







## Knowledge and readiness of filipino physical educators in addressing injuries in physical education settings

<sup>abd</sup>John Louise M. Marcaida , <sup>abd</sup>Winnie Grace C. Gile, <sup>\*abde</sup>Julius Ceazar G. Tolentino , <sup>abd</sup>Mary Chantelle O. Carlos , <sup>abd</sup>Jeffrey D. Flores , <sup>abd</sup>Grace Ann D. Cortez

College of Education, Don Honorio Ventura State University, Pampanga, Philippines

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### ABSTRACT

In school, there are a lot of lesson, skills and experiences that may take place. It is inevitable to encounter unexpected certainties during class hours, especially during Physical Education classes. There are a lot of unexpected certainties like injuries that may take place, the latter may deprive the students in attaining the knowledge and skills they may acquire during their physical education classes. Moreover, it is the teacher's primary role to keep the students safe from any harm. Thus, this study aimed to assess the knowledge and readiness of Filipino Physical Educators in addressing injuries in Physical Education settings. This mixed-method sequential explanatory research considered twenty (20) physical educators of a state-funded higher education institution were selected for the quantitative phase. Four (4) of them were selected in the qualitative phase via extreme case sampling that measured their demographic profile, knowledge, readiness, and experiences in first aid management. Using the Pearson r test manifests a negative relationship between the variables of this study and the demographic profile of the respondents/participants. As per the results of the quantitative phase and the findings of the qualitative phase this study delineates that the Physical Educators do have a sufficient level of knowledge and readiness in terms of addressing and responding to unexpected certainties that may take place on their respective physical education classes. Furthermore, it is recommended that Physical Educators must consider a variety of strategies to improve their knowledge and readiness in dealing with injuries. With this, further knowledge and information should be obtained to strengthen and enhance the knowledge and readiness they initially have.

**Keywords:** Demographic profile; experiences; first aid; injury prevention; physical education

**\*Corresponding Author:**

Email: [mcocarlos@dhsu.edu.ph](mailto:mcocarlos@dhsu.edu.ph)



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## INTRODUCTION

Schools are indeed places to learn. A lot of lessons and experiences could take place in schools. It is also a place where children develop their social skills through a broad series of activities. This includes plays, games, and other physical activities (Sniras et al., 2020). On the other hand, schools are also places where a child or a student may get injured (Starc & Strel, 2012). Constant sports and other activities could lead to unintended injuries; they could be mild to severe. According to Orton et al. (2016) at school, every fifth child experiences an injury. One of the key reasons is that students spend a significant amount of time at school, making it critical to build and maintain a safe and healthy learning environment. More time in school is more likely to get unintended injuries. On the other hand, institutions need to ensure the safety of the students by creating policies

and preventive measures that could help lessen the percentage of injuries in schools, specifically in doing Physical Education. In support of that, [Starc and Strel \(2012\)](#), mentioned that the school environment is one of the places where students have a significant likelihood of injuries.

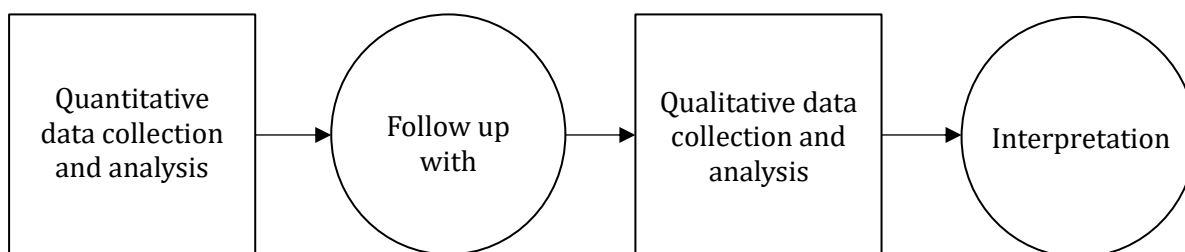
As per doing those activities, unintended injuries may interfere in achieving a particular health goal. As [Vercruyssen et al. \(2016\)](#), mentioned, physical education teachers, play an important role because they can assess students' athletic readiness, select appropriate exercises, and inventory, and assess possible injuries. Considering, [Barnes et al. \(2019\)](#) stated that physical education teachers have a significant impact on a student's ability to be healthy and active. For this reason, physical education specialists need to provide qualitative services, in terms of developing and expanding their knowledge and readiness which would be substantial in reducing the likelihood of having an injury on their respective classes it is also an avenue to ensure the safety and effectiveness of the policies they provide to the students.

