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The Effect of Electronic Module Simulation (EMS) Injury Handling on Student Preparedness in Injury Handling at SMP Muhammadiyah 8 Surakarta

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Abstract

Wounds from mishaps in the school climate by and large happen in the outer muscle framework and should be dealt with rapidly and properly. Injury will cause dying, bone disfigurement or inability and even passing. Support dressing alleviation can be performed by any prepared layman. One of the laypeople prepared at school is an understudy who has gotten essential crisis instruction. Nursing fundamental instruction is given through the Adolescent Red Cross (PMR) extracurricular. There should be an expansion in treating breaks in understudies with online reenactments utilizing the Electronic Recreation Module (EMS). The motivation behind this study was to decide the impact of Electronic Module Reproduction (EMS) of Injury Dealing with on Understudies' Readiness in Taking care of Wounds at SMP Muhammadiyah 8 Surakarta. This research of exploration is a quantitative report utilizing a semi exploratory examination plan with a pre-post test without control which is completed via doing a mediation in one gathering without a correlation. The examination test was 43 understudies of SMA Al Islam 1 Surakarta. Information assortment was done two times at the time before treatment and after treatment. Information examination was performed utilizing the Wilcoxon test. The consequences of the Wilcoxon test on readiness when the mediation got a p worth of 0.000 so there was an impact of the Electronic Module Reproduction (EMS) of Injury The executives on Understudy Readiness in Dealing with Wounds at SMP Surakarta. There is an Impact of Electronic Reenactment Module (EMS) Injury Taking care of on Understudies' Readiness in Dealing with Wounds at SMP Muhammadiyah 8 Surakarta with a p worth of 0.000.

Keywords: Simulation, Broken Bones, Electronic Module Simulation (EMS), Preparedness

1. INTRODUCTION

Crisis is a perilous condition that requires legitimate, quick and exact assistance. On the off chance that Not can bring about inability or demise. Crisis conditions can happen anyplace, whenever and furthermore happen in regions covered by wellbeing laborers or alleviation groups, with the goal that in these circumstances the cooperation of the local area to help casualties prior to being treated by wellbeing laborers turns out to be vital [1].

In 2018, the World Wellbeing Association (WHO) noticed that more than 5.6 million individuals passed on from auto collisions and 1.3 million individuals experienced breaks. One of the episodes of mishaps that have a high pervasiveness is the frequency of lower furthest point cracks with a predominance pace of 40% of occurrence mishaps that happen [2]. In view of the consequences of Essential Wellbeing Exploration by the Wellbeing Innovative work Organization in 2018, in Indonesia the frequency of cracks was recorded at 5.5%. In the territory of Focal Java, the crack rate was 6.2%. Wounds from auto collisions will increment in 2020 and will turn into the world's third greatest executioner after coronary illness and gloom. Association in 2018, in Indonesia the recurrence of breaks was recorded at 5.5%. In the domain of Central Java, the break rate was 6.2%. Wounds from car accidents will augment in 2020 and will transform into the world's third most prominent killer after coronary sickness and despair[3].

One concentrate in Finland (Europe) in 2014 with respect to the school climate and wounds at school upwards of 722 wounds were ordered, in 11.6% wounds clear actual natural variables, and 28.1% wounds from the actual climate

were thought as hazard factors. So the school climate is a variable in (39.7) of wounds that happen at school, in the school climate or while heading to school. Wounds that happen in the school climate frequently happen in young men than young ladies [4].

Wounds from mishaps in the school climate by and large happen in the outer muscle framework and should be dealt with rapidly and properly. Any other way it will cause more extreme injury and can set off dying. Different effects that happen can bring about bone distortions or inability and even passing. To forestall injury to the outer muscle framework, brace dressing help is required through instruction [5]. Information itself is impacted by many factors like training, age, climate, and socio-culture [6].

The degree of schooling has a relationship with the degree of information, where the degree of instruction can impact an individual's degree of information. It is normal that the higher an individual's degree of instruction, the higher the degree of information. Wellbeing training is a work or movement to help people, gatherings and networks in working on their capacities as far as information, perspectives and abilities to accomplish ideal sound living [7], indeed, even by requiring all understudies to get medical aid training prior to moving on from middle school and high level emergency treatment prior to moving on from secondary everyday schedule getting a driver's permit, then we can guarantee that in the following two ages, everybody at the location of a mishap or in an intense disease will be better ready to save lives and furthest points until proficient assistance shows up [8].

