

## The Influence Of Health Education On The Behavior Of Handling Musculoskeletal Injury

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### ABSTRACT

Musculoskeletal injuries are the most global health problem due to their high prevalence, especially among workers. Low behavior in handling musculoskeletal injuries can cause health problems, namely musculoskeletal injuries. This study aimed to determine the effect of health education on behavioral changes in the management of musculoskeletal injuries in injured patients in the Basirih South sub-district, South Banjarmasin. This type of research used a quantitative pre-experimental design with one group pretest-posttest design. This research was conducted in Basirih South Village, South Banjarmasin, on November 10, 2021, with a research sample of 36 respondents using a total sampling technique. The instrument was a questionnaire tested for validity and then distributed door-to-door. The data was processed using the Non-Parametric Wilcoxon signed ranks test. Based on the behavior of handling musculoskeletal injuries in injured patients during the pretest, the results showed that the majority (66.7%) had lousy behavior in 24 patients. And after health education was carried out during the post-test, there was an increase in the number of sufferers (88.9%) having good behaviour of 32 injured patients. Using the Non-Parametric Wilcoxon Signed Ranks Test hypothesis, the analysis results obtained a p-value = 0.000. This means P value <0.05 (Ho is rejected, Ha is accepted) means "The Influence of Health Education on the Behavior of Handling Musculoskeletal Injury in Injured Patients in Basirih South Village, South Banjarmasin." Health education can influence behavior in handling musculoskeletal injuries, which can change behavior and increase understanding of managing musculoskeletal injuries in injured patients.

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### 1. INTRODUCTION

Musculoskeletal injuries are the most global health problem due to their high prevalence, especially among workers. This injury can affect several risk factors for musculoskeletal injuries, including old age, more extended than average work duration, long working periods, and smoking habits. The highest distribution of complaints on the waist was 73.91%, age  $\geq 47$  years by 80%, duration of work by 80%, and smoking habits by 100%. (1)

According to the WHO (World Health Organization), in 2018, the number of complaints of musculoskeletal injuries reached 441 million people, and high-income countries were the countries most affected. (2)

According to the results of data from basic health research (RISKESDAS) in 2018, it was reported that the number of complaints of musculoskeletal injuries reached (9.2%). And the province of South Kalimantan is in the 10th position by running a figure (of 10%). (3)

Musculoskeletal injuries can cause significant work problems due to increased compensation for health costs, decreased productivity, and lower quality of life. So that the impact of musculoskeletal injuries, if not treated immediately or handled and prevented, can cause slow work processes, disrupted activities, and not optimal. (1)

This health education aims to teach skills sequentially and give step-by-step demonstrations to provide facilities to injured sufferers and try the skills that have been demonstrated. (4) This health education aims to improve the behavior of handling musculoskeletal injuries and the ability of injured patients to understand the health education provided. (5)

The results of a preliminary study conducted on injured patients in Basirih South Village, South Banjarmasin, on October 8, 2021, using a questionnaire given to 15 respondents with injuries who did not understand the behavior of treating musculoskeletal injuries. And it was found that 12 respondents had the behavior in treating musculoskeletal injuries, which was terrible, while three respondents had good behavior in handling musculoskeletal injuries.

The purpose of this study was to determine the effect of behavior in handling musculoskeletal injuries before and after being given health education to injured patients in Basirih South Village, South Banjarmasin, in 2021.

## 2. METHOD

This type of research uses a quantitative kind. Quantitative research is a method for testing specific theories by examining the influence between variables. These variables are measured (usually with research instruments) so that data consisting of numbers can be analyzed according to statistical procedures. (6)

The research design used in this study was a pre-experimental design with a one-group pretest post-test design. Experimental research was used to find specific treatments' effects on others under controlled conditions. Experimental research is research that is intended to determine whether there is an effect of treatment on the subject under investigation. In this one-group design, there is no comparison (control) group. Still, at least the first observation (pretest) has been carried out, allowing testing of the changes that occur after the experiment (program). (7)

This research was conducted in Basirih South Village, South Banjarmasin, on November 10, 2021. The population of this study was 36 injured patients in the South Basirih Village, South Banjarmasin. By taking the total sampling. The number of samples used was injured patients who did not understand the behavior of handling musculoskeletal injuries, with a total of 36 respondents. The variables in this study consisted of health education and behavior in managing musculoskeletal injuries.

Data processing and data analysis using the SPSS version 26 program. Data analysis consisted of univariate analysis and bivariate analysis, which analyzed the effect of health education on the behavior of treating musculoskeletal injuries in injured patients in Basirih South Village, South Banjarmasin.