Injuries are defined in the broader scope of perspective. According to [Taylor et al. \(2010\)](#), injuries are viewed as an "accident" or random event and have resulted in the 7 historical neglect of this area of public health. On the other hand, [Norton and Kobusingye \(2013\)](#) claimed that injuries are often referred to as unwanted certainties by which they could affect an individual's health. Injuries can also impact the pedagogical practices of physical education teachers. Injuries can prevent physical education teachers from demonstrating techniques and skills, which will considerably reduce a teacher's effectiveness in the case of a chronic injury ([Kovač, 2013](#)).

The results of the study of [Nelson et al. \(2009\)](#) concluded that there were approximately 12 036 instances of injuries reported in physical education class. For this reason, understanding the nature of injuries, whether it is sports-related injuries, may help in the application of programs and policies addressing injury prevention. Meanwhile, [Goossens et al. \(2014\)](#) concluded that the preponderance of the injuries (74.3%) occurred at the lower limbs, 21.1 percent of all injuries occurred in the upper limbs, 4.6 percent were found in the trunk, neck, and head. The most common injuries were to the lower extremities, legs (22.9%), knees (22.9%), and ankles (22.9%) (both 15.6 percent). Based on the aforementioned statistics above it shows the overwhelmingly increase in terms of injury in physical education settings that's why the knowledge and readiness of the teacher specifically physical education teachers is important in order to address this surprisingly negative impact caused by injuries. Thus, this study aimed to assess the knowledge and readiness of Filipino Physical Educators in addressing injuries in Physical Education settings.

## METHOD

A mixed-method research design was used in this study to facilitate an in-depth analysis of the knowledge and readiness of P.E teachers. Furtherly, this research employed a sequential explanatory mixed-method design. Mixed method research is the approach that involves "collecting, analyzing and interpreting" both qualitative and quantitative data in a single study ([Leech & Onwuegbuzie, 2008](#)). Sequential explanatory is the collection of data in two consecutive phases. Quantitative data are gathered first followed by qualitative data to relate and justify the outcomes of the first phase, which is the quantitative.



**Figure 1. The Sequential Explanatory Mixed Method Model (Creswell and Plano Clark, 2007)**

Accordingly, this study used two sets of assessments and questionnaires using a Mixed Method Research Design. In the quantitative phase, the researchers organized and examined the data gathered from the respondents' scores from the assessment. Moreover, the Pearson r correlation coefficient was utilized to measure the statistical relation between the variables. Besides, Descriptive-Correlational statistics, which includes mean and standard deviation are used in this study. Meanwhile, in the qualitative phase of the study, the researchers used the thematic analysis method (Braun & Clarke 2006). Correspondingly, on the mixed method phase of the study, the researchers will do an overall interpretation and analysis of data to interpret and summarize the data from both the quantitative and qualitative phases of the study.

## **RESULTS AND DISCUSSION**

### **Results of the Quantitative Phase**

#### **Demographic Profile of the Respondents**

##### **Sex**

As per the results, male respondents obtain a high frequency of 12 (60%). Alternatively, the frequency for female respondents' range is 8 (40%).

##### **Theoretical Knowledge in First Aid**

In terms of Theoretical Knowledge in First Aid, it is shown in Table 1 that the frequency distribution and percentage of the respondents are statistically described as 20 (100%).

##### **Years of Teaching**

The results show that among the respondents with at least 1 to 5 years of teaching has a 10 (45%) frequency. In contrast, respondents with 6 to 10 years of teaching garnered a 6 (27%) frequency. On the contrary, the respondents who have 11 to 15 years of teaching got a 1 (5%) frequency. Same as through with 16 to 20 years of teaching acquired a frequency of 1 (5%). However, respondents who have 21-25 years of teaching obtained a 2 (9%) frequency.

##### **Experience in Administering First Aid**

The first group got the highest frequency and percentage ranges from 18 (90%). In contrast, the lowest frequency and percentage assort from 2 (10%).

**Table 1. Frequency Distribution and Percentage of the Respondents Table**

Demographic Profile		Frequency	%
Sex	Male	12	60.0
	Female	8	40.0
Years of Teaching	1 to 5	7	32
	6 to 10	6	27
	11 to 15	1	5
	16 to 20	1	5
	21 to 25	2	9
Experiences in administering first aid	Yes	18	90.0
	No	2	10.0
Theoretical Knowledge in First Aid	Yes	20	100

### Knowledge

Physical Educators' knowledge was assessed using the First Aid Assessment (FAS), which consists of a 30-item assessment.

### Summary of the results in the First Aid Assessment (FAA)

The summarization of the findings of the items in the assessment is presented in Table 2.

