

Physical Education Student's Awareness in the Implementation of Disaster Management System: Inputs for Enhancement of Policy

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Abstract: This study by the researcher on Physical Education Student's Awareness of the Implementation of Disaster Management System: Inputs for enhancement policy specifically in the teaching-learning activities improvement through intended to know the level of awareness in teaching the teacher about the implementation of the disaster management system of the school in the sophomore PE students. The sophomore PE student-athlete respondents are mostly males and specialize in sports-inclined varied landscapes, with football, track and field, and basketball emerging as the most prevalent sports specializations. This only shows that there are more male athletes involved. The respondents of the sophomore student-athletes are moderately aware of the implementation of the disaster management system specifically in the Prevention of the Disaster, Mitigation of the Disaster, Preparedness for the Disaster, and Assessing the Risks of the Disaster while Response to the Disaster and Recovering from Disaster. Therefore, the relevance of the results extends to the broader educational mission of promoting holistic development in student-athletes. By instilling a culture of preparedness, resilience, and civic responsibility, institutions can equip student-athletes with valuable life skills beyond the athletic field. holistic development in student-athletes. By instilling a culture of preparedness, resilience, and civic responsibility, institutions can equip student-athletes with valuable life skills beyond the athletic field. No significant difference exists in the assessment of student-athlete respondents on their profile. The focus group discussion among PE teachers who teach disaster management is just an integration that requires a further appreciation of the subject to be more effectively taught to students. Based on the conclusions derived from this study, this research came up with the following recommendations. It just shows that more male athletes are involved. It is prepared and knows the remedies that should be carried out in the event of a disaster. It is suggested that the institution have a specific organization for students who respond or help during a disaster to cultivate a culture of caring for others that student-athletes can lead because of their agile actions. Teachers who teach disaster management should think of more engaging activities to increase students' appreciation of cultivating a culture of caring for others during disasters regardless of their gender, age, and specialization in sports.

Keywords: Awareness, Disaster Management, Implementation.

1. Introduction

Historically, natural disasters were interpreted through the lens of mythology and morality, often seen as celestial retribution for human transgressions.[1-2] This perspective ascribed a hierarchical value to the actions of different societal strata, from commoners to bureaucrats, in eliciting such catastrophic responses. In contemporary understanding, however, disasters are recognized as complex interactions between natural forces and human society, where human actions can exacerbate or mitigate the impact on communities. Current scholarship, building upon the foundational work of scholars like Tierney who, in the early 21st century, posited that disasters are social constructs reflecting societal change, continues to unravel the intricate social fabric underpinning disaster events and responses.

In recent years, the specter of emerging infectious diseases like the Novel Coronavirus (COVID-19) has underscored the importance of disaster preparedness. The epidemic's onset in December 2019 in Wuhan and its subsequent global spread have highlighted critical gaps in emergency management and the need for resilient health and safety protocols.[3] The General Administration of Sport of China's directive to suspend all sports events in early 2020 reflects the depth of impact such crises can have on societal structures, including the sports industry.[4-5].

The vulnerability of youth, especially schoolchildren, in the face of such disasters cannot be overstated. The tragic losses of the 2008 Sichuan earthquake are a stark reminder of the generational impact of disasters and the imperative for targeted disaster preparedness policies in educational institutions[6]. It is against this backdrop that international bodies like UNICEF have developed frameworks to enhance the disaster resilience of children, emphasizing policy design, risk assessment, and preparedness.

This study seeks to bridge this gap by evaluating the awareness and preparedness of sophomore physical education students in the face of disasters. It explores the extent to which current educational policies and curricula successfully impart essential knowledge and skills for disaster management, identifying critical areas where enhancement is needed.

This study aimed to assess the awareness of sophomore physical education students of the disaster management curriculum for college-level students in China and involved a deeper exploration of concepts, practical applications, and advanced skills in the implementation of disaster management systems.

2. Materials and Methods

This study employed a quantitative research approach, utilizing a descriptive comparative research design. This methodology enabled the researcher to not only describe the

current awareness levels of physical education students regarding disaster management systems but also compare different subgroups, such as students from various years or specializations. The comparative aspect provided a deeper understanding of where awareness was strong and where it might have needed reinforcement.

The study was situated at the Hunan Institute of Science and Technology, Hunan Province, China. To obtain a comprehensive understanding of the integration of disaster management into the physical education curriculum, the researcher engaged sophomore physical education students and PE teachers who incorporated disaster management into their teaching. Additionally, it involved scholars who specialized in the management of large-scale sports events and their associated risks. The selection of 175 sophomore physical education students as respondents was justified by a stratified random sampling method. This approach ensured that different specializations within the physical education program were proportionally represented.

This survey illustrated the phases involved in assessing the implementation of disaster management systems and how aware the students were of themselves. It evaluated whether their teachers were effective or ineffective in teaching disaster management systems using the six phases: Prevention of the Disaster, Mitigation of the Disaster, Preparedness for the Disaster, Assessing the Risks of the Disaster, Response to the Disaster, and Recovering from the Disaster.[7-8].

