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Research Article

Extrapolating Pre-service Physical Educators' Motives and Barriers to Exercise as Basis for the Development of a Physical Activity Plan

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ABSTRACT

The need to examine whether existing constructs in motives and barriers are still relevant in contemporary times is both a challenge and a trend in research concerning school physical activity. Ergo, this study sought to extrapolate Filipino pre-service physical educators' present-day motives and barriers to exercise, with a valid physical activity plan as the end in mind. A free-listing methodology was utilized to document the motives and barriers of the participants (N = 269) coded using the subscales of the Exercise Motivation Inventory (EMI-2) and Barriers to Physical Activity Scale, respectively. Motives and barriers not covered within the scales were initially coded as 'other barriers' and were subsequently coded in the light of existing literature. The subscales from the EMI-2 for coding the motives to exercise the PSPEs are still apparent in contemporary times which is led by 'positive health' and 'appearance.' Meanwhile, 'lack of time', 'feeling too tired', and 'having an injury and/or disease' are the three leading barriers for the respondents to exercise. Other motives and barriers were likewise reported in the study. A proposed physical activity plan was developed considering the results of the study, and inputs from the faculty implementers, and was validated by three expert physical educators using face validation. It is recommended that psychological and behavioral constructs such as motives and barriers be integrated into the planning, developing, implementing, and evaluating physical activity plans to foster healthy and active would-be physical educators.

Keywords: *Barriers, Exercise psychology, Face validation, Free-listing Methodology, Motivation, Physical activity*

Introduction

Lethargy in physical activity and exercise prevents people from living a decent life and causes a host of public health issues. Students are getting less active because they are more vulnerable to a variety of technological

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advancements and amenities intended to make life easier and more enjoyable. Having an idle way of life may lead to a high risk of health issues like chronic diseases including "type 2 diabetes" and "coronary heart disease" as well as some cancers that are associated with global mortality (Booth et al., 2012; WHO, 2020). Physical inactivity levels during leisure time are due to insufficient participation, also an increase in sedentary behavior in occupational and domestic activities. This was supported by Le Roux et al. (2022) who mentioned that scientists discovered a new unhealthy behavior called sedentary behavior (SB). Physical inactivity is not equivalent to sedentary behavior. Engaging in less physical activity and not meeting the prescribed standard is labeled as physical inactivity while sedentary behavior occurs in a modern way of life which includes the utilization of transportation, economics such as desk-bound labor, and the misconception use of recreation like internet-based and computer game activities. On this note, Bull et al. (2020) reported that no particular technique has been suggested to counteract the impacts of sedentary lives despite the recommendations for shorter SB durations.

Physical activity, defined as any "bodily movement produced by skeletal muscles that require energy expenditure – including activities undertaken while working, playing, carrying out household chores, traveling, and engaging in recreational pursuits" should be promoted to achieve a healthy and satisfying way of life (World Health Organization [WHO], 2020.) Physical activity has been identified as one of the important factors that can prevent "chronic diseases", "promote healthy weight management" and "assist in maintaining a healthy quality of life". Participation in regular physical activities is associated with several health benefits including "weight loss" and "reduced risk of heart disease", "type 2 diabetes", and some types of cancer. It is recommended that children and adolescents aged 5-17 should do at least 60 minutes of moderate to vigorous physical activities (MVPAs), mostly aerobic, physical activity for a week; and adults aged 18-64, including 65 and beyond, should do at least 150-300 minutes of moderate-intensity of physical activity or 75-150 minutes of vigorous aerobic physical activity throughout the week. On the other hand, physical inactivity lifestyles would lead to a sedentary lifestyle (Sallis et al., 2004). Moreover, an increase in the use of "passive" modes of transport has also been associated with declining physical activity levels.

Calisthenics, sports engagement, jogging, and walking are examples of exercises that may have positive effects on health. In many nations, physical activity levels are declining. For instance, 81% of school-aged teenagers and 23% of adults worldwide are not active enough (WHO, n.d.). WHO (2020) also reported that more than a quarter or 1.4 billion adults in the world are inactive in which physical inactivity increased by 5% that was from 31.6% to 36.8% in high-income countries between the year of 2001 and 2016. More so, in 2016, 28% of adults aged 18 and up around the world were insufficiently active, 23% of these were men while 32% were women. Low or declining levels of physical activity are frequently associated with high or growing gross national product. The decline can be attributed to many reasons like leisure time and sedentary behavior.

Similarly, increased usage of "passive" modes of transportation correlates to a lack of physical activity. In 2016, 81% of teenagers aged 11 to 17 were insufficiently physically active globally. Adolescent girls were less active than adolescent boys, with 85 % of females failing to fulfill WHO standards of at least 60 minutes of moderate to vigorous intensity physical activity per day, compared to 78 % of males.

Article 1 of the International Charter of Physical Education and Sport (1991) stipulates the practice of physical education, physical exercise, and sport which emphasizes that it is a fundamental right for everyone. Every person must have access to physical education, physical activity, and sport to reach a level of success that reflects their talents and interests under this article. To build any physical education, physical activity, and/or sports development plan, it is crucial to investigate students' motivations for and barriers to physical activity that meet their interests. Participation in physical activity has been a solution to reduce the sedentary lifestyle and people who participate have different motives. There are many

motives for engaging in physical activity. Being healthy is one of the motives to exercise as it can help prevent chronic diseases such as "obesity", "heart disease", and "diabetes" (Anderson & Durstine, 2019; Senpati et al., 2015).

Physical activity participation also depends on physical attributes such as the weight and obesity of an individual (Trilk et al., 2011). Body image such as weight management and appearance was also ranked as a high motivator for physical activity specifically for those who perceive themselves as overweight (Homan & Tylka, 2014). Men usually train to build muscle, while women often try to trim and lose weight. Underweight participants reported that improved physique and shape were important motivations for participating in exercise, while overweight individuals, apparently did not seem to play a role (Zervou et al., 2017).

Individuals claim that exercise has a tremendous impact on their life proving success to the several health risks and factors to be detached and improved. Exercise can significantly enhance someone's body by allowing them to have intervention together with their diet, motivation, and health behavior. However, several motives were classified as having a better exercise experience that eradicates a person's stress and negative psychological capital (Barnes & Cassidy, 2018). In addition, performing such physical activities and exercises creates optimal development by facilitating health and performance which motivation characterizes as a great factor in achieving its highest degree. Supportive communication such as coaches, PE teachers, and gym instructors can benefit the cycle of progress in terms of their physical attributes (Ntoumanis et al., 2017).

According to Lachman et al. (2018), among middle-aged and older adults including those from underserved, vulnerable populations tend to exercise for health purposes, increase long-term activity, social support, goal setting, and positive affect coupled with the cognitive restructuring of negative and self-defeating attitudes and misconceptions. Moreover, older adults accentuated disease management, health promotion, and positive experiences leading to motives of their exercise (Rasinaho et al., 2007).

Students engage through exercises resulting in a positive motivation focused on "appearance", "stress management", and "improving health" (Kilpatrick et al., 2005; Snyder et al., 2017). Furthermore, the motivations of "enjoyment", "challenge", "competition", "strength and endurance', and 'stress management" were more significant for those who exercised vigorously more frequently over the preceding 7 days (Vučković et al., 2022). In line with that, males have a huge tendency to involve various exercises that make them dominant in life science, hence, this results in higher motivation in achieving a positive lifestyle (Cerar et al., 2017). On the other hand, women who are most likely to have lower motivation in participating in physical activities tend to have weight stigma, allowing them to sooner gain motivation in doing exercises (Sattler et al., 2018).