**Table 2. Summary of the First Aid Assessment (FAA)**

Item	Correct response	%	Incorrect response	%
1	15	75	5	25
2	20	100	0	0
3	5	25	15	75
4	14	70	6	30
5	18	90	2	10
6	16	80	4	20
7	20	100	0	0
8	12	60	8	40
9	9	45	11	55
10	7	35	13	65
11	6	30	14	70
12	14	70	6	30
13	10	50	10	50
14	16	80	4	20
15	2	10	18	90
16	2	10	18	90
17	20	100	0	0
18	17	85	3	15
19	4	20	16	80
20	19	95	1	5
21	19	95	1	5
22	9	45	11	55
23	5	25	15	75
24	7	35	13	65
25	5	25	15	75
26	4	20	16	80
27	15	75	5	25
28	11	55	9	45
29	17	85	3	15
30	13	65	7	35

## **Readiness**

Physical Educators readiness was assessed along with four (4) subscales: Ability of physical education teachers to avoid students' injuries; Ability of physical education teachers to work with students; Theoretical knowledge of physical education teachers about injury prevention; Skills of physical education teachers in the field of injury prevention.

### **The Ability of Physical Education Teachers to Avoid Students' Injuries**

As shown in Table 3, most of the respondents "Agreed" with most items under the subscale with a weighted mean of 2.74 and standard deviation of 0.94. Considering [Joseph et al. \(2015\)](#) teachers must understand and believe that they can provide appropriate first aid and perform the appropriate intervention to save the lives of their learners.

### **The Ability of Physical Education Teachers to Work With Students**

Table 3 delineated the mean and standard deviation of the items under the subscale, ability of physical education teachers to avoid students' injuries. This subscale has a weighted mean of 3.91 and a standard deviation of 0.33; most respondents "Strongly agreed" on the said subscale. On the other hand, [Ünlü and Filiz \(2019\)](#) stated that in terms of physical education workability is critical for physical educators because they are the one who advocates physical activity and the safety of the learners.

### **Theoretical Knowledge of Physical Education Teachers About Injury Prevention**

As displayed in Table 3, respondents "strongly agreed" with most of the items on the subscale "Theoretical knowledge of physical education teachers about injury prevention" with a weighted mean of 3.67 and a standard deviation of 0.59. Accordingly, [Taylor et al. \(2010\)](#) stated that first-aid knowledge could distinguish between a short or permanent injury, a quick recovery, or a long-term disability when used correctly. Based on the results, the respondents have a good and comprehensive theoretical knowledge.

### **Skills of Physical Education Teachers in The Field of Injury Prevention**

Table 3 exhibited the weighted mean and standard deviation of the subscale "Skills of physical education teachers in the field of injury prevention", having a weighted mean of 3.35 and standard deviation of 0.57, which means that the respondents "Agreed" with all the items listed on the said subscale. Meanwhile, [Pellegrino et al. \(2017\)](#) stated that teachers' behaviors encompass established knowledge, skill, and life-saving procedures, and they play a critical role in the educational system. Table 3 delineates the mean and the standard deviation of the following subscales; Ability of physical education teachers to avoid students' injuries; Ability of physical education teachers to work with students; Theoretical knowledge of physical education teachers about injury prevention; Skills of physical education teachers in the field of injury prevention. wherein the grand weighted mean of those subscales ranges from 3.41 and has a standard deviation of 0.60 which depicts that the physical educators do have a sufficient level of readiness as assessed.

**Table 3. Mean and the Standard Deviation**

Benchmark Statements for Readiness	Mean	Sd	Verbal Interpretation
<b>Ability of physical education teachers to avoid student's injuries</b>			
1. Students often suffer complicated injuries during my physical education class.	2.45	0.94	Disagree
2. Students often suffer dislocations during my physical education lessons.	2.35	0.98	Disagree
3. Students often suffer bone fractures during my physical education lessons.	2.40	0.97	Disagree
4. Students often suffer contusions during my physical education lessons.	2.10	0.97	Disagree
5. Students often suffer injuries during my physical education lessons.	2.30	0.99	Disagree
6. Students often suffer tendon and muscle strains during my physical education lessons.	2.40	0.81	Disagree
<b>Weighted Mean</b>	2.74	0.94	Agree
<b>Ability of physical education teachers to work with students</b>			
1. I perform/demonstrate the main warming-up exercises together with the student.	3.95	0.22	Strongly Agree
2. I constantly accentuate why it is important to perform a warming-up exercise.	3.90	0.31	Strongly Agree
3. I speak with students about the most frequent sport injuries	3.80	0.47	Strongly Agree
4. I answer willingly to all the students' questions that are related to injury prevention.	3.95	0.36	Strongly Agree
5. I always make sure a student performs a certain exercise/act correctly.	3.95	0.30	Strongly Agree
<b>Weighted Mean</b>	3.90	0.33	Strongly Agree
<b>Theoretical knowledge of physical education teachers about injury prevention</b>			
1. I still need to train on sports injury prevention	3.65	0.59	Strongly Agree
2. I often give examples because it is important to perform an exercise for	3.70	0.59	Strongly Agree
3. During the studies, I obtained knowledge and skills about injuries and their avoidance	3.70	0.59	Strongly Agree
4. If I held classes, the likelihood of injuries during physical education lessons would be lower.	3.60	0.59	Strongly Agree
<b>Weighted Mean</b>	3.67	0.59	Strongly Agree
<b>Skills of physical education teachers in the field of injury prevention</b>			
1. I think students' injuries during physical education lessons are affected by poor material-technical facilities of the school	2.85	0.67	Agree
2. When I started working at school as a physical education teacher, I took additional interests in the ways of physical education injury prevention	3.85	0.47	Strongly Agree
3. When I started working at school, I thought I should get more knowledge about physical education injuries and their prevention.	3.85	0.40	Strongly Agree
4. I think students' injuries during physical education lessons are affected by the irrational organization.	2.85	0.73	Agree
<b>Weighted Mean</b>	3.35	0.57	Agree
<b>Grand Weighted Mean</b>	3.41	0.60	Strongly Agree



