

IMPLEMENTATION OF OCCUPATIONAL SAFETY AND HEALTH (OSH) AT UNIVERSITAS GAJAH MADA INDONESIA

Muhammad Andriadi Karim^{1*}, Widodo Hariyono²

¹Public Health (Occupational Safety and Health), Universitas Gadjah Mada, Yogyakarta,
INDONESIA, muhammad.andriadi.karim@mail.ugm.ac.id

² Dr., Public Health (Occupational Safety and Health), Universitas Gadjah Mada, Yogyakarta,
INDONESIA, widodo.hariyono@gmail.com

*corresponding author

Abstract

Indonesia is one of the contributing countries of the highest accidents. Recorded in 2016 has occurred 101,367 cases of work accidents with the death toll reached 2,363 inhabitants. Implementation of OSH in Indonesia is very rarely heard in educational institutions such as schools and universities. Though the university is a place of many human activities. Various activities that occur on campus such as lecture room, park, library, laboratory, parking area, and canteen. The place can trigger the emergence of many dangers and disasters, the risks of occupational injuries and occupational diseases that can cause casualties to both lecturers, students, employees, and visiting guests. Based on the background of the problems that have been described, it is necessary to review how the government of Indonesia in improving the program of occupational safety and health, how the general description of the implementation of occupational safety and health programs at UGM, and how knowledge and attitude of occupational safety and health by UGM students. This research use case study method and literature study. Primary data: obtained from direct observation and interview. Secondary Data: online media review literature. The results showed that the government of Indonesia has made efforts to improve OSH programs As the development of OSH program in 2016, although the number of work accidents in Indonesia is still high, the Indonesian government succeeded in reducing the number of accidents by more than half that occurred from 359,724 accidents in 2015 decreased to 101,367 in 2016. In addition, OSH culture in Indonesia is not only focused on industry but also has been done to improve the OSH culture in all parts of the government, universities and related education institutions, professional organizations, associations, company leaders, workers, and other communities, to make concrete efforts on the implementation of OSH in their respective environments. Implementation of Occupational Health at Universitas Gadjah Mada shows that from 17 criteria that have been made 14 criteria have been fulfilled (82,35%) and 3 Criteria not fulfilled (17,64%) this shows that implementation of health work at Universitas Gadjah Mada is good. Based on the results of observations of the implementation of Safety indicates that of the 13 criteria that have been made, 10 criteria have been met (76.92%) and 3 criteria not fulfilled (23.07%). This shows that the application of safety at Universitas Gadjah Mada is good. Although the implementation of Occupational Safety and Health at UGM has been good but still needs improvement from several aspects in order to achieve satisfactory criteria. Knowledge and Attitudes of Occupational Safety and Health by UGM students are still less visible from the lack of understanding related to catching disaster emergency, accident risk control and risk of occupational diseases and non-compliance to the use of PPE, due to the absence of training, socialization and supervision related Occupational safety and health at universities especially for students. In conclusion, with efforts to improve OSH program in Indonesia succeeded in reducing the number of accidents to reach a half, the implementation of K3 at UGM has been running well but need to increase socialization and training for the K3 culture in the students.

Keywords: OSH University, Student health and safety behaviour, Health and safety Program

1 INTRODUCTION

The International Labor Organization (ILO) notes that in 2013 at least one worker in the world dies every 15 seconds due to workplace accidents and 160 workers suffering from work-related illness. Indonesia is one of the contributing countries of the highest accidents. Recorded in 2016 has occurred 101,367 cases of work accidents with the death toll reached 2,363 inhabitants. One of the efforts of the Indonesian government to suppress the high number of accidents is by implementing a good Work Safety and Health in the workplace.

Implementation of occupational safety and health is more often emphasized to companies engaged in the industry where there is a complex process, high risk, and enormous energy. Very rarely heard of the implementation of occupational safety and health in educational institutions, be it in schools and at the University. The existence of the assumption that the educational environment is a safe and comfortable place for academic activities so there is no need for the implementation of OSH programs in these educational institutions. Though the university is a place for many human activities. Various activities that occur in the campus such as lecture rooms, parks, libraries, laboratories, parking areas, and canteen of course the place can trigger the emergence of many dangers and disasters, the risk of occupational accidents and diseases that can cause casualties either on the lecturer, students, employees, and visiting guests.