People worldwide are battling obesity, physical inactivity, and struggling to find time to exercise. This may also contribute to many factors like work, school, and family obligations. Although exercise is essential for becoming healthy, many people do not engage in it. Adults struggle to adopt an active lifestyle for the reasons that are most frequently cited: lack of time for exercise (Koh et al., 2022; Sabharwal & Sabharwal, 2018), interest, enjoyment, and lack of confidence (Hoare et al., 2017), impairment of practice, lack of self-motivation, lack of practice, boredom with practice, fear of being injured or recently injured, and lack of self-management skills, such as the capacity for self-regulation, (Manaf, 2013) and tiredness, stress, and safety issues (Sabharwal & Sabharwal, 2018). In addition, it is indicated that the absence of moment arose as a significant coherent obstacle to involvement in physical activity along with technology-related operations; peer, parent, and teacher impact; safety concerns; inaccessibility and equipment costs; rivalry; and body-centered problems.

In addition, the most frequent impediments to exercise were found to be low mood and high levels of stress. The obstacles of melancholy, stress, and exhaustion, which typically prevent people with severe mental illness from engaging in exercise, are inversely correlated with many of the positive effects of exercise for

these individuals, including mood enhancement, stress reduction, and greater energy (Firth et al., 2016). According to Blake et al. (2017), the following were the main obstacles to exercise among nursing and medical students: lack of time, unreliable facilities, and inability to incorporate exercise into study or employment schedules. Students studying nursing were less active than those studying medicine; they saw fewer advantages and more obstacles to exercise, and they reported less social support for it. Lastly, perceived barriers to exercise and physical activity have varied depending on body mass index (BMI), place of living, and location. Lack of time and lack of motivation were the common denominators among all physiotherapy students' barriers to physical activity, independent of their body weight status (Ahmad et al., 2019).

Filipino students according to their gender differences became more interested in physical activities and exercises because of the K to 12 Curriculum Physical Education. This curriculum suggests and offers classes among learners who find them fun and enjoyable (Cruz, 2021). Children with intellectual disability in the Philippines have difficulties in attaining developmental milestones in their motor control in association with their physical activity (PA). There is a low score relevant to fundamental motor skills resulting in poor execution of their PA (Eguia et al., 2015). During the first wave of COVID-19, behavior of Filipinos toward their physical activity tend to become sedentary which leads them to have risks before the pandemic occurrence. Female students changed but no alteration among males regarding their physical status in line also with their sitting time during weekdays (Cruz et al., 2022). According to Estrella (2020), the majority of the tasks, documentation, resources, and educational tools employed in the various State Universities and Colleges in Region 1 which Adapted Physical Education Programs for disabled students are only marginally acceptable. As a result, it is advised that administrators, professors, and teachers of physical education who work with students who have disabilities have the necessary training, skills, and capacity. Financial aid and scholarships must also be given to these individuals to help them advance their education, and they must be guided through the implementation of the program's rules and regulations to increase the achievement of their goals and objectives as well as the promotion of their teaching abilities.

Cagas et al. (2010) explored Filipino motives for exercise – a common form of physical activity, using an open-ended methodology that involved five hundred ninety-two Filipinos aged 15 to 69 who took part in the free-listing of prospective motives for exercise participation. Using themes from the subscales of the Exercise Motivation Inventory (EMI-2), it was surmised that extrinsic motives such as weight management, positive health, and strength and endurance were the most frequently identified. In contrast, challenge, social recognition, and competition were the least cited.

Increased participation in physical activities such as exercises ensures proper food intake and nutrition, providing Filipinos with confidence in participating in such strengthening activities (Acampado & Valenzuela, 2018). In addition, Filipinos view participating in activities that can benefit their health such as Zumba as a determinant of their healthy lifestyle journey (Yamasaki et al., 2021). As stated by Cagas et al. (2022), participating in yoga activities can promote and motivate individuals to stay positive about their health and fitness, resulting in "positive affect", "health and fitness", "nimbleness", "mind-body integration", and "coping/stress management".

Older Filipino males engage in Tai Chi as this offers improvement in terms of their balance and other physical functions. This also provided a great intervention concerning the decline in balance, gait performance, and physical flexibility (Chen, 2019). As mentioned by Safra and Andal (2022), the main reason why students engage in physical activity and exercise is enjoyment. They excel at physically, technically, and skillfully expressing their performance. The results showed a substantial correlation between the students' dance skill performance and their exercise and physical activity motives, suggesting that enjoyment is a key factor in their engagement in physical activity.

In line with that, learners had high levels of task orientation and moderate levels of ego

orientation. There were also moderate levels of physical activity involvement and moderate levels of physical perceived competence. Similar to how ego orientation and task orientation were positively connected, perceived physical competence was as well. Participation in physical activity was favorably associated with perceived physical competence and ego orientation but not substantially with task orientation. The findings of the study suggest that physical education teachers need to make a paradigm change in their methods of teaching and learning. This requires teachers to accommodate individual differences by taking into account pupils' ability, readiness, and preference levels through creative physical exercises (Martin et al., 2016).

In Asia, the index taken from a 2016 study on attitudes towards healthy and active lifestyles, showed that 61% of income earners in the Philippines do not exercise often. The Philippines was observed as the highest percentage of so-called "Generation O" - usually referred to as overworked and overweight. The percentage of people who are immobile in the Philippines reached 59% according to the 2015 survey. When asked about the barriers to living healthier lives, 57% of Filipinos attributed it to a lack of time due to work, while 47% said it was due to a "lack of personal motivation", and about 47% also recognized "the distractions of modern life" (Dumlao-Abadilla, 2017a).

More so, according to the Food and Nutrition Research Institute eNutrition National Survey [FNRI ENNS] (2019), 84.5% of Filipino adolescents were physically inactive which is less than 60 minutes of moderate-to-vigorous physical activity per day. Also, a proportion of insufficient physical activity among males (80.5%), females (88.8%), and others living in rural areas (84.9%) and urban areas (84.3%) were reported. Dumlao-Abadilla (2017b) claimed that 47% of Filipinos prefer to use their electronics and social media more than they do to engage in physical activity. The cost was another barrier noted by 45% of Filipino participants, and 36% noted the lack of accessible locations for recreation and sports. The remaining 30% report feeling less healthy than they did three years prior. Furthermore, Mungcal et al., (2021) purported that most of the Filipino obese and at-risk college students are too lazy and have no time to exercise due to their school activities, medical issues, and responsibilities at home. The same is true among visually-impaired learners in the Philippines (Tolentino et al., 2022).

According to Aleonar et al. (2018), fatigue is the area that older persons view as most preventing them from participating in exercise, although psychosocial is where they see the greatest benefits. There is a sizable discrepancy between senior persons' perceived barriers to exercise involvement and their actual exercise engagement and frequency. On the other hand, there is a big difference between exercise engagement and age in terms of the perceived advantages of exercise. More so, due to a lack of knowledge when it comes to the several exercises that exist, older Filipinos tend to have maximal measures to at least no physical activity at all since they don't know the procedures and steps to do it. Four key themes were identified by the study: identifying exercise, engaging capacities, weighing advantages against drawbacks, and balancing barriers against those benefits. The statistics imply that the four themes are in opposition to one another, with overwhelming social commitments to the kin group dictating the older people's participation in what the West defines as organized exercise (Ceria-Ulep et al., 2011).

In consideration of the available literature on physical activity participation relative to motives and barriers, there is a need to facilitate an exploration of the underlying factors that could influence or interfere with the participation of college students who specialize in physical education. Considering that studies are scarce, there is a need to explore motives and barriers among Filipino pre-service physical educators as a basis for the development of a physical activity plan. This study may pave the way for a more comprehensive and data-driven plan of action to consider what initiates their participation and address the hindrances that were derived from such exploration. As cited by Molina et al. (2019), planning physical activities among physical educators in their pre-service phase allows a high percentage of succession on their technical over tactical learning.

To address the limitation among schools in terms of the lack of physical activity, a Physical Activity Plan was introduced. The Physical Activity Plan (PAP) is not a new concept, in fact, in America, the National Activity Plan has been developed and used to intervene in the increasing physically inactive which leads to risk factors for health. The physical activity plan was also developed based on practice and international evidence. The Plan intends to promote an active lifestyle-supportive national culture. The improvement of health, prevention of illness and disability, and improvement of quality of life are its ultimate goals (Physical Activity Alliance [PAA] n.d.)