3. Discussion

3.1. The Demographic Profile of the Student-Athletes in Terms of the Following

The study's analysis of the respondents' sex distribution, as depicted in Table 1, reveals a notable gender disparity among student-athletes, with 65.1% identified as male and 34.9% as female. This finding underscores a prevalent trend of male dominance in school athletics. Such a gender imbalance carries multifaceted implications rooted in sociological theories and empirical research. Coakley's socialization theory posits that individuals are socialized into gender roles that dictate their behaviors and preferences, with sports often associated with masculinity. Consequently, the overrepresentation of male student-athletes aligns with societal norms that valorize male athleticism while potentially marginalizing female participation.

Table 1. Frequency Distribution of the Respondents' Profile in Terms of Sex

Sex	Frequency	Percentage
Male	114	65.1%
Female	61	34.9%
Total	175	100%

3.2. The Assessment of the Sophomore Physical Education Students on the Implementation of Disaster Management System in Terms of the Following.

Table 2. Respondents' Assessment on the Implementation of Disaster Management System in terms of Prevention of the Disaster

Prevention of the Disaster	Mean	SD	Qualitative Description	Interpretation	Rank
1. I am aware of strategies to prevent disasters within our institution.	3.46	0.55	Strongly Agree	Extremely Aware	5
2. I recognize the critical role of safety measures and protocols in disaster prevention.	3.58	0.50	Strongly Agree	Extremely Aware	1
3. I am familiar with our designated evacuation areas for emergencies.	3.48	0.59	Strongly Agree	Extremely Aware	3
4. I understand how promoting hazard awareness helps in disaster prevention.	3.47	0.50	Strongly Agree	Extremely Aware	4
5. I acknowledge the importance of infrastructure resilience in disaster prevention.	3.50	0.53	Strongly Agree	Extremely Aware	2
Composite Mean	3.50	0.38	Strongly Agree	Extremely Aware	

Legend: 3.26-4.00 Strongly Agree/Extremely Aware; 2.51-3.25 Agree/Moderately Aware; 1.76-2.50 Disagree/Slightly Aware; 1.00-1.75 Strongly Disagree/Not at all Aware.

Table 2 shows respondents' assessment of the implementation of disaster management systems, focusing on disaster prevention within their institution. The assessment includes various strategies and protocols related to disaster prevention. Notably, the highest mean score is attributed to the statement "I recognize the critical role of safety measures and protocols in disaster prevention," with a mean score of 3.58. This indicates strong agreement and high awareness among respondents regarding the importance of safety measures in disaster prevention, ranking it as the top

statement.

The overall composite mean for the prevention of disaster statements is 3.50, indicating strong agreement and high awareness among respondents. These findings suggest that respondents possess a robust understanding and acknowledgment of the critical role of safety measures and protocols in disaster prevention within their institution, despite minor variations in awareness levels across specific prevention strategies.

3.3. The Test of Difference in the Assessment of Student-athlete Respondents on the Implementation of Disaster Management System as Regards Their Profile

Table 3. Differences in the Assessment of Student-Athlete Respondents on the Implementation of Disaster Management Systems as regards their Age

Performance Indicators	Sex	Mean	SD	Computed t-value	Sig	Decision on Ho	Interpretation
1. Prevention of the Disaster	20 yo & below	3.46	.381	-1.981	.049	Reject Ho	Significant
	21 yo & above	3.58	.366				
2. Mitigation of the Disaster	20 yo & below	3.54	.637	-.441	.660	Accept Ho	Not Significant
	21 yo & above	3.59	.355				
3. Preparedness for the Disaster	20 yo & below	3.43	.431	-1.106	.270	Accept Ho	Not Significant
	21 yo & above	3.51	.516				
4. Assessing the risks of the disaster	20 yo & below	3.39	.472	-1.574	.117	Accept Ho	Not Significant
	21 yo & above	3.51	.452				
5. Response to the Disaster	20 yo & below	3.23	.528	.325	.745	Accept Ho	Not Significant
	21 yo & above	3.19	.659				
6. Recovering from the Disaster	20 yo & below	3.20	.666	-1.018	.310	Accept Ho	Not Significant
	21 yo & above	3.32	.654				
Over-all	20 yo & below	3.38	.338	-1.364	.174	Accept Ho	Not Significant
	21 yo & above	3.46	.330				

The differences in the assessment of the implementation of the disaster management system among student-athlete respondents, as delineated in Table 12, offer valuable insights into the role of age in shaping perceptions of disaster management effectiveness within the athletic students. Using T-Test of Independence as a statistical tool, a significant difference is observed between respondents aged 20 years old and below and those aged 21 years old and above on prevention of the disaster. Notably, older respondents (21 years old and above) rate the prevention (M = 3.58) significantly higher compared to younger respondents (20 years old and below) with (M=3.46), highlighting a potential trend of increased confidence and awareness in disaster management strategies with age.

Conversely, while significant differences were not observed in the assessments of mitigation, preparedness, risk assessment, response and recovery, and overall implementation between younger and older respondents, the lack of significance indicates a comparable perception of effectiveness in these areas across different age groups.

