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The Effect of Safety Behavior Training on Knowledge and Attitude of Small Medium Enterprises Group

Suryanto[1], Heryanto[1], Candra A[1] and Akhyarul A[2]*

[1]Public Health Program, Faculty of Medicine and Health Science, Universitas Jenderal Soedirman, Purwokerto, Indonesia
[2]Nursing program, Faculty of Medicine and Health Science, Universitas Jenderal Soedirman, Purwokerto, Indonesia

Abstract

Background: Occupational accidents are generally caused by two factors: unsafe behavior (Unsafe Behavior) and an insecure environment (Unsafe Condition). Approximately 85% of the incidence of occupational accidents due to human factors (human error) that behave in unsafe work. Wrong behavior (unsafe) can be improved by increasing the knowledge and attitudes through training. One profession that is often injured at work is a group of traders.

Aims: This study is to knowing the effect of safety behavior training on knowledge and attitude of the group merchant's small and medium businesses around Unsoed Purwokerto.

Methods: This study uses a quasi-experimental design with one group pretest and posttest design. The evaluation was done 2 times that before training (pretest) and after training (posttest I) and two weeks after training (posttest II). Data analysis was performed using paired t-test or Wilcoxon test. Population of 120 merchants and samples were taken by purposive sampling with a sample size of 40 people.

Result: No differences in the respondents' knowledge after training at posttest I and posttest II with p=0.028 (<0.05) and no difference between the attitudes of respondents to the pretest posttest I with p=0.036 (<0.05). Knowledge and great attitude in the individual is the basis for good behavior in life.

Conclusion: The training program can increase knowledge and change the attitudes of respondents significantly.

Keywords: Safety behavior; Knowledge; Attitudes; Work accidents

Introduction

Occupational accidents are generally caused by two main factors, namely unsafe behaviors (unsafe action) and the working environment is unsafe (unsafe condition). Ramli et al. mentions 85% of accidents are the contribution of unsafe behavior (unsafe action). Leadership and management of the workplace and the workers have to make efforts in occupational safety and health for preventing accidents. Efforts to control occupational accidents can be done by improving safety behavior in the workforce [1]. One of the effort that can be done to improve the knowledge and attitudes of workers' safety in working on the approach to education and training [2]. Efforts to improve knowledge and attitudes required in the work effort planned and programmed. This may involve a variety of activities through education and training on occupational safety and health. The purpose of the study was to determine the effect of training on the knowledge of Safety Behaviour and attitudes Group Small and Medium Enterprises (SMEs).

Research Methods

The research is a quasi-experimental research design with one group pre-test and post-test design. In this design the evaluation carried out 2 times before the experiment (0_1) is called the pre-test and after the experiment (0_2) is called the post-test. The difference in the 0_2-0_1 0_1 and 0_2 are assumed to be the effect of an intervention. Evaluation posttest I do when given after training and posttest II performed 2 weeks after doing the training. The independent variable is the training of safety behavior and the dependent variable is knowledge of safety behavior and attitude of safety behavior of traders.

The study population was a group of street vendor's association members Mergarasa North Navan who hung around campus Unsoed Purwokerto. Total population of 120 peoples (Karangwangkal Grendeng 86 people and 34 people) by purposive sampling techniques using sampling. The total sample of 30% of the population proportionally, i.e., 30% × 120=40 people (Karangwangkal Grendeng 25 peoples and 15 peoples). The instrument used was a questionnaire and Likert scale. By analysis using univariate and bivariate. Before the bivariate analysis, the data were tested for normality with a non-parametric statistical test Kolmogorov-Smirnov test, data are expressed in normal distribution if p>0.05. Differences between the mean scores of knowledge and attitudes before and after training pretest-posttest I (conducted shortly

No	Age Group	No. of People	Percentage (%)
1	18-25	6	15
2	26-35	12	30
3	36-45	13	32.5
4	46-55	8	20
5	56-65	1	2.5
Total		40	100

Table 1: Motivation for training the majority of respondents.

***Corresponding author:** Akhyarul Anam, Nursing program, Faculty of Medicine and Health Science, Universitas Jenderal Soedirman, Purwokerto, Indonesia, Tel: +62281651522; E-mail: soer_yanto4@yahoo.com

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No	Level of Education	No. of People	Percentage (%)
1	Basic education	26	65
2	Secondary education	14	35
Total		40	100

Table 2: Distribution of respondents by education level.

Scores of Respondents	Average Score	Test used	p-value	Alpha	Conclusion
Pretest (Before the training)	12.525	Wilcoxon	0.001	0.05	There is a difference
Postest I (After the training)	13.325	-	-	-	

Table 3: Differences Respondents Knowledge of Occupational Accidents before and after training (posttest I).

Scores of Respondents	Average Score	Test used	p-value	Alpha	Conclusion
Pretest (Before the training)	13.475	Wilcoxon	0.047	0.05	There is a difference
Postest I (After the training)	13.975	-	-	-	

Table 4: Differences Respondents Knowledge of Safe Conduct Respondents before and after training (posttest I).

