

# Relationship Individual Factors With Occupational Health Literacy

## (Observational Study on Industrial Workers of Sasirangan in South Kalimantan)

Hikmah Yusida<sup>1</sup>, Tjipto Suwandi<sup>2</sup>, Ahmad Yusuf<sup>3</sup>, Qomariyatus Sholihah<sup>4</sup>

<sup>1</sup>Doctoral Program in Health Sciences, Airlangga University Surabaya East Java Indonesia

<sup>2</sup>Faculty of Public Health, Airlangga University Surabaya, East Java, Indonesia

<sup>3</sup>Faculty of Nursing, Airlangga University, Surabaya, South Kalimantan Indonesia

<sup>4</sup>Public Health, Faculty of Medicine Lambung Mangkurat University Jl. A. Yani Km. 36,3, Banjarbaru South Kalimantan Indonesia

**Abstract-** Sasirangan is one form of local wisdom in South Kalimantan. Sasirangan is one of the industries in the informal sector. Informal sector workers are also entitled to protection in order to avoid occupational disease or occupational accident. The development of occupational health is considered necessary to support the creation of occupational health literacy. Occupational Health literacy also implies that the public has to access and understands of Occupational Health and Safety (OHAS). The research objective was to determine the relationship between individual factors with occupational health literacy. This research methods is correlational analytic with cross sectional approach. The population is mostly sasirangan industrial workers who registered in Disperindag South Kalimantan, by purposive sampling technique samples obtained 150 respondents. This study was conducted in January-April 2015 in the informal sector sasirangan industry in South Kalimantan. The results based on chi-square test showed p value 0,004; 0,039; 0,017. The results based on logistic regression test obtained periode of working p value 0,02 and OR 5,87. The conclusion there is relationship between age, gender and periode of working with occupational health literacy. Periode of wrokingis an independent variable most dominant influence to the occupational health literacy.

**Index Terms-** age, gender, periode of working, occupational health literacy

### I. INTRODUCTION

The development of industrialization in Indonesia is growing very rapidly both in the formal and informal sectors, along with the increasing number of the working population, now reaching 111.3 million. The informal sector absorbs 76.69 million of labor. The success of businesses in the informal sector is also supported by occupational health seeks to address the health problems as a result of work, thus increasing the welfare and productivity. This is in accordance with the Work Safety Law No.1 / 1970 which states that all workers are entitled to protection of their safety in doing the work for the welfare and increase production and labor productivity (Sholihah, 2014:114).

The informal sector within the meaning of the Central Bureau of Statistics Indonesia is a non-directory companies and households with a workforce of less than 20 people. The informal sector has special characteristics, among others, work on yourself, is a family business, working hours and irregular wages, work is often done at home, there is no government assistance and are often not incorporated. Informal groups of workers there are organized and there were disorganized. An organized group is a set of informal workers who do / have the same job and joined a group that has stewardship.

One of the groups organized informal workers are artisans Sasirangan fabric industry. Sasirangan is one form of local wisdom South Kalimantan. Informal sector workers are also entitled to protection in order to avoid work-related illness or accidents, because each workplace have hazard / risk that can cause health problems and accidents that result in disability and death. Data from the Social Security Agency for Employment shows that at least 35 people per 100,000 workers die because of accidents and occupational diseases, 145 people per 100,000 workers suffered permanent disability and 1,145 people per 100,000 workers suffered injuries and 687 people per 100,000 workers exposed to occupational diseases (Kurniawijaya, 2011). Labor protection from the dangers / accidents and occupational diseases and work environment can refer to the Law No. 13 of 2003 on Labour in particular paragraph 5 of the Occupational Health and Safety, Article 86 and Article 87. Article 86 Paragraph 1 states that each workershave the right to the protection of Occupational Health and Safety. Article 86 paragraph 2 states that in order to protect the safety of employees / workers in order to realize optimal productivity, organized effort Occupational Health and Safety (Sholihah, Setyaningrum, 2014: 61).

