5%).

#### **4.RESULTS AND DISCUSSION**

This study used a questionnaire, which was given to 100 respondents with characteristics such as gender, age, education level and length of work. Of the 100 respondents, 16% were divided into men and 84% women or 16 men and 84 women. The results show that the majority of respondents are female.

Of the 100 respondents divided into 4 age groups, namely 12 people 20-30 years old or 12%, 31-40 years old as many as 16 people or 16%, 41-50 years old as many as 37 people or 37%, and 51-60 years old as many as 35 people or 35%. The results show that the majority of respondents are at the age of 41-50 years, namely old adults.

Of the 100 respondents divided into three categories of education level, namely D3 as many as 57 people or 57%, S1 as many as 17 people or 17% and professions as many as 26 people or 26%. The results show that the majority of respondents have a D3 or Diploma 3 education level.

Of the 100 respondents divided into 6 categories of long working hours, namely 1-5 years as many as 21 people or 21%, 6-10 years as many as 22 people or 22%, 11-15 years as many as 17 people or 17%, 16-20 years as many as 7 people or 7%, 21-25 years as many as 24 people or 24%, 26-30 years as many as 9 people or 9%. The results show that the majority of respondents work 21-25 years.

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**4.1.Outer Model Analysis**

The first processing carried out on the data obtained from the respondents is to test the validity and consistency of the indicators of the latent variables which are referred to as validity and reliability tests. In the SmartPLS program, this processing is referred to as the interpretation of the measurement results or the analysis of the outer model.

**4.2.Convergent Validity Test**

The first validity test is convergent validity. All variables in this study, namely medical personnel, patient safety, burnout, were examined for the loading value in the outer loading on the SmartPLS program. Each variable is considered valid if the loading value is greater than 0.7.

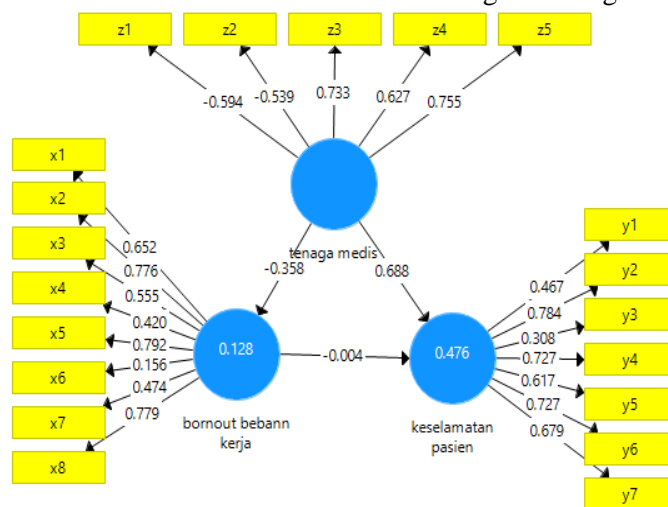


Figure 2. Construct Model-1

Source: SmartPLS Phase I Data Processing Results (2022)

Based on the results of the first data processing that the burnout variable (workload) which consists of 8 question items, which are not valid (<0.7), namely X1, X3, X4, X6, and X7, for the others are valid (>0.7) . The medical personnel variable which consists of 5 invalid question items (<0.7), namely Z1, Z2, and Z4, is valid for the others. Patient safety variable consisting of 7 invalid questions (<0.7) namely Y1, Y3, Y5, and Y7, for other items valid (>0.7). Invalid question items with a value of <0.7 must be deleted or eliminated. To meet the required convergent validity with a value of more than 0.7, the second data processing is carried out as follows:

