

GARBAGE COLLECTOR BEHAVIOR TOWARDS THE USE OF PERSONAL PROTECTIVE EQUIPMENTS (PPE) AT THE INPRES MARKET MANONDA PALU CITY

*(TINGKAH LAKU PENGUMPUL SAMPAH TERHADAP PENGGUNAAN
PERALATAN PELINDUNG DIRI (PPE) DI PASAR INPRES MANONDA,
BANDAR PALU)*

**Lusia Salmawati, Drg. Hermiyanti, Abdul Hamid,
Rosmala Nur & Dian Faradiba**

Abstract

Background: Garbage collector is a job which has substantial risk of various illnesses and work-related accidents. If the workers do not use personal protective equipments (PPE), the risk of work accidents and occupational illnesses can be easily experienced. PPE is basic equipments that have ability to protect a person by covering some parts or all its body from potential hazards in the workplace. The aims of this study were to investigate the knowledge and the attitude of garbage collector who works at Inpres Market Manonda Palu towards the use of PPE. Methods: This qualitative research was done by the case study design that is an in-depth interview with an individual, a group, an organization, an activity et cetera for a certain period. Purposive sampling was used as a technique to gather eligible subjects, which was counted as many as 8 informants. Results: Informants had considerable knowledge towards the use of PPE. This was proven by participants who stated that they had known the definition of PPE and its benefits. In addition, favourable attitude towards the use of PPE was shown by majority of subjects. Most of participants believed that PPE helps to keep them safe. While other workers felt that PPE interfered them. The use of mask for instance, they stated that mask makes them hard to breathe. Furthermore, iron-made floors and doors of the garbage truck can might be hazardous. They assumed that using proper working shoes may put them in risk of slipping and falling. Moreover, unfortunately the informants were not giving sufficient attention towards the use of PPE. Some of them wore the PPE only on several parts of body and some were not at all. There were also workers who used to wear PPE but then now they are not with the reason that Sanitary Department has no longer provide PPE for the garbage collector. Conclusion: Overall, this study found that despite considerable knowledge and favourable attitude towards PPE which garbage collectors had most of workers did not show positive actions towards the use of PPE. Generally, they rarely wore PPE even sometimes they did not wear it at all. Therefore, to prevent the potential long-term effect to workers' health, greater emphasis should be placed on PPE socialisation and also the department of sanitary ought to try to provide the best possible PPE for refuse collectors.

Key words: Behaviour, Garbage Collector, PPE (Personal Protective Equipments)

Abstrak

Latar belakang: Pengumpul sampah adalah pekerjaan yang mempunyai risiko yang besar terhadap pelbagai penyakit dan kemalangan yang berkaitan dengan pekerjaan. Jika pekerja tidak menggunakan peralatan pelindung diri (PPE), risiko kemalangan kerja dan penyakit pekerjaan dapat dialami dengan mudah. PPE adalah peralatan asas yang mempunyai keupayaan untuk melindungi seseorang dengan meliputi beberapa bahagian atau seluruh badannya daripada bahaya yang berpotensi di tempat kerja. Tujuan kajian ini adalah untuk mengkaji pengetahuan dan sikap pengumpul sampah yang bekerja di Pasar Inpres Manonda Palu menuju penggunaan PPE. Kaedah: Kajian kualitatif ini dilakukan oleh reka bentuk kajian kes iaitu wawancara mendalam dengan individu, kumpulan, organisasi, aktiviti dan sebagainya untuk tempoh tertentu. Pensampelan purposif digunakan sebagai teknik untuk mengumpulkan mata pelajaran yang layak, yang dianggarkan sebanyak 8 orang pemberi maklumat. Keputusan: Informan mempunyai pengetahuan yang cukup terhadap penggunaan PPE. Ini telah dibuktikan oleh palang-palang yang menyatakan bahawa mereka telah mengetahui definisi PPE dan faedahnya. Di samping itu, sikap yang menggalakkan terhadap penggunaan PPE ditunjukkan oleh majoriti subjek. Kebanyakan pungutan percaya bahawa PPE membantu untuk memastikan mereka selamat. Sementara pekerja lain merasakan PPE mengganggu mereka. Penggunaan topeng misalnya, mereka menyatakan bahawa topeng membuat mereka sukar untuk bernafas. Selain itu, lantai buatan besi dan pintu trak sampah mungkin berbahaya. Mereka mengandaikan bahawa menggunakan kasut kerja yang betul boleh menyebabkan mereka berisiko tergelincir dan jatuh. Selain itu, malangnya pemberi maklumat tidak memberi perhatian yang mencukupi terhadap penggunaan PPE. Sesetengah daripada mereka memakai PPE hanya pada beberapa bahagian badan dan ada yang tidak sama sekali. Terdapat juga pekerja yang memakai PPE tetapi sekarang mereka tidak dengan sebab Jabatan Kebersihan tidak lagi menyediakan PPE untuk pengumpul sampah. Kesimpulan: Keseluruhannya, kajian ini mendapati bahawa pengetahuan yang luas dan sikap menguntungkan terhadap PPE yang pengumpul sampah mempunyai kebanyakan pekerja tidak menunjukkan tindakan positif terhadap penggunaan PPE. Secara umumnya, mereka jarang memakai PPE walaupun kadang-kadang mereka tidak memakainya sama sekali. Oleh itu, untuk mengelakkan kesan jangka panjang yang berpotensi kepada kesihatan pekerja, penekanan yang lebih besar harus diberikan kepada sosialisasi PPE dan juga jabatan kebersihan harus berusaha untuk menyediakan PPE terbaik untuk pengumpul sampah.