The theoretical underpinning of the study was anchored on the following learning theories: (1) affective-reflective theory (ART) of physical inactivity and exercise, (2) self-determination theory, and (3) theory of motivation.

The Affective-Reflective Theory of physical inactivity and exercise [ART] (Brand and Ekkekakis, 2018) is a dual-process theory that highlights the relevance of automatic associations for future physical inactivity or exercise. It is a default-interventionist theory. It is a notion that is solidly rooted in exercise psychology and closely associated with studies on the emotional reactions to exercise. In this study, the motives and barriers of the pre-service physical educators were extrapolated to investigate why and why they do not participate in the exercise.

According to Deci and Ryan's Self-Determination Theory [SDT] (2008), competence, relatedness, and autonomy are essential components of human motivation. For instance, it includes working out because one appreciates the results and wants to keep up one's health. In this study, the motivation and reasons of pre-service physical educators were obtained to perceive the essential components of their motivation to exercise and their fitness and health goals.

In the theory of motivation of Deci and Ryan (1985), there are internal and external drives to why individuals are motivated. Intrinsic motivations refer to the internal drives that inspire individuals in specific ways, this includes, interest, personal goals, and core values. On the other hand, external drives are based on external sources that result in external rewards, such as grading systems, employee evaluations, and awards. In this study, the motivations of the respondents were collected and coded based on their goals and motives. This may pave the way to increase the physical activity participation of the pre-service physical educators.

Conceptual Framework

The study was grounded in the belief that certain factors motivate individuals to undertake physical activities, especially organized ones, exercise at that. Relatively, it is assumed that several internal or external dimensions could potentially hinder someone from participating actively in such worthwhile pursuits. While there may be existing theoretical approaches and behavioral constructs (Mullan et al., 1997) that have established the phenomenon to explain reasons why people exercise, the confirmation of contemporary reasons as to why people are or will exercise is a significant pursuit embedded in the present study. The case is true with the reasons why people do not exercise because of influential barriers (Reichert et al., 2005) surrounding them.

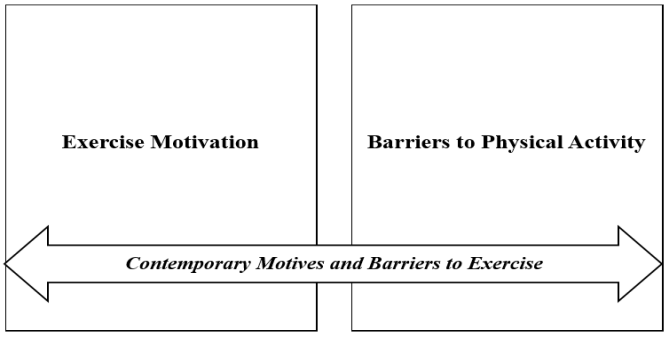

Figure 1. Conceptual framework of the study

Figure 1 illustrates a visual representation of the study's paradigm. It indicates that exercise motivation and barriers to physical activity are distinct explorations in the study. They are viewed as independent constructs as they were viewed to be peculiar entities that may vary across populations. Moreover, contemporary motives and barriers to exercise can be unraveled through a less structured and predominantly open-ended inquiry. Moreover, several factors established as subscales for motives have been reported by Mulan et al. (1997) and barriers by Reichert et al. (2005). Therefore, these entities were extrapolated in the study to verify whether such subscales used in quantitative instrumentations are still relevant in the present-day time and whether there are contemporary factors not covered in these dimensions. Furthermore, a physical activity plan has been an outgrowth of the extrapolated investigation in this study.

Statement of the Problem

The study aimed to extrapolate the motives and barriers of Filipino Pre-service Physical Educators in one of the state universities in the Province of Pampanga during the academic year 2022-2023. The findings of the study served as the basis for developing a Physical Activity Plan.

Specifically, the following questions were addressed in the study:

1. How may the motives identified by the respondents be described along the subscales of the Exercise Motivation Inventory – 2 (Mullan et al., 1997)?
2. How may the barriers identified by the respondents be described along the subscales of the Barriers to Physical Activity (Reichert et al., 2005)?
3. What are the factors affecting the motives and barriers to exercise of the respondents/participants?
4. What physical activity plan may be developed in consideration of the results of the study?

Methods

This study employed a mixed methods approach. This entails gathering and analyzing both quantitative and qualitative data for a single study. Additionally, this enables researchers to investigate many viewpoints and discover connections between the complex layers of numerous study concerns (Shorten & Smith, 2017). Therefore, the use of this methodology was considered to be applicable in extrapolating the motives and barriers of Filipino PSPEs in a state university in Pampanga, the Philippines. A huge regard was placed on the quantitative dimension while the qualitative phase was included as a confirmatory and follow-up mechanism to substantiate the quantitative results. The qualitative feedback was embedded in the quantitative results to establish a more extrapolated description of the motives and barriers.

The descriptive method was used to describe the characteristics of a population or phenomenon being studied. It does not answer questions about how, when, and why the factors occurred. As stated by Santos (2000), the descriptive survey technique is the best way to test hypotheses and answer questions on the current status of the students. Moreover, the data gathered from the descriptive survey may be used as a basis for interference in solving practical problems by focusing attention on the specific dimension of the phenomenon. Consequently, the use of a descriptive method for this study was found suitable for addressing the task of this research.

Importantly, the free-listing methodology strategy was utilized in gathering data. Free listing shows the cultural "salience" of specific ideas within groups and the variance in people's subject knowledge between communities. It entails asking participants to come up with a list of things in response to a certain directive or inquiry (Quinlan, 2017). To obtain a profound understanding of the participation motives and barriers of respondents' physical activity by using the subscales, the free listing was found to be appropriate. While qualitative studies would utilize a culturally relevant method like a free listing, the data could likewise be quantitatively analyzed through existing subscales as a basis for coding. The use of free-listing methodology was observed in the studies of Cagas et al. (2010) and Mungcal et al. (2021).

Respondents/Participants

The respondents were composed of bona fide students enrolled in the Bachelor of Physical Education program in a state-funded higher education institution in Pampanga, the Philippines during the Academic Year 2022-2023. These students are alternatively referred to as "pre-service physical educators (PSPEs)". A total enumeration (census) of the students was recruited and everyone was considered subject to informed consent and voluntary participation. Total enumeration (census), which studies the entire population or group of interest, is an example of purposeful sampling. It is most useful when the population as a whole is controllable, such as a well-defined subsection of a larger community (Glen, 2018). Considering the entire population of PSPEs would be fitting for the study's extrapolation of the motives and barriers to participation in exercise because of the very essence that prospective physical educators like them should be mindful of their considerations to exercise as they will implement such in the future.

The group was composed of PSPEs from first year (n = 129), 2nd-year (n = 125), and third year (n = 103). However, the senior PSPEs were no longer included in the recruitment of respondents because they were already on their teaching internship when the study was undertaken. Likewise, the physical activity plan could still be utilized for non-graduating students, ergo, the first to third-year students were purposely included in the study.

Meanwhile, the participants for the qualitative phase were composed of ten (10) PSPEs selected via purposive sampling technique (males = 5, females = 5). Wiley and Sons (2010) declared that purposive sampling is a non-probability sampling approach in which participants are chosen depending on the researcher's pre-established inclusion criteria. Purposive sampling is a method in which not all of the population were given the ability to be part of the sampling frame and the researcher found things that decided the participants to be suitable for the study. Hence, the ten class representatives of each class were selected to be part of the study as they were deemed fit on the merits of their involvement in representing the class as the lead officer and voluntary participation to be interviewed.