This suggests that, despite potential differences in confidence and awareness regarding specific aspects of disaster management, both younger and older student-athletes perceive similar levels of effectiveness overall. These findings underscore the importance of considering age-related factors in disaster management planning and education initiatives, tailoring interventions to address the evolving needs and capacities of student-athletes at different developmental stages. Several studies and literature support

the idea that despite potential differences in confidence and awareness regarding specific aspects of disaster management, both younger and older individuals may perceive similar levels of effectiveness overall, emphasizing the importance of considering age-related factors in disaster management planning and education initiatives. One study investigated age-related differences in disaster preparedness perceptions among adults.[9-11] The findings indicated that while older adults tended to have higher levels of perceived disaster preparedness compared to younger adults, both age groups reported similar levels of overall satisfaction with their disaster preparedness efforts. This suggests that despite differences in perceived levels of preparedness, individuals of different ages may perceive similar effectiveness in their disaster management efforts overall. Additionally, some researches examined the role of age in influencing disaster risk perception and preparedness behaviors.[12-14] The study found that while older adults often exhibited higher levels of risk perception compared to younger adults, there were no significant age differences in reported levels of disaster preparedness. This suggests that despite varying levels of perceived risk, individuals of different ages may engage in similar levels of preparedness activities, ultimately leading to comparable perceptions of disaster management effectiveness.[15-16].

3.4. The Issues and Concerns Encountered by PE Teachers in Teaching Disaster Management Systems

Table 4. The Issues and Concerns Encountered by PE Teachers in Teaching Disaster Management Systems

THEMES	DESCRIPTIONS	REMARKABLE QUOTES
Limited resources	Lck of learning resources in teaching Disaster Management. Teacher needs to be creative and resourceful to teach disaster management effectively.	Participant 1 <i>"Many learning resources can be used to teach different sports in Physical Education. However, teaching is limited when the subject is about disaster management. Perhaps the focus of teaching PE is more on sports not on disaster management."</i>
Time constraints	The teacher needs to be organized in the practice of time management to plan well the subject lessons taught in class.	Participant 2 <i>"PE teachers have struggled to allocate sufficient time for comprehensive disaster management education."</i>
Lack of specialized training	Training for disaster management is not only an orientation. It is also necessary to have a series of training workshops to ensure that the teacher has sufficient knowledge in teaching it.	Participant 3 <i>"Only orientation is usually provided and not a comprehensive training workshop."</i>
Age and developmental differences	Different activities are needed that will encourage the student to have an interest in listening and understanding what the teacher is teaching.	Participant 4 <i>"Age difference affects student's understanding. Some seriously want to listen and others just listen without understanding."</i>
Student engagement	Students should be encouraged to take more active roles in collaborative learning and teaching from the teacher's guidance.	Participant 5 <i>"The student does not have much enthusiasm to participate in class."</i> Participant 6 <i>"Some of them are lack of willingness to participate."</i>
Balancing sports training with disaster preparedness	Have activities in PE related to disaster management to have sports training with disaster preparedness.	Participant 7 <i>"No engagement activities in PE related to disaster management."</i> Participant 8 <i>"Imbalance activities between teaching sports and disaster management."</i>
Over-emphasis on physical skills	A balanced view of developing physical skills rather than cognitive and decision-making skills needed for effective disaster management is needed.	Participant 9 <i>"The development of physical skills is prioritized over the cognitive and decision-making skills needed for effective disaster management."</i>
Assessment and evaluation	Have enough standardized tools that can be used to assess the skills of students in the disaster management system.	Participant 10 <i>"Lack of standardized assessment tools for assessing student skills in disaster management systems."</i>

Educating student-athletes about disaster management systems poses a multitude of challenges for physical education (PE) teachers. These challenges encompass various aspects, ranging from limited access to resources and time constraints to the lack of specialized training and age-related differences among student-athletes. Furthermore, engaging student-athletes in disaster management education while balancing sports training, overcoming cultural and language barriers, and addressing the overemphasis on physical skills present additional hurdles. Moreover, the absence of institutional support and difficulties in assessing student learning and skill acquisition in disaster management further complicate the task. This comprehensive array of challenges underscores the complexity of integrating disaster management education into the curriculum for student-athletes and highlights the need for tailored strategies and support mechanisms to address these obstacles effectively.

4. Conclusion

The sophomore PE student-athlete respondents are mostly males, 20 years old and specializing in sports inclined in varied landscapes, with football track, field, and basketball emerging as the most prevalent sports specializations. This only shows that there are more male athletes in the involved.

The respondents of the sophomore student-athletes are extremely aware of the implementation of the disaster management system specifically in Prevention of the Disaster, Mitigation of the Disaster, Preparedness for the Disaster, and Assessing the Risks of the Disaster while Response to the Disaster and Recovering from Disaster has moderate aware. Therefore, the relevance of the results extends to the broader educational mission of promoting holistic development in student-athletes. By instilling a culture of preparedness, resilience, and civic responsibility, institutions can equip student-athletes with valuable life skills beyond the athletic field.

No significant difference exists in the assessment of student-athlete respondents on their profile. The focus group discussion among PE teachers who teach disaster management is just an integration that requires a further appreciation of the subject to be more effectively taught to students.

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