## Relationship between Knowledge, Readiness, Injuries and Demographic Profile of the Respondents

### Relationship between Demographic Profile and Knowledge

Pearson r test is utilized to assess the relationship of knowledge and the demographic profile of the respondents. The results show a significant negative relationship between the demographic profile of the Physical Educators and their knowledge with regards to injury prevention ( $r = -.152, p = .522$ ). Pandey et al. (2017) reported that there is no significant relationship in first-aid knowledge among teachers based on their demographic profile. In support of that, Hosapatana et al. (2020) delineated that knowledge in first aid is not statistically associated with their demographic profile. Meanwhile, based on the statistical analysis of the results, it indicates that the demographic profile of the Physical Educators shows no significant relationship with their knowledge in addressing injuries.

**Table 4. Test of Correlation between the Demographic Profile of the Respondents and Knowledge in Addressing Injuries in P.E Setting**

Variable	Knowledge			
	<i>r value</i>	<i>p value</i>	Degree of Relationship	Level of Significance
Sex	-0.14	0.954	Negative negligible relationship	not significant
Years of Teaching	0.343	0.139	positive weak relationship	not significant
Experiences in Administering First Aid	-0.006	0.981	negative negligible relationship	not significant

### Findings of the Qualitative Phase

#### Theme 1. Relevance of Physical Educators' Knowledge and Readiness on the Occurrence of an Injury

This theme conveys the participants' precautionary measures and procedures to mitigate the occurrence of an injury.

##### Subtheme 1.1. Provide Awareness on the Precautionary Measures

This subtheme indicates the different precautionary measures and procedures and their role in lessening uncertain certainties like an injury that could take part in the Physical Education classes. Considering, Porsanger (2021), precautionary measures are critical for providing learners with safe learning settings and educational opportunities. Inclusion of awareness towards injury prevention can generate new knowledge.

##### Remind the Students to Wear Appropriate Clothing for Physical Education Classes

This category emphasizes the importance of wearing an appropriate Physical Education uniform. In addition, a suitable uniform while doing physical activity signifies one of the precautionary measures to take in every physical education class. Norrish et al. (2012) looked into the effect of clothing, particularly school uniforms, on children's physical activity and intensity. This was supported by the statement mentioned below.

*"The precautionary measures that I commonly do is always to remind my students to wear their proper uniforms especially wear comfortable uniforms or the uniform intended for P.E. As much as possible I encourage them to wear jogging pants, even though I don't force them but as much as possible I encourage them to wear as well. Then to wear the proper type of shoes depending on our activity if it is an active*

*activity, running type of activity I always encourage them to wear rubber shoes specifically running shoes". (P.1)*

### **Advise the Students to do Stretching Exercises**

This category under precautionary measures was strengthened and proven by the participant's responses. [Thacker et al. \(2004\)](#), proves that stretching before engaging in the athletic activity is standard procedure at all levels of competition, whether competitive or leisure. Furthermore, the literature as mentioned earlier was sustained by the statements mentioned below.

