Table 3.9: Effect of Behavior use of PPE to the Hearing condition on Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, 2014

PPE usage behavior	Hearing condition				Total		p
	Normal		decrease		n	%	
	n	%	n	%			
Use	8	30,8	18	69,2	26	100	0,002
No use	2	4,3	44	95,7	46	100	
Total	10 (13,9%)		62 (86,1%)		72 (100%)		

Table 3.9 shows that respondents who have a hearing loss of at most are respondents who do not wear PPE when working, the number of 44 people (95.7%). While respondents who work wear PPE when working, which decreased hearing is number 18 (69.2%). Based on statistical test p = 0.002 showed a significant influence between the variables of PPE usage behavior with hearing conditions (p <0.005).

3.10 Effect of Intensity Noise with Hearing Conditions

Table 3.10: Effect of Noise Intensity with Hearing Loss Conditions at the Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, 2014

Noise intensity	Hearing condition				Total		p
	Normal		decrease		n	%	
	n	%	n	%			
< 85 dB	0	0	2	100	2	100	0,565
≥ 85 dB	10	14,3	60	85,7	70	100	
Total	10 (13,9%)		62 (86,1%)		72 (100%)		

Table 3.10 indicates that respondents who have a hearing loss with the most of respondents who are exposed to noise ≥85 dB when the work that a number of 60 people (85.7%). While respondents were exposed to noise <85 dB when the work and decreased hearing is number 2 (100%). This is reinforced by the results of statistical test showed the value of p = 0.565 (p> 0.05), which indicates that there is no significant relationship between the intensity of noise with a hearing condition.

3.11 Analysis of factors affecting the condition of Hearing on Blacksmiths Workers in Sungai Pinang, District of South Daha, Hulu Sungai Selatan

To analyze the factors that affect workers' hearing at the blacksmith in the village of Sungai Pinang, District of South Daha, Hulu Sungai Selatan conducted statistical analysis using logistic regression test with LR Backward method to seek the influence of several independent variables simultaneously. Logistic regression analysis test methods Backward LR performed between the independent variables (age, sex, length of employment, length of employment, type of work, the behavior of the use of PPE and intensities of noise) on the dependent variable (the auditory condition) as follows:

Table 3.11: Logistic Regression Test Results Backward LR method, like factors affecting the condition of Hearing on Workers of Blacksmiths in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, 2014

Independent Variable	*Hearing condition*			*R*
	B	*Exp (B)*	*Sig.*	
Long work (1) ≥ 8 hours/day	1,535	4,643	0,078	0,301
use of PPE behavioral (1)/ no use PPE	2,204	9,060	0,010	
Constant	0,279		0,579	

Table 3.11 shows that of all independent variables, put it together and get the coefficient of independent variables affect the dependent variable is the only variable PPE usage behavior has an influence on hearing conditions (p <0.05). R-square value (coefficient) obtained was 0.301 this means the use of PPE behavioral variables able to explain or predict the dependent variable value that is the condition of the hearing in this case is a hearing loss of 30.1% and 69.9% were influenced by other factors.

4. Discussion

4.1 Effect of Age against Loss Condition Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan.

Based on the chi-square test (Pearson chi-square) between age and hearing conditions in this study shows that the significance value of 0.031 which means there is a significant relationship between the variables of age with hearing loss (p <0.05).

This study fits with previous research conducted by Ulandari (2014) in which the data obtained in this study respondents who experienced hearing loss at the age of 22-38 years of 38.9%, 18.5% aged 39-54 and ages 55- 70 years at 3.7%. Spearman rank correlation test between age and hearing loss was obtained p = 0.019 and r = 0.508. In this study found a relationship between noises with hearing loss at hospital laundry workers in Makassar.

4.2 Effect of Sex Workers against to the Loss Condition of Blacksmiths in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan.

Based on the chi-square test (Pearson chi-square) between sexes with hearing conditions in this study shows that the significance value of 0.508 which means there is no significant relationship between the variables of sex with hearing loss (p <0.05).

These findings are consistent with research done by Olivia, which in this study did not obtain the relationship between the sexes with hearing loss. These results were confirmed by Philips (2010), quoted by Olivia (2014), who mentions gender effect, was not significant compared with the group not exposed to noise.

4.3 Influence Older Workers Working Against Loss Condition Blacksmiths in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan.

Based on the chi-square test (Pearson chi-square) between the length of work with hearing conditions in this study shows that the significance value of 0.032, which means there is a significant relationship between variable length of work with hearing loss (p <0.05).

The results are consistent with previous studies conducted by Susetya (2004), which in this study stated that there is a relationship between the lengths of work with hearing function. The statistical test used in this study is the correlation test double. This study looked at the relationship between noise intensity and length of work with workers hearing function section mill of tapioca industry such as Ngemplak village and Pati district, where two independent variables have a significant relationship with the dependent variable is a decrease in the threshold of hearing.

4.4 Influence Future Work against Loss Condition Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan.

Based on the chi-square test (Pearson chi-square) between the years of service with the hearing on the conditions of this study indicate that the significance value of 0.040, which means there is a significant relationship between the variables working lives with hearing loss (p <0.05).