Kata Kunci: *Tingkah Laku, Pengumpul Sampah, PPE (Peralatan Perlindungan Peribadi)*

INTRODUCTION

Personal protective equipment's (PPE) regulation has been established in the Indonesian constitution number 1 1970 as regards work safety, which noted that in verse 3 (f) "a company should provide PPE to their workers", verse 9 (1c) stated that "it is a mandatory for a company to show and elucidate about PPE towards new workers" verse 9 (2) "employer could employ workers only if the prospective workers are comprehend concerning as mentioned in safety regulations", verse 12 (b) "as stated in the regulated law, every workers has rights and obligations to use personal protective equipment", verse 12 (e) "the employee is entitled to express work objection to the worker, where the OHS (Occupational Health and Safety) requirements and the PPE are supposed to be questioned by him. Except in the specified matters which are determined by the supervisory officer within the limits justified"[1] (Budiono et. al., 2013).

However, despite the regulations have been established, it seems that injuries among workers remains considered as a major occupational health and safety issue. In fact, International Labour Organization (ILO) reported in 2015 there were approximately 6000 fatality work accidents happened around the world. Specifically in Indonesia, the number of work accidents was 100000 thousand cases which workers experienced each day[10] (International Labour Organization, 2015).

In 2016, Manpower Department of Palu estimated that the number of accidents in the 2 previous years were 524 cases (Social Security Administrator, 2016).

Unsafe actions accounted for 98% of the causes of work-related accident. From domino theory by Heinrich, it can be concluded that work accidents are generally caused by the unsafe action. Meaning that occupational accidents are mostly caused by worker's unawareness and ignorance through the use of PPE, for instance. Unprotected workers might increase the number of workplace accidents because the use of PPE is intended to cover some parts/ whole body of workers for personal protection from potential safety risk. Since this study considers human factor as a crucial factor of work accidents, it is necessary to analyze human's behaviour indicator, such as knowledge, attitudes and actions towards the use of PPE. (Rimanto, 2015). Thus, the aims of this study were to investigate the knowledge and the attitude of refuse collectors who work at Inpres Market Manonda Palu towards the use of PPE.

MATERIAL AND METHODS

This qualitative research with case study design was conducted on May 15th until June 23rd 2017. A total of 8 participants were selected through purposive sampling and they were asked to have in-depth interview using questionnaire. Furthermore, data was interpreted using content analysis approach where available recorded information displayed in matrices tables with categories as follows: number, name/initial, ethics, emic and conclusion.

RESULTS

A total of 8 participants were interviewed in Inpres Manonda, City of Palu, consisting of 1 key informant, 5 regular informants and 2 additional informants. Researcher conducted the interview on the number 07 car that had a route of transporting garbage on street names as follows: Datu Adam, Asam I and Asam II, Cemara, Manggis, Cempedak, Jl. Poe Bongo, Jl. Datu Pamusu, Jl. Kemiri, Kenduri, Kelor, Ketimun, Serikaya I and Serikaya II, in which the route workers passed everyday.