*"If the activities were rigid (inaudible) activities I advised my students to do warm-up because it is important to mitigate and lessen the chance of having an accident". (P.1)*

*"First always conduct warm-ups, even though it is discussion, or just introduce theories, or you just introduce new lessons, we must always perform warm-up. Warm Up starting from the head and below, just a simple warm-up will do great things. It is one of the first things we must do to avoid accidents". (P.3)*

### **Subtheme 1.2. Administer Clear and Direct Instructions**

This subtheme displays the significant role clear and direct instructions play in the teaching-learning processes. As [Roksa et al. \(2016\)](#) claimed, clear instruction reflects students' impressions of the extent to which the instructor organizes and presents the content clearly and cohesively and the extent to which the instructor provides explanations and structures assignments in a way that helps students learn. Similarly, Meanwhile, [Xu et al. \(2015\)](#) evaluated the impact of clear and structured instruction on student outcomes. The participants' responses braced the mentioned statements above.

*"I ask them to bring their water and be properly hydrated throughout the class" (P.1)*

*"No matter what activity we do, before I start, I always remind my students the Do's and Don'ts, the things they need to do and thing they shouldn't do". (P.2)*

*"I always instruct students in Physical Education classes what to do and what to avoid" (P.4)*

## **Theme 2. Influences of the Participants' Demographic Profile on their Knowledge and Readiness on the Occurrence of an Injury**

This theme displays the influences of the participants' demographic profile regarding their knowledge and readiness in addressing the occurrence of uncertain certainties like an injury.

### **Subtheme 2.1. Gender as a Determinant**

Subtheme 1.1 exhibits how does the gender of the participant influences their knowledge and readiness in addressing an injury. [Callahan et al. \(2000\)](#) mentioned that when addressing unexpected certainties like injuries, gender is not required to be able to treat that person with injuries. The following statements supported those claims.

*"Gender doesn't have an effect or it doesn't affect you as a first aider or as a teacher in applying first aid. So, it is regardless of whether you are male or female". (P.1)*



*“There is nothing to talk whether you are female or male to give first aid. Regardless of the sex”. (P.2)*

*“Let me reiterate, it is regardless with the sex. Whether you are female, male, gay, lesbian or any gender. Everyone is capable of giving first aid, the important thing is that you should have the knowledge. You know what you do, you know that you do the right thing, you are confident and you know that you will not contribute to the pain perceived by the injured person”. (P.2)*

*“For me [gender] is not a factor as long as you are a concern and you are serious about what you do. You have a good intention; I think there is no problem with that”. (P.4)*

### **Subtheme 2.2. Length of Service as a Determinant**

Subtheme 1.2 deliberates how the length of service is a determinant in the occurrence and how it influences the addressing of an injury. According to [Todd \(2020\)](#), experts are commonly defined as professionals who possess a high degree of specialized knowledge, dependent on extensive years of clinical experience and study. Although the study results indicate that increased length of experience does not necessarily always lead to higher levels of expertise, experience is recognized as necessary for the development of skills of every individual. Stated below is the justification provided by the participants.

*“So, years of teaching does not influence, it is on the knowledge, on how you give, address or manage first aid on the injured persons”. (P.2)*

### **Subtheme 2.3. Theoretical Knowledge as a Determinant**

This subtheme discusses the role of theoretical knowledge as a determinant in addressing the occurrence of an injury. As per [Kalaf and Mbch \(2013\)](#), they mentioned that having theoretical knowledge in first aid can be essential in providing emergency care in the event of an accident, perhaps saving lives and minimizing injuries. Listed below are the participant's responses regarding the determinant.

*“Yes, of course [theoretical knowledge] is important because as first aiders as teachers we as well we have a lot of roles to fulfill inside the classroom. We will become mentors we will become trainers and, we will become first aiders, nurses, and doctors in the classroom”. (P.1)*

*“Having theoretical knowledge in addressing injury has a perk because we will not do if we don't know the basics and what are the causes of that injury”. (P.3)*

### **Relevance of a Learned Theory in Addressing the Occurrence of Injuries**

This category revealed that learned theory should be relevant and significant towards the addressing of injuries. The statements below strengthen the claims of the literature.

*“...it is very important for you to know [theoretical knowledge] and also how you're going to apply it in the real scenario” (P.1)*

*“It is important that you know what you do. How do you know if you did the right thing if you don't read, if you don't study it? So, it is crucial to learn [theories] and you shouldn't stop on what you know”. (P.2)*

*"Having theoretical knowledge is a great key in dealing with injuries, but it shouldn't be theoretical knowledge only but you need to apply it in the real-life scenario". (P.3)*

### **Subtheme 3.4 First Aid Experiences as a Determinant**

Subtheme 1.4 unveils the role of experiences in terms of first aid as a determinant in the addressing of injuries in Physical Education settings. As support, [Kumar et al. \(2013\)](#) discovered that teachers with more than ten years of experience had much greater first-aid knowledge. Participants' statements will justify the cited claims above.

