

Factors Associated with the Occurrence of Contact Dermatitis at PT IMIP in Morowali Regency

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Abstract

Background: Skin disease due to work is the second most common disease after musculoskeletal disease, accounting for 22% of all occupational diseases. **Objective:** The purpose of this research was to determine the factors associated with the incidence of contact dermatitis at PT IMIP in Morowali Regency. **Method:** This type of research is analytic research with a case control approach. The sample was the total population. **Result:** The results of the research were analyzed using univariate and bivariate analysis. The results show that of 100 respondents, both the case and the control group that have good personal hygiene amounted to 65.0%, respondents who have no allergic history amounted to 89.0%, contact duration ≥ 2 years amounted to 62.0%, use personal protective equipment amounted to 65.0% incidence of contact dermatitis respectively 50%. Chi-Square test results of personal hygiene, allergic history, contact duration and the use of personal protective equipment obtained p value= 0.000 and p value= 0,007 (≤ 0.05). **Recommendation:** suggestions for PT IMIP in Morowali Regency to further enhance socialization to employees about the importance of maintaining health, especially in preventing skin diseases including contact dermatitis and motivate the employees in order to civilize the use of personal protective equipment when working.

Keywords: allergic, contact dermatitis, personal hygiene



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INTRODUCTION

The development and progress that has been achieved in national development has succeeded in increasing the socio-economic welfare of the community. The community has the ease of obtaining and utilizing industrial products both domestically and abroad. However, there are negative impacts from industrial products that are in direct contact with human skin or as a result of the work they do. One example of a disease that arises is contact dermatitis which is an inflammatory response to external material that contacts the skin(1)

Occupational dermatitis is the second most common disease after musculoskeletal disease with a percentage of 22% of all occupational diseases. In the United Kingdom, 1.29 cases per 1000 workers were found as occupational dermatitis. In addition, from several types of occupational skin diseases, more than 95% are contact dermatitis, the rest are other skin diseases such as acne, skin tumors and urticaria. One of the occupational dermatoses that is often found is contact dermatitis(2).

When related to the type of work, contact dermatitis can occur in almost all types of work. Usually this disease is experienced by people who work in the industrial sector such as advertising, beauty care, hair care, health workers and also in agriculture (3).

Contact dermatitis can be caused by irritants and allergens; it is also influenced by several factors such as contact duration, history of previous contact dermatitis, use of personal protective equipment (PPE), and personal hygiene(4).

The actual prevalence of occupational contact dermatitis is unknown because many workers have never reported the disease while in a mild condition (5). In the world, the prevalence of DKAK is around 68.2%. The incidence of occupational dermatoses in several countries can be averaged 50-70 cases per 100,000 workers per year (6). In Indonesia, according to epidemiological studies that have been done show data that 97% of 389 cases are contact dermatitis, which is divided into 66.3% for the incidence of irritant contact dermatitis and 33.7% for the incidence of allergic contact dermatitis(7).

The incidence of occupational dermatitis in the United States is 55.6%, of which 69.7% are workers. Workers in the culinary field in Denmark are the highest incidence of irritant contact dermatitis, followed by cleaning service workers. The prevalence of contact dermatitis in Indonesia varies greatly. According to the Association of Indonesian Skin and Genital Specialists (Perdoski), around 90% of occupational dermatoses are contact dermatitis, both irritant and allergic. The incidence of contact dermatitis is 92.5%, while those caused due to skin infections are 5.4% and 2.1% due to other causes such as car washes. The factors of contact duration, length of service, personal hygiene, and the use of PPE are related to the occurrence of occupational contact dermatitis (DKAK) 8. In Central Sulawesi, data on allergic skin disease in 2017 amounted to 11,363 cases. Dermatitis prevalence is 10.6% (range 3.9-23.7%), the highest in Buol district followed by Palu city. Specifically for Morowali District it reached 4.9%.

Based on information from health workers in PT IMIP Morowali Regency, the number of sufferers of skin disease in 2018 is \pm 600 cases with an average number of monthly per month are \pm 50 people treated for contact dermatitis. Interviews with 5 employees obtained information that 3 people had experienced itching. Based on these facts, researchers are interested in exploring "Factors Related to the Occurrence of Contact Dermatitis at PT IMIP Morowali Regency".

OBJECTIVE

The study aimed to determine the factors associated with the incidence of contact dermatitis at PT IMIP in Morowali Regency.

METHOD

Design

A case control study design was applied in this study to determine the risk factors associated with the incidence of dermatitis. This study compared the case group of employees suffering from contact dermatitis) with a control group (employees who did not suffer from contact dermatitis) to determine the contribution of risk factors to the occurrence of contact dermatitis.

Retrospectively this study looked back on an event related to the occurrence of contact dermatitis in the IMIP employees under study. This research was conducted at PT IMIP Morowali Regency in May 2019

Sample, Sample Size, & Sampling Technique

The population in this study were all employees of the Smelter who suffered contact dermatitis as a case group of 50 people and as a control of 50 employees who did not suffer from contact dermatitis at PT IMIP Regency Morowali, amounting to 100 people. The sample in this study was the total population of employees suffering from contact dermatitis as a case group of 50 people and the majority of employees who did not suffer from contact dermatitis as controls amounted to 50 people. The sampling technique used is Non Random Sampling by accidental sampling.