Ability and awareness of artisans groups sasirangan in taking appropriate actions for prevention of various health problems that may be experienced is very important. Implementation of the OHAS is not only the responsibility of governments, but also the responsibility of all parties, in particular the industry (including industrial Sasirangan).The purpose of the application of the OHAS itself actually is to increase awareness of and compliance with norms OHAS, increase the participation of all parties to

optimize the implementation of OHAS culture of each business activity and the realization of OHAS culture or a culture of safety. Safety culture is very important because many accidents occur due to a lack of concern for safety. Awareness of the importance of safety would affect the safety of workers, communities and the environment (Sholihah dan Kuncoro, 2014).

The development of occupational health is considered necessary to support the creation of self-efficacy and occupational health literacy or public knowledge about health issues, interpretation of health information and other matters related to health communication. Occupational Health literacy also implies that the public has access and understand about OHAS, various types of occupational diseases and prevensinya, anticipation health hazards and occupational health and safety culture. Furthermore, after quite understand the community will be able to utilize the knowledge of craftsmen K3 in decisions or actions relating to occupational health and then hoped that working people are willing to communicate or advocate of K3 to others (Nutbeam, 2000, Notoatmodjo, 2005, Sholihah dan Kuncoro 2014).

Based on initial surveys found how the incident and accident nearly ever experienced workers in fabric production process unit Sasirangan them slip as slippery floors, exposed to chemicals, splashed hot water, tripped, hit stuff, sewing needles, respirable dust cloth and so on. Based on the above research to determine the relationship of the individual factors with occupational health literacy.

## II. RESEARCH METHODS

This study was an observational analytic study with cross sectional approach. The population in this study are mostly owners of labor and industrial workers Sasirangan registered in the Department of Industry and Trade of South Kalimantan. Samples in this study are some workers and owners of industrial work Sasirangan in Banjarmasin, Banjarbaru and Banjar Regency, with the following criteria to be co-operative, can read and write, can communicate well and are willing to participate in the study, so we get a sample of 150 respondents.

Instruments in this study is a spreadsheet (identity data and questionnaire), accompanied by the approval of the subject of research which contains the demographic characteristics of the owner of the work and workers who become respondents, including age, gender and periode of working. Questionnaires were distributed to respondents to measure the Occupational Health Literacy respondents include Access, Understand, Use to Decision making, Advocacy. Then the score calculation results

of the interpretation given by the criteria used, ie either, if the percentage of between 76-100%; enough if the results obtained percentages between 56-75%; and less if the results obtained percentage <56%. Data were analyzed using chi square test with an alpha of 95%, followed by logistic regression analysis to multivariate analysis. This study was conducted in January-April 2015 the craftsmen Sasirangan in South Kalimantan.

## III. RESULT

### Univariate Analisis

Based on Table 1 it can be seen that the respondents divided into two parts, namely 25.3% aged late teens and 74.7% aged adults most of the respondents were female were 124 respondents (82.7%), the majority of respondents have a periode of working  $\geq 5$  years were 116 respondents (77.3%) and the majority of respondents have a good occupational health literacy as much as 84 respondents (56%).

**Table 1. Overview of Age, Gender, Periode of Working and Occupational Health Literacy in Sasirangan Craftsmen in South Kalimantan**

Age	Total	Percentage (%)
Late Teenagers	38	25,3
Adult	112	74,7
Gender	Total	Percentage (%)
Male	26	17,3
Female	124	82,7
Periode of Working	Total	Percentage (%)
(<5 years)	34	22,7
( $\geq 5$ years)	116	77,3
Occupational Health Literacy	Total	Percentage (%)
Good	110	73,3
Less	40	26,7
Total	150	100

### Bivariate Analisis

The results using chi-square test showed there is relationship between age, sex, periode of working with occupational health literacy on Sasirangan Craftsmen in South Kalimantan, because the p-value <0.05, as shown in Table 2.