Support dressing alleviation can be performed by any prepared layman. One of the laypeople prepared at school is an understudy who has gotten essential crisis instruction. Essential nursing instruction is given through the Adolescent Red Cross (PMR) extracurricular [9]. The impact of support dressing preparing on the information and abilities of understudies at SMA Negeri 2 Sleman Yogyakarta for the most part encountered an expansion in information from when being given preparation. High information 6.7% to 66.7% and low information decline from 43.3% to 10.0% [6].

E-module is a module with an electronic organization that sudden spikes in demand for a PC. E-modules can show text, pictures, activitys, and recordings by means of electronic gadgets like PCs [10]. Advances in technology have also made it possible for e-modules to be displayed via smartphones. Another advantage of e-modules is that they reduce the use of paper in the learning process. An e-module is arranged systematically in a language that adapts to students' abilities. So it doesn't confuse students in understanding [11]. E-modules are also teaching materials that can help students measure and control their learning abilities and intensity. The use of the module is not limited by place and time, because it depends on the ability of students to use the module [12]. The created e-module can be utilized whenever and anyplace utilizing a cell phone which the typical understudy as of now has in this mechanical time. So the impediments of showing materials when the educator makes sense of might benefit from outside input and during practicum understudies as of now comprehend what will be done on the grounds that understudies have concentrated on it in advance [13].

The e-module created is an Android-based module, since it adjusts to the normal cell phone utilized by understudies who utilize the Android Working Framework. The improvement of Android-based e-modules is completed with the assistance of the Android Studio application which is a PC program for creating programming [14]. So that utilizing Android Studio can assist with making an e-module project put together learning with respect to the Electric Engine Establishment subject as an application. The e-modules created can later be utilized by understudies utilizing the cell phones they have. This is also considered because e-modules that use smartphones can save students spending on photo-copying study materials, as well as making the use of smartphones among students more beneficial towards education [11].

E-modules created with the assistance of sigil programming applications. This application enjoys benefits including that there is a video interface associated with YouTube so it can work with general media learning styles, in the visual viewpoint there are a few pictures that are relevant with daily existence, a freeware computerized book creator application with the most over the top total highlights, running tests and lightweight model outcomes and simple to work, well disposed on a wide range of peruser gadgets and adaptable being used, perusers can play recordings all alone, not run alone like the presentation of a computerized book application [4]. In addition, there are various features that can be used to modify the appearance of the e-Module, it can be accessed offline and does not have to cost a lot because it is in the form of a soft file [15].

In light of the foundation over, the analyst is keen on leading exploration on the Impact of Electronic Reproduction Module (EMS) Injury Taking care of on Understudy Readiness in Dealing with Injury at SMP Muhammadiyah 8 Surakarta. The motivation behind this study was to decide the impact of Electronic Reproduction Module (EMS) Injury Dealing with on Understudies' Readiness in Taking care of Wounds at SMP Mhamadiyah 8 Surakarta

2. METHODS

This kind of examination is a quantitative exploration with a Quasy Investigation research plan pre and post test without control bunch plan. This examination needs to be familiar with changes in readiness for taking care of wounds when being given a reenactment of dealing with wounds through the E Module Recreation media. The populace in this study were all individuals from PMR in SMP Surakarta as numerous as understudies. This study utilized a purposive inspecting procedure. The quantity of tests in this review were 43 understudies. This examination was directed at SMP

Muhammadiyah 8 Surakarta in April-June 2022. The instruments in this study were observation sheets simulating fracture handling and fracture handling knowledge questionnaires. Classification of fracture preparedness assessment 0-39 Not ready, Not ready 40-54, Almost ready 55-64, Ready 65-79 and 80-100 Very ready. Data analysis used the Wilcoxon test. This research has been registered with the Ethical Clearance at the Ethics Commission of Kusuma Husada University, Surakarta.

3. RESULT AND DISCUSSION

The results of this study contain students' knowledge and attitudes as a student preparedness in handling fractures at SMP Muhammadiyah 8 Surakarta.

Distribution of student preparedness before the Electronic Module Simulation (EMS) media injury simulation

Table 1. Distribution of student preparedness before the Electronic Module Simulation (EMS) media injury simulation

Preparedness	Frequency	Percent
Not Ready	19	44.2
Unprepared	24	55.8
Total	43	100.0

The most distribution of student preparedness before being given an injury handling simulation with the Electronic Module Simulation (EMS) media was mostly unprepared, with 24 students (55.85). Several factors influence a person's preparedness in dealing with disasters, including: knowledge, attitudes, skills and external motivation including policies, education and training. In light of the aftereffects of the review, it was observed that the most minimal scores of the four parts of calamity readiness were in the Information and Mentality perspectives toward the start and end of the preparation, specifically 3.91 and 4.43 in the mediation bunch and 3.89 and 4.24 in the benchmark group. The highest score lies in resource mobilization (Resource Mobilization Capacity), namely 7.81 and 8.51 in the intervention group and 7.54 and 8.78 in the control group .

