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BARRIERS TO AND LEVELS OF PHYSICAL ACTIVITY AMONG LGBTQ+

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ABSTRACT

The College of Human Kinetics is a community-based physical activity program that focuses on promoting physical activity among LGBTQ+ students. This study aimed to identify the barriers to and levels of physical activity by identifying the distinct barriers faced by LGBTQ+ individuals. The study used a descriptive-correlational design and a survey questionnaire using BPAQS and IPAQ short questionnaire to collect data from the LGBTQ+ community at the College of Human Kinetics- Cagayan State University-Carig campus. The data collected were analyzed using SPSS version 5.0. The results showed that there were significant differences in the extent to which respondents perceived barriers to physical activity. There were also intrapersonal, interpersonal, and environmental impediments to physical exercise, which respondents largely perceived. There was a significant association between the extent of respondents' perceptions of barriers and their levels of exercises. The study concludes that those who have higher levels of physical activity feel the barriers to physical activity than those who have lower levels of physical activity. In other words, the more physically active the respondents, the more likely they could perceive or feel the barriers. The findings of this study can be used as a basis for the design of targeted interventions and the creation of inclusive fitness environments.

Keywords: Physical Activity, Levels of PA, Barrier to PA

Introduction

The Republic of the Philippines recognizes every citizen's right to attain quality EDUCATION FOR ALL, as stated in Article XIV Section 1 of the 1987 Philippine Constitution. It states, "the state shall protect and promote the right of all citizens to quality education." In lieu of this, Article I of the UNESCO International Charter on Physical Education, Physical Activity, and Sports emphasize the practice of physical education, exercise, and sport as Fundamental rights for all. The commitment to the learner's whole development is one of the reasons that Physical Education (PE) is a priority course that is taught from elementary to tertiary levels. An overarching goal of instruction is to help students form positive learning attitudes, and most subject areas include their goal in their learning objectives. Physical education builds learners' competence and confidence in a variety of physical activities that become an important part of their lives, both in and out of school. Furthermore, physical education focuses on the obligation to engage in physical activity, including the possibilities for "education" and "learning." Physical activity responsibility includes providing opportunities for learners to accumulate moderate, moderate-to-vigorous, or vigorous physical activity while on school premises.

Education can help eliminate societal social divisions, uneven relationships between the sexes, sex-segregated labor markets, and see specific tasks for students at home. That's why gender inequality in education means that boys and girls benefit from economic, social, cultural, and political.

There are many barriers that can affect the engagement in physical activity among learners, particularly at the tertiary education level. Some examples are physical, social, and environmental barriers. The focus of this study is to identify perceived barriers to physical activity among LGBTQ+. Schools are known to be diverse in their learning environments and learners. This view indicates that all learning areas should be equal for all genders. When it comes to the environment where sports or other physical activity take place, gender differences can be observed. Men are more likely to engage in physical activity at work or in sports clubs than women. In line with this observation, more men and

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women believe that local sports clubs and other local providers offer many opportunities to be physically active. These differences may be connected to traditional gender roles attributed to women and men. Growth.

The LGBTQ+ community represents a diverse spectrum of individuals, each with their own identities, experiences, and challenges. Yet, research into the physical activity patterns and the obstacles faced by LGBTQ+ individuals remain relatively scarce. Understanding the factors that influence physical activity levels among LGBTQ+ individuals is vital for several reasons. Discrimination, prejudice, and marginalization based on sexual orientation and gender identity can create hostile environments that dissuade participation in physical activities. These adverse experiences can lead to feelings of exclusion and impact mental health, which in turn may affect one's motivation and capacity to engage in physical activity.

Cagayan State University's College of Human Kinetics is renowned as one of the colleges that promotes the significance of physical health among students. It is also the college that develops young athletes and broadens their knowledge and abilities in sports and exercise. However, one of the issues that the College of Human Kinetics is dealing with is a lack of adequate programs that support the participation of LGBTQ+ members in various physical activities; one example is the participation of students in sports events, where some members are hesitant to participate due to their gender identity.

This study aimed to address these issues by shedding light on the levels of physical activity among LGBTQ+ individuals and unveiling the distinct barriers they encounter. Our research strives to recognize and comprehend these challenges, laying the groundwork for targeted interventions and the creation of inclusive fitness environments. By doing so, healthcare providers, policymakers, and community organizations can collaborate to foster supportive settings that encourage physical activity among LGBTQ+ individuals, ultimately enhancing their overall health and well-being.

Statement of the Problem

This study was primarily aims to identify the extent to which participants perceive specified barriers to physical activity and its connection to their level of physical activity.

Specifically, it will seek answer to the following questions:

1. What is the profile of the respondents in terms of:
   1.1 Age
   1.2 Sex
   1.3 Sexual orientation
   1.4 Program
2. To what extent do respondents perceive the following as barriers to physical activity:
   2.1 Intrapersonal barriers
   2.2 Interpersonal barriers
   2.3 Environmental barriers
3. What is the respondents' level of physical activity as measured by the International Physical Activity Questionnaire?
4. Is there a significant difference to the extent to which respondents perceive specific barriers to physical activity when grouped according to profile variables?
5. Is there a significant association between the extent to which respondents perceive specific barriers to physical activity and their level of physical activity?