RESEARCH VARIABLES

Knowledge

The first question of In-depth interview was "Did you ever get information about PPE?".

Based on the informants, all of them stated they have been taught regarding PPE. However, key informant revealed that the socialization has been stopped since 2015, this happened because he believed that if workers were given erudition regarding the importance of PPE, they might think that PPE would hold up the work.

Moving to the next question, the informants were asked about "which PPE is needed to protect you during your work hours? And what are the benefits of using PPE?" Key informant stated that the PPE socialization has been done before. Thus, all of the participants shared the same opinion, they believe that shoes are essential equipment to protect them from occupational hazards, using safety shoes for instance, might help them to prevent falling or slipping. Despite this, in fact, only few of refuse collectors are using proper foot wear during their duty.

Attitude

The first question was regarding "the importance of PPE" and "worker's opinion towards the use of PPE during work". Based on the interview, all informants agreed that PPE are beneficial for them. However, only 3 participants were willing to use PPE, whereas others showed lack of attention towards self-protection equipments.

Furthermore, although PPE is available, key informant assumed that this problem might continuously happen because generally workers are uncomfortable to wear PPE. Moreover, the interviewer asked regarding "How do workers feel while using PPE during work". According to the informants, majority of them were comfortable using PPE. However, there was dissenting opinion between interviewed workers and the additional informant. The additional informant argued that even though workers have claimed they are comfortable using PPE, in fact, most cases workers are seen not using PPE even up to 7 months.

Action

Firstly, informants were asked concerning "the use of PPE in daily work". Regarding this, interviewed workers and additional informant shared the same opinion, in which they mentioned that workers were rarely use PPE. Moreover, key informant assumed that the provision of PPE and its distribution has been stopped because of some workers sold the given PPE.

Secondly, the interview question was "if there was a co-worker who persuades you to not using PPE, how would you react?". Out of 5 informants, 3 of them claimed that they would reject his friend's suggestion. Moreover, 1 informant would adhere to his friend while other stated that he would use PPE depending on his own willingness.

Thirdly, informants were asked "what would you do if the sanitation agency did not provide PPE?". All informants answered that they were willing to purchase PPE with their private money without expecting the authorized sanitation agency to support needed accoutrements.

DISCUSSION

Knowledge

The results showed that all informants claimed that they had ever received information about PPE. In addition, generally informant believed that APD could protect them while working. However, there was an informant who had a different opinion in giving the answer (the 4th informant). He felt that PPE, especially shoes, does not have any benefit but making the informants injured. Regarding the PPE information, all the informants have heard and obtained the information from the office. There was various information in posters, written announcements, as well as directly-delivered leaflets. Nevertheless, based on observation in the Department of Hygiene, it was found that such posters and announcements were no longer exists.

Moreover, according to the interview, all informants were able to answer the benefits of using PPE. Meaning this, occupational illnesses and the risk of work accidents can be prevented. In addition, it is suggested to the Department of Hygiene to provide socialization concerning the importance of PPE so that refuse collectors might realized how important PPE is. This study was supported by the previous study which showed that there is no significant relationship between knowledge and perception variables on the use of masks and gloves (Sumarna, 2013). To prevent the occurrence of side effects due to improper handling of waste the cleaners must have broad knowledge and great ability of waste management so that they could work properly (Indasah, 2014). However, on the other hand, the use of PPE tends to uncomfortable to be used [6] (2013).

Attitude

The research indicates that all informants realized the importance of PPE. However, when it comes to their preception of using PPE there were different opinions. In one hand informants felt uncomfortable because using PPE, especially mask, made them difficult to breathe, whereas wearing safety shoes made them hard to walk.

On the other hand, three informants felt quite comfortable because of the safe feelings they had when using PPE. While four of informants felt protected when using PPE, there was one

informant who felt that PPE has no contribution to protect him, he stated that he was unfamiliar with PPE, a mask for instance. This was also in accordance with the answers given by the Officer of the Department of Hygiene, he assumed that PPE might not be used by refuse collectors. It is better if the authorized department provides a suggestion box so that workers could share their opinions towards the government.