Scores of Respondents	Average Score	Test used	p-value	Alpha	Conclusion
Pretest (Before the training)	10.675	Wilcoxon	0.028	0.05	There is a difference
Postest I (After the training)	11.625	-	-	-	

Table 5: Differences in knowledge of safe behavior before (pretest) and after training (posttest II).

Scores of Respondents	Average Score	Test used	p-value	Alpha	Conclusion
Pretest (Before the training)	25.7	Wilcoxon	0.607	0.05	There was no difference
Postest I (After the training)	25.925	-	-	-	

Table 6: Differences in attitudes of respondents toward k3 before and after training (posttest I).

Scores of Respondents	Average Score	Test used	p-value	Alpha	Conclusion
Pretest (Before the training)	25.7	Wilcoxon	0.036	0.05	There is a difference
Postest I (After the training)	26.65	-	-	-	

Table 7: Differences in attitudes of respondents toward k3 before training (pretest) with two weeks after training (posttest II).

after the completion of training) and posttest II (2 weeks after training) are known to test paired t-test if the data were normally distributed and if the data is not normal distribution using the Wilcoxon.

Results and Discussion

Characteristics of respondents by age

Respondents respond and respond positively to the training activities. Participants who attended not only workers older age group (>45 years), but also a young group of workers. Attendance is dominated by the respondents between the ages of 36-45 years as many as 13 (32.5%) and respondents aged between 26-35 years as many as 12 (30.0%). It shows the motivation to learn new information about safe behavior in the work is still quite high in workers with younger age groups, namely 52.5%. Knowledge is the basis for the emergence of an attitude and is influenced by aspects of the age, level of education, practice and others (Table 1) [3].

Characteristics of respondents by education level

The majority of respondents have primary education were 26 people (65%) consisted of primary school graduates and the number 7 as many as 19 people graduated from junior high school. Respondents expect during a training session to get an important matter and hope to get a bonus (reward) from the committee. Training activities have been designed so that participants can be present at the training ground. Respondents were able to attend training during the morning hours of 8:30 to 13:00 pm because it does not have the bustle of families and have not started working (selling). Respondents began selling hours 15:30 to 20:00 pm. Training materials can be accepted by the respondents have primary education (elementary and secondary) and secondary education (high school and vocational). The respondents expressed pleasure to receive important information about the material behavior is Safe at Work that can increase knowledge and change the attitudes of respondents in the work safely and comfortably (Table 2).

Differences in knowledge level respondents

Table 3 shows there is an increase in the average level of knowledge about the work accident before training (pretest) and after training (posttest I) 12.52 becomes 13.32. Statistical test results obtained with the Wilcoxon test p=0.001 (<0.05) means that statistically there is no difference working knowledge of significant accidents between before (pretest) and after training (posttest I). Respondents mentioned having experienced workplace accident is exposed to hot oil, stove fire, electric shock currents and exposed blade.

Table 4 shows there is an increase in the value of knowledge about safe behavior on the respondent before training (pretest) and after training (posttest I) is 13.47 becomes 13.97. Statistical test results obtained with the Wilcoxon test p=0047 (<0.05), meaning that statistically showed no difference in the level of knowledge about the behavior of a significant safety before (pretest) and after training (posttest I). Respondents said after training becomes aware of safe behavior at work. Respondents stated its intention to implement safe behavior at work.

The research results states that knowledge related to the incidence of workplace accidents to workers [4]. The accident occurred due to limited knowledge of the work performed. Knowledge of safe behavior at work for individuals needs to prevent accidents and other dangerous risks. Work accidents at work can occur because of the individual's knowledge, activity and labor conditions in the work environment. Use of PPE to workers affected when influenced by the motivation to work [5,6].

The results of the study by Silaban there is a relationship between knowledge and application of SMK3 in the workplace to prevent accidents. Reports show that most of the human knowledge acquired through education, experience themselves as well as others, the media and the environment. Individual knowledge can be increased directly or indirectly [7]. Directly that the presence of a resource that can be done directly by the method of counseling, training, counseling and others. While the indirect method is by giving the participants learned media such as leaflets, posters, stickers etc. Meanwhile that knowledge play an important role in shaping attitudes and behavior that ultimately determines the quality of public health. The level of knowledge is how much respondents know about safe behavior in a work that will influence the attitudes and actions in accepting or rejecting anything.

Table 5 shows there is an increase in the value of knowledge of safe behavior between before training (pretest) and after training (posttest II) 10.6750 which became 11.6250. Statistical test results obtained by the Wilcoxon test p=0.028 (<0.05) means that statistically there are differences in knowledge about safe behavior significantly between before (pretest) and after training (posttest II). Respondents stated happy to see and do in the workplace evaluation (posttest II). Knowledge is the basis of behavior that is not safe workplace accident.

Efforts aimed at the prevention of occupational accidents and human working environment [8].