This condition may be due to the different problem models used and the content of the module displays more pictures so that the description of evacuation techniques is easier to understand. Simulation activities also help students in carrying out the mobilization process. The increase in preparedness in the control group was statistically significant because the material provided was very interesting and some were accompanied by videos [7].

Distribution of student preparedness after the Electronic Module Simulation (EMS) media injury simulation

Table 2. Distribution of student preparedness after the Electronic Module Simulation (EMS) media injury simulation

Preparedness	Frequency	Percent
Not Ready	4	9.3
Unprepared	34	79.1
Ready	5	11.6
Total	43	100.0

The most distribution of student preparedness after being given an injury handling simulation with the Electronic Module Simulation (EMS) media was the most unprepared as many as 34 people (79.1). The effectiveness of the e-module can be seen from the results of tests of students' learning abilities. In the limited test class, an N-gain value of 0.6 is obtained which is included in the medium category. Based on these data shows an increase and influence on student learning outcomes. This is also evidenced by the average student score of 47.22 increasing to 76.67. So that the average student learning achievement test after using the e-module is higher than the average student learning achievement ability before using the e-module [16].

This shows that the e-module can improve the ability of student learning outcomes. Learning to use android as a learning medium can improve learning outcomes and student interest in learning and create an interesting and fun learning atmosphere [17]. According to Muyaroah & Fajartia [18] learning using Android can make students happy in learning because it has an attractive design appearance, is equipped with video features, and students can learn anytime and anywhere. Students are interested in learning to use e-modules on Android because of the variety of images and video material available in e-modules, so that they can indirectly motivate students in learning. According to Muhasim [19] by utilizing digital technology in the learning process can increase student interest and motivation, create a good learning process, and increase student learning outcomes. This is also in accordance with Sidiq & Najuah [20] that electronic modules can be defined as learning tools that are designed electronically, contain interesting and systematic material that can make students enthusiastic about learning and can also be motivated to achieve an expected competency.

Components of Preparedness for Handling Injury

Table 3 Components of Preparedness for Handling Injury

Variabel	Min	Max	Mean	Standar Deviasi
KA PRE	6	13	9,44	1,817
KA POST	11	18	14,91	2,125
EP PRE	6	14	10,12	1,880
EP POST	11	18	9,81	1,967
WS PRE	6	15	9,81	1,963
WS POST	11	20	15,14	2,199
RMC PRE	6	15	10,12	2,002
RMC POST	11	19	15,40	1,990

The Information and Mentality information shows that before the intercession the base worth is 6, the most extreme is 13 with a normal of 9.4 and a standard deviation of 1.817 while after at least 11, a limit of 18 with a normal of 14.91 and a standard deviation of 2,125. The Crisis Arranging information shows that before the mediation the base worth is 6, the greatest is 14 with a normal of 10.12 and a standard deviation of 1.880 while after the base worth is 11, a limit of 18 with a normal of 9.81 and a standard deviation of 1.967. The Admonition Framework information shows that before the mediation the base worth is 6, the greatest is 15 with a normal of 9.81 and a standard deviation of 1.963 while after the base worth is 11, a limit of 20 with a normal of 15.14 and a standard deviation of 2.109. The Asset Preparation Limit information shows that before the intercession the base worth is 6, the greatest is 15 with a normal of 10.12 and a standard deviation of 2.002 while after the base worth is 11, the most extreme is 19 with a normal of 15.40 and a standard deviation of 1.990.

The consequences of Sari and Purnamasari's exploration (2021) show that the degree of information on understudies in treating wounds is all things considered 43 individuals (62.3%) [21]. This is in accordance with the aftereffects of examination led by Nasri and Leni (2021) that understudy information about wounds, counteraction and treatment of wounds is in the moderate classification of 51.2% [22]. This is in accordance with research led by Yuliana et al (2020) that most youngsters have adequate information in regards to the gamble of injury at SDN 1 Beureno Bojonegoro [23].

A person's knowledge is influenced by several factors including age, education, experience, media, and culture. The knowledge of teachers and school children is in a fairly good range, this can be influenced by experience. Teachers who have more experience will also have good knowledge of injury handling, apart from that the age factor is also a factor that influences knowledge [24]. Knowledge possessed by students is also influenced by several factors including environmental factors. Children's understanding can be formed from the surrounding social environment, as well as parents and schools, so schools can provide additional knowledge to their students about handling injuries to children through various training [24].