Theoretical Framework

This study was anchored on the following factors aligned with gender differences as barriers to physical activity.

Gender differences are defined as biological differences between sexes. Typical differences among men and women are specific to a particular culture and influenced by its behavior and practices. Physical activity emerges from a variety of factors. Social Cognitive Theory (SCT), developed by Albert Bandura, emphasizes the reciprocal interaction between personal, behavioral, and environmental factors. In this framework, personal factors include self-efficacy beliefs, outcome expectations, and self-regulation. Behavioral factors refer to the individual's actions and engagement

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in physical activity. Environmental factors include social influences, physical surroundings, and contextual factors that impact behavior, such as personal or cognitive, behavioral, and environmental factors in relation to physical activity.

Personal or Cognitive Factors

Traits of the individual that have an impact on performance and learning. These elements modulate performance, causing it to either rise or fall. These elements require mental processes including concentration, memory, and reasoning (Danili & Reid, 2006).

Behavioral Factors

Behavioral factors mean many different things to different people, according to their professional background. A 'behavioral factor' can therefore be framed as 'any factor that exerts an influence on the decision-making process that results in human action.

Environmental Factors

Our gender identity is influenced by our personal experiences throughout the socialization process, the people with whom we relate, and our own choices. Thus, we must understand that gender roles and traits for men and women are dynamic. However, traditional models of masculinity and femininity show reluctance to change and, even today, many youths employ these models for self-definition and to also define and evaluate the behavior of others (Santoro et al., 2018).

Adolescent populations have consistently shown differences between genders. In the factors that influence physical activity. Adolescent males perceived "having a girlfriend" and "use of alcohol and drugs" to be salient barriers to physical exercise, while adolescent females viewed "wanting to do other things with my time" to be a major barrier to physical activity, according to 97–99 Tappe et al. 100.

The barriers perceived for physical exercise among adolescents have a strong negative impact on the recommended level of physical exercise. For girls, lack of skills is the strongest predictor of low physical exercise, while for boys it is lack of time. Some researchers point out discrimination and barriers to participation experienced by LGBTIQ people in Physical Education (PE) (Berg & Kokkonen, 2021).

Some studies have pointed to the discrimination and obstacles to participation experienced by LGBTIQ+ (i.e., lesbian, gay, bi, transgender, intersexual, queer) students in PE. More specifically, LGBTIQ+ students encounter homophobic name-calling (Ayvazo and Sutherland 2009; Gill et al. 2010), isolation, loneliness, and harassment (Devís-Devís et al.2018b).

Martínez-Baena et al (2020). Gender differences in motivation and barriers for the practice of physical exercise in adolescence, concluded that schoolchildren with high motivation towards physical exercise perceived lower levels of barriers for body image/physical–social anxiety, fatigue/laziness, and obligations/lack of time than students with moderate motivation towards physical exercise. Likewise, in the study by Sampaio et al. It was found that more self-determined motivation negatively predicted barriers to the practice of physical exercise.

The paradigm that governs this study is presented in Figure 1. Figure 1 depicts the paradigm to which the research will revolve. The independent variables include the respondents' profile (encompasses age, sex, sexual orientation, and program) and the extent to which respondents perceive the following barriers to physical activity: intrapersonal barriers, interpersonal barriers, relational-environmental barriers, and organizational-environmental barriers. The dependent variable on the other focuses on the respondents' level of physical activity

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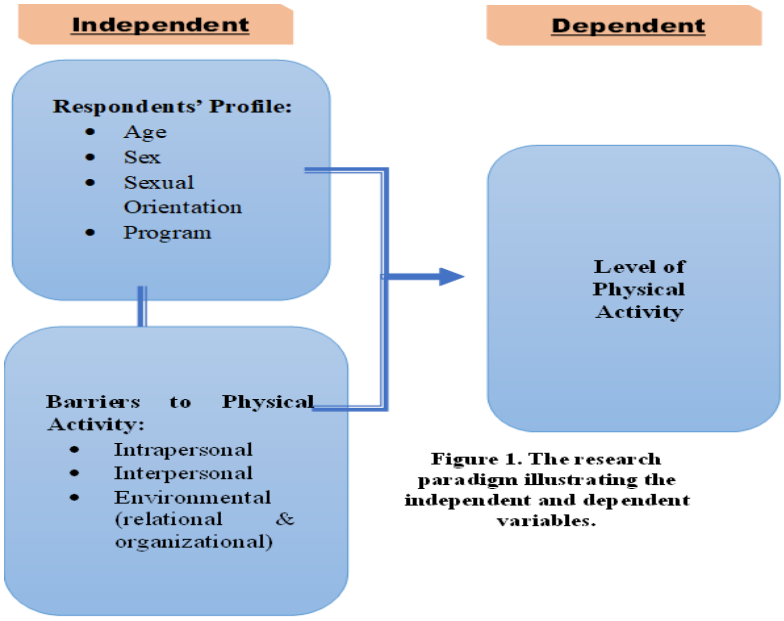

Figure 1. The research paradigm illustrating the independent and dependent variables.

