

RELATIONSHIP BETWEEN KNOWLEDGE OF OCCUPATIONAL HEALTH AND SAFETY (OHS) AND THE OCCUPATIONAL ACCIDENTS AT THE KOTAMOBAGU REGIONAL GENERAL HOSPITAL

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ABSTRACT

This research on knowledge about Occupational Health and Safety (OHS) aims to determine the relationship between knowledge about Occupational Health and Safety with work accidents at Kotamobagu Regional Hospital. The type of research is quantitative analytic with cross sectional design. The study population was all employees at Kotamobagu Regional Hospital, totaling 677 people. The research sample was determined by cluster random sampling, where the research sample was taken from each section proportionally and then determined randomly, so that 150 respondents were selected. Data analysis used in this research includes univariate analysis and bivariate analysis using Chi-Square test to determine the relationship between variables. The results showed that there were 145 people (97%) respondents had good knowledge about OHS, as many as 72 people (48%). who experienced work accidents. The results of the relationship test between variables showed a value of ($p = 0.413$) which indicates that there is no significant relationship between knowledge about Occupational Health and Safety and work accidents at Kotamobagu Hospital.

INTRODUCTION

Occupational Health and Safety (OSH) that cannot be separated from the employment system and human resources (Kaynak *et al.*, 2016). The application of OSH is not only very important for workers but also determines the productivity (Yovi and Nurrochmat, 2018). Therefore, OHS is an obligation and necessity that must be fulfilled in a workplace system (Jarota, 2023). Accident analysis shows that most accidents are caused by human factors with unsafe actions and according to investigations account for 85% of all accidents, therefore safety efforts in addition to being aimed at mechanical techniques must also special attention to human aspects (Soehatman, 2009).

Basically an accident does not happen by chance, but there is a cause behind it. The cause of the accident must be researched and found so that there are further

corrective and preventive actions to minimize the occurrence of similar accidents recurring (Suma'mur, 2009). Knowledge about Safety and Health in the workplace is one of the main factors that need attention in order to prevent diseases and accidents in the workplace (Jarota, 2023).

Hospitals have their own characteristics that are influenced by the development of health science, technological advances, and the socio-economic life of the community which must remain able to improve higher quality services including the quality of human resources in order to avoid the risk of accidents and occupational diseases.

The results of (2021) show that physical hazards in the form of being punctured or scratched by sharp objects are the biggest contributing factor in the incidence of work accidents. Many sharp objects are used in daily hospital operations, including syringes, needles, surgical instruments, and other sharp medical instruments (Tsegaye Amlak *et al.*, 2023).

RESEARCH METHODS

The type of research is quantitative analytic with cross sectional design. The study population was all employees at Kotamobagu Regional Hospital, totaling 677 people. The research sample was determined by cluster random sampling, where the research sample was taken from each section proportionally and then determined randomly, so that 150 respondents were selected. Data analysis used in this research includes univariate analysis and bivariate analysis using Chi-Square test to determine the relationship between variables.

RESULTS AND DISCUSSION

The results of this study showed that of the 150 respondents, 122 people (81%) of the respondents were women and 19% were men (Munna and Bulbul, 2023). There are 83 people (55%) with age 31-40 years (Farooq *et al.*, 2023). The highest level of education is D3, namely 72 people (48%) (Atika *et al.*, 2023). Respondents who had good knowledge were 145 (97%) (Babatola *et al.*, 2023). Of the 145 people who had good knowledge but had an accident as many as 71 people (49%) and who had good knowledge but had an accident as many as 74 people (51%). Meanwhile, of the 5 people who had poor knowledge and had an accident as many as 1 person (20%), who had poor knowledge but did not have an accident as many as 4 people (80%).

The results of the Chi-Square analysis of the relationship between OHS Knowledge and Work Accidents are $p \text{ value} = 0.413 > p \text{ value} = 0.05$, meaning that H_0 is rejected. Thus there is no significant relationship between knowledge of Occupational Accidents and Safety (OHS) and work accidents (Yuliani and Subroto, 2023).

A study conducted by productivity platform Hive in The Hive State of the Workplace Report found that women are 10% more productive and enterprising than men at work, and are even trusted to do more tasks than men. In line with the research of (Salsasaida and Fedryansyah, 2018) which reveals that in terms of domestic work women are more dexterous and skilled at doing work such as tidying

up, caring, serving, and women can also do multitasking work. That is why hospitals have more female workers.

Age level is very influential on labor productivity because it is related to the physical ability of a worker (Maqsoom *et al.*, 2023). Workers who are at a productive age tend to be physically stronger than non-productive age workers. Research by (Asilah and Yuantari, 2020) revealed that age group has an important influence on work accidents. The old age group has a higher tendency to experience work-related accidents than the young age group, because young age has a higher reaction and speed (Rashmi and Marisamynathan, 2023). However, young people often also experience cases of work-related accidents, this may be due to carelessness and haste.

The level of education can affect a person's behavior to live healthy and maintain their safety. Human behavior itself is the result of all kinds of experiences and human interactions with the environment which are manifested in the form of actions. Occupational health and safety are essential elements for the continuity of work productivity. The level of education can influence a person's mindset and behavior to live healthy and maintain their safety. However, the level of education is not always directly proportional to knowledge about OHS and the level of accidents in the workplace.