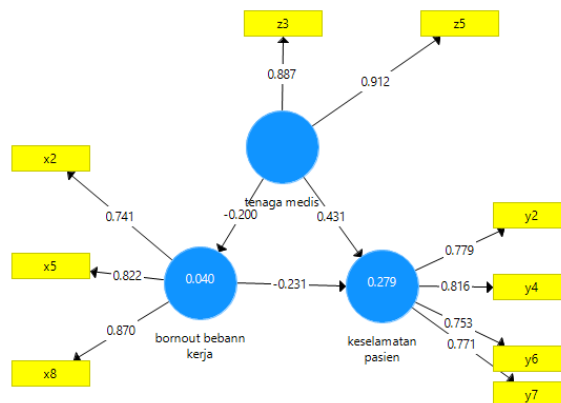


Figure 3. Construct Model-1  
 Source: SmartPLS Phase I Data Processing Results (2022)

Based on the results of data processing by carrying out 2 stages by eliminating or deleting some instruments, finally they have met the criteria, namely  $> 0.700$ . In Discriminant Validity the model that is considered good is if each loading value of each indicator of a latent variable has the largest loading value with other loading values on other latent variables. To test discriminant validity, it can be done by cross loading.

**Table 1. Loading Factor**

| Variable           | Indicator | Loading Factor | Rule of thumb | Conclusion |
|--------------------|-----------|----------------|---------------|------------|
| Burnout (Workload) | X2        | 0,741          | 0,700         | Valid      |
|                    | X5        | 0,822          | 0,700         | Valid      |
|                    | X8        | 0,870          | 0,700         | Valid      |
| Healthcare Worker  | Z3        | 0,887          | 0,700         | Valid      |
|                    | Z5        | 0,912          | 0,700         | Valid      |
| Patient Safety     | Y2        | 0,779          | 0,700         | Valid      |
|                    | Y4        | 0,816          | 0,700         | Valid      |
|                    | Y6        | 0,753          | 0,700         | Valid      |
|                    | Y7        | 0,771          | 0,700         | Valid      |

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**Table 2. Cross Loading (Variable)**

|           | Burnout<br>(Workload) | Patient<br>Safety | Healthcare<br>Worker |
|-----------|-----------------------|-------------------|----------------------|
| <b>X2</b> | <b>0,741</b>          | -0,198            | -0,030               |
| <b>X5</b> | <b>0,822</b>          | -0,262            | -0,104               |
| <b>X8</b> | <b>0,870</b>          | -0,292            | -0,272               |
| <b>Y2</b> | -0,244                | <b>0,779</b>      | 0,363                |
| <b>Y4</b> | -0,228                | <b>0,816</b>      | 0,413                |
| <b>Y6</b> | -0,260                | <b>0,753</b>      | 0,332                |
| <b>Y7</b> | -0,260                | <b>0,771</b>      | 0,377                |
| <b>Z3</b> | -0,149                | 0,412             | <b>0,887</b>         |
| <b>Z5</b> | -0,209                | 0,445             | <b>0,912</b>         |

Based on table 2, the loading factor value for the indicator of the latent variable has a factor loading value that is greater than the value of the other latent variables. This means that the latent variable has good discriminant validity.

#### 4.3. Reliability Test

In the reliability test and validity criteria, it can also be seen from the construct and the Average Variance Extracted value of each construct. The construct is said to have high reliability if the value is 0.70 and the AVE is above 0.50. Based on table 3, it can be said that all constructs meet the reliable criteria, this is indicated by the results of Composite Reliability > 0.70 and strengthened by the Cronbach alpha value of each variable > 0.7, so it can be concluded that all variables have a high level of reliability.

**Table 3. Composite Reliability, Cronbach Alpha & AVE**

| Variable              | Compo<br>site<br>Reliability | Averag<br>e Variance<br>Extracted | Cro<br>nbach<br>alpha |
|-----------------------|------------------------------|-----------------------------------|-----------------------|
| Burnout<br>(Workload) | 0,853                        | 0,660                             | 0,75<br>8             |
| Patient Safety        | 0,861                        | 0,609                             | 0,78<br>5             |
| Healthcare<br>Worker  | 0,894                        | 0,809                             | 0,76<br>5             |