Methodology

Research Design

This study employed a descriptive-correlational research design. It examines specified demographic variables and the barriers or factors affecting participation in physical activity across genders, focusing on the intrapersonal, interpersonal, and environmental (relational and organizational) barriers. It will also delve into the level of the respondents' physical activity. The correlational design will be utilized to establish whether there are significant differences in the barriers or factors affecting participation in physical activity based on the demographic variables, the relationship between the barriers and the level of physical activity, and the association between the profile variables and the level of physical activity.

Locale of the Study

The study was conducted at Cagayan State University, the first and only state-run comprehensive institution of higher learning in the Cagayan Valley. The university is composed of eight campuses, of which CSU Carig Campus is one.

CSU at Carig is specifically chosen as the locale of this study, as it is the seat of the College of Human Kinetics, where the curricular programs related to sports and physical activity, the bachelor's in physical education (BPEd) and the Bachelor in Sports and Exercise Sciences (BSESS), are offered.

Respondents and Sampling Method

Purposive sampling procedures were utilized. Inclusion criteria that will be considered in selecting the samples include the following clusters of sexuality: aromantic, asexual, bisexual, heterosexual, homosexual, pansexual, queer, and transition. Slovin's formula will be used to determine the number of samples, to wit:

$$\boldsymbol{n = \frac{N}{1+Ne^2}}$$

N = Population
e = margin of error
n = sample size

The list of probable respondents will be requested to the CHK I'M SAFE Organization.

Research Instrument

This study utilized the Barriers to Physical Activity and Sports Questionnaire for LGBTQ+ (BPASQ-LGBTQ+) and the International Physical Activity Questionnaire (IPAQ) Short Form. These are standardized questionnaires; the

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BPASQ-LGBTQ+ measures barriers and factors affecting physical activity using a socio-ecological model, while the IPAQ Short Form will be utilized to assess the level of physical activity.

Authored by Beda-Colomer, J., et al. (2020), the BPASQ-LGBTQ+ consists of 17 items classified under the three socio-ecological barriers (intrapersonal, interpersonal, and environmental). The instrument was found to be a valid and reliable measure for barriers to physical activity and sports in LGBTQ+ people, with a Cronbach's alpha range of 0.745 to 0.813.

On the other hand, the IPAQ was developed to measure health-related physical activity in populations 15 years of age and older. The IPAQ Short Form consists of 7 items; it was established to have high reliability (α <.80). Meanwhile, the researchers will structure a questionnaire for the profile of the respondents.

Data Gathering Procedure

The proposal of the study will be subjected to scrutiny by the defense panel, and upon approval thereof, the researchers will seek permission and request data from the concerned offices. Regarding the list of prospective respondents who are LGBTQIAs, the researchers will communicate with the CHK I'm SAFE Organization.

Upon finalizing the names of those who will be taken as respondents, the researchers will seek permission from the Campus Executive Officer through the CHK College Dean for the gathering of the data. Once approved, the researchers will personally reach out to the respondents and ask them to answer the questionnaire.

After data gathering, the data will then be entered into Microsoft Excel, tallied, and subjected to statistical analysis.

Analysis of Data

Frequency and percentage, weighted mean, and standard deviation (SD) were the statistical tools that had been used to treat the data. These statistics were utilized to determine the demographic profile and the barriers or factors affecting engagement in physical activity. To determine whether there were variations in the barriers or factors affecting engagement in physical activity according to the specified demographic variables, Kolmogorov-Smirnova and Shapiro-Wilk were also utilized to test the normality of the constructs. The t-test for independent sample means and the analysis of variance (ANOVA) had been applied. The associations between perceived barriers and profile and perceived barriers and physical activity were tested using the Chi-Square test of independence.

Numerical Value	Mean Range	Descriptive Interpretation
4	3.01-4.00	Very great extent
3	2.01-3.00	Great extent
2	1.01-2.00	Moderate extent
1	0.01-1.00	Slight extent

Ethical Considerations

Permission to reach out to the respondents will be secured through the college dean. Respondents will be duly informed about what the study is about and the voluntary nature of their participation, and their permission will be sought through informed consent. Participants will be assured that the collected data will be treated with the utmost anonymity and confidentiality.

Results and Discussion

Profile of the Respondents

This data provides a demographic snapshot of the 60 respondents who participated in the study.

Age Distribution: Respondents aged between 18-23 years, divided into three age groups. The majority fell within the 20-21 category (55%), followed by 22-23 years (35%), and the least represented were the 18-19 years group (10%).