Instruments

Open-ended questions were used in the study to obtain answers as to the motives and barriers to physical activity participation of the pre-service physical educators. Open-ended questions allow participants to react on their own terms rather than providing a "pre-established list" of response alternatives. Open-ended questions are employed in exploratory investigations and qualitative research approaches (Albudaiwi, 2017). Hence, open-ended free-listing questions were used in the study to identify the motives and barriers and other movies and barriers in the exercise of the respondents. The open-ended questions were adopted from the instrument that was developed and validated in the study of Mungcal et al. (2021) as they explored the motives and barriers to participating in exercise in relatively obese and overweight Filipino college students. To provide a demographic view of the sample, the first section of the instrument includes questions on the respondents' demographic traits. These details include their age, sex, height, and weight. Part 2 focused on an open-ended question asking them to enumerate what motivates them to exercise. Meanwhile, Part 3 highlighted the inquiry on what hinders the PSPEs from exercising. Mungcal et al. (2021) reported that five experts provided content validation for the open-ended questions in the survey's second section and third sections. A professor of physical education, two nurse educators, a linguist, and a licensed psychometrician were all included in the pool of expert validators who found the open-ended questions valid. On the other hand, the subscales of the EMI-2 of Mullan et al. (1997) specifically "stress management", "revitalization", "enjoyment", "challenge", "social recognition", "affiliation", "competition", "health pressures", "ill-health avoidance", "positive health", "weight management", "appearance", "strength and endurance", and "nimbleness" and barriers to physical activities of Reichert et al. (2005) specifically "lack of money", "feel too tired", "lack of company", "lack of time", "have an in-

jury or disease", "fear of injury", "dislike exercising", and "feel too old" were only used for coding the obtained responses from the open ended free listing methodology.

In terms of the confirmatory qualitative phase, a semi-structured interview guide was constructed based on the top motives, barriers, other motives, and other barriers. The questions were crafted to give emphasis on furthering the quantified motives and barriers and to establish a meaningful and localized context for the results of the study in the initial phase.

Data Collection

Permission from the Dean of the College of Education and the area chairperson of the Bachelor in Physical Education program was obtained to allow the researcher to conduct the data gathering. After obtaining permissions, schedules, class representative of each class, and the number of students per year and section were asked from the Area Chairperson of the program. After the needed information were obtained, the researcher went to the respective classrooms of each class. Upon entering the class, the researcher asked for permission from the instructor who was assigned to the class. Consequently, the researcher discussed informed consent, the right to withdraw from the study and the study's objectives, purpose, and implications of the results in extrapolating their motives and barriers to physical activity participation were also discussed. The questionnaire was then distributed to the students and all questions that were raised were all addressed. The obtained data were kept in a folder for safety purposes. After obtaining all the questionnaires, coding from the subscales of EMI-2 (Mullan et al., 1997) and Barriers to Physical Activity (Reichert et al., 2005) was administered to formulate the results in their motives and barriers.

aaaaaIn addition, a virtual focus group discussion was facilitated among the PSPEs to support and deepen the understanding of the results of the motives and barriers of the PSPEs. Permission was sought among the prospective participants via email correspondence and social media messaging. The virtual focus group discussion was facilitated by using Google Meet. After which, the ten (10) participants were asked based on the interview guide and answered one by one. Upon obtaining all the answers, the researcher transcribed all the responses of the PSPEs.

Ethical Considerations

Several ethical guidelines for conducting research, including the Belmont Report from 1979 and the Data Privacy Act of 2012, governed the procedures for collecting data from participants. The Belmont Report (National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research, 1979) is one source that discusses three fundamental ethical principles for research involving human subjects, such as "respect for others, beneficence, and justice."

To uphold the first principle, every respondent shall be treated as an autonomous individual who will participate voluntarily, free from coercion or any other form of intimidation, and the respondent's decision to participate or not will always be respected. To guarantee that they are regarded as subjects who freely participate in the study, the respondents will also be made aware of the structure of the study and will receive informed consent.

Respondents who agreed to participate were guaranteed that no harm would come to them during or after the study was conducted following the principle of beneficence. Additionally, participants will be informed of the advantages of their participation in the study in terms of long-term objectives that may be provided through the inputs obtained from their data, particularly for the succeeding Bachelor of Physical Education students who may share the same characteristics. The information that will be gathered from the respondents will be kept private, confidential, and reported collectively following the data analysis.

Respondents were selected based on fair scrutiny of the inclusion criteria and will not be discriminated against based on their race, religion, or sexual orientation, among others.

Data Analysis

Data collected from the open-ended questions free listing methodology of the respondents on the reasons why and they do not

participate in physical activity were transcribed and organized. The transcribed responses were coded independently using the subscales of the Exercise Motivation Inventory – 2 (Mullan et al., 1997) for the motives and the subscales of the Barriers to Physical Activity (Reichert et al., 2005) for the barriers. The coding process and inter-coder agreement procedures were performed using MAXQDA version 2020.4.1. Consequently, an expert resolved the conflicts when both authors experienced and committed code discrepancies. Frequency and percentage were utilized to analyze the data in the final report.

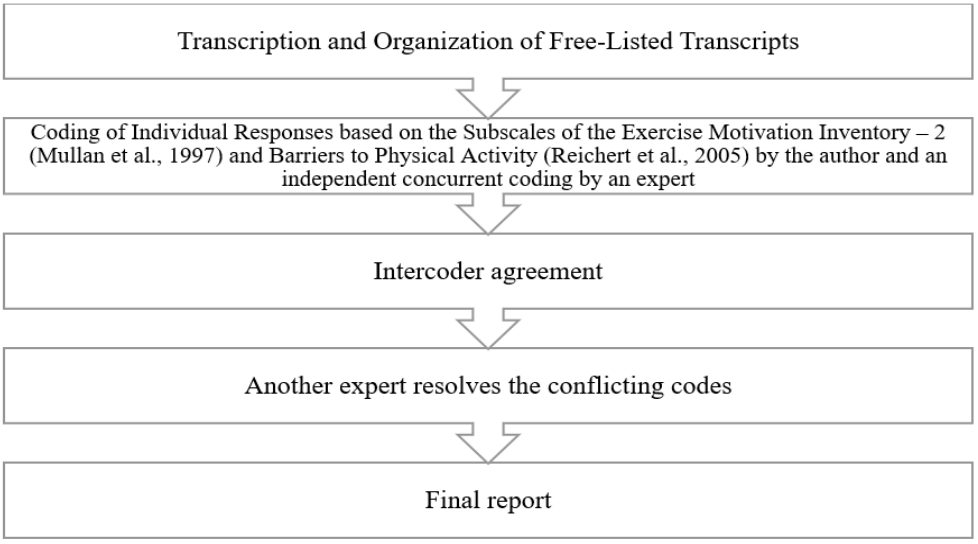

Figure 2. Process flow of the data analysis procedures

Result, Findings, and Discussion

Quantitative Phase of the Motives and Barriers to Exercise

General Motives to Exercise

The respondents of this study, composed of male and female students specializing in physical education, listed their motives for exercising. A total of 478 responses were obtained and coded using the EMI-2 subscales provided by Mullan et al. (1997). Table 1 shows the general motives to exercise among pre-service physical educators. It could be noted that "positive health" was the leading identified motive to exercise of the PSPEs among all the subscales with 39.02% of the total obtained results. Relative to this, it is worth noting that their foremost motive to exercise is essentially interrelated to maintaining good health and well-being. It is indubitably to recognize that PSPEs are integrally concerned with their general well-being rather than other factors to exercise. Consequently, "appearance" was pointed out as the second reason which also gained an observable high response of 27.65%. This motivator indicates that respondents are focused on developing physical attributes and avoiding body dissatisfaction and shame. On the other hand, "weight management" had 6.98% which is far different from the second motive. This can be associated with those respondents who are currently underweight or obese achieving their desired right amount of weight. Meanwhile, "strength and endurance" (6.72%) to improve the ability to carry out heavily loaded equipment and sustain it for weight training; "ill-health avoidance" (6.20%) to prevent getting illnesses and diseases which may drive them to get stronger immune system to protect them from any type of infirmity; "affiliation" (4.13%) some of the respondents stated that they are motivated because someone is inspiring, joining, and helping them to get their exercise aspiration; "stress management" (3.62%) a few collected responses indicated that they reason for exercising is to help them balance their psychological status; and "revitalization" (3.10%) to regain and boost body energy to feel good and be more productive, were likewise reported. Correspondingly, "enjoyment" acquired 0.78%