Universitas Gadjah Mada (UGM) is one of the best universities in Indonesia which become the reference and parameters in the field of education for other universities in Indonesia. In line with the quality of good education at UGM but not so with the effort of Occupational Safety and Health from residents in UGM itself. It is seen that there are still OSH aspects that are still not maximal in the implementation. As an example of recent work accident by UGM students.

"Student of Mechanical Engineering Diploma Vocational School of UGM, Eko Nur As'adi died because of fall from the roof of the campus. Police concluded that the incident was purely an accident. Based on the crime scene and testimony of witnesses, it is known that the victim that afternoon was taking a panoramic photo on the roof of the campus building. The victim's friends on the roof chose to walk on the concrete, but the victim just passed on the roof in the form of asbestos. Then (the victim) fell down, ". Said Chief of Police Bulaksumur. Kompas.com, Monday (18/09/2017).

In addition, there is still unavailability of good health and safety facilities such as disaster management and fire hazard in some building units especially in old buildings in UGM campus. As an effort to improve the quality of education, the implementation of OSH becomes very important to be applied with absolutely maximum. So that things do not need to happen, especially considering at the UGM in the Faculty of Medicine there are courses that specific to learn about OSH which of course there are many experts OSH campus is more understanding related to the Occupational accident, occupational diseases, disaster management and so forth.

Based on the background of the problems that have been described, it is necessary to review how the government of Indonesia in improving the program of occupational safety and health, how the general description of the implementation of occupational safety and health programs at UGM, and how knowledge and attitude of occupational safety and health by UGM students.

2 MATERIAL AND METHOD

This research use case study method and literature study. Primary data obtained from direct interviews with experts in their field. Secondary data obtained online media review literature.

3 RESULTS AND DISCUSSION

3.1 Efforts by the Indonesian government to Improve OSH Programs

Refers to the concept of international OSH policy by joint ILO and WHO committees related to Occupational Safety and Health. The Government of Indonesia has implemented OSH policies such as OSH Culture promotion Program, OSH Management System Strengthening Program, and Implementation Target Program. All three programs are supported by the advocacy of promotion, legislation, supervision, and experts in OSH field. It has been regulated, As stated by the Director General of Construction and Employment Safety and Health Supervision of the Ministry of Manpower said,

"So far, the government continues to make preventive efforts and provide reward and punishment for the implementation of OSH management systems in companies. We focus on

efforts to prevent accidents and occupational diseases. But explicitly also impose sanctions for violations of OSH norms and reward the companies and government agencies that have implemented OSH well,". Muji Handaya, Friday (8/1/2016).

Indonesian government policy regarding the implementation of OSH program by the Ministry of Manpower of the Republic of Indonesia has made concrete efforts in the form of development of OSH policy in 2016, among others:

1. Completion of legislation and standards that guide the implementation of OSH program can be easily implemented. In 2016 several simplifications of OSH regulations have been issued, including OSH Electricity, Lifts, Lightning Distributors, Pressurized Vessels and Aircraft and Production;
2. Improving OSH supervision through the addition of specialist OSH field supervisors. In the year 2016 has been educated new supervisors as many as 60 people so that in 2016 there are 351 supervisors of OSH specialists spread throughout Indonesia;
3. Increasing community participation in OSH coaching efforts. In the year 2016, the number of audit institutions SMK3 there are as many as 10 companies, and the number of service companies in the field of OSH field of coaching, examination, consulting, and fabrication has increased 625 companies in 2015 to 859 companies in 2016;
4. Increasing awareness of the workforce and the community about OHS by increasing the number of personnel who have OHS competencies, where there are 57,653 OSH personnel by 2015 increased to 75,081 in 2016;
5. Increase the companies that implement the program of Prevention and Control of HIV-AIDS (P2HIV-AIDS) by 2015 of 452 companies from 221,006 companies (0.2%) to 553 companies from 254,161 companies (0.22%) in 2016;
6. Increase cooperation with universities by 150 percent from 6 universities in 2015 to 15 universities in 2016;
7. Implementation of the examination of early detection of cervical cancer (IVA Test) on the female workforce as much as 5,03 people in 2015 and as many as 4,000 people in 2016.