The previous research was also found that PPE is frequently correlated with difficulties in work and reduce workers' productivity. These reasons are common given by the workers. Furthermore, there were also some workers who showed lack of attention towards safety equipment because they believe that their work culture is as the same as before [7] (Raodhah, 2014).

Action

The results revealed that the informants were rarely use PPE and even those who use, the APD is incomplete for example, they wear boots but no masks and gloves. Based on observation at the research location, it is true that the informants were rarely use PPE, and those who did not wear PPE had various reasons for disobeyed the regulation of using PPE. It is also stated by the officers of Department of Hygiene that the workers complained about the PPE because they think that PPE interfered their work.

From this study, it was also found that among 5 informants, there were who claimed that they would reject the incitement because they realized how important the PPE is. Meanwhile, one informant were not willing to wear PPE because he already accustomed to not wear self protection. In addition, the last informant said that the use of PPE dependent on his willingness.

Moreover, based on this research, it can be seen that the informants would put an effort in providing PPE even though the Hygiene department could not give it. All informants stated that they would buy their own safety equipment using their private money. It is suggested for the Department of Hygiene to tighten its supervision regarding workers who unwilling to wear PPE. So that authorized department could establish a punishment that has deterrent effect.

This research was also supported by previous research who revealed that in terms of providing PPE, most of the refuse collectors were expecting that government would supply PPE. In addition, making PPE as a habit is quite difficult. Workers should be encouraged through improvement of PPE management systems [8] (Canu, 2013).

CONCLUSIONS

In general terms, informant's have shown profound knowledge and favourable attitude towards the use of PPE. However, interviewed participants acted improperly. Meaning that, majority of workers did not use required PPE in daily work. This is caused by discomfort of wearing PPE and its unavailability in which supposed to be provided by the sanitation agency. Considering potentially harmful effects on health, it is notable that both refuse collectors and authorized department to give sufficient attention to avoid health and safety issues in future. To be specific, it is suggested to the sanitation to educate workers with occupational health lecture, providing adequate PPE and hold sustainable-PPE socialization.

ACKNOWLEDGEMENT

The authors thank the Secretary of Environmental Sanitation Department, Mr. Ir. H. Abdul Rahman Intang, for his allowance to conduct this research and his wholehearted support.

REFERENCES

Budiono, S., Jusuf, & Pusparini, A. 2013. Hiperkes & KK. Semarang: Diponegoro University: Semarang.

- Canu Irina Guseva. 2013. Attitude Towards Personal Protective Equipment In The French Nuclear Fuel Industry. *ArbHigRadaToksikol.* 64:285-293
- Hygiene Department of Palu. Hygiene Profile 2016.
- Indasah. (2014). Correlation of Knowledge and Behavior of Hygiene Officer in Waste Management at Kediri Hotel. *Journal of Health Sciences.* Vol 3 No.2. ISSN 2252-3874.
- International Labour Organization. 2015. World Accidents Trend in Global
- Raodhah Sitti. 2014. Factors Associated with the Use of Personal Protective Equipment on Employees of Packer PT Semen BosowaMaros. 2014. Al-sihah: Public Health Science Journal 437-449
- Social Security Administrator. 2016. The trend of work accidents in Indonesia.

Lusia Salmawati
Department of Occupational Health and Safety,
Public Health Faculty, Tadulako University,
Palu, Central Sulawesi, Indonesia
Email: lusia_untad@yahoo.com

Drg. Hermiyanti
Department of Administration and Health Policy,
Public Health Faculty, Tadulako University,
Palu, Central Sulawesi, Indonesia.
Email: hermiyanty_gazali@yahoo.com

Abdul Hamid
Department of Occupational Health and Safety,
Public Health Faculty, Tadulako University,
Palu, Central Sulawesi, Indonesia
Email: hamid.kesmas@yahoo.com

Rosmala Nur
Biostatistic,
Department of Family Planning and Demography,
Public Health Faculty, Tadulako University,
Palu, Central Sulawesi, Indonesia.
Email: malanur_id@yahoo.com

Dian Faradiba
Department of Occupational Health and Safety,
Public Health Faculty, Tadulako University,
Palu, Central Sulawesi, Indonesia
Email: dfaradiba@gmail.com

Submitted: July, 13, 2018
Accepted: August, 14, 2018