## 3. RESULTS AND DISCUSSION

### 1. Characteristics of respondents

The characteristics of the 36 respondents who participated in this study can be seen in the table below:

Table 1 Distribution of frequency characteristics of respondents based on gender

No	Gender	Frequency	Percentage (%)
1.	Man	22	61,1
2.	Woman	14	38,9
	Total	36	100

Based on table 1, the results showed that the majority (61.1%) were male, namely 22 respondents.

Table 2 Frequency Distribution of Respondent Characteristics Based on Respondent's Age

No	Age	Frequency	Percentage (%)
1.	20-29 Years	7	19,4

2.	30-39 Years	18	50.0
3.	40-49 Years	11	30,6
Total		36	100

Table 2 shows that the majority (50.0%) were aged (30-39), namely 18 respondents.

Table 3 Frequency Distribution of Respondents' Education Level Characteristics

No	Level of education	Frequency	Percentage (%)
1.	PRIMARY SCHOOL	20	55,6
2.	JUNIOR HIGH SCHOOL	9	25.0
3.	SENIOR HIGH SCHOOL	7	19,4
Total		36	100

Based on table 3, it was found that the majority (55.6%) had an elementary school education or graduated from elementary school. As many as 20 respondents

Table 4 Characteristic Frequency Distribution Based on Respondent's Occupation

No	Work	Frequency	Percentage (%)
1.	Housewife	8	22,2
2.	Trader	10	27,8
3.	Laborer	18	50.0
Total		36	100

Based on table 4, most of the results (50.0%) were employed by 18 respondents.

Table 5 Frequency Distribution of Behaviors in handling musculoskeletal injuries before conducting health education (Pretest) in Basirih South Village, South Banjarmasin

No	Behavior in Handling Musculoskeletal Injuries	Frequency	Percentage (%)
1.	Well	12	33,3
2	Bad	24	66,7
Total		36	100

Based on Table 5, the results were mostly (66.7%) with poor pretest results, namely 24 respondents.

Table 6 Frequency Distribution of Behavioral Treatment for Musculoskeletal Injury after Health Education (Posttest) in Basirih South Village, South Banjarmasin

No	Behavior in Handling Musculoskeletal Injuries	Frequency	Percentage (%)
1.	Well	32	88.9
2	Bad	4	11,1
Total		36	100

Based on Table 6, it was found that most of the results (88.9%) had good post-test results, namely 32 respondents.

Table 7. The Effect of Health Education on the Behavior of Handling Musculoskeletal Injury in Injured Patients in Basirih South Village, South Banjarmasin

Pretest-posttest	N	MeanRanking	Sum Of Ranks	P-Value
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Negative Ranks	0	.00	.00	.000
Positive Ranks	36	18.50	666.00	
Total	36			

Table 7 shows the results of the Hypothesis Test using the Non-Parametric Wilcoxon Signed Ranks Test in the table above from the Sig value. (Significant) namely 0.000. Then, If P-value.

## Discussion

### a. The behavior of handling musculoskeletal injuries before health education in Basirih South Village, South Banjarmasin (pretest)

Based on the study's results, it was found that of the 36 respondents, the frequency distribution of the behavior of handling musculoskeletal injuries before health education (Pretest) was obtained by the majority (66.7%); namely, as many as 24 respondents had terrible behavior.

The behavior of handling musculoskeletal injuries is an action to treat someone who has suffered an injury. Behavior-based on knowledge will last longer than behavior that is not based on knowledge. Basic knowledge of handling musculoskeletal injuries is essential for individuals to be able to provide emergency care in the event of a medical emergency, bad injury handling behavior due to lack of knowledge, and understanding for injured sufferers to handle injuries. (5)

This is in line with research conducted by Dewi in 2018 with the title "the effect of explicit instruction in health education on changes in behavior in handling injuries in the breakdance community." This study comprised 26 respondents divided into control group 13 and treatment group 13. The results showed that before being given health education about the behavior of handling musculoskeletal injuries, the treatment group 7 respondents (54%) were in the wrong category. This means that the behavior of taking musculoskeletal injuries is still minimal, so the health education is needed to improve behavior and understanding of behavior in handling musculoskeletal injuries so that bad behavior in handling musculoskeletal injuries can be prevented. (8)

The poor behavior of injured patients in Basirih South Village, South Banjarmasin, is caused by a lack of knowledge and attitudes. This is in line with research conducted by Luci Kartika Dewi in 2018. A lack of knowledge and attitude will lead to destructive behavior. So that it can affect the behavior of handling injuries and also because of the bad experience of respondents when providing treatment for injuries.