based on the responses. This signifies that their motives to exercise are to receive a good time or for recreation driven by intrinsic motivation - happiness. An equal result (0.52%) from the PSPEs on the items "challenge", and "social recognition" have been listed. Some of the respondents' motives are when they are experiencing body shame, turning it into a challenge and motivation to exercise and thus attain their set goals. While social recognition encapsulates that at some point, they desire to be acknowledged by someone and satisfy the pleasure produced by themselves or the other. More so, the most minor listed include "nimbleness", being more flexible and coping with the daily tasks given; "health pressures", a needed change of behavior and lifestyle; and "competition", to make themselves ready for upcoming events or any tournaments; all of which have a similar result (0.26%).

Table 1. General Motives to Exercise among PSPEs (EMI-2)

Subscales	*Frequency*	*Percentage*	*Sample Responses*
Positive Health	151	39.02%	"I want to be healthy"
Appearance	107	27.65%	"I want to tone my body structure"
Weight Management	27	6.98%	"To lose weight"
Strength and Endurance	26	6.72%	"Strengthen my muscles"
Ill-health Avoidance	24	6.20%	"To prevent health problems"
Affiliation	16	4.13%	"Someone to join you exercise"
Stress Management	14	3.62%	"It can lessen my stress"
Revitalization	12	3.10%	"To boost my energy"
Enjoyment	3	0.78%	"I enjoy exercising"
Challenge	2	0.52%	"When I get body shamed then I will exercise"
Social Recognition	2	0.52%	"Because I join pageants so I need to have a nice body, I want the body that I want"
Nimbleness	1	0.26%	"To be more flexible for all tasks given to me"
Health Pressures	1	0.26%	"My health because way back, I was sick, so my doctor recommended that I need to exercise"
Competition	1	0.26%	"For training"

Other Motives to Exercise

Responses that were not within the pre-identified subscales of the EMI-2 were coded separately in the light of the context of the participants and were developed as new and other motives to exercise. Depicted in Table 2 are the other motives to exercise among male and female pre-service physical educators. Among these were corroborated by Mungcal et al. (2020), particularly "time availability" - the top on the most classified list as it leads a little half of a quarter of the entire responses (21.98.%). This suggests that free time is an opportunity to take part in physical activities. Concurrently, the subscale "personal" which registered as second-highest constitutes a little less of the leading motives (20.88%). Almost all of the responses gathered specified an increase in self-confidence and attending to the interest of oneself. Cagas et al. (2010) also supported other responses identified in this research as "requirement" (15.38%) viewing it as a vital component in most of the courses where they are enrolled; "general fitness" (10.99%) a more enhancing the overall performance; "lifestyle" (8.79%) PSPEs manifested a motive to exercise to sustain their active and healthy lifestyle; and "athletic goals" (7.69%). Other respondents are currently athletes at the university and for them to perform well, they must have good physical composition, and continuously attain their specific target in the sport they are serving. On the other hand, a new subscale called

"social influence" (given by the content creators in the same field who are using social media platforms to deliver motivational videos) and "equipment and place" (having enough tools and equipment to utilize and the place is adequately equipped, some respondents would be eager to pursue exercise activities) which has a similar result (6.59%) were created adhering to the responses of the PSPEs. More so, "application" also emerged and was listed least as another motive to exercise. As was seen, the application talked about modern technology applications to monitor someone's progress in exercising.

Table 2. Other Motives to Exercise among PSPEs

Subscales	Frequency	Percentage	Sample Responses
Time Availability	20	21.98%	"Having enough free time
Personal	19	20.88%	"It boosts my self-confidence"
Requirement	14	15.38%	"The possible reasons for me to exercise are it is needed to my course"
General Fitness	10	10.99%	"To be physically active"
Lifestyle	8	8.79%	"As a physical education student, it gives me the motivation to have a physically active lifestyle."
Athletic Goals	7	7.69%	"Because I'm an athlete"
Social Influence	6	6.59%	"Seeing some gym instructor in my reels inspires and motivates me to work out more."
Equipment and Place	6	6.59%	"Right equipment to use" "a place that I can exercise properly."
Application	1	1.10%	"*kapag may application na natutulong sa pag mo-monitor ng progress*" (If there will be an application that will help to monitor progress)

General Barriers to Exercise

Apart from the motives to exercise among the PSPEs, there are barriers that hinder them from engaging and participating in such activities. A total of 455 responses were obtained from the PSPEs with regard to the general barriers to exercise (Table 3). Based on the results, it was manifested that "lack of time" consumed most of the PSPEs' responses obtaining more than half of the overall conclusion (76.13%). Most of them stated that jam-packed schedules prevent them from taking part in exercise activities. The second-highest subscale produced was the "feel too tired" which obtained a smaller percentage of the result from the first barrier (12.16%). This shows that due to plenty of external factors such as overflowing tasks and work, they cannot be able to exert energy, and thus impedes them from exercising. Accordingly, it has been also observed that some of the PSPEs (4.95%) have an underlying injury or existing disease which do not allow them to be actively engaged in physical activities. Furthermore, the "lack of money" (3.60%), and "fear of injury" (2.25%) were also generated based on some of the responses acquired. Although there are present and operating gyms and places, the shortage of financial income still obstructs their engagement in exercise. More so, the fear or concern of getting injured while performing activities and utilizing the equipment gives them an aversion that an accident that may occur while in participation. One of the last listed general barriers to exercise includes the "lack of company" (0.44%). This indicates that some of the participants needed to have someone who can go to and help them achieve their desired exercise goals. Subsequently, the "feel too old", and "dislike exercising" had no responses at all. PSPEs perceived that all ages can be exercise enthusiasts, and none of them agreed that they do not like to exercise.

Table 3. General Barriers to Exercise among PSPEs (Reichert et al., 2005)

Subscales	Frequency	Percentage	Sample Responses
Lack of Time	169	76.13	"I have no time to exercise"
Feel Too Tired	27	12.16%	"tiredness"
Have an Injury or Disease	11	4.95%	"Sickness, I have allergic rhinitis and when it hits me, I can't focus doing something"
Lack of Money	8	3.60%	"No money for a gym membership"
Fear or Injury	5	2.25%	"I'm scared of getting injured"
Lack of Company	2	0.90%	*"walang kasama"* (I have no company)
Feel Too Old	0	0.00%	-

Other Barriers to Exercise

Noting the other barriers to exercise among pre-service physical educators, a total of 234 responses were recorded. Table 4 displays the other barriers to exercise where it could be greatly spotted that a large number of responses were gathered from both male and female participants with regards to "interferes with school" with a frequency of 79 (33.76%), making the "academic stuff" the top cause of new and other barriers. Consequently, the feeling of being too lazy (25.64%) produced by some factors has a substantial impact on influencing PSPEs' involvement in exercise. Furthermore, the subscale "lack of equipment" (7.26%), and the "lack of motivation" (6.41%) with almost the same percentage were likewise reported. These two could be interrelated with each other in the sense that the motivation to exercise decreases when there is an inadequate tool and apparatus to utilize. Similarly, "no convenient places" (there is not enough space at home and the gym is too far) and "family obligations" (prioritizing business and work at home) garnered 5.98% and 4.27% respectively which manifests that these two were part of the existing reasons that hinder PSPEs to exercise. It could also be seen that "personal barriers" like afraid of developing too many muscles in the body (3.42%) subsist along "with food" (2.99%) whereas the Province of Pampanga labeled as the Culinary Capital of the country, is inevitable for Kapampangan to be a food lover. The same frequency of 5 (2.14%) was captured in "interferes with social life" and "mobile devices". This is because of the influence of peers and the choice to just merely browse social media and other applications. Additionally, "interferes with work" (1.71%) consumed most of the time at work; "bad weather" (1.28%) too much heat; "family does not encourage" being told to stop dancing; and "lack of knowledge" information to proper exercise processes was not sufficiently acquired, both have a similar result (0.85%) and were also listed reasons for not pursuing exercise. Lastly, an equal frequency of 1 (0.43%) was documented on "medical problems" (body unresistant), "takes too much discipline" (exercise participation inconsistency), and "pandemic" (the anxiety of being infected by COVID-19 from others).

