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MODEL OF NON MEDICAL SOLID WASTE MANAGEMENT AND HOSPITAL VEGETATION

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ABSTRACT

Global warming is an important issue throughout the world. The increasing temperature of the earth makes the earth hotter and poses new threats.

This research was conducted at the Regional General Hospital (RSUD) Pare, Kediri Regency. The target population in this study were inpatients who underwent treatment at Pare Regional Hospital, Kediri Regency from April to August 2012. Data in this study consisted of primary and secondary data. Primary data collection was carried out through distribution of questionnaires to hospital residents and in-depth interviews with hospital management. Respondents in this study were 137 people. Data analysis using structural (Structural Equation Model / SEM)

The results of the study, good management of non-medical waste does not directly affect satisfaction but through the comfort of hospital patients. Vegetation parks in Pare Regional Hospital, Kediri district, affect patient comfort and satisfaction.

Keywords: Non-medical solid waste, SEM (Structural Equation Modeling) Analysis, Waste treatment

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INTRODUCTION

Global warming is an important issue throughout the world. Earth's rising temperatures make the earth hotter and pose new threats, for example the high frequency of rain, storms, hurricanes, floods and forest fires. The use of energy for daily use contributes to the greenhouse effect, which also has an impact on global warming.

In principle, the hospital model in the future needs to be managed properly by always considering health, economic, ecological and social aspects so that the principle of fulfilling the concept of sustainable development in the health sector will be fulfilled, and the hospital can play an active role in reducing the impact of climate change and reducing carbon footprints it generates, as is the policy of the World Health Organization (WHO) contained in Healthy Hospitals, healthy planet, healthy people (Addressing Climate Change in Health Care Settings).

A hospital is not a "green hospital" hospital if the liquid waste produced is directly discharged into public channels so it is very dangerous for the surrounding environment. Contaminated water becomes useless for household purposes (for example drinking water, cooking, washing), agriculture (for example water that is too acidic will kill plants / animals) so that polluted water becomes a medium for disease development. Some influences on comfort disorders in hospitals are caused by hospital waste and environmental degradation. Hospital appearance can have psychological effects on service users, due to the negative impression caused by waste that is not handled properly (Jarhead, 2013).

Green hospital according to Jakobalis (2009) is an environmentally friendly hospital as part of service quality and care that has characteristics: Strategic location, efficiency in the use of water, energy and healthy air pollution, using materials and resources that are can be recycled, maintain indoor environmental quality, healthy food, build a green culture, procurement must be oriented to green products, no contaminants occur by reducing toxic substances, green cleaning, reducing waste (waste reduction), and availability of healing garden/healing garden. Zborowsky et al. (2008), found that the purpose of establishing a healing garden is to provide natural healing for patients, family members, and hospital staff who are constrained by stressful situations. ”Besides that hospitals with environmental insight must also consider sustainable design (Jong-jin, 1998)

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Based on SOP in Kediri District Hospital, clinical or medical waste handling has been handled according to the Decree of the Minister of Health of the Republic of Indonesia Number 1204 / Menkes / SK / X / 2004 regarding Hospital Environmental Health Requirements, but for non-medical waste is still not handled properly, especially creating a house sick to "green hospital". This is due to the handling of medical waste which is already large enough to be incurred so that the handling of non-medical waste has not been done seriously. Handling hospital waste to the "green hospital" is very important and determining whether the hospital is successful in carrying out the concept of "green hospital". Waste management to "green hospital" in addition to reducing the risk of disruption to the environment can also affect the quality of comfort in the hospital, especially the comfort of patients who come to the hospital.

In addition to increasing the comfort of hospital patients, handling hospital waste to the "green hospital" directly or indirectly can affect patient satisfaction.

2. Research Methods

This study uses two analytical approaches, namely quantitative and qualitative analysis. Malhotra (2004) states that a population is a combination of all elements that have a set of similar characteristics that include the universe. In the context of research with quantitative methods, the study population was all patients of Pare Regional Hospital, Kediri Regency. Information about the total number of patients in the Kediri district hospital is unknown.

This research was conducted at the Regional General Hospital (RSUD) Pare, Kediri Regency. The basis for determining the sample of this hospital is the method of random sampling or random from the population of the entire Regional General Hospital in a region ex-residency of Kediri. According to Arikunto (2006: 133) sample research can be done if the subjects in the population are truly homogeneous. The technique of determining random samples / random samples is by selecting one sample from the sampling frame after each population element has been coded (numbers or symbols).