So research concludes that the behavior of handling musculoskeletal injuries occurs due to a lack of knowledge and understanding of the behavior of taking musculoskeletal injuries and the impact that will happen if the behavior of running musculoskeletal injuries is not handled correctly. There will be damage to the musculoskeletal system.

### b. The behavior of Handling Musculoskeletal Injury After Health Education (Posttest)

Based on the study results, it was found that most of the results (88.9%) with good post-test results were as many as 32 respondents.

Health education is a process to change healthy life behavior based on healthy life behavior changes based on self-awareness from within individuals, groups, or communities. The purpose of education is to maintain and improve health both systemically and periodically. (9)

This is in line with research conducted by Luci Kartika Dewi in 2017 with the title "the effect of explicit instruction in health education on changes in behavior in handling injuries in the breakdance community." This study consisted of 26 respondents divided into two groups, experiment 13 and treatment 13. The results showed that the treatment group of 13 respondents (100%) was in a suitable category after being given health education and experiencing increased behavior regarding handling musculoskeletal injuries so that they can take injuries if they occur.

The behavior of treating injuries to injured patients in Basirih South Village, South Banjarmasin has increased after health education was carried out, namely because many respondents paid attention and understood the material presented so that respondents were able to receive better information because this health education was able to influence the learning process. So the research

concludes that there is knowledge and increased behavior about handling musculoskeletal injuries so that sufferers can take injuries if musculoskeletal injuries occur in injured sufferers in Basirih South Village, South Banjarmasin, after health education or intervention (Posttest).

So research conducted by researchers concludes that the behavior of treating musculoskeletal injuries increases knowledge and good handling of musculoskeletal injuries during the post-test or after being given health education.

### **c. The Influence of Behavioral Management of Musculoskeletal Injuries in injured patients before and after (Pretest-Posttest) health education in Basirih South Village, South Banjarmasin**

Based on the research results, it is known that the results of the Non-Parametric Wilcoxon Signed Ranks Test Hypothesis Test. That is 0.000. So, if the P value

The influence of behavior in handling musculoskeletal injuries in injured patients in Basirih South Village, South Banjarmasin, before and after the implementation of health education showed an increase in behavior regarding running musculoskeletal injuries in wounded patients.

This is in line with research conducted by Suciati in 2018 with the title "the effect of health education using the direct instruction method on sprain first aid behavior among members which was known before health education was given about first aid behavior using the lecture and leaflet method. Most of them had negative attitudes, 23 respondents (57.5%), and after being given health education, the most had positive attitudes, 28 respondents (70%). The result of a significance value of 0.000 < 0.05 indicates an effect of health education using the direct instruction method on sprain first aid behavior in members of futsal. (5)

The behavior of injured patients in Basirih South Sub-District, South Banjarmasin, has increased because health education has been carried out through leaflets and SAPs. According to Fauziah, in 2018, health education using leaflet media showed an average increase of 7.86% pretest and 8.84% in the post-test. Leaflets are a form of conveying health information through folded sheets. The advantage of using this media is that the target can better understand and learn independently and practically because the respondent does not need to re-record the material. Providing health education using leaflet media can increase understanding and behavior in injured patients.

So the research conducted by researchers concludes that there is an influence of health education on the behavior of handling musculoskeletal injuries in injured patients in South Basirih Village, South Banjarmasin. Injured sufferers or respondents attended health education about running musculoskeletal injuries, which can increase knowledge and understanding and change the behavior of injured sufferers.

## **4. CONCLUSION**

It is known that the results of the frequency distribution of behavior in handling musculoskeletal injuries in patients before (Pretest) were given health education in Basirih South Village, South Banjarmasin, in 2021. Namely, 24 respondents (24%) with the results of behavior in handling injuries poor musculoskeletal

It is known that the frequency distribution of the behavior of handling musculoskeletal injuries in injured patients after (Posttest) is given health education in Basirih South Village, South Banjarmasin 2021. Namely, 32 respondents (88.9%) with good behavioral results in handling musculoskeletal injuries.

It is known that the results of the non-parametric Wilcoxon signed ranks test in the table above are seen from the sig. (significant) is 0.000. So if the P-value < 0.05 ( $H_0$  is rejected,  $H_a$  is accepted), it means that there is a critical influence between the influence of health education on the behavior of handling musculoskeletal injuries in injured patients.

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