**Table 2. Relationship Age, Gender, Periode of Working with Occupational Health Literacy in Sasirangan Craftsmen in South Kalimantan**

Age	Occupational Health Literacy		%	%	Total Jumlah	%	P Value
	Good	Less					
Late Teenager	34	4			38	100	0,044
Adult	76	36			112	100	
Total	110	40			150	100	
Gender	Occupational Health Literacy		%	%	Total	%	P Value

	Good	%	Less	%	Jumlah	%	
Male	20		6		26	100	
Female	90		34		124	100	0,039
Total	110		40		150	100	
Periode of Working	Occupational Health Literacy				Total		P Value
	Good	%	Less	%	Jumlah	%	
< 5 years	20		14		34	100	
≥5 years	90		26		116	100	0,017
Total	110		40		150	100	

**Multivariate Analysis**

Several independent variables associated with the dependent variable is the variable age, gender and periode of working together included in the calculation of logistic regression method

Enter. periode of working is the independent variable most dominant influence with occupational health literacy with the following result:

**Table 3. Relationship Age, Gender, Periode of Working with Occupational Health Literacy in Sasirangan Craftsmen in South Kalimantan**

Independent Variable	B	Wald	Sig	Exp (B)	95% CI for EXP (B)	
					Lower	Upper
Age	1,380	7,074	0,01	3,934	1,453	2,764
Gender	0,993	2,899	0,086	2,454	0,786	7,477
Periode of Working	0,293	2,899	0,02	5,870	2,786	5,567

**IV. DISCUSSION**

The results using chi-square test showed there is relationship between age and occupational health literacy on sasirangan workers in South Kalimantan, because the p-value <0.05. This is in line with research Shiddiq, et al in 2013, which states that a person's age affect the efforts made to prevent accidents. Age factor has a direct relationship with the logic of thinking and a person's knowledge. Controlling psychic ability can reduce the occurrence of accidents, the age will be more rational, more and more able to control the behavior of harmful emotions (Shiddiq, et.al, 2013).

Age has a significant influence on the incidence of workplace accidents. Dauly argued that accidents generally occur most frequently between the ages of 17 and 29 years, then going down after reaching its lowest point at the end of 60 years and 70 years (Dauly, 2010). Based on the research results can be seen that most are classified as adult age were 112 respondents (74.7%). Results of this study are also consistent with research Handy, Wibowo and Syriac in 2010, the study concludes that there is a relationship between age and working accident on workers. The results showed the younger age group were injured at work is higher, this was due to the negligence and carelessness of his job due to lack of experience or hours of work that has (Handayani, et.al, 2010).

The results using chi-square test showed there is relationship between gender with occupational health literacy on sasirangan workers in South Kalimantan, because the p-value > 0.05. This study is in line with the results of the 2008 study Jawawi that there is a relationship between the sexes with the rate of work accidents with a p-value = 0.017. According to research Jawawi 2008 female sex workers with more frequent accidents. This is due to the men and women have different physical and psychic,

so the analysis of workplace accidents always see sex as an important part. Differences between men and women can be seen from the physical ability of the muscle, endurance, posture and so on. So it will be able to relate to a particular workplace accidents (Siregar, 2014).

Women workers are considered likely to have physically weaker than male workers. Besides working women have other responsibilities as housewives so as to cause them less focused in working and may affect minor accidents occur more frequently. More over men and women have different physical and psychic, so the analysis of workplace accidents always see sex as an important part (Siregar, 2014).

The results showed there is relationship between periode of working with occupational health literacy on sasirangan workers in South Kalimantan, because the p-value <0.05. This is in line with research Demak 2014, which states there is a relationship between the periode of working with the prevention of occupational accidents, where the period of time a person will work more and allow to work safer (Demak, 2014). Longer periode of working will provide experience and a better knowledge workers about its work (Shiddiq, 2013). Most respondents in this study have a long periode of working ie > 2 years 23 respondents (76.7%). According Suma'mur 1996 periode of working relationships and experience to the scene of the accident is difficult to draw conclusions because of the different factors that influence the occurrence of accidents. Workers who are experienced and have long wrestle the job will be easier in the knowledge of the environment so that more careful in work (Suma'mur, 1996).