*"Experiences are important, how can you apply if you don't experience, how can you apply what have you learned from the trainings, class if you don't apply it". (P.2)*

*"As I've said a while back experience is your great best teacher is the greatest teacher of all, yes if you do have the experience, you will know, the theoretical knowledge, and understanding about those certain injuries". (P.3)*

## **Theme 4. Projected Efficiency and Sufficiency of Participants' Knowledge and Readiness on the Occurrence of an Injury**

Displayed on this *theme* are the sufficiency and adequacy knowledge and readiness on the occurrence of an injury possessed by the Physical Educators'.

### **Subtheme 4.1. Participants/ Teachers Have Adequate Training on First Aid**

Participants of this study claim that their knowledge and readiness on the occurrence of an injury is sufficient to mitigate its chances to occur in their specific PE classes. Schools and instructors play a vital role in promoting health and preventing diseases and accidents among children and adolescents ([Oliveira et al. 2015](#)). Moreover, the provided literature is supported with the statements of the participants:

*"I'm very confident because I know, most especially with my training in first aid as well. I know I'm confident enough that I did it properly." (P.1)*

*"I'm confident with what I did and I did the right thing", "And another, because I am trained in giving first aid that's why I'm confident that I know what I'm doing because it was already taught to me." (P.2)*

*"Yes, like what I've said, you really need to attend trainings in order for you to be confident, in order for you to be sure on what to do and in order for you to address the proper care to the injured, or to any scenarios that could include first aid." (P.3)*

*"If I will put it into a scale from 1 to 10, it would be 7. Because even though I don't have the training, I'm constantly reading in the updated techniques and updated way to address the injuries." (P.4)*

### **Subtheme 4.2. Participants/Teachers are Prepared and Ready to Face Actual Scenarios**

Participants claim that they are prepared and ready to face actual scenarios, most especially in their respective PE classes, as it is their responsibility to do in the first place. The study of [Gharsan and Alarfaj \(2019\)](#) shows that even though only a few participants

had previously received first-aid training, more than half of them had delivered first-aid in real-life scenarios. Moreover, the provided literature is supported with the statements of the participants below.

*"There is this saying that it is always about the preparation, so I guess I'm capable enough in addressing such a scenario because that is already part of my training. That is already part of being not only a physical educator but also part of the trainers in the university, Operational and Safety Office okay and Reduction Management Office ng DHVSU. That is why I am very confident by the time that scenario may happen, I can do it properly." (P.1)*

*"How ready am I? So, I'm always ready, always on guard because it was taught to us that in every situation, in every circumstance, you have to make sure you are ready." (P.2)*

### **Overall Interpretation of Data**

This phase will be the overall interpretation of all the data coming from the results of the quantitative procedure and findings of the qualitative phase of the study. In other words, there will be a mixing of the results from both phases. The first focus of this study is the demographic profile of the Physical Educators in a state-funded higher education institution. In this study, Physical Educators are predominantly male with a high frequency of 12 (60%) compared to females whose frequency range 8 (40%). However, participants' responses regarding this are mostly saying that sex or any gender preferences do have nothing to do with injury prevention management and responding and that it is more on the preparedness and confidence of the one who is administering first aid.

In Table 1, it is shown that all the respondents have theoretical knowledge of first aid. Findings have shown that the participants have theoretical knowledge after attending training in first aid management and will continue to get broader as they keep experiencing administering first aid to injured victims. Meanwhile, physical educators with one to five years of teaching experience obtained the highest frequency and percentage, while those whose teaching span is 11 to 15 years and 16 to 21 years obtained the lowest. However, participants responded that years of teaching do not influence the ability of the first aider to respond. It is more on the knowledge on how to address and perform first aid.

Out of the 20 respondents, 18 (90%) have already experienced administering first aid, while the remaining 2 (10%) have none. Table 1 shows that most of the respondents of this study have experience in administering first aid.

Correspondingly, the results in the Pearson r test show a significant negative relationship between the demographic profile of the Physical Educators and their knowledge about injury prevention. This finding only indicates that the demographic profile of Physical Educators are not associated with what they know and respond in unexpected certainties in their respective PE classes.