Attitude is a reaction to feelings, thoughts and actions that are learned to respond consistently to a particular object [25]. Attitudes are influenced by experience and the emotions concerned, such as agreeing and disagreeing for attitudes, must be in line with knowledge obtained from health education so as to give rise to good (positive) attitudes [26].

Attitudes are related to one's knowledge and thoughts where if knowledge regarding first aid by school members will make students, teachers and staff think and try to keep children safe at school, when the individual thinks then the emotional and belief components will carry over so that will improve abilities and the desire to carry out immediate first aid measures to prevent and minimize disability and even death when students experience injuries at school [27].

Effect of Electronic Simulation Module (EMS) on Injury Handling on Students' Preparedness in Handling Injuries at SMP Surakarta

Table 4 Effect of Electronic Simulation Module (EMS) on Injury Handling on Students' Preparedness in Handling Injuries at SMP Surakarta

Component	Pre	Post	P value
KA	9,44	14,91	0,000
EP	10,12	15,05	0,000
WS	9,81	15,14	0,000
RMC	10,12	15,40	0,000

The Wilcoxon test on information and disposition, crisis arranging and admonitions framework has a p worth of 0.000 so there is a huge contrast among when giving the electronic module reenactment. The consequences of the Matched Examples T Test on Asset Assembly Limit show a P Worth of 0.00, so there is a massive distinction among when giving the electronic module recreation.

Table 5 The Influence of Electronic Simulation Module (EMS) Injury Handling on Students' Preparedness in Handling Injuries at SMP Surakarta

Preparedness	Pre	Post	P value
Not Ready	19	4	
Unprepared	24	34	0,000
Ready	0	5	

The Wilcoxon test on information and disposition, crisis arranging and admonitions framework has a p worth of 0.000 so there is a huge contrast among when giving the electronic module reenactment. The consequences of the Matched Examples T Test on Asset Assembly Limit show a P Worth of 0.00, so there is a huge distinction among when the organization of the electronic module recreation. These outcomes are in accordance with the examination of Laili, Ganefri and Usmeldi (2019) which shows that the consequences of the speculation test have an importance worth of 0.000, and that implies the sig. 0.000 <0.05, then, at that point, there is a huge contrast in the learning results of understudies when utilizing the venture based learning e-module [11]. The exploration consequences of Septaria, Dewanti and Afidah (2020) demonstrate the way that the moderation module can be fascinating and proficient in expanding understudy readiness in grasping catastrophe readiness [28].

The recreation e-module created is as an Android-based e-module, since it adjusts to the normal cell phone utilized by understudies who utilize the Android Working Framework. The improvement of Android-based e-modules is done with the assistance of the Google Website application, which is a PC program for creating on the web and online learning media. The reenactment e-module can show a ton of material joined by exhibitions or reproductions of dealing with broken bones so understudies can master information and abilities. This is likewise considered on the grounds that the recreation e-module that utilizes a cell phone can save understudies spending on copying concentrate on materials, as well as utilizing cell phones among understudies more useful towards instruction [29].

In this way, specialists fostered a catastrophe moderation module, the Learning module is one of the print-based showing materials utilized by understudies for free review with clear directions to assist understudies with learning all the more successfully in accomplishing specific objectives [30]. The catastrophe alleviation module that has been created was approved by 3 specialists and the approval results from material, media and language specialists were 92.5%, 97.5% and 97.5%, each with a typical approval consequence of 95.75%, these outcomes show that the STEM-based debacle moderation module is extremely legitimate to use to instruct understudies about calamity relief. Furthermore, the modules that have been created have been organized in a precise, appealing and clear way so understudies can utilize them whenever, anyplace freely [31].

4. CONCLUSIÓN

The consequences of this study demonstrate that the preparation of understudies prior to being given a reenactment of dealing with wounds to the Electronic Module Reproduction (EMS) media is generally ill-equipped upwards of 24 individuals (55.85). Understudy readiness subsequent to being given a recreation of dealing with injury to the Electronic Module Reenactment (EMS) media was generally ill-equipped upwards of 34 individuals (79.1). The consequences of the Wilcoxon test on readiness when the mediation got a p worth of 0.000 so there was an impact of the Electronic Module Reenactment (EMS) of Injury The executives on Understudy Readiness in Dealing with Wounds at SMP Surakarta.

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