The target population is a collection or element that has the information sought by researchers whose inference about it will be made (Malhotra, 2004). The target population in this study were inpatients who underwent treatment at Pare Regional Hospital, Kediri Regency from April to August 2012. Data in this study consisted of primary and secondary data. Primary data collection was carried out through distribution of questionnaires to hospital residents and in-depth interviews with hospital management.

Hair et al. (2003) argue that the minimum sample size that must be met in SEM is 100. Respondents in this study were 137 people. Primary data obtained directly from the results of interviews conducted with patients. Primary data intended in this study include hospital non-medical solid waste management, comfort level and patient satisfaction.
Secondary data in this study in the form of data that is available and has been processed by the District Hospital of Pare Kediri, including: facilities available in hospitals, administrative rooms, treatment room data, data on the state of employees both administrative staff, doctors and nurses, as well as hospital reports on the type of work, length of stay and patient education level.

Analysis of the data used in this study was to determine the effect of non-medical waste management in hospitals on patient comfort and satisfaction towards green hospitals using two approaches namely qualitative and quantitative analysis. Descriptive qualitative used quantitative tools to help score. Assessment using a Likert Scale with a Likert scale of 5 (five) research scores ie 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 =

strongly agree (Solimun. 2002). The model used in this study is the model of causality or causality in the form of structural equations (Structural Equation Model / SEM). Data processing to find the SEM equation, using AMOS 16 software (Sugiyono, 2007).

3. Results And Discussion

The results of the initial structural model in Figure 5.6 after an evaluation with modification indeces (MI), the structural model results obtained after evaluation like this

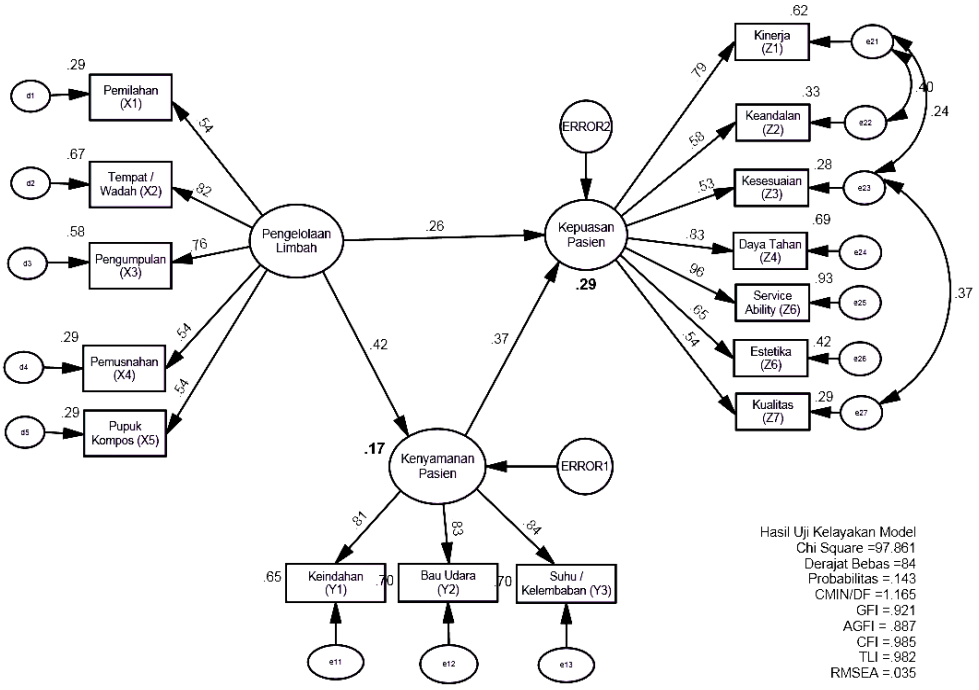

Figure 1. Results of the Structural Model After Evaluation

The model feasibility test results on the evaluation model are better than the initial model, so the results of the evaluation of this model can be accepted, and become the final model for interpretation and hypothesis testing. In Figure 1. it can be concluded that the non-medical solid waste management model and garden vegetation in the hospital to the green hospital can be interpreted as follows:

There is a direct influence between the management of non-medical waste on comfort, the coefficient marked positive (0.417) provides an explanation that the better management of non-medical waste will improve patient comfort. Non-medical solid waste management also directly affects patient satisfaction, because the coefficient marked positive (0.260) provides an explanation that better non-medical waste management will increase patient satisfaction. Strategic formulation to increase patient satisfaction must consider two marketing strategies, namely definitive marketing and offensive marketing (Kotler, 2003).