The difference in attitude level respondents

Table 6 shows there is an increase in respondents' attitudes about the value of K3 between before training (pretest) and after training (posttest I) i.e., 25.70 becomes 25.92. Statistical test results obtained with the paired t test p=0.60 (>0.05) means that statistically there is no difference in the attitude of the respondents towards K3 significantly between before (pretest) and after training (posttest I). The results of the interview shortly after the completion of training of respondents stated thrilled to have got the material behavior and safety in the work of the respondents also admitted during this attitude in running the day-to-day work on the job is practically done according habits, although it is not safe for themselves and others.

Research shows numbers of work accidents are influenced by awareness of the application of the Safety and Health Management System (SMK3) [6]. According to WHO one of the strategies to improve the knowledge of providing information is giving rise to consciousness [9]. Providing information can be education and training on health and safety behavior at work. Attitude is a person's response to an object based on its understanding. This suggests a relationship of knowledge with attitude. Attitudes related to one's behavior, because the respondents who have a good knowledge affect the behavior, although not all respondents had a good knowledge. In addition to the knowledge, attitude is also influenced by the experience that comes from themselves as well as others who are closest. Respondents are supportive of healthy behavior and safe behavior as feel the benefits.

The results of this study showed that of the 40 participants who attended the majority of respondents have 1-3 years of work experience for 21 persons (52.5%) turned out to be the result of the statistical test using the test obtained by paired t test p=0.60 (>0.05) means that there is no differences in respondents' attitudes toward K3 significantly between before (pretest) and after training (posttest I). The results are consistent with research Yahya, et al., by Chi-square statistical test found no significant relationship between knowledge and attitudes and behavior to the health center for treatment adherence (p=0.896). Research by Susianto et al. mentions based statistical test Chi-square test p-value=0.637 note that this means that there is no significant relationship between knowledge and attitudes and behavior.

This study confirmed that the formation of the attitude of the person as the basis for living a behavior or activity is not only influenced by the knowledge and experience only. There are other factors that can determine the formation of attitudes such as: beliefs, culture (culture) such as customs, traditions and support system (family and neighborhood).

Knowledge at someone relate to the attitudes and behavior of disease transmission prevention [10]. Attitudes are formed from the knowledge it receives, over time becomes a habit or culture. Attitudes and habits are part of a culture that is not easy to change. According to Anwar et al. attitudes are influenced by various factors such as personal experience, the influence of other people that are considered important, the tradition, the information obtained and the level of education. Knowledge in one can to minimize the occurrence of occupational accidents and occupational diseases [11]. Work can increase a person's motivation to seek knowledge in order to behave safely in work [12].

Implementation of Safety Management Systems (K3) by workers in the workplace requires a commitment from the leadership or management. Commitment to K3 is necessary to be in the action [13].

Table 7 shows there is an increase in the average value between the attitudes of respondents to the K3 before given training (pretest) and two weeks after training (posttest II namely of 26.6500 or 25.7000 be an increase of 3.7%. Statistical test results obtained using the Wilcoxon signed rank test p=0.036 (<0.05), meaning that statistically shows differences of respondents' attitudes toward K3 significantly between before (pretest) and two weeks after training (posttest II). Respondents in the evaluation I (posttest II) states sometimes still forget to use an apron when frying, and some states do not wear an apron because only 1 piece apron and being washed because it is dirty. Respondents also expect training in safe work behavior and resumes forwarded by other training so that workers can work safely and comfortably.

Health efforts in the workplace such as companies, factories, medical facilities, etc. must be supported by policies such as the Occupational Safety and Health regulations or rules and SOP in the workplace [14]. This result is consistent Widiastuti study on the effect of health education with a lecture and discussion to enhance the knowledge of individuals.

Increased positive attitude is the result of an increase in respondent knowledge gained through lectures given as intervention research. Lectures were conducted increasing knowledge and awareness of the respondent so that a positive attitude towards health as expected. While the absence of a positive increase in the respondents due to the lack of a positive perception of the material provided.

The study by Weir says that the obstacles to improve health among others, lack of knowledge, ignorance, indifference, lack of medical facilities, transportation, and transportation sukit and financial barriers. It required close cooperation between medical institutions, medical educational institutions, health professionals and the public. This lack of knowledge often leads to false sense of safe behavior at work, healthy behaviors and health problems that can arise. Some of the factors that influence or determine the behavior of individuals are education, knowledge about a disease and income. Komitmen dari manajemen bisa memberikan dukungan dalam pelaksanaan K3 di tempat kerja [15]. Influence and leadership style can influence employees to behave safely in work at the workplace [16]. The results of this study indicate that the respondent in the application of knowledge of safe behavior in the work to the realm of attitudes and actual behavior in everyday life at work requires direct supervision and mentoring. This is because respondents need counseling while in the field work and the time constraints for traders who have a habit of wrong (unsafe behavior) to change into safe behavior. Activity supervision and counseling can be done with supervision approach and advocacy in the workplace traders.

Conclusions

The results showed no difference between respondents' awareness of safe behavior before training (pretest) and shortly after training (posttest) and evaluation after a lapse of 2 weeks after training (posttest II). The results also showed no difference the attitude of the respondent when done posttest II (two weeks after the training).

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