(2018) in their research showed that there is no significant relationship between education level and occupational health and safety culture but there is a significant relationship between knowledge about occupational health and safety and occupational health and safety culture for workers who work in production in manufacturing companies.

Efforts to implement OHS in hospitals involve labor, work methods, work tools, work processes, and work environments which include improvement, prevention, treatment, and recovery. This is supported by research conducted by (Ramadhani *et al.*, 2020), that the more proactive nurses are in applying new knowledge, the more positive they will be about the implementation of OHS in hospitals so that it will reduce the incidence of work accidents.

The results of the Chi-Square analysis of the relationship between Knowledge of Occupational Health and Safety with work accidents, namely the p value = 0.413 > p value = 0.05, meaning that there is no significant relationship between Knowledge of Occupational Health and Safety with work accidents. The results showed that even though most of them have good knowledge about Occupational Safety and Health, work accidents still occur, meaning that knowledge does not guarantee that work accidents will not occur. This can be caused by other factors, namely human factors influenced by attitudes such as behavior, dangerous actions, inappropriate work attitudes, hazardous conditions / conditions, namely unsafe conditions from the presence of machinery or equipment, environment, process, nature of work and factors at hand, such as lack of maintenance / maintenance of machinery / equipment so that it cannot work perfectly.

CONCLUSION

The results of the relationship test between the level of knowledge about OHS and work accidents with a value of ($p = 0.413$) which means that there is no significant relationship between knowledge of occupational safety and health with work accidents at Kotamobagu Hospital.

BIBLIOGRAPHY

- Asilah, N. and Yuantari, M.G.C. (2020) 'Analisis Faktor Kejadian Kecelakaan Kerja pada Pekerja Industri Tahu', *Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia*, 1(1).
- Atika, A. et al. (2023) 'Factors Influencing Efforts to Prevent DHF in the Community Health Center', *Journal La Medihealthico*, 4(2), pp. 68–76.
- Babatola, A. et al. (2023) 'Knowledge, practice and technique of facemask usage among healthcare workers in a tertiary hospital in Ado-Ekiti, Nigeria', *Scientific African*, 19, p. e01559.
- Endriastuty, Y. and Adawia, P.R. (2018) 'Analisa hubungan antara tingkat pendidikan, pengetahuan tentang K3 terhadap budaya K3 pada perusahaan manufaktur', *Jurnal Ecodemica: Jurnal Ekonomi Manajemen dan Bisnis*, 2(2).
- Farooq, M.W. et al. (2023) 'Road Traffic Injuries: Quality Of Pre And Post Hospital Care In Pakistan', *Journal of Positive School Psychology*, pp. 1551–1564.
- Jarota, M. (2023) 'Artificial intelligence in the work process. A reflection on the proposed European Union regulations on artificial intelligence from an occupational health and safety perspective', *Computer Law & Security Review*, 49, p. 105825.
- Kaynak, R. et al. (2016) 'Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: Using the PLS-SEM approach', *International Journal of Business and Management*, 11(5), pp. 146–166.
- Maqsoom, A. et al. (2023) 'Extrinsic workforce diversity factors: An impact of employee characteristics on productivity', *Ain Shams Engineering Journal*, 14(10), p. 102170.
- Munna, A. and Bulbul, L. (2023) 'PREVALENCE AND PERCEPTIONS OF CAFFEINATED PRODUCT CONSUMPTION IN NOAKHALI REGION, BANGLADESH', *EPRA International Journal of Multidisciplinary Research (IJMR)*, 9(3), pp. 121–131.
- Ramadhani, U.H. et al. (2020) 'Review of probabilistic load flow approaches for power distribution systems with photovoltaic generation and electric vehicle charging', *International Journal of Electrical Power & Energy Systems*, 120, p. 106003.
- Rashmi, B.S. and Marisamynathan, S. (2023) 'Factors affecting truck driver behavior on a road safety context: A critical systematic review of the evidence', *Journal*

of Traffic and Transportation Engineering (English Edition) [Preprint].

- Salsasaida, A.B. and Fedryansyah, M. (2018) 'Analisis Pekerja Perempuan K3L Di Universitas Padjadjaran Jatinangor', *Focus: Jurnal Pekerjaan Sosial*, 1(2), pp. 1–8.
- Sarastuti, S.I. and Isfaizah, I. (2021) 'Analisis Faktor yang Mempengaruhi Kelengkapan Kunjungan Nifas di Wilayah Kerja Puskesmas Sine Kabupaten Ngawi', in *Call for Paper Seminar Nasional Kebidanan*, pp. 93–102.
- Soehatman, R. (2009) 'Sistem Manajemen Keselamatan dan Kesehatan Kerja'. OHSAS.
- Suma'mur, P.K. (2009) 'Higiene Perusahaan dan', *Kesehatan Kerja* [Preprint].
- Tsegaye Amlak, B. *et al.* (2023) 'Needlestick and sharp injuries and its associated factors among healthcare workers in Southern Ethiopia', *SAGE Open Medicine*, 11, p. 20503121221149536.
- Yovi, E.Y. and Nurrochmat, D.R. (2018) 'An occupational ergonomics in the Indonesian state mandatory sustainable forest management instrument: A review', *Forest Policy and Economics*, 91, pp. 27–35.
- Yuliani, N.F. and Subroto, A. (2023) 'Comprehensive analysis of occupational accidents contributing factors in the electrical industry', *International Journal of Research in Business and Social Science (2147-4478)*, 12(4), pp. 560–571.

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