Sex Distribution: There was a fairly even distribution among the sexes, with 58.33 % of respondents being male (35 individuals), and 41.67% female (25 individuals)

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Sexual Orientation: Most of the respondents were Homosexual and Bisexual (33.33%) followed by Heterosexual (21.67%), Queer and Pansexaul (5%) and the least represented were Asexual with 1.67%

Program: In terms of the respondents' program, most of them (41, or 68.33%) came from BPED, while 19, or 31.67, were enrolled in the BSESS program.

Table 1. Personal Profile of the Respondents

Age	Frequency	Percent
18-19	6	10.00
20-21	33	55.00
22-23	21	35.00
Sex		
Male	35	58.33
Female	25	41.67
Sexual Orientation		
Bisexual	20	33.33
Homosexual	20	33.33
Heterosexual	13	21.67
Queer	3	5.00
Pansexual	3	5.00
Asexual	1	1.67
Program		
BPED	41	68.33
BSESS	19	31.67
Total	**60**	**100.00**

Extent of perceiving barriers to physical activity

Table 2 shows the data regarding the extent to which respondents perceive the following barriers to physical activity: intrapersonal, interpersonal, and environmental barriers.

As presented in Table 2.1, the respondents perceive intrapersonal barriers to physical activity to a “great extent," with a categorical mean of 2.15. This implies that respondents regard largely individual factors such as attitudes toward physical activities or self-confidence and motivation as barriers to physical activities.

As can be gleaned from the data, all of the statements and indicators relating to interpersonal barriers were rated to a great extent by the respondents. The statement or indicator “fear of rejection or harassment in physical activity settings” received the highest mean score of 2.37, interpreting this as a barrier to "great extent.". This suggests that discrimination, bullying, and harassment are also happening in physical activity settings; concerns about safe space more likely limit the engagement of LGBTIQ+ members in sports and physical activity. This can be corroborated by the findings of Päivi Berg and Marja Kokkonen (2021), who pointed out that there is discrimination and obstacles to participation experienced by LGBTIQ+ students in PE. LGBTIQ+ are reduced to ‘minorities'; the gender diversity of LGBTIQ+ was constructed predominantly as ‘tolerated’ and even invisible in PE lessons.

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Interpersonal	Mean	Std. Deviation	Description
Your friends do not engage in physical activity	2.03	1.06	Great Extent
Your friends do not support your efforts to engage in physical activity	1.95	1.06	Moderate Extent
Your family do not engage in physical activity	2.02	1.02	Great Extent
Your family do not support your efforts to engage in physical activity	1.87	1.03	Moderate Extent
You suffer rejection/harassment in physical activity settings	2.15	1.01	Great Extent
Lack of sensitivity in addressing diversity by physical activity professionals	2.10	1.05	Great Extent
Categorical Mean	**2.02**	**0.80**	**Great Extent**

Moreover, in the study of Herrick, S. and Duncan, Lindsay (2018), they concluded that sports and physical activity are generally viewed as heteronormative and that physical activity contexts seem like elitist, inaccessible spaces for LGBTIQ+. The implications of these likely point to a lack of motivation and/or confidence to engage in physical activities.

Table 2.1 Extent of Respondents' Perception on Intrapersonal Barriers to Physical Activity.

Intrapersonal	Mean	Std. Deviation	Qualitative Description
Lack of motivation to engage in physical activity.	2.05	1.02	Great Extent
You are worried about your appearance while engaging in physical activity	2.07	0.97	Great Extent
Lack of confidence in your ability to engage in physical activity	2.13	0.96	Great Extent
Fear of rejection/harassment in physical activity settings	2.37	1.06	Great Extent
Categorical Mean	**2.15**	**0.86**	**Great Extent**

Table 2.2 shows how the respondents perceive interpersonal barriers to physical activity. To a "great extent," with a categorical meaning of 2. 02. This shows that respondents regard, to a great extent, social factors such as family, friends, or peers and their influence.

The data clearly established that interpersonal barriers were rated to a great extent by the respondents. The statement or indicator "You suffer rejection or harassment in physical activity settings" received the highest mean score of 2.15, interpreting this as a barrier to "great extent.". This finding is in consonance to the data in the preceding table, confirming that the respondents suffer rejection/harassment in physical activity settings. And this, serves as a barrier to their engagement in physical activities. The result of the study proved that discrimination happens in control with other professionals; a study by Berg and Kokkonen (2021) provided support where they found out that discrimination as a barrier to participation are experienced by LGBTQ+ people in physical education.

Table 2.3 illustrates that the respondents perceived environmental barriers to physical activity to a great extent, with the categorical meaning of 2.18. This explains that respondents regard, to a great extent, organizational, institutional, and community factors such as physical activity programs and facilities available. As can be clearly gleaned from the data, the statements and indicators relating to environmental barriers were all rated to a great extent by the respondents. The statements or indicators "Lack of LGBTQ+ inclusive advertisement at sports centers or organizations," "Lack of variety in the physical activities offered," and "The economic cost is too high" received the highest mean score of 2.23, interpreting this as barriers to "great extent.".

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This implies that the respondents' engagement to physical activities is barred because of issues on inclusivity or diversity. That is, there appears to be deficiency in the inclusive advertisement or information dissemination regarding physical activities offered among the LGBTQ+. The invariability of activities where LGBTQ+ could participate is another barrier, along with the high cost that goes with physical activity engagement.