Table 4. Other Barriers to Exercise among PSPEs

Subscales	Frequency	Percentage	Sample Responses
Interferes with School	79	33.76%	"A lot of things to do especially school activities"
Too Lazy	60	25.64%	"Lazy to do exercise"
Lack of Equipment	17	7.26%	"Access to equipment/lack of equipment"
Lack of Motivation	15	6.41%	"The barrier that prevents me from exercising is simply motivation."
No Convenient Places	14	5.98%	"a proper place to exercise."
Family Obligations	10	4.27%	"Well, I think, a lot of work from home."

Subscales	Frequency	Percentage	Sample Responses
Food	7	2.99%	"Actually, it's the foods, whenever the people around me are eating, I am forced to also eat"
Interferes with Social Life	5	2.14%	"Also, the people around me have sometimes been influenced by other things."
Mobile Devices	5	2.14%	"*Mas gusto kong mag browse sa social media kaysa mag exercise*" (I'd rather browse on social media than to exercise)
Interferes with Work	4	1.71%	"*Maraming ginagawa at halos nasa trabaho ako kaya hindi na makapag exercise*" (Too many things to do and I'm always at work that's why I cannot exercise)
Bad Weather	3	1.28%	"The heat from the sun"
Family does not Encourage	2	0.85%	"My mom always scolded me and being told to stop exercising like dancing because they said my body looks so thin then I do exercise"
Lack of Knowledge	2	0.85%	"*Mahirap umpisahin lalo na kung hindi ka sanay at di alam ang gagawin*" (It's hard to start especially when you are not used to and do not know what to do)
Medical Problems	1	0.43%	"*Hindi kaya ng aking katawan*" (My body can't do it)
Takes too much Discipline	1	0.43%	"I have no consistency in so many things which I don't even also like about myself"
Pandemic	1	0.43%	"One of the things that hinder me is covid"

Qualitative Phase of the Motives and Barriers to Exercise among PSPEs

General Motives to Exercise

It was remarkably determined that positive health topped the general motives to exercise among Filipino pre-service physical educators. This evidence pictures them as they are yielding toward living a healthy life. Accordingly, to have a generally good condition and a satisfying way of life is one of the primary goals of their degree - physical education. On this note, attaining, sustaining, and promoting this may prevent cardiovascular diseases, reduce illnesses, and other related infirmities, and thus improve functional abilities because of the wide range of benefits that regular exercise can produce (Gjestvang et al., 2020). Importantly, the optimistic status of psychological well-being affects the PSPEs' intention as the mind is recognized as our body's central control and command. Hence, instilling a positive state of mind toward exercising will give way to adequately motivating the body to do such. These PSPEs' main and major reasons why involvement in physical activities continued unveiled that practicing healthy behaviors serves as a foundation to maintain the quality of life. This may also corroborate the Filipino "at-risk and obese" who discovered that maintaining good health and being healthy is considered their top motive to exercise (Mungcal et al., 2020). It is worth noting that prioritizing physical health along with the emotional, mental, and social aspects, as a holistic dimension of a healthy person, are their leading motives. Subsequently, considering this preeminent result showcased a strong enthusiasm to exercise and have sound health (O'Hara et al., 2019).

The following statements support this finding:

"To have positive health means to prevent acquiring diseases and illnesses

which may affect the overall function of the person. We exercise because we want to maintain our physical, mental, social, and emotional capability to carry out daily tasks." (P5)

"By exercising, we can definitely say that we can achieve holistic health, specifically physical health." (P8)

"...we firmly believe with the philosophy that to have "a sound mind in a sound body" is important to achieve a healthy lifestyle. It was perceived as the leading motive because to have positive health is something that we aspire to not only physically but also mentally and the other aspects of our being." (P10)

An observable result was established under appearance and ranked second among all other general motives of PSPEs in exercising. This could be associated with earning self-esteem, being attractive, and having a positive body image at the same time since the body is the first one being seen by others (Homan & Tylka 2014). This further implies that aside from external outcomes, there is healthy body acceptance and appreciation stimulated within the PSPEs when the desired body is achieved. Relatively, Brudzynski and Ebben (2010) claimed that physical appearance might potentially be an influential factor in increasing exercise participation. Contrary to this, as a physical education major student, social judgment may be received when the body is not suitable for what it perceives it should be. On this note, it became one of their reasons to work hard on external bodily improvement. This result significantly depicts that male PSPEs' reason to exercise is to showcase phenotype, more likely to develop bodily characteristics such as muscularity and masculinity. This can also be associated with aiming to be attractive among others of the same gender. It could be noted that having a good physique is the leading and foremost response. On this note, the focus of the male pre-service physical educators is to be mesomorph individuals. This extrinsic motivation is a fruit of persistence in exercising to achieve a body-standard image (Fisher et al., 2017; Marin et al., 2018). Having said this, women also usually portray the ideal of meeting society's labeled body appearance (Casale et al., 2019). To have a beautiful body marked the highlights of the responses. For these reasons, other people could be encouraged and influenced by boosting their interest in enhancing the structure's body. Hence, this captivates PSPEs' motive to exercise and work out on their physical attributes and be physically fit.

Samples responses include:

"It also boost confidence" (P4)

"To have the body that I want, like having abs and muscles." (P5)

"It is a little bit funny when we are PE teachers, but we do not have the standard physique of a PE teacher." (P8)

"Judgment from people is rampant these days. Hence, appearance is highlighted as one of the motives to avoid society's standards… a physically fit body is a trend these days, especially for young ones, and the only reason is to have an aesthetically pleasing body, I want to have it too, though." (P10)

Other Motives to Exercise

Time availability ranked first as the leading other motive to exercise among the PSPEs. It is undeniably perceivable that these respondents face various demands at school and at home. Therefore, having organized and planned daily activities would be of great help to appropriately maximize time and spend it on a more active activity. A scheduled time should be practiced to regularly maintain exercise which may enhance physical abilities at large. This clearly depicts that the PSPEs will exercise when the opportunity of the available time occurs. For instance, instead of sitting and utilizing free time to screen, they allocate it to biking, and dancing, especially during weekends. The vitality of exercise contributing to the health and well-being of a person is an optimum level of cognizance, and thereby, making time to keep up a healthy lifestyle is necessary. Additionally, PSPEs are maximizing their time in physical-related courses, including playing sports, dancing, and swimming. These multiform exercise activities sufficiently generate immense holistic benefits (Spiering et al., 2021). In this sense, it was evidently shown that "time availability" allows

them to participate in exercise undertakings (Sato et al., 2019).