#### 4.4. Structural Model Hypothesis Test (Inner Model)

The structural model in PLS data processing was evaluated using R Square for the dependent variable and the Path coefficient value for the independent variable which was then assessed for significance based on the t-statistic. The structural model can be seen in the following figure:



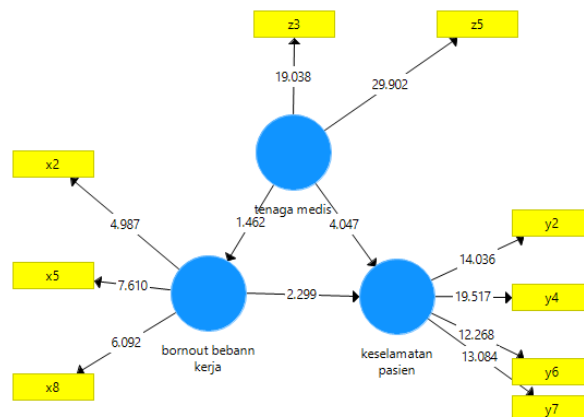


Figure 3. Bootstrapping Inner Model

Hypothesis testing uses t statistics and it can be seen that from the three hypotheses in the study, it was found that H1 and H3 were accepted and significant hypotheses because the p value <0.05 which means there is an influence between variables, while for H2 it is not accepted because the p value > 0.05 which means that it means that there is no influence between these variables.

Table 4. Path Coefficient Test Result

| Hypothesis | Effect                                  | Original Sample | T-Statistic | P-Value | Result       |
|------------|---|-----------------|-------------|---------|--------------|
| H1         | Burnout (Workload) => Patient Safety    | -0,231          | 2.248       | 0,013   | Accepted     |
| H2         | Healthcare Worker => Burnout (Workload) | -0,200          | 1.457       | 0,073   | Not accepted |
| H3         | Healthcare Worker => Patient Safety     | 0,431           | 3.954       | 0,000   | Accepted     |

## Discussion

### The effect of workload burnout on patient safety (H1).

The results of hypothesis testing (H1) are accepted by showing a p value of 0.013 <0.05, this indicates that there is a negative and significant effect of Burnout (workload) on patient safety. So it can be interpreted that with increasing burnout (workload) it will reduce patient safety. These results are in accordance with research conducted by (Munthe, 2019) and (Mulyatoni et al., 2016) that burnout (workload) has a significant relationship to patient safety. The existence of workloads such as excessive work demands, confusion in carrying out orders from superiors, and the number of patients can create job stress so that it can reduce physical and psychological conditions so that it can reduce the provision of health services to patients. This is also in line with research conducted

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by Aiken et al in (Farquharson et al., 2013) that a high workload will result in less than optimal service delivery for patients, thereby increasing violations related to patient safety.

**The Effect of Medical Personnel on Patient Safety mediated by Workload Burnout (H2).**

The results of hypothesis testing (H2) are rejected, this is indicated by a p value of  $0.073 > 0.05$ , which means that there is no influence between burnout (workload) mediated by medical personnel on patient safety. In this study burnout in medical personnel was not felt. Based on the results of the questionnaire showed that staff employees help each other if there is excess work. This can be related that the majority of respondents have work experience for 21-25 years, even though there is a high workload and busy work that does not make medical personnel feel a burden. The longer the working period of an employee, the better at work, in addition, a long working period will provide a good work experience.

According to Munandar, having work experience of more than 5 years will not have an impact on the work productivity of medical personnel. This research can also be related to the education level of the respondents. That medical personnel have a level of education in accordance with their respective tupoksi or fields so that it will not cause burnout for medical personnel. This is also in accordance with research conducted by Astriana and Sidin (2014) which states that health workers who have an adequate level of education according to their profession will have the ability to provide nursing care for health services for patient safety.