It gives a clear explanation that the college should provide an opportunity to members of the LGBTQ+ community to participate in any form of school activity, whether it is in the field of academics or sports. A study by Catherine Phipps (2019) stated that despite the positive aspects of university sports, by mimicking wider sport practices, they may also be environments that exclude non-normative bodies, including those who are trans.

Table 2.3 Extent of Respondents' Perception on Environmental Barriers to Physical Activity.

Environmental	Mean	Std. Deviation	Qualitative Description
Lack of adequacy of showers and locker rooms at sports centers	2.15	1.05	Great Extent
Activities and competitions are segregated by sex	2.13	1.11	Great Extent
Lack of sport facilities near your home	2.12	0.98	Great Extent
The economic cost is too high	2.23	0.96	Great Extent
Lack of variety in the physical activity activities offered	2.23	1.01	Great Extent
Lack of LGBTQ+ sport associations	2.18	1.05	Great Extent
Lack of LGBTQ+ inclusive advertisement at sport centers/organizations	2.23	1.06	Great Extent
Categorical Mean	**2.18**	**0.81**	**Great Extent**

Table 2.4 presents the frequency of respondents' perception on specified barriers to physical activity across three dimensions: Intrapersonal, Interpersonal, and Environmental, categorized as Below Average, Average, and Above Average. In the Intrapersonal dimension, 36 respondents perceive their barriers as average, while 15 and 9 perceive them as below average and above average, respectively. A similar pattern is observed in the Interpersonal and Environmental dimensions, with a significant number of respondents perceiving their barriers as average. The overall perception across all dimensions also reflects a consistent pattern, with the majority of respondents considering their barriers to physical activity as average.

Table 2.4 Summary Table on the Extent of Respondents' Perception on Specified Barriers to Physical Activity.

Dimensions	Frequency		
	Below Average	Average	Above Average
Intrapersonal	15	36	9
Interpersonal	10	37	13
Environmental	9	38	13
Overall	**10**	**37**	**13**

Respondents' Level of Physical Activity

The provided data in Table 3 shows the levels of physical activity measured by the international physical activity questionnaire. The researchers were asked to interpret the data using the guidelines for interpreting the IPAQ short questionnaire among college students. Met Levels calculation and categorical score were utilized. The table explained that most of the respondents (33, or 55%) are minimally active, indicating that they engage in physical activity but do not meet the standardized Met Levels of 3000 Met/min. This suggests a low level of physical activity among most of the respondents.

Moreover, 21 respondents (35%) are categorized as inactive, implying that they are not engaging in significant physical activity within the measured time frame.

Meanwhile, a minimal number revealed that only 6 or 10% are classified as hepa active, meeting the recommended physical activity. This is a relatively low percentage, suggesting that a small proportion of college students

are adequately physically active. This was also supported by a National Korean survey that indicated that only 20.8% of college students engage in moderate-to-vigorous PA (Korea Centers for Disease Control and Prevention, 2016).

Table 3. Respondents" Level of Physical Activity

Level of Physical Activity	Frequency	Percent
Inactive	21	35.0
Minimally Active	33	55.0
Hepa Active	6	10.0
Total	**60**	**100.0**

Significant association between the extent to which respondents perceive specific barriers to physical activity when grouped according to profile variables.

Table 4 revealed the association in the extent to which respondents perceive specific barriers when grouped according to profile variables.

The subsequent table answers the research question on the association between the extent to which respondents perceive specific barriers to physical activity when grouped according to their age Table 4.1 shows the relation between the extent to which respondents perceive specific barriers to physical activity when grouped according to their age.

It was revealed that there is no significant association between the extent to which respondents perceive specific barriers to physical activity when grouped according to their age. This means that age is not a factor or barrier to engaging in physical activity among LGBTQ+. Moreover, some studies, like Margot E. Hickey (2017), state in the findings of their research that, despite the difference in perceived barriers, there were no significant age differences found in the number of hours of exercise, the number of activities, or the number of motivational factors reported.

Table 4.1 Difference between the extent to which respondents perceive barriers to physical activity when grouped according to AGE.

		Perception on Barriers			Total
		Below Average	Average	Above Average	
Age	18-19	2	2	2	6
	20-21	5	21	7	33
	22-23	3	14	4	21
	Total	10	37	13	60
$X^2 = 2.450$, p=0.654					

As can be seen in Table 4.2, the P-values, which are all greater than 0.05, are obvious indications that no significant difference can be linked between and among the barriers of intrapersonal, interpersonal, and environmental. This implies that both males and females are likely to face similar challenges at all levels.

4.2 Difference between the extent to which respondents perceive barriers to physical activity when grouped according to SEX.