This was derived from the following responses:

"...knowing the importance of physical activity for health and well-being, sometimes I make time for exercise in order for me to maintain my healthy body." (P4)

"When I have my available and free time, I will spend it to more active activities like biking and dancing." (P5)

"I always try to find time during the weekend to at least dance an hour or two because it makes me weak when I don't do physical activity in a single day." (P7)

"Since the 2nd-year's curriculum is more focused on physical activities; namely swimming, individual and team sports, dances, and many more, I can say that those are the times I can be active." (P8)

Personal motives also garnered a close percentage from the first one. Looking at this subscale, it can be described that PSPEs possess their motives to exercise such as to gain confidence which most of the responses fall into. Building confidence through exercise could be an excellent factor for pre-service physical educators to pursue their area of interest where exercise activities are a fundamental part of the courses. Similarly, it can elevate the multiform aspect of self-confidence among them like how they present themselves to others, social interactions, and good relationships (Merica et al., 2022). Engagement in different physical activities generates self-fulfillment as it satisfies the inner self which may deliver a better feeling of enjoyment or recreation, good vibes, relaxation, and an increased number of endorphins or happy hormones. All of which can manifestly be entrenched in continuous engagement in exercise. Moreover, because of this motivational factor, the improvement on the outside component of a person could integrally develop a way of expression to others such as being more comfortable. These intrinsic motivations exemplify that the product they will produce through exercise leads them to build self-believe and self-trust (Almeida et al., 2020).

Examples of the participants' responses are:

"It gives me happy vibes and a positive mind." (P2)

"I engage in exercise to boost my confidence because engaging in regular exercise can lead to improvements in my physical fitness, and physical appearance, which can enhance my self-confidence and self-esteem." (P4)

"This makes me free and comfortable. It taught me to express myself in many ways which did help me in boosting my confidence." (P7)

The other motive to exercise for Filipino pre-service physical educators arrived third considering the responses which mostly stated that their degree or program motivated them to be an exerciser. This other motive emphasizes that they need to be attached to exercise activities as it would help them excel in their specialization area. This finding further indicates that participants perceived exercise as a required physical activity contributing to their major courses (Invernizzi et al., 2019). This shows that they should be more engaged and fully participate in exercise activities to satisfactorily fulfill their roles (Demchenko et al., 2020). It is good to note that these students specializing in physical education are capable of continuing regular active lifestyles as this could be an avenue to further practice their future profession, especially in the field. This postulates that courses under their program, or in general, make them feel driven to be enthusiastic promoters of exercise as it influences them to constantly engage in various forms of physical activities. The significance of physical education is not only confined to educating solely the body but also promoting the vibrant characteristics and traits of Filipinos which are very dynamic to different kinds of sports and dance. It appeared in the study of Jacob and Felipe (2019) that physical education, as a subject offered, possesses healthful activities to acquire ultimate benefits and foster its underlying purposes. Therefore, physical educators should be the first and foremost motivator of exercise.

Some of the mentioned responses are:

"All students must take physical education classes which require them to engage in physical activities. It creates a sense of obligation and accountability for us to engage in regular exercise since it will affect their grades. This is also great because you can engage yourself in physical activities as well as comply with your course requirements." (P4)

"Yes, it is required. But I do enjoy it a lot since the courses are very close to my heart, especially in sports and dance." (P7)

"As stated, exercise is a requirement in some of our courses, so the thing that we must just do is enjoy because to pass the subject, we must perform." (P8)

General Barriers to Exercise

It was shown that both male and female PSPEs' responses have similar findings on their barriers to exercise. It was showcased that they do not have enough time, concluding it as the leading hindrance to participating in such. Having sufficient and enough time for a person to meet their needs or wants, particularly in exercise, has a big role in one's overall health and wellness. However, it was disclosed that this is a major problem among them as several obstacles come their way as students. This can be associated with family obligations such as doing household chores, taking care of the niece, and accompanying parents with other businesses. More so, there are respondents who are working students wherein they will choose to dedicate their available time to attend to their work and provide for their needs, especially financial support. In addition, school requirements also prohibit them from taking part in physical activities due to the overload of tasks. Other affiliated responsibilities like in church and the organization were also observed as obstructions to exercise as the participants need to fulfill their prior commitment. Relatively, PSPEs tend to choose other things like going out with friends, reading books, and just sleeping rather than being exposed to a more physically active one. Having fully loaded schedules every day is a difficult task to fulfill (Atkinson et al., 2008). Concerning this, it is noticeable that there is a time constraint that impedes respondents from attaching themselves to physical activities.

The participants' responses in line with this finding include:

"I am a working student." (P1)

"The demands of my major require me to dedicate a lot of time to study, complete my assignments, and review for my upcoming exams. As a result, my schedule becomes heavily focused on academic responsibilities, leaving me with little energy or time to devote myself to exercises." (P4)

"Busy schedule at home due to many responsibilities" (P5)

"...organization works" (P8)

"...church commitment" (P10)

It could be seen in the second listed barrier that PSPEs are tired because of various reasons, particularly of the vast number of activities and requirements needed to submit as part of their academic courses. These significant findings hold back the PSPEs from pursuing their willingness to join and do exercise. Correspondingly, this can also be related as well with having various responsibilities and obligations that PSPEs are more focused on that may result in insufficient time to exercise. The bothering noises and circumstances happening in the surroundings are likewise added as a hindrance as they affect the mental health of the students. Other situations constituting this barrier comprise challenges in personal life and external factors (Bjornsdottir & Halldorsdottir, 2012). Traveling back and forth from home to school every day is another cause contributing to energy depletion because it consumes more than an hour for PSPEs who reside away from the university. This concern is especially evident during days when there is heavy traffic. Also, the challenges of having family problems, and the unending workloads in academics and at home create a static routine and unstable psychological condition. It is for this reason, that the feeling of being tired and exhausted due to the increase in obligatory tasks is being experienced by the respondents (Lewis & Cramp, 2010; Tornbom et al., 2017). In addition, the impact generated by this barrier on the behavior of the students gives a negative result, re-

stricting them from not having an active lifestyle and just merely choosing to sleep and rest (Stamp et al., 2019).

The PSPEs' responses related to this theme are:

"The travel time of going to school every day for face-to-face classes is kind of tiring." (P2)

"Due to my unending workloads sometimes, I am too tired to engage in physical activity. I would rather have a rest than exercise." (P4)

"If mentally unstable, I cannot focus which will lead to laziness in exercise. I'd rather rest and feel at peace." (P6)

"...family problems leading to unstable mental health." (P9)

Other Barriers to Exercise

An immense number of responses related to schoolwork were captured as other barriers to PSPEs. Having said this, pursuing higher education programs, especially courses that focus on physically associated demand, is an energy-and-time-consuming component added to the daily lives of these students. Instead of spending time doing target exercise plans, PSPEs prefer to accomplish the activities required in each course. Furthermore, the draining demand of academic courses pushed the respondents to maximize their physical, emotional, and mental energies just to comply. Considering the tedious and excessive school requirements such as examinations, projects, activities, performances, and other extracurricular activities contributed to their lack of motivation to involve themselves in physical activities and exercise (Dziewior, 2021). These PSPEs are facing various workloads that prevent them from putting into priority their physical and health development.

The following responses support this:

"...so many requirements with academic courses plus the research output. Physically, emotionally, and mentally tired." (P2)

"Too much school work results in a lack of time for exercise." (P8)

"...instead of exercising, I prefer to do and accomplish my requirements in each course." (P10)

The second listed other barrier among male and female respondents was "too lazy". Due to the pointed-out responses, it was conceived that with responsibilities and numerous existing and coming work, PSPEs experience exhaustion which results in too much laziness in physical activities. This observation concluded that respondents want to just rest rather than utilize their time to exercise. From this viewpoint, it may be seen that instead of choosing to be active, they opted to just utilize their time with other things including navigation of different sites including social media using their mobile and technology devices, or merely lying in bed watching favorite movies or listening to most liked songs and spend time to socialize with friends and families. Therefore, being too lazy affects a person's behavior and way of life resulting in passive and unhealthy daily routines (Portela-Pino et al., 2019).