**The effect of Medical Personnel on Patient Safety (H3).**

The results of the research hypothesis (H3) are accepted, this is indicated by a p value of  $0.000 < 0.05$ , which means that there is a positive and significant influence between medical personnel on patient safety. This is indicated by the results of respondents' answers in the study that medical personnel are very concerned about patient safety, it is also shown that the collaboration between medical personnel in providing health services for patient safety is carried out at RSIA. These results are also in accordance with research conducted by Eriyono and Hananto (2017), that the collaboration of health workers has a positive influence on patient safety goals.

**5.CONCLUSION AND RECOMMENDATION**

**5.1.Conclusion**

Based on the results of testing and analysis of the mediating effect of burnout on medical personnel on patient safety at the Kartini Padalarang Mother and Child Hospital, the following conclusions can be drawn: Burnout (workload) has a negative and significant effect on patient safety as evidenced by a significance value of  $0.013 < 0.05$  Medical personnel have a positive and significant effect on patient safety, this is proven by a significance value of  $0.000 < 0.05$ .

1. Burnout in medical personnel has no effect on patient safety, this is proven by a significance value of  $0.073 > 0.05$ .
2. Medical personnel have a positive and significant effect on patient safety, this is proven by a significance value of  $0.000 < 0.05$ .

## 5.2.Recommendation

This research contains several suggestions that can be used by hospital management or for further research. The suggestions are as follows:

1. For the next researcher

Based on this study, it is hoped that further research will examine other variables that can affect patient safety, because in this study the influence of patient safety is medical personnel and burnout (workload).

2. For Hospitals

In this study, burnout (workload) mediated by medical personnel had no effect on patient safety. This is already good with teamwork and needs to be further improved for the sake of service to patients and patient safety.

## REFERENCES

- Al-damen, R. (2017). Health Care Service Quality and Its Impact on Patient Satisfaction "Case of Al-Bashir Hospital." *International Journal of Business and Management*, 12 (9), 136-152
- Anita Santi Widyastuti. (2013). Hubungan Antara Mutu Pelayanan Tenaga Perawat Dengan Tingkat Kepuasan Pasien di Ruang Rawat Inap Puskesmas Wonosegoro I Boyolali. Program Studi Ilmu Kesehatan. Fakultas Ilmu Kesehatan. Universitas Muhammadiyah Surakarta.
- Arman Rifat Lette. (2020). Jumlah dan Kebutuhan Sumber Daya Manusia Kesehatan di Fasilitas Kesehatan Kota Kupang. *Jurnal Publikasi Kesehatan Masyarakat Indonesia*. Kupang.
- Chriswardani Suryawati et al. (2006). Penyusunan Indikator Kepuasan Pasien Rawat Inap Rumah Sakit di Provinsi Jawa Tengah. Fakultas Kesehatan Masyarakat dan Program Magister Ilmu Kesehatan Masyarakat Universitas Diponegoro. *Jurnal Manajemen Pelayanan Kesehatan*. Vol 09. Hal 177-184. Semarang.
- Fitriyuli Mayasari. (2015). Analisis Hubungan Waktu Pelayanan dan Faktor Total Quality Service Terhadap Kepuasan Pasien di Poliklinik Kebidanan dan Kandungan RSIA Anugrah Medical Center Kota Metro Tahun 2015. Program Pascasarjana Kajian Administrasi Rumah Sakit Indonesia. Departemen Administrasi dan Kebijakan Kesehatan FKM UI.
- Gunardi, W. D. (2021). Pemeriksaan Diagnosis Laboratorium COVID-19: Keterbatasan dan Tantangannya Saat Ini. *Jurnal Kedokteran Meditek*. 2021; 27(2): 173-182.
- Hartono, Budi. (2011). "Pengembangan Model Pengukuran Kinerja RS Untuk Mencapai Misi RS di Indonesia". Disertasi, FKM UI Depok.
- Helwiyah Umniyati. (2009). Kepuasan Pasien Terhadap Pelayanan Tenaga Kerja Kesehatan di Puskesmas Kecamatan Tanjung Priok Jakarta Utara Tahun 2009. Universitas Yarsi. Jakarta.
- Ida Hidayati et al. (2017). Konsep kualitas pelayanan kesehatan berdasar atas ekspektasi peserta jaminan kesehatan nasional. Bandung. Departemen IKM FK Unpad. Vol 49 No. 2.
- Ilyas, Yaslis. (2004). Perencanaan SDM Rumah Sakit: Teori, Metoda dan Formula. Depok: FKM UI.
- Ineu Indriani. (2018). Pengaruh Kompetensi dan Beban Kerja Terhadap Kinerja Pelaksanaan Asuhan Keperawatan Pada Bagian Rawat Inap Rumah Sakit Umum Dr Slamet Garut. *Jurnal Wacana Ekonomi*. Vol. 17; No. 2.
- J. Guwandi. (1994). Kelalaian Medik (medical negligence). FKUI. Jakarta.

