Analysis of new medical faculty students' knowledge regarding disasters and analysis of their wrong answers to disaster questions

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Abstract

This research aims to test and evaluate the knowledge of new students at the Faculty of Medicine at Malikussaleh University regarding disasters by analyzing incorrect answers to quiz questions. Quantitative research methods were used in this research. Data collection was carried out through distributing questionnaires using Google Forms. The sample size was 13.28% of the total students. It is known that the knowledge of students at the Faculty of Medicine, Malikussaleh University regarding disasters is good with avarage score is 86,32. However, the percentage of students who answered incorrectly was quite large on questions that included "basic disaster questions".

Keywords: faculty of medicine, disaster, students, disaster questions.

Introduction

Throughout 2021 Badan Nasional Penanggulangan Bencana (BNPB) noted that the disaster event in Indonesia recorded 3,092 incidents with the majority dominated by disasters wet hydrometeorology such as floods, weather extreme conditions and landslides.[1] Indonesia, as a country located in a disaster-prone area, faces significant challenges in terms of preparedness and response to disasters. With its strategic geographic position, Indonesia frequently experiences various types of natural disasters, such as earthquakes, tsunamis, storms and volcanic eruptions. Therefore, public understanding in facing natural disasters is very important by paying attention to the surrounding environment and also effectively responding to warnings from the Meteorology, Climatology, and Geophysics Agency (BMKG). This is especially crucial for new students of faculty medicine who will become health professionals.

Students and school communities must have the ability and concern towards yourself in the face of it disasters or in helping others.[2] It is hoped that students will not only possess

theoretical knowledge but also the practical skills necessary to handle emergency situations. Medical students are expected to serve as role models for the community in disaster management. Through the analysis of students' understanding of disaster medicine, this research aims to test and evaluate the knowledge of new students at the Faculty of Medicine at Malikussaleh University regarding disasters by analyzing incorrect answers to quiz questions.
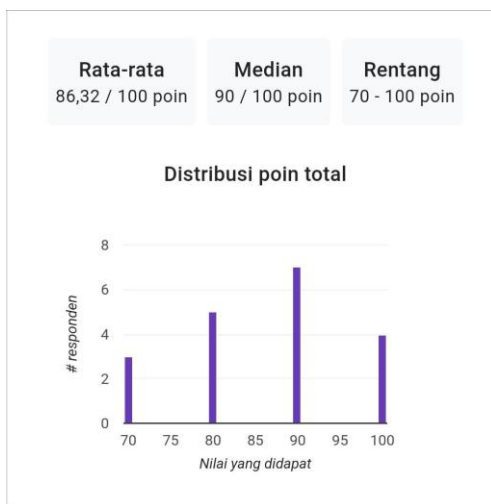
Material and methods

Quantitative research methods were used in this research. Data collection was carried out through distributing questionnaires using Google Forms. A questionnaire is a data collection technique by giving written questions to respondents.[3] If the population is greater than 100 people, then 10-15% or 20-25% of the population can be taken.[4] The population of this research is students from the Faculty of Medicine, Malikussaleh University Class of 2024 with a population of 143. The sample size was 13.28% of the total students, amounting to 143 people. The population is the overall symptom being studied, while the sample is part of the population to be studied.[3]

There are 10 questions with a medium level of difficulty which the author obtained from the AI website. After the data is obtained, the researcher will carry out an analysis regarding the level of understanding of disasters at the Malikussaleh University Faculty of Medicine students based on the questionnaire scores they have filled out.

Results

Figure 1. Quiz Result from Google Form

Table 1. Analyze Quiz Result

Score	Number of Students
70	3
80	5
90	7
100	4

Discussion

Students' Knowledge of Disasters

Based on the results of a questionnaire distributed via Google Form to 19 new students class of 2024 at the Faculty of Medicine, Malikussaleh University as a sample, it is known that the average score obtained was 86.32. Based on the analysis in **Table 1**, it is known that the range of student scores is from 70 to 100 with the most students getting a score of 90, namely seven students. Based on these data, it can be seen that the knowledge of students at the Faculty of Medicine, Malikussaleh University regarding disasters is good. A grade range of 86-90 is converted to B+ or good.[5]

The good knowledge of new students at the Faculty of Medicine, Malikussaleh University, regarding disasters is in accordance with the vision and mission of the Faculty of Medicine, Malikussaleh University, namely to be at the forefront of disaster issues both nationally and internationally by including disaster material into the curriculum.[6] This is driven by the geographical location of Malikussaleh University, which is in Aceh Province, which is one of the provinces with the highest level of disaster vulnerability in Indonesia. Aceh is recorded as having experienced several major disasters, such as earthquakes and tsunamis. Good student knowledge of disasters can encourage the achievement of good disaster mitigation in society. Students from the Faculty of Medicine at Malikussaleh University can provide education to the people of Aceh regarding tips for dealing with disasters so that when a disaster occurs, the people of Aceh can take effective and efficient action.

Analyze Questions with Many Wrong Answers

Even though the results were good, there were several questions with a fairly large percentage of students answering incorrectly. The question "What is meant by disaster mitigation?" answered incorrectly by eight students. This shows that some students still feel confused regarding the meaning of disaster mitigation. Some students mistakenly answered that disaster mitigation is "actions to prepare a response to a disaster", even though the correct definition of disaster mitigation is "actions to reduce the impact of a disaster".

The next question with a fairly large percentage of students answering incorrectly was "what is the purpose of disaster training?". This question was answered incorrectly by six students. Some students felt confused about this question and answered incorrectly with the option "improving individual skills in dealing with disasters". In fact, the aim of disaster training is not only that option, but also other options, namely "increasing knowledge about disasters" and "testing the readiness of emergency response teams". Therefore, the correct option is "all answers are correct". Based on the analysis of students' incorrect answers to questions, it is known that the percentage of students who answered incorrectly was quite large on questions that included "basic disaster questions", namely in the form of understanding disaster mitigation and the objectives of disaster training. It is hoped that the disaster material at the Malikussaleh University Faculty of Medicine that students will study will be able to increase students' level of knowledge regarding disasters.

Conclusion

The knowledge of students at the Faculty of Medicine, Malikussaleh University regarding disasters is good with avarage score is 86,32. The percentage of students who answered incorrectly was quite large on questions that included "basic disaster questions".

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Disclosure
The author reports no conflicts of interest in this work.

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