### **CONCLUSION**

Following the results and findings of the study, the researchers were able to convey the following conclusions: (1) Subsequently, in the summarization of the results of the First Aid Assessment (FAA), the physical educators-respondents garnered a score ranging from 15-23 out of 30 which means that the respondents do have good theoretical

knowledge in first aid as evaluated. Additionally, the percentage of the items with correct responses varies from 55-100%. Contrastingly, the percentage of items that yielded incorrect responses range from 10-45%. (2) Substantially, physical educators 'strongly agreed' with most of the statements under readiness. Indeed, most of them 'disagreed' with all the items under the subscale "ability of physical education teachers to avoid students' injuries". Conversely, most of the respondents 'strongly agreed' with all the items under the subscale "ability of physical education teachers to work with students". Remarkably, most of the physical educators 'strongly agreed' with all the items under the subscale "theoretical knowledge of physical educators about injury prevention". Furthermore, most of the respondents 'agreed' with most of the items under the subscale "skills of physical education teachers in the field of injury prevention". (3) As per the data of the study, it reveals that there is no significant relationship between knowledge and demographic profile of the respondents with a scale of ( $r = -.152, p = .522$ ). (4) The demographic of the respondents/participants somehow doesn't influence the knowledge and readiness of the Physical Educators' in addressing injuries. (5) The data from the Quantitative phase supported and justified the themes formed in the Qualitative phase of the study.

In consideration of the results, findings, and conclusion, the following recommendations are suggested: (1) Since this study was demarcated only to the Physical Educators as respondents, it may be recommended that other teachers from other departments and colleges be considered as injuries may manifest in any circumstance at any time and at any cost. (2) It may be recommended the mandatory attending of training and seminars which could expand further the knowledge and readiness of the Physical Educators in terms of addressing the occurrence of an injury. Besides, it should be always updated. (3) Aside from sex, years of teaching, theoretical knowledge in first aid, and experiences in administering first aid, future research should include and consider other demographic profiles to assess the knowledge and readiness in terms of addressing an injury. (4) Aside from the relationship of knowledge and the demographic profile of the respondents, it will be recommended to explore by future researches the relationship of other variables.

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## REFERENCES

- Barnes, K., Beach, B., Ball, L., & Desbrow, B. (2019). Clients expect nutrition care to be provided by personal trainers in Australia. *Nutrition and Dietetics*, 76(4), 421–427. <https://doi.org/10.1111/1747-0080.12545>
- Braun, V., Clarke, V., Braun, V., & Clarke, V. (2017). Applied Qualitative Research in Psychology. *Applied Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706QP0630A>
- Callahan, E. J., Bertakis, K. D., Azari, R., Robbins, J. A., Helms, L. J., & Chang, D. W. (2000). The Influence of Patient Age on Primary Care Resident. *Journal of the American Geriatrics Society*, 48(1), 30-35. <https://doi.org/10.1111/j.1532-5415.2000.tb03025.x>
- Gharsan, M. A. L., & Alarfaj, I. (2019). Knowledge and practice of secondary school teachers about first aid. *Journal of family medicine and primary care*, 6(4), 739-745. <https://doi.org/10.4103/jfmprc.jfmprc>
- Goossens, L., Verrelst, R., Cardon, G., & De Clercq, D. (2014). Sports injuries in physical education teacher education students. *Scandinavian Journal of Medicine and Science in Sports*, 24(4), 683–691. <https://doi.org/10.1111/sms.12054>
- Hosapatna, M., Bhat, N., Belle, J., Priyadarshini, S., & Ankolekar, V. H. (2019). Knowledge and Training of Primary School Teachers in First Aid-A Questionnaire Based Study. *The Kurume Medical Journal*, 66(2), 101-106. <https://doi.org/10.2739/kurumemedj.MS662001>
- Joseph, N., Narayanan, T., Bin Zakaria, S., Nair, A. V., Belayutham, L., Subramanian, A. M., & Gopakumar, K. G. (2015). Awareness, attitudes and practices of first aid among school teachers in Mangalore, South India. *Journal of Primary Health Care*, 7(4), 274–281. <https://doi.org/10.1071/HC15274>
- Kalaf, Y., & Mbch, H. A. (2013). Knowledge of primary school teachers regarding first aid in Baghdad Al-Rusafa. *Al-Kindy College Medical Journal*, 9(1), 54-59.
- Kovač, Z. (2013). Tumačenje i prikazivanje intelektualca-umjetnika danas. U: Intelektualac danas. *Zbornik radova s međunarodnog skupa Desničini susreti*, 56, 107-121.
- Kumar, S., Kulkarni, D., Srini-Vas, P., Prakash, N., Hugara, B., & Ashok, S. (2013). Perception And Practices Regarding First-Aid Among School Teachers In Mysore. *National Journal of Community Medicine*, 4(2), 349–352.
- Leech, N. L., & Onwuegbuzie, A. J. (2008). *Qualitative Data Analysis : A Compendium of Techniques and a Framework for Selection for School Psychology Research and Beyond*. *School psychology quarterly*, 23(4), 587. <https://doi.org/10.1037/1045-3830.23.4.587>
- Nelson, N. G., Alhajj, M., Yard, E., Comstock, D., & McKenzie, L. B. (2009). Physical education class injuries treated in emergency departments in the US in 1997-2007. *Pediatrics*, 124(3), 918–925. <https://doi.org/10.1542/peds.2008-3843>
- orrish, H., Farrington, F., Bulsara, M., & Hands, B. (2012). The effect of school uniform on incidental physical activity among 10-year-old children. *Asia-Pacific Journal of Health, Sport and Physical Education*, 3(1), 51–63. <https://doi.org/10.1080/18377122.2012.666198>