Maintaining existing patients is more difficult than finding new patients, because maintaining existing customers will increase patient retention. Maintaining a patient with a defensive marketing approach includes; improve cost efficiency, increase repurchase volumes, set premium price strategies, and carry out appropriate promotional strategies. Defensive marketing strategy will produce high profit margins. Conversely, efforts to find new patients are offensive marketing, namely by increasing market share, increasing product reputation or image through brand strategy.

Waste management must be managed by the hospital management professionally and even able to compete with other hospitals, especially hospitals that have been far more advanced to manage non-medical waste properly. Hospitals must have a section specifically authorized and responsible for carrying out activities from program planning, organizing, the ability to mobilize related personnel / personnel, being responsive in coordination both internally and externally, carrying out rehabilitation and innovations and also being responsible with get resources to be allocated optimally in the management of non-medical waste. The waste management installation (IPAL), which is the part that handles non-medical waste in hospitals, has to optimize its role, and even be given the opportunity to routinely conduct comparative studies with hospitals that have gone to green hospitals.

The independence of the hospital in managing the budget to no longer have a dependency on the Regional Revenue and Expenditure Budget (APBD) in the form of the Regional Unit Service Agency (BLUD) must be welcomed optimistically because if the hospital management is managed by qualified personnel and have competent competence high and business-oriented and professional, it is not impossible that local government hospitals that are physically related to facilities and infrastructure and health services will develop rapidly in a relatively short period of time to be able to go to green hospitals. The hospital's non-medical waste management has indicators of waste segregation, place / container, collection, destruction and the possibility to be processed into compost to fertilize plants in the hospital environment. Sulistyorini (2005), found that after all, there are still other factors that play an important role in the success of solid waste management in hospitals, namely the management factor, available funds, and equipment owned.

The main dominant indicators in waste management are the place / container (0.816) and waste collection and transportation (0.759). Management of these two things includes the provision of a place / container that meets the needs and procedures for the collection and transportation of rubbish which includes ways, frequency and equipment will have a major impact on improving the level of comfort and satisfaction of patients.

There is a direct influence between patient comfort and patient satisfaction. Because the coefficient is positive (0.371) provides an explanation that the high level of comfort in the patient will increase patient satisfaction.

The comfort indicators include the beauty, the smell of the air and the humidity of the air. Whereas the dominant main indicator is temperature / humidity (0.838). As well as the smell of air (0.834). Efforts to suppress the emergence of non-humid air and unpleasant odors caused by waste through environmental management become clean and green. Planting a lot of plants will have a big impact on the level of patient satisfaction.

Indicator patient satisfaction consists of performance, reliability, suitability, durability, service abilities, aesthetics and quality. From Figure 5.2. the results of the model above, the main indicators of patient satisfaction are service ability (0.962) and durability (0.833). Good service for handling complaints about waste and speed of hospital staff in handling hospital waste is a reflection of high levels of patient satisfaction (Anonymous, 2011).

In the SEM model in this study there is only one indirect effect, which is the indirect effect of non-medical waste management on patient satisfaction through patient comfort. There is a significant indirect effect of non-medical waste management on patient satisfaction through patient comfort. This relationship can be interpreted that patient satisfaction will be formed due to a sense of comfort while in hospital, and one of the determining factor for this sense of comfort is the ability of the hospital in managing non-medical waste. Failure to manage non-medical waste will gradually reduce patient satisfaction due to discomfort in the hospital. The temperature and relative humidity of hospital air provide a strong to very uncomfortable sensation (41-46). This indicates the need for better management in the management and

maintenance of parks or green open spaces (RTH), especially on tree vegetation that can provide shade that can reduce thermal discomfort.

4. Conclusions

Good non-medical waste management does not directly affect satisfaction but through the comfort of hospital patients. Garden vegation in Pare Regional Hospital of Kediri Regency has an effect on patient comfort and satisfaction.

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