With the development of the OSH program in 2016 that has been made by the Indonesian government, although the record number of work accidents in Indonesia is still high, but the Indonesian government succeeded in reducing the number of work accidents by more than half of the previous year or that occurred from 359,724 accidents in 2015 decreased to 101.367 in the year 2016. Then related efforts on the implementation of OSH programs in educational institutions disclosed by the Minister of Manpower,

"In the commemoration of National HSE Day 2017 we have gained an improvement on the OSH efforts from the year of his custody for that as a sign of the commencement of the National K3 Month that aims to civilize K3 to improve the Quality of Human Life Toward a Safe, Healthy and Productive Society. So I appeal, encourage and encourage all stakeholders, Government, Universities and related educational institutions, professional organizations, associations, corporate leaders, workers and other communities to make concrete efforts to implement K3 in their respective environments. So that the culture of K3 really manifests in every workplace and general public throughout the country". Muhammad Hanif Dhakiri. (12/1/2017)

The Minister of Manpower invites to improve the OSH culture of all stakeholders, Government, Universities and related educational institutions, professional organizations, associations, corporate leaders, workers and other communities to make concrete efforts to implement OSH in their respective environments.

Based on a review of the Indonesian government's efforts to improve the occupational safety and health program, it can be concluded that the Indonesian government has developed OSH program in 2016 which has been made, although the number of accidents in Indonesia is still high, but the Indonesian government succeeded in reducing the number of accidents to more of the half that occurred from 359,724 accidents in 2015 declined to 101,367 in 2016. In addition, OSH culture in Indonesia is also not only focused on the industry alone but also has been done efforts to improve OSH culture in all parts of the Government, Universities and related educational institutions, professional organizations, associations, corporate leaders, workers, and other communities, to make concrete efforts on the implementation of OSH in their respective environments.

3.2 An Overview of Implementation of Occupational Safety and Health at Gadjah Mada University

The vision of Universitas Gadjah Mada is a pioneer of world-class universities that are superior and innovative, serving the interests of the nation and humanity are inspired by the nation's cultural values based on Pancasila. Based on that vision UGM has mission Running education, research, and devotion to society and preservation and development of science that is superior and beneficial to society. So, it is very unfortunate if UGM is a benchmark University in Indonesia does not guarantee Occupational Safety and Health for the academic civitas especially students. Based on that then do a review related to how the application of Occupational Safety and health in the Universitas Gadjah Mada Referring to the Government of Indonesia Regulation No.50 of 2012. There are 17 assessment criteria that have been made to know the Implementation of Occupational Health and 13 Criteria for knowing Safety Implementation for at UGM. Following the assessment of the results of these criteria,

3.2.1 Implementation of Occupational Health

No.	Reviews	Implemented	Not Implemented
1.	UGM implements health and psychological examination for new students	√	
2.	The University conducts periodic medical checks for UGM students		√
3.	UGM parties conduct special medical checks on students who have occupational accidents	√	
4.	UGM parties conduct special medical checks on students who have experienced occupational diseases	√	
5.	UGM parties conduct special checks on workers over 40 years	√	
6.	UGM conducts counseling about SOP work, SOP equipment, for workers	√	
7.	UGM conducts public information and facilities or facilities related to OSH	√	
8.	UGM conducts counseling on special risks and dangers in the workplace	√	
9.	UGM conducts periodical health counseling for work culture at the University	√	
10.	UGM provides additional food with adequate Nutrition for overtime workers	√	
11.	Workers get routine immunization as needed		√
12.	UGM organizes sports, gymnastics, and recreation on workers and students	√	
13.	UGM provides free basic treatment to students	√	
14.	UGM covers medical expenses for workers affected by occupational diseases	√	

15.	Giving leave to workers affected by health problems	√	
16.	UGM conducts work rotation		√
17.	UGM conducts reporting on occupational diseases and occupational accidents	√	

3.2.2 Implementation of Occupational Safety

No.	Reviews	Implemented	Not Implemented
1.	UGM makes road signs and safety signs (fire extinguishers, evacuation routes, emergency stairs)	√	
2.	UGM provides personal protective equipment (PPE) as needed	√	
3.	All equipment is in good condition, well maintained and worth using	√	
4.	UGM has made SOP of occupational health equipment	√	
5.	UGM always conducts guidance on the compliance of the use of safety equipment and PPE to students and workers		√
6.	UGM always monitors the compliance of the use of safety equipment and PPE to students and workers		√
7.	UGM socializes safety culture for students		√
8.	UGM conducts OSH training for workers	√	
9.	UGM involves students in planning the procurement of facilities, infrastructure and equipment OSH	√	
10.	UGM provides emergency prevention facilities (fire and earthquake)	√	
11.	UGM makes SOP for emergency relief (Fire and earthquake)	√	
12.	UGM creates an OSH team	√	
13.	UGM conducts socialization of emergency (fire and earthquake)	√	

Based on the results of observations on the application of occupational health shows that of the 17 criteria that have been made 14 criteria have been fulfilled (82.35%) and 3 Criteria not fulfilled (17.64%) this shows that the application of occupational health at Universitas Gadjah Mada is good. Based on the results of observations of the application of Safety indicates that of the 13 criteria that have been made 10 criteria have been met (76.92%) and 3 criteria not fulfilled (23.07%) this shows that the application of safety at Universitas Gadjah Mada is good.