Ethical consideration

This study had been approved by the IRB of Universitas Sembilan Belas Maret. All the respondents signed the inform consent before participating in this study

RESULTS

Characteristic of respondents

Table 1 describes the characteristics of the respondents. According to gender, there are unequal proportions, namely 11 males and 66 females. Most of the respondents were aged 20 – 30 years (72.7%), while those aged 30 years and 40 years were 27.3%. The sample with a diploma and bachelor's education respectively is 85.7% and only 14.3%. More than half of respondents were new employees (64.9%) working for 5 years. 19.5% with a term of between 5-10 years. The remaining 3.9% of respondents have more than 10 years of work. Bhakti Asih Hospital has 77 inpatient nurses. For experience, it is divided into seniors (years of service (5 years) and juniors (5 years).

Discussion

The Influence of Participation Leadership Style and Workload on Work Motivation with Job Satisfaction as an intervening variable.

Based on the calculation, it is known that the leadership style variable has a less direct effect on work motivation than the indirect effect on job satisfaction. The results of the research described above are supported by the distribution of the participation leadership

style variable on the target indicators that must be achieved with the statement, "Superiors and subordinates share ideas (discuss) in making a decision, so it takes longer time to make the decision (GK1). These results mean that the leadership style of participation, workload, and job satisfaction significantly affects work motivation(11).

The hierarchy of needs theory is the most famous motivation theory of Abraham Maslow. The hypothesis says that in all humans reside five levels of needs, namely as follows: physiological needs, security needs, social needs, esteem needs, needs for self-actualization or self-actualization(12)

The results of the research described above are supported by the distribution of workload variables on indicators of working conditions with the statement, "I am always required to be able to make decisions that must be right at all times (BK7)". These results indicate that the leadership style of participation, workload, and job satisfaction significantly affects work motivation.

The Influence of Participatory Leadership Style on Work Motivation

The results of the description above are supported by the distribution of the participation leadership style variable in the statement "Superiors and subordinates share ideas (discuss) in making a decision, so it takes longer time to make the decision (GK1)" which means the leader has given time to discuss with a subordinate. The leadership style will be very effective if it can accommodate the environment. A leader must have authority, power to govern others, and obligations and responsibility for their actions (13).

The leadership style will be very effective if it can accommodate the environment. A leader must have authority, power to govern others, obligations, and responsibility for their actions. Elements of leaders who apply a participatory style cannot motivate the work of inpatient unit nurses. If they cannot play their role optimally to increase job satisfaction, create a conducive atmosphere and work discipline, which is essentially an effort to improve the quality of health services. These results mean

that the participatory leadership style will not have a significant effect on work motivation without causing changes to the job satisfaction of inpatient nurses(1)

Effect of workload on work motivation

The result is in line with the participants' statement, explained that the number of patients is greater than the number of nurses. This is because simple tasks are sometimes not considered necessary, so nurses at Bhakti Asih Hospital are often missed, such as recording the time for an examination which is sometimes forgotten and not written on the examination form. It was due to a lack of supervision of inpatient nursing care by the head of the room or supervisor(14).

A nurse's workload can be calculated from the adequate time used to complete the tasks that become her burden. In carrying out nursing care, various factors affect a nurse's performance. The level of performance of nurses is influenced by factors from within the nurse itself and outside the nurse. Elements within the nurse include knowledge and skills, competencies following their work, work motivation, and job satisfaction. These results conclude that workload has no significant effect on work motivation. The connection between workload and work motivation positively impacts increasing job satisfaction(7).

The workload given to employees of organizations and institutions is an activity that has an essential role in determining the need for employees needed in the smooth completion of a job. Work overload occurs when there is excess work, and an individual's ability to perform the work requires more time and resources(11).

Effect of job satisfaction on working motivation

The distribution of research supports the research results described above. Job satisfaction variable at superiors does not appreciate employee in completing work assignments. This shows an understanding of the readiness of inpatient nurses in achieving inpatient services. Even though the standards in the hospital even though it is still not optimal. These results conclude that job satisfaction significantly affects work

motivation(15).

Jobs provide interesting assignments, opportunities to learn, and opportunities to accept responsibility. Employees prefer jobs that provide opportunities to use abilities and skills, freedom, and feedback. Employees who feel fast for their work will generate motivation in themselves to work even better. These results conclude that job satisfaction has a significant effect on work motivation(13)

The effect of participatory leadership style on job satisfaction

The research results described above are supported by the distribution of the leadership style variable. Participation in superiors always delegates authority while creating a pleasant working relationship. It can be assessed that the influence of participatory leadership style affects the job satisfaction of inpatient nurses to minimize barriers to service, which will affect the work motivation of inpatient unit nurses in hospitals(16).

The Effect of Workload on Job Satisfaction

The results of this study described the distribution of workload variables on job standards as consistent with the statement of participants "I am not comfortable because I have a minor role in decision-making decision by hospital management. This indicates that nurses also want to play a role in hospital decision-making that affects nurse job satisfaction(17). Participation leadership style, workload, and job satisfaction have a significant positive effect on work motivation. The heavier workload will impact the decrease in work motivation of inpatient unit nurses at Bhakti Asih Hospital.

Participation leadership style does not directly affect work motivation, so it requires job satisfaction as an intervention to impact work motivation positively.

The workload does not affect work motivation directly. But job satisfaction has a significant positive effect on work motivation. More effective job satisfaction will impact increasing the work motivation of inpatient nurses at Bhakti Asih Hospital. The leadership style of participation and workload have a

significant positive effect on job satisfaction.

Implication

- a. The hospital nursing organization system. This system regulates how the organization can provide a platform for subordinates to express their aspirations and suggestions on how nurses can complete their work. This system also regulates how organizations can provide ongoing training to nurses.
- b. Another system that can be improved is the nurse's remuneration system so that the wages received follow their background and education.
- c. The nurse performance evaluation system can also be of more concern for hospitals so that the workload can support the performance of nurses, especially inpatients.

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