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---

- Kotler, Keller. (2009). *Manajemen Pemasaran*. Edisi ketiga belas Jilid satu. Penerbit Erlangga, Indonesia. Jakarta
- Liza Salawati. (2020). Penerapan keselamatan pasien rumah sakit. Aceh. *Jurnal Averrous*. Vol. 6 No. 1. hal. 98-107.
- Lovelock & Wright. (2005). *Service operations management: from the roots up*. International Journal of Operations & Production Management.
- Made Ayu Lely Suratri et al. (2018). Kepuasan Pasien terhadap Kualitas Pelayanan Pasien Rawat Jalan Rumah Sakit di 7 Provinsi di Indonesia.
- Maya Khairani et al. (2021). Kepuasan pasien ditinjau dari komunikasi perawat- pasien. *Jurnal Penelitian Psikologi*. Vol. 12 No. 1.
- Muhammad Ikhsan Akbar et al. (2020). Kajian Kebutuhan Mujiati & Yuyun Yuniar. Ketersediaan Sumber Daya Manusia Kesehatan pada Fasilitas Kesehatan Tingkat Pertama dalam Era Jaminan Kesehatan Nasional di Delapan Kabupaten-Kota di Indonesia. Pusat Penelitian dan Pengembangan Sumber Daya dan Pelayanan Kesehatan, Badan Litbangkes, Kemenkes RI. Jakarta.
- Muhammad Sukri et al. (2017). Hubungan Pelayanan Tenaga Kesehatan Dengan Tingkat Kepuasan Pasien Peserta BPJS. STIKES Muhammadiyah Sidrap. *JIKP (Jurnal Ilmiah Kesehatan Pencerahan)*.
- Mujiati & Yuyun Yuniar. (2016). Ketersediaan Sumber Daya Manusia Kesehatan pada Fasilitas Kesehatan Tingkat Pertama dalam Era Jaminan Kesehatan Nasional di Delapan Kabupaten-Kota di Indonesia. Pusat Penelitian dan Pengembangan Sumber Daya dan Pelayanan Kesehatan, Badan Litbangkes, Kemenkes RI. Jakarta.
- Noor Alya. (2021). Analisis pengaruh kompetensi dan kedisiplinan tenaga kesehatan terhadap kepuasan pasien rawat inap puskesmas Jasinga Kabupaten Bogor Jawa Barat. Jakarta. *Jurnal Ilmiah Ilmu Administrasi STIAMI*. Vol 4, No. 1. pp. 70-84.
- Nuryanto. (2005). Kajian Kebutuhan Sumber Daya Manusia Dengan Menggunakan Metode Workload Indicator Staff Need (WISN) Di Instalasi Farmasi Rumah Sakit Umum Pusat Haji Adam Malik Medan. Magister Administrasi dan Kebijakan Kesehatan. Universitas Sumatera Utara.
- Haryono, PM Budi. (2018). *How to be a Professional Customer Service*. Jogjakarta: Andi Publisher.
- Pahlevi, Rizal (2013). Analisis Efektifitas Proses Rekrutmen dan Seleksi dalam memenuhi kebutuhan Sumber Daya Manusia. *Rekrutmen Seleksi*, Vol. 1.
- Perawat pada Rumah Sakit Umum Mitra Medika Medan. *Jurnal Ilman*. Vol. 6, No. 2, pp. 42-50. <http://journals.synthesispublication.org/index.php/ilman>.
- Purwanto, Ari. (2011). Analisis Kebutuhan Tenaga Perawat Dengan Metode Workload Indicator Staffing Need (WISN) Di Instalasi Rawat Inap Bagian Interna RSD Dr. Soebandi Jember. Skripsi. Bagian Administrasi dan Kebijakan Kesehatan, Fakultas Kesehatan Masyarakat. Fakultas Kesehatan Masyarakat. Universitas Jember.
- Rini Astuti et al. (2018). Pengaruh Motivasi dan Beban Kerja terhadap Kinerja.
- Rory Sutherland. (2019). *Alchemy: The Surprising Power of Ideas That Don't Make Sense*. Ebury Publishing. London.
- Schultz, Duane P. Dan Schultz. (2010). *Working Conditions and Work Today*. Sixth Edition, Willey and Sons, Inc.
- Seth Godin. (2005). *All Marketers Are Liars: The Power of Telling Authentic Stories in a Low Trust World*. London: Penguin Books Ltd.
- Sugiyono. (2014) *Metode penelitian:Kuantitatif, kualitatif dan R & D*. Bandung: Alfabeta.
- Suhermin et al. (2021). Membangun kepercayaan kepada rumah sakit berdasarkan kualitas layanan dan kepuasan pasien. *Malang. Equilibrium* Vol. 10. No. 1. Hal 51-9.
- Tarwaka, Solichul, Lilik. (2004). *Ergonomi untuk keselamatan, kerja, dan produktivitas*. Surakarta: Uniba Press.