Although the implementation of Occupational Safety and Health at UGM has been good but still needs improvement from several aspects in order to achieve satisfactory criteria. Implementation of Occupational health still needs improvement related to periodic medical examination for academicians especially for UGM students, routine immunization as needed, and work rotation. Implementation of Occupational Safety still needs improvement related to coaching, and monitoring of compliance with the use of safety equipment and PPE, and disseminating OSH for students.

In terms of occupational health and routine health checks immunization is very important because it is a positive activity and should be held to seek a healthy and productive Human Resources. This is because the health of workers affects the level of productivity and of course related to achieving the vision and mission set at the university. OSH guidance and supervision is very important to provide security for students and students so that the possibility of the accident is very small. In addition, Rotation of work is very important to maintain the interest of brilliant and energetic workers, and make the job look more attractive. Because good workers are smart workers. Doing a monotonous job in a long period, especially when the employee is very skilled in the field, usually at a certain point arises boredom. In terms of work safety, supervision and monitoring of compliance with the use of safety equipment and PPE are very important because PPE is a last resort in an effort to protect workers if engineering and administrative efforts cannot be done properly. However, the use of PPE is not a substitute for the business, but as a last resort. Personal protective equipment should be able to protect the wearer from possible crash hazards; therefore, PPE is carefully selected in order to meet certain requirements. Also related to OSH socialization for students becomes important in order to build awareness of students in OSH culture. As research conducted by Farah Avianti Putri, 2017 shows that approximately 85-96% of work accident caused by malicious behavior or unsafe acts. Malicious behavior is human failure in the following requirements and work procedure, which has been set. The implementation of occupational safety and health has done well, but there are some governance and safety issues. As seen some PPE during work. There are also works that do not comply the work SOP.

3.3 Knowledge and Attitude of Occupational Safety and Health by UGM Students

Knowledge of OSH is a science that students have about health and safety. Knowledge of OSH includes accidents and how to prevent it, the impact of accidents, laws on OSH, hazards and potential hazards. The connection with awareness behaves safely, students with extensive knowledge have an inner awareness to behave OSH without having to be reminded by others. Attitudes about OSH are the student's tendency towards occupational health and safety. Attitudes are divided into two positive attitudes and negative attitudes. Students who have a positive attitude tend to accept and they are conscious to behave in OSH. Conversely, students who have a negative attitude tend to be unconscious behave OSH. Students who have extensive knowledge and positive attitude may have awareness of high health and safety behavior. Students with limited knowledge and negative attitudes are likely to have low-conscious awareness as well.

"Related OSH actually I've heard, usually in the applied in the company and in the construction project. I never heard that OSH was there on campus. In case of an emergency on campus I might panic and try to run away from the building at risk". (Respondent MA on Monday 20/11/2017.)

The results of the interviews it is seen that knowledge related to OSH is still very less. Students are very lacking in disaster risk management measures. According to the IAEA (2002) to improve certain knowledge needs to be conducting training and socialization such as seminars, training, counseling, workshops, and others. The more often the training is done then the attitude and behavior of OSH are better. In addition, attitudes related to the use of PPE are still very less applied by students. As expressed by the respondent MA as follows,

"Usually when we enter the laboratory or a place that requires personal protective equipment such as masks, handcuffs, and others when it is provided on campus but it seems there are still many students who do not want to use because it can make it complicated. In addition, because there is no reprimand from lecturers and lab guards". (Respondent MA Monday 20/11/2017.)

The results of interviews show that the use of PPE is still very less done by this student looks many students who do not want to use PPE due to lack of good understanding related to OSH. In line with the review of OSH implementation at UGM, the socialization and monitoring of the use of PPE did not meet the criteria. Socialization and monitoring should be done continuously in order to familiarize students' attitudes and behavior in civilizing OSH in universities in order to suppress the possibility of work accidents and occupational diseases. As the research conducted by Ninda Atik Nabilah, 2017 that the year 2015 to 2016 there are 7 cases of work accident students in Engineering workshop machining SMK N 7 Semarang. The result of an accident survey of students is caused by unsafe behavior. This study aims to determine the factors associated with safety behavior in students machining techniques in SMK Negeri 7 Semarang.