		Perception on Barriers			Total
		Below Average	Average	Above Average	
Sex	Male	6	23	6	35
	Female	4	14	7	25
	Total	10	37	13	60

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$X^2 = 1.028, p=0.598$

Table 4.3 displays the relationship between the extent to which respondents perceive specific barriers to physical activity when grouped according to their sexual orientation. It was shown that there is no significant relationship that can be associated with the barriers, which indicates that sexual orientation is not a factor or barrier to physical activity. However, contrary to that result, there is some evidence, like in the study A Systematic Scoping Review of Engagement in Physical Activity Among LGBTQ+ Adults by Shannon S. C. Herrick and Lindsay R. Duncan (2017) found that sexual orientation affects engagement in physical activity differentially by gender and suggested that physical activity interventions should be targeted to unique subgroups of the LGBTQ+ population.

4.3 Difference between the extent to which respondents perceive barriers to physical activity when grouped according to SEXUAL ORIENTATION.

		Perception on Barriers			Total
		Below Average	Average	Above Average	
	Bisexual	5	9	6	20
	Homosexual	3	13	4	20
	Heterosexual	2	9	2	13
	Queer	0	2	1	3
	Pansexual	0	3	0	3
	Asexual	0	1	0	1
Total		10	37	13	60
$X^2 = 6.028, p=0.813$					

The preceding table shows the difference between the extent to which respondents perceive specific barriers to physical activity when group according to their program.

As presented in Table 4.4, the P-values, which are all greater than 0.05, are obvious indications that no significant difference can be linked between and among the barriers such as intrapersonal, interpersonal, and environmental that can be associated between the two programs.

4.4 Difference between the extent to which respondents perceive barriers to physical activity when grouped according to PROGRAM.

		Perception on Barriers			Total
		Below Average	Average	Above Average	
Program	BPED	8	24	9	41
	BSESS	2	13	4	19
Total		10	37	13	60
$X^2 = 0.840, p=0.657$					

Significant association between the extent to which respondents perceive specific barrier to physical activity and their level of physical activity

Table 5 shows the significant association between the extent to which respondents perceive barrier to physical activity and their level of physical activity.

Table 5.1 clearly states that there is a significant association between the extent to which respondents perceive specific barriers to physical activity and their level of physical activity. Generally, the table suggests that those who have

higher levels of physical activity feel the barriers to physical activity than those who have lower levels of physical activity. In other words, the more physically active the respondents, the more likely they could perceive or feel the barriers.

Table 5.1 Association between the extent to which respondents perceive barrier to physical activity and their level of physical activity.

	Perception on Barriers			Total
	Below Average	Average	Above Average	
Hepa Active	0	2	4	6
Inactive	5	10	6	21
Minimally Active	5	25	3	33
Total	10	37	13	60
$X^2 = 12.682$, p=0.013*				

** **Significant at 0.05***

Conclusion

The study aimed to identify the barriers to and levels of physical activity among LGBTQ+ students at the Cagayan State University-Carig campus. The study used a descriptive-correlational design and a survey questionnaire to collect data from LGBTQ+ students at the College of Human Kinetics (CHK). It was found that most respondents were aged 20–21 years old, male, and identified as homosexual or bisexual. This research also found intrapersonal, interpersonal, and environmental impediments to physical exercise, which respondents largely perceived. The study found that most respondents were minimally active or inactive, with only a small percentage classified as Hepa active. The study did not find significant differences in the respondents' perceptions of barriers across age, sex, sexual orientation, and program. The study established a significant association between the extent to which respondents perceive barriers to physical activity and their levels of physical activity. The study concludes that LGBTQ+ students at the College of Human Kinetics face significant barriers to physical activity. As it was also enshrined that the nature of the college is focused on physical education and activities, the school should create an intervention to address these barriers to promoting physical activity among the students.

Recommendations

In the light of the results and conclusions of the study, the following are hereby recommended:

1. **Explore the impact of institutional policies and practices:** Investigate the role of institutional policies and practices in creating barriers to physical activity for LGBTQ+ students. This could include examining the availability of inclusive facilities, the presence of supportive staff and faculty, and the implementation of anti-discrimination policies.
2. **Assess the influence of peer support and social networks**: Examine the role of peer support and social networks in promoting physical activity among LGBTQ+ students. This could involve studying the experiences of students who are part of LGBTQ+ groups or organizations, as well as those who feel isolated or excluded from such groups.
3. **Investigate the relationship between mental health and physical activity:** Given the higher risk of suicidality among LGBTQ+ youth, it would be valuable to explore the relationship between mental health, physical activity, and barriers to physical activity among this population. This could help identify potential interventions that address both mental health and physical activity.
4. **Explore the role of education and awareness-raising**: Assess the effectiveness of educational interventions and awareness-raising campaigns in promoting physical activity among LGBTQ+ students. This could involve evaluating the impact of workshops, trainings, or other initiatives that aim to increase knowledge and understanding of the importance of physical activity for overall health and well-being.

5. **Assess the effectiveness of existing interventions**: Review the existing interventions aimed at promoting physical activity among LGBTQ+ students, such as the Department of Education's order to protect children from violence, abuse, and exploitation regardless of sexual orientation and gender identity. Evaluate the effectiveness of these interventions in addressing barriers to physical activity and improving overall physical activity levels among LGBTQ+ students.