- Tarwaka. (2010). Ergonomi Industri. Surakarta: Harapan Press.
- Tati Murni Karokaro et al. (2020). Faktor-faktor yang berhubungan dengan waktu tanggap (response time) pasien di instalasi gawat darurat rumah sakit Grandmed. Deli Serdang. Sumatera Utara. Jurnal keperawatan dan fisioterapi, e-ISSN 2655-0830, vol. 2 no.5.
- Tejal K Gandhi. (2018). Transforming concepts in patient safety: a progress report. Boston. BMJ Qual Saf 2018; 27: 1019-1026.
- Tiara Wahyuni et al. (2013). Hubungan Komunikasi Dokter-Pasien Terhadap Kepuasan Pasien Berobat di Poliklinik RSUP DR. M. Djamil Padang. Padang. <http://jurnal.fk.unand.ac.id>
- Vanchapo, A.R. (2020). Beban kerja dan Stress Kerja (N.Arsalan(ed));1:CV Penerbit Qiara Media.
- Yudo Setiawan et al. (2017). Hubungan Responsiveness Tenaga Kesehatan Dengan Tingkat Kepuasan Pasien Ruang Rawat Inap di RSD Balung Kabupaten Jember. FIKES Universitas Muhammadiyah Jember. Jember.

### **Other References**

- Medical Injury Compensation Reform Act.  
Pasal 30 UU No. 44 tahun 2009  
Pasal 32 UU No. 44 Tahun 2009 tentang Rumah Sakit  
Pasal 34 UU 36/2014.  
Pasal 3-6 UU 44/2009.  
Pasal 52 UU No. 29 Tahun 2004 tentang Praktik Kedokteran  
Pasal 57 UU No. 36/2014.  
Pasal 75 UU No. 36/2014.  
Pasal 83 UU No. 36 tahun 2014 tentang Kesehatan.  
Undang-Undang Nomor 44 tahun 2009 tentang Rumah Sakit. Jakarta.  
YLKI. 2011. Mengadukan Layanan Kesehatan. <https://ylki.or.id/2011/09/mengadukan-layanan-kesehatan/>.  
Yurisprudensci keputusan Pengadilan Boston. 1979. Pasal 84 UU No. 36/2014 Tenaga Kesehatan.

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