4 CONCLUSION

Based on the results and discussions related to the review of the efforts of the Indonesian government in

improving the safety and health programs, how the general description of the implementation of occupational safety and health programs at UGM, and How the knowledge and attitude of safety and health by UGM students as the conclusions are as follows:

1. The government of Indonesia has made efforts to improve OSH programs As the development of OSH program in 2016, although the number of work accidents in Indonesia is still high, the Indonesian government succeeded in reducing the number of accidents by more than half that occurred from 359,724 accidents in 2015 decreased to 101,367 in 2016. In addition, OSH culture in Indonesia is not only focused on industry but also has been done to improve the OSH culture in all parts of the government, universities and related education institutions, professional organizations, associations, company leaders, workers, and other communities, to make concrete efforts on the implementation of OSH in their respective environments.
2. Implementation of Occupational Health at Universitas Gadjah Mada shows that from 17 criteria that have been made 14 criteria have been fulfilled (82,35%) and 3 Criteria not fulfilled (17,64%) this shows that implementation of health work at Universitas Gadjah Mada is good. Based on the results of observations of the implementation of Safety indicates that of the 13 criteria that have been made, 10 criteria have been met (76.92%) and 3 criteria not fulfilled (23.07%). This shows that the application of safety at Universitas Gadjah Mada is good. Although the implementation of Occupational Safety and Health at UGM has been good but still needs improvement from several aspects in order to achieve satisfactory criteria.
3. Knowledge and Attitudes of Occupational Safety and Health by UGM students are still less visible from the lack of understanding related to catching disaster emergency, accident risk control and risk of occupational diseases and non-compliance to the use of PPE, due to the absence of training, socialization and supervision related Occupational safety and health at universities especially for students.

5 RECOMMENDATION

1. Increased occupational health from regular health checks and immunizations by universities
2. OSH Culture at the University with Training and Socialization
3. Improved oversight of the implementation of OSH at the University.
4. Increase research related to the implementation of OSH at the University
5. Change the notion of low university employment

6 ACKNOWLEDGEMENT

The author wishes to thank Indonesia Endowment Fund for Education (LPDP) Ministry of Finance Republic Indonesia who has funded this research and INTCESS 2018 activities that the authors follow. Moreover, the financial education of UGM is also funded by LPDP so that the author appreciates to the chance on getting study in this graduate level.

7 REFERENCE

- Farah, A.P., Suroto, and Ida. W. (2017). Relationship Between Knowledge, Practice of Sop Utilization, APD Practice of Use and Workers Commitment at Work Accident Risk in Pt X Tangerang. *Journal of Public Health (e-Journal)* Volume 5, Nomor 3, Juli 2017 (ISSN: 2356-3346). <http://ejournal-s1.undip.ac.id/index.php/jkm>
- International Atomic Energy Agency, (2002). *Procedures for Conducting Probabilistic Safety Assessment for Non-reactor Nuclear Facilities*, IAEA-TECDOC-1267, Vienna
- Ismail. A .(2008). *Policy Effectiveness of the National OSH Council 2007-2010 And Revitalization of OSH Monitoring*. HSP. Jakarta. <http://healthsafetyprotection.com/efektifitas-kebijakan-dewan-k3-nasional-2007-2010-dan-revitalisasi-pengawasan-k3/>

- Ninda, A.N dand Mardiana. (2017). *Faktor Perilaku Keselamatan Pada Siswa Teknik Pemesinan*. Journal HIGEIA 1(3) (2017). <http://journal.unnes.ac.id/sju/index.php/higeia>
- Proxsisgroup.com. (2017). *National OSH Month 2017: Improve the Quality of Human Life Towards a Happy, Healthy and Productive Society*. <https://www.proxsisgroup.com/bulan-k3-2017-tingkatkan-kualitas-hidup-manusia-menuju-masyarakat-yang-selamat-sehat-dan-produktif/>
- Republika.co.id, (2016). *January 12, Government Presents National Occupational Safety Day* <http://nasional.republika.co.id/berita/nasional/umum/16/01/09/o0o3nl326-12-januari-pemerintah-canangkan-hari-k3-nasional>