The results are consistent with previous studies conducted by Sari (2012) which in this study stated that based on the statistical test Chi-squared error of 15.250 at the level of 5% with degrees of freedom=1 obtained value of 5.991 criticism appears that the value of Chi-squared amounted to 15.250> 5.991 so that there is a relationship between tenure with hearing loss in labor PT. PLN (Persero) region of East Kalimantan Mahakam sector which amounted to 36.7%. This research is also consistent with research Ulandari (2014) which in this study found a significant association between working periods with hearing loss. In this study mentioned period of employment with a value of p = 0.002 and r =0.408.

4.5 Effect of Type of Work against Loss Condition Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan

Based on the chi-square test (Pearson chi-square) between the type of work with hearing conditions in this study shows that the significance value of 0.508 which means there is no significant relationship between the variables of the type of work with hearing loss (p <0.05).

4.6 Behavior Influence Use of Personal Protective Equipment (PPE) Workers against Loss Condition Blacksmiths in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan.

Based on the chi-square test (Pearson chi-square) between the behavior of the use of PPE with hearing conditions in this study shows that the significance value of 0.002, which means there is a significant relationship between behavioral variables PPE use with hearing loss (p <0.05). From the findings of this study required hearing conservation program efforts of related agencies such as the Department of Health, Office of Manpower and Transmigration and the Department of Industry and Trade to provide efforts promoting, preventive, curative and rehabilitative and protection of informal workers like having a card JKN (Health Insurance National).

These findings are consistent with research conducted by Nurmia, which in this study showed a significant association between the uses of ear protection (APT) with hearing loss. In this research is based on statistical analysis of the results obtained Correction Continuity test p value = 0.021 <0.05.

4.7 Effect of Intensity Noise against Loss Condition Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan.

Based on the chi-square test (Pearson chi-square) between the intensity of noise with hearing conditions in this study shows that the significance value of 0.565 which means there is no significant relationship between the variable intensity of noise with hearing loss (p <0.05).

This study fits with previous research conducted by Ghani (2002) which in this study stated that the intensity of the noise was not associated with hearing loss in which the multiple logistic regression analysis test p value = 0.84 (p <0.05) and OR = 1.9. Research also according to research conducted by Nurmia, which in this study did not found a relationship between the intensity of noise with hearing loss. This is in contrast with the theory that the higher the intensity of noise in industrial environments and the longer the exposure time of workers experienced the more severe hearing loss will also be felt workers.

4.8 Analysis of factors affecting the condition of Hearing Blacksmiths Workers in Sungai Pinang village, District of South Daha, Hulu Sungai Selatan Regency, South Kalimantan

To analyze the factors that affect the hearing on workers carried out statistical analysis using logistic regression test is aimed to explore the influence of several independent variables simultaneously. Logistic regression analysis was conducted between the variables of age, sex, length of employment, length of employment, type of work, the behavior of the use of PPE and noise intensity on auditory conditions.

Of the seven independent variables were analyzed by using logistic regression test showed that the only variable behavior of the use of personal protective equipment (PPE) which has an influence on hearing loss of workers blacksmith in the village of Sungai Pinang, Kandangan, South Kalimantan

obtained significance value of 0.010 (p <0, 05) which shows there is a relationship between the behavior of the use of PPE with hearing loss as well as the value of R square (correlation coefficient) is 0.301, it means that the behavior of PPE use can affect hearing in this case a hearing loss of 30.1% while the remaining 69.9 % influenced by other factors.

5. Conclusion and Acknowledgements

Based on the results of the research of the factors that affect workers' hearing at the blacksmith in the village of Sungai Pinang, Kandangan, South Kalimantan In 2014, it can be concluded as follows:

1. Five factors characteristics of the respondents like age, gender, length of employment, length of employment, and only 3 types of jobs that affect the auditory condition of the age, length of employment, length of employment.
2. The intensity of the noise factor does not affect the hearing conditions of blacksmith workers in the village of Sungai Pinang, Kandangan, South Kalimantan.
3. Behavioral factors use personal protective equipment (PPE) effect on auditory conditions blacksmith workers in Sungai Pinang, South Kalimantan.

6. Suggestion

Advice can be given to the parties concerned with the results of this study are as follows:

1. To health Department of Hulu Sungai Selatan district in order to enable the function Program promoting, preventive, curative and rehabilitative to provide information more widely to workers both formal and informal workers, particularly informal workers about occupational diseases and diseases caused by working relationship. From the findings of this study are expected all workers to have health insurance in the form of JKN (National Health Insurance) cards to ensure their health, particularly related to work, whether occupational accidents, occupational diseases and diseases caused by work relationships.
2. To Sungai Pinang sub-district public health centre of South Daha in order to enable the function of the Health Promotion Program in particular concerning occupational health, prevention of occupational diseases and diseases caused by working relationship.
3. To Department of Manpower and Transmigration and the Department of Industry and Trade of Hulu Sungai Selatan district in order to provide care and protection to labor, especially in informal workers, would be able to provide information about the requirements for a worker to work in a certain companies.

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