References

Al-Tawel, H., & AlJa'afreh, A. (2017). Perceived barriers to physical activity among university students in Jordan. Eastern Mediterranean Health Journal, 23(9), 639-646.

Adebusoye, B., Leonardi-Bee, J., Phalkey, R., & Chattopadhyay, K. (2023). Barriers and facilitators of physical activity among school attending adolescents in Lagos State, Nigeria. BMC Public Health, 23(1), 1-15.

Baruth, M., Wilcox, S., & Dunn, A. (2014). Associations of perceived environmental characteristics with walking in a population-based sample of adults with type 2 diabetes. Annals of Behavioral Medicine, 47(2), 172-177.

Blocker, T. J., & Eckberg, D. L. (1997). Gender and environmentalism: Results from the 1993 general social survey. Social Science Quarterly, 78(4), 841-858.

Bowser, A., Bober, M., Keeling, M., & Stafford, I. (2020). The experiences of lesbian, gay, and bisexual individuals in sport and physical activity: A review of literature. Quest, 72(2), 153-175.

Bauman, A. E., Reis, R. S., Sallis, J. F., Wells, J. C., Loos, R. J., Martin, B. W., & Lancet Physical Activity Series Working Group. (2012). Correlates of physical activity: Why are some people physically active and others not? The Lancet, 380(9838), 258-271.

Bauer, G. R., Scheim, A. I., Pyne, J., Travers, R., & Hammond, R. (2015). Intervenable factors associated with suicide risk in transgender persons: A respondent driven sampling study in Ontario, Canada. BMC Public Health, 15(1), 1-13.

Cavill, N., Kahlmeier, S., & Racioppi, F. (2020). Physical activity and health in Europe: Evidence for action. World Health Organization.

Choi, Y. J., Chang, Y. K., & Choi, E. J. (2015). The impact of motivational climate on sport commitment and life satisfaction among college students: The mediating role of basic psychological needs. Journal of Exercise Rehabilitation, 11(4), 222-227.

Costa, P. T., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: Robust and surprising findings. Journal of Personality and Social Psychology, 81(2), 322-331.

Cohen-Mansfield, J., Marx, M. S., & Guralnik, J. M. (2003). Motivators and barriers to exercise in an older community-dwelling population. Journal of Aging and Physical Activity, 11(2), 242-253.

Donovan, J., Roick, A., Diaz, M., Kim, J., Han, G., Trost, S., & Dunn, A. (2021). Gender differences in perceived barriers to physical activity among college students. Journal of American College Health, 1-8.

Dambros, A., Lopes, M. A., & Santos, M. P. (2011). Understanding the factors affecting physical activity practice among adolescents: A study based on the health action process approach. Journal of Physical Activity and Health, 8(2), 210-218.

Dumith, S. C., Gigante, D. P., Domingues, M. R., & Kohl, H. W. (2019). Physical activity change during adolescence: A systematic review and a pooled analysis. International Journal of Epidemiology, 48(6), 1631-1644.

Danili, E., & Reid, C. (2006). Cognitive factors and social environment determine the amount and type of physical activity among college students. Journal of Physical Education and Recreation, 77(3), 32-37.

Erin Hoare, K. (2017). Understanding barriers and facilitators to participation in physical activity for older adults: A systematic review of qualitative studies. Preventive Medicine Reports, 7, 1-9.

Egli, T., Bland, H. W., Melton, B. F., & Czech, D. R. (2011). Influence of age, sex, and race on college students' exercise motivation of physical activity. Journal of American College Health, 60(6), 395-401.

Fletcher, G. F., Landolfo, C., Niebauer, J., Ozemek, C., Arena, R., & Lavie, C. J. (2018). Promoting physical activity and exercise: JACC Health Promotion Series. Journal of the American College of Cardiology, 72(14), 1622-1639.

Feingold, A. (1994). Gender differences in personality: A meta-analysis. Psychological Bulletin, 116(3), 429-456.

Garry Jerrings, E. (2017). Women's perceptions of exercise during pregnancy: An integrative review. International Journal of Childbirth Education, 32(2), 41-48.

Gifford, R., & Nilsson, A. (2014). Personal and social factors that influence pro-environmental concern and behaviour: A review. International Journal of Psychology, 49(3), 141-157.

Gill, D. L., Williams, L., Dowd, D. A., Beaudoin, C. M., Martin, J. J., & James, T. (2019). Examining gender differences in physical activity behavior, motivation, and self-efficacy among college students. Journal of American College Health, 67(4), 381-388.

Goodyear, V. A., & Quennerstedt, M. (2019). Heteronormativity meets queering in physical education: The views of PE teachers and LGBTQ+ students. Sport, Education and Society, 24(4), 333-347.

Goodenow, C., Szalacha, L., & Westheimer, K. (2017). School-based extracurricular activity participation and the health of lesbian, gay, and bisexual youth: A systematic review of research from 1994 to 2015. Review of Educational Research, 87(6), 1073-1116.