- Norton, R., & Kobusingye, O. (2013). Injuries. *The New England Journal of Medicine*, 368, 1723-1730. <https://doi.org/10.1056/NEJMra1109343>
- Oliveira, D., Ferreira, F. S., Atouguia, J., & Fortes, F. (2015). Infection by Intestinal Parasites, Stunting and Anemia in School-Aged Children from. *PloS one*, 10(9), e0137327. <https://doi.org/10.1371/journal.pone.0137327>
- Orton, E., Whitehead, J., Clarkson, M., Mc, W., Ca, M., Jul, S., Bhuchar, M., Kendrick, D., Orton, E., Whitehead, J., Clarkson, M., Mc, W., Ca, M., Jul, S., Bhuchar, M., & Kendrick, D. (2016). School-based education programmes for the prevention of unintentional injuries in children and young people. *Cochrane database of systematic reviews*, 12, 1-99. <https://doi.org/10.1002/14651858.CD010246>
- Pandey, R., Chauhan, R., Dobhal, S., Dabral, S., Nathani, S., Negi, S., Rana, U., Negi, V., Maindola, V., Rawat, V., Sorte, D. Y., & Bharadwaj, R. (2017). First aid knowledge among health assigned teachers of primary schools. *Journal of Research in Medical Sciences*, 5(4), 1522–1527.
- Pellegrino, J. L., Oliver, E., Orkin, A., Marentette, D., & Snobelen, P. J. (2017). A call for revolution in first aid education. *International Journal of First Aid Education*, 1(1), 5-14. <https://doi.org/10.21038/ijfa.2017.0001>
- Porsanger, L., & Porsanger, L. (2021). Risk and safety management in physical education : teachers' knowledge knowledge. *Physical Education and Sport Pedagogy*, 14(2), 1–13. <https://doi.org/10.1080/17408989.2021.1934663>
- Roksa, J., Trolian, T. L., & Blaich, C. (2016). Facilitating academic performance in college : understanding the role of clear and organized instruction. *Higher Education*, 74, 283–300. <https://doi.org/10.1007/s10734-016-0048-2>
- Sniras, S. A., Uspuriene, A. B. P., & Malinauskas, R. K. (2020). Competencies of Physical Education Teachers for Injury Prevention. *European Journal of Contemporary Education*, 9(4), 893–901. <https://doi.org/10.13187/ejced.2020.4.893>
- Starc, G., & Strel, J. (2012). Influence of the quality implementation of a physical education curriculum on the physical development and physical fitness of children. *BMC Public Health*, 12(1), 56-68. <https://doi.org/10.1186/1471-2458-12-61>
- Taylor, P., Sharma, G. K., Krug, E. G., & Lozano, R. (2010). A leading cause of the burden of disease. *Injury Control and Safety Promotion*, 76, 37–41. <https://doi.org/10.1076/icsp.7.4.261.7399>
- Thacker, S. B., Gilchrist, J., Stroup, D. F., & Kimsey, C. D. (2004). The Impact of Stretching on Sports Injury Risk : A Systematic Review of the Literature. *Medicine & Science in Sports & Exercise*, 36(3), 371–378. <https://doi.org/10.1249/01.MSS.0000117134.83018.F7>
- Todd, P. M. (2020). Précis of Simple heuristics that make us smart. *Behavioral and brain sciences*, 23(5), 727-741.
- Ünlü, H., & Filiz, B. (2019). Research Quarterly for Exercise and Sport Work Ability of the Turkish Physical Education Teachers. *Research Quarterly for Exercise and Sport*, 90(4), 666–677. <https://doi.org/10.1080/02701367.2019.1642995>



- Vercruyssen, S., Haerens, L., Verhagen, E., Goossens, L., & De Clercq, D. (2016). Effects of a multifactorial injury prevention intervention in physical education teachers: A randomized controlled trial. *European Journal of Sport Science*, 16(7), 868–876. <https://doi.org/10.1080/17461391.2016.1140812>
- Xu, B., Wang, N., & Chen, T. (2015). Empirical Evaluation of Rectified Activations in Convolution Network. *ArXiv Preprint*, 2(3), 30-42. <https://doi.org/10.48550/arXiv.1501.04587>