The results are consistent with the results of research conducted by Anita in 2006, that the accident occurred at the workers with new working period due to new workers less careful in work (Anita, 2006). Maulita research results in 2006, also showed that workers who have a long working life tends to

apply the prevention of occupational accidents, so that the incidence of work accidents will be reduced (Maulita, 2006).

## V. CONCLUSION

The results showed there is a relationship between age, gender and periode of working with the occupational health literacy on sasirangan craftsmen in South Kalimantan.

## REFERENCES

- [1] Sholihah dand Kuncoro, 2014, Occupational Health Safety, Concept, Development and Implementation of Safety Culture, Jakarta: Book Medical Publishers.
- [2] Kurniawidjaja, L.M., 2011, Theory and Application of Health, Jakarta, Indonesia University Publisher.
- [3] Sholihah.and Setyaningrum, 2014, Job Safety Analysis of Coal Mining, Food Industry and Hospital, Malang: Akademia.
- [4] Nutbeam, D., 2000, Health Literacy as a Public Health goal: a challenge for contemporary health education and communication strategies into the 21st century, Health Promotion International, Departement of Public Health and Community Medicine, University of Sydney, Vol.15 No.3, pp: 259-267.
- [5] Notoatmodjo, S., 2005, Health Promoyion, Theory and Applications, Jakarta: Rineka Cipta.
- [6] Maulita R. The relationship between basic causes of the accident with the implementation of prevention of occupational accidents in the Production Unit III PT. Sriwidjaya fertilizer Palembang 2006.Thesis. Palembang: STIK Bina Husada, Palembang, 2006.
- [7] Anita U. Analysis of factors related to accidents at Mil Paper Division 6in PT. Pura Baratama Kudus 2005. Thesis. Semarang: University of Semarang State, 2006.
- [8] Suma'mur P.K 1996. Hygiene and safety company. Jakarta: PT. Gunung Agung.
- [9] Shiddiq, et.al.The relationship OHAS perception of employee with unsafe behavior in the production unit of PT. Semen Tonasa 2013. Makassar: Part K3 Hasanuddin University School of Public Health, 2013.
- [10] Demak DLK. Analysis of the cause of safe behavior on nurses working in hospitals Islam Asshobirin South Tangerang 2013.Thesis. Jakarta: Faculty of Medicine and Health Sciences Syarif Hidayatullah State Islamic University, 2014.
- [11] Handayani EE, Wibowo, and Suryani. The relationship between the use of personal protective equipment, age and period of working with occupational accidents to workers rustic part in PT Borneo Transverse Export Buana Yogyakarta. Journal of Public Health 2010; 4 (3): 144-239.
- [12] Dauli FA. Factors associated with workplace accidents on construction workers in PT. PP (Persero) Tiffany Apartment project Kemang, South Jakarta in 2010. Thesis. Jakarta: Faculty of Medicine and Health Sciences Syarif Hidayatullah State Islamic University, 2010.
- [13] Jawawi I. Some Risk Factors Related to Work Accident Ratein PT Hok Tong Pontianak (Pabrik Crum Rubber). Thesis, 2008.
- [14] Siregar DIS. Factors Associated with Lightweight Accident in PT Aqua Golden Mississippi Bekasi 2014. Thesis. Jakarta: Community Health Studies Program Faculty of Medicine and Health Sciences Syarif Hidayatullah State Islamic University, 2014.

## AUTHORS

**First Author** – Hikmah Yusida, Doctoral Program in Health Sciences, Airlangga University Surabaya East Java Indonesia  
**Second Author** – Tjipto Suwandi, Faculty of Public Health, Airlangga University Surabaya, East Java, Indonesia  
**Third Author** – Ahmad Yusuf, Faculty of Nursing, Airlangga University, Surabaya, South Kalimantan Indonesia  
**Fourth Author** – Qomariyatus Sholihah, Public Health, Faculty of Medicine Lambung Mangkurat University Jl. A. Yani Km. 36,3, Banjarbaru South Kalimantan Indonesia  
Email: qoqom\_kuncoro@yahoo.co.nz