Goodwin, D., McIver, C., & Adedoyin, O. (2020). Gender and physical activity participation among college students. American Journal of Health Education, 51(2), 90-101.

Hunt, M. K., Gilliland, M., Chamberlain, B., & Flannery, M. (2019). Examining social support and social norms as predictors of physical activity among college students. American Journal of Health Education, 50(1), 13-24.

Hamilton, K., Cleland, V., & Ball, K. (2020). The role of gender in shaping physical activity motivation among college students. Journal of Sport and Health Science, 9(1), 96-102.

Hyde, J. S. (2005). The gender similarities hypothesis. American Psychologist, 60(6), 581-592.

Hwang, J., Lee, S., Kim, E., & Rho, M. (2016). Personal and environmental factors influencing physical activity in older Korean adults. Journal of Physical Therapy Science, 28(8), 2262-2267.

Iannotti, R. J., Kogan, M. D., Janssen, I., Boyce, W. F., & Group, H. S. S. (2011). Patterns of adolescent physical activity, screen-based media use, and positive and negative health indicators in the US and Canada. Journal of Adolescent Health, 49(4), 358-366.

Kremers, S. P. J., de Bruijn, G.-J., Visscher, T. L. S., van Mechelen, W., & de Vries, N. K. (2003). Participatory development of a school-based physical activity intervention for adolescents: A focus group study. BMC Public Health, 3(1), 7.

Kriemler, S., Meyer, U., Martin, E., van Sluijs, E. M. F., Andersen, L. B., & Martin, B. W. (2019). Effect of school-based interventions on physical activity and fitness in children and adolescents: A review of reviews and systematic update. British Journal of Sports Medicine, 53(14), 923-931

Leaper, C., & Smith, T. E. (2004). A meta-analytic review of gender variations in children's language use: Talkativeness, affiliative speech, and assertive speech. Developmental Psychology, 40(6), 993-1027.

Liao, Y., Chou, C., Huh, J., Leventhal, A., & Dunton, G. (2020). Examining acute bidirectional associations between affect, physical feeling states, and physical activity in free-living situations using experience sampling methods among Chinese adolescents. Journal of Sport and Health Science, 9(4), 399-406.

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Lubans, D. R., Morgan, P. J., Aguiar, E. J., Callister, R., & Plotnikoff, R. C. (2016). Exploring the mechanisms of physical activity and dietary behavior change in the program X intervention for adolescents. Journal of Adolescent Health, 58(2), 200-207.

Lynch, M., Mahmood, A., Morgan, K., & Honnor, K. (2017). Understanding the association between self-efficacy and physical activity among female college students: A mixed methods approach. Journal of American College Health, 65(7), 478-489.

Li, W., Wang, Y., & Lam, C. C. (2021). Personal and environmental factors associated with physical activity among Chinese college students. Journal of Physical Education and Sport, 21(3), 935-942.

López-Mosquera, N. (2016). Environmental concern, knowledge, attitudes, and behaviors: A review of multinational and global trends. Wiley Interdisciplinary Reviews: Climate Change, 7(5), 604-620.

McCright, A. M., & Xiao, C. (2014). Gender and environmental concern: Insights from recent work and for future research. Society & Natural Resources, 27(1), 1-6

Rnocky, S., & Stroink, M. L. (2011). Environmental attitudes predict moral judgments and perceived harm. Environment and Behavior, 43(6), 753-776.

Rosselli, M., & Modesti, P. A. (2020). Chronic cardiovascular diseases and physical activity: Differences between male and female adolescents. Frontiers in Cardiovascular Medicine, 7, 21.

Seelman, K. L., Colón-Diaz, M. J., LeCroix, R. H., Xavier-Brier, M., & Kattari, S. K. (2017). Transgender noninclusive healthcare and delaying care because of fear: Connections to general health and mental health among transgender adults. Transgender Health, 2(1), 17-28.

Towne, S. D., Ory, M. G., Smith, M. L., Marsiglia, F. F., Wagener, T. L., & Sotres-Alvarez, D. (2017). Physical activity and sedentary behavior in older lesbian, gay, and bisexual adults: The roles of LGBT climate and stress. Journal of Aging and Physical Activity, 25(4), 581-590.

Tucker,P., Gilliland, J., Irwin, J. D., He, M., Larsen, K., & Hess, P. (2019). Environmental influences on physical activity levels of youth attending urban or suburban schools. Public Health, 172, 122-129.

Van der Horst, K., Paw, M. J., Twisk, J. W., & Van Mechelen, W. (2007). A brief review on correlates of physical activity and sedentariness in youth. Medicine & Science in Sports & Exercise, 39(8), 1241-1250.

Van der Ploeg, H. P., Merom, D., Chau, J. Y., Bittman, M., Trost, S. G., & Bauman, A. E. (2010). Advances in population surveillance for physical activity and sedentary behavior: Reliability and validity of time use surveys. American Journal of Epidemiology, 172(10), 1199-1206.