Sample responses supporting this finding include:

"Feeling lazy is one of the obstacles I have to face because if you think that you are too lazy to exercise your body will follow. And as of now, when I am having face-to-face classes, I am sometimes too lazy to exercise because of the exhaustion my body feels." (P4)

"...better to rest rather than do some things." (P6)

"From the school works, we tend to just sleep, eat, talk to our loved ones, or play online games rather than exercise." (P8)

Physical Activity Plan

The initial draft of the physical activity plan (PAP) was developed based on the results of the study, which are motives and barriers of the pre-service physical educators, and inputs from the focus group discussion and went through a validation process from experts leading to a contextualized and valid physical activity plan.

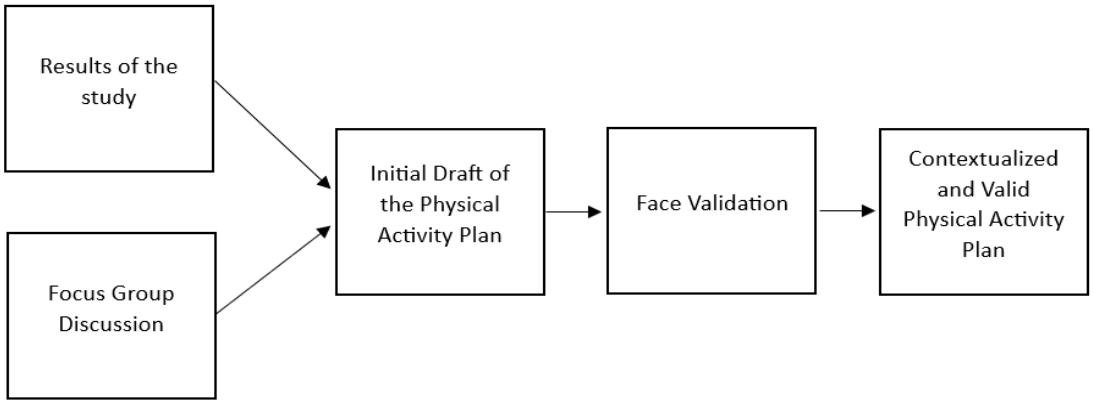

Figure 3. Process flow of the development of the physical activity plan

The draft considered the top general motives particularly "positive health", "appearance" and "other motives" - including requirement and time availability; and general top barriers which are "other barriers"- including interfering with school work and being too lazy; "lack of time" and "feel too tired".

The plan also incorporated and supported the suggestions of the faculty members of the BPEd program in crafting such by giving suggestions and recommendations for activities in line with the general motives and barriers of the PSPEs.

Table 5. Summary of Suggestions of the Faculty Members

Faculty Code	Suggestions/Recommendations
Faculty Member 1	"We should integrate exercises in activities/topics or lessons to increase the physical activity participation of students and have seminar-workshops or training workshops."
Faculty Member 2	"We should have a wellness program such as having Zumba once a month"
Faculty Member 3	"Having a sports club may also be considered for students"
Faculty Member 4	"Provide seminars, with a qualified resource speaker for students that may develop and increase their knowledge about exercise, fitness, and health"
Faculty Member 5	"Integrate exercise in discussion"

The initial draft of the Physical Activity Plan has certain parts which were the rationale, proposed framework, vision and mission of the physical activity plan, program activities, and proposed short-term physical activity plan. There were experts in the field of teaching physical education who validated the physical activity plan. These experts for the validation of the Physical Activity Plan are master's degree holders in Physical Education. The experts came from three different Physical Education teacher education institutions in the Central Luzon Region. Expert 1 is a program chairperson of the BPEd program of a higher education institution in the Province of Bataan, an accreditor of the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), Inc., and holds a doctorate degree in education with a specialization in physical education and sports. Meanwhile, expert 2 is a permanent faculty member of a PETE in Pampanga where the study was conducted to initiate inputs from an insider's perspective. Lastly, expert 3 was the former program head of the BPEd program of a local college in Pampanga who holds a master's degree in physical education and sports, a prolific researcher in the field.

Expert 1 suggested that additional literature about health and physical inactivity should be added to the rationale; dimensions and key reasons should be added to the program of activities and short-term physical activity plan and merge cells in the table.

Expert 2 recommended that additional literature and the problem should be clearly established; the framework should be improved by its aesthetic and suggests that physical activities of the programs should be the focus; the vision is too long and attempts to focus on the core principles; the grammar and assertions of the mission should be updated and improved; limit the schedule of activities and specify the activity for each objective.

Expert 3 suggested that citations should be checked and suggested vision and mission statements.

These suggestions and comments were all incorporated into the Physical Activity Plan.

Physical Activity Plan

Rationale:

Students today are susceptible to several technological developments and comforts designed to make life simpler and more pleasant, which is why they are becoming less active. Sedentary behavior increases the risk of chronic illnesses such as type 2 diabetes, coronary heart disease, and various malignancies that are linked to worldwide mortality (Booth et al., 2012; World Health Organization [WHO], 2020). Additionally, 7.2% and 7.6%, attributed to physical inactivity, of all-cause and cardiovascular disease deaths. From 1.6% for hypertension to 8.1% for dementia, non-communicable illness proportions linked to physical inactivity range from these numbers. (Katzmarzyk et al., 2021). It is also stated by the rationale of the World Health Organization (WHO) that the fourth most significant risk factor for death is insufficient physical exercise. Insufficient physical exercise is responsible for roughly 3.2 million deaths and 32.1 million Disability Adjusted Life Years [DALYs] annually (representing about 2.1% of all DALYs worldwide).

Physical activity is identified as one of the most important lifestyle factors that can maintain a healthy quality of life (WHO, 2022; Center for Disease Control and Prevention [CDC], (n.d). Participation in regular physical activity is associated with several health benefits including weight loss and reduced risk of heart disease, type 2 diabetes, and some types of cancer (WHO, 2020). Filipinos found out that participating in activities that can benefit their health such as "Zumba" was identified as a determinant of their healthy lifestyle journey (Yamasaki et al., 2021). As stated by Cagas et al. (2022), participating in yoga activities can promote and motivate individuals to stay positive about their health and fitness, resulting in "positive affect", "health and fitness", "nimbleness", "mind-body integration", and "coping/stress management".

Moreover, physical activity has been a solution to reduce the sedentary lifestyle and people who participate with different motives.

The growth and general well-being of an individual depend heavily on physical activity. Schools must implement a well-structured, comprehensive physical activity plan to give students opportunities to be physically active and promote their general health, and academic performance. A physical activity plan has been developed based on the results of the motives and barriers of the pre-service physical educators and inputs from the focus group discussion. This may open the door to encouraging the students to exercise and address the problems and hindrances in participating in the exercise.

Regular physical activity is essential for maintaining and improving overall health and well-being. Numerous scientific studies have consistently shown the positive effects of physical activity on various aspects of physical and mental health. Developing a personalized physical activity plan can help individuals achieve and maintain optimal health, prevent chronic diseases, and enhance their quality of life. The following rationale outlines the key reasons for the need to develop a physical activity plan, supported by relevant literature:

Disease Prevention and Management. Regular physical activity plays a crucial role in preventing and managing various chronic diseases. According to the Centers for Disease Control and Prevention (CDC), physical activity can help reduce the risk of developing conditions such as cardiovascular disease, type 2

diabetes, certain types of cancer, and obesity (CDC, 2020a). Studies have demonstrated that physically active individuals have lower mortality rates and a reduced risk of developing these chronic diseases compared to sedentary individuals (Warburton et al., 2010; Lear et al., 2017).

Weight Management and Obesity Prevention. Physical activity is a fundamental component of weight management and obesity prevention strategies. Engaging in regular physical activity helps maintain a healthy weight by balancing energy expenditure and caloric intake. The World Health Organization (WHO) recommends at least 150 minutes of moderate-intensity aerobic activity or 75 minutes of vigorous-intensity aerobic activity per week to prevent weight gain (WHO, 2020). Several studies have highlighted the effectiveness of physical activity in weight management and its role in preventing obesity (Jakicic et al., 2019; Swift et al., 2020).

Mental Health and Emotional Well-being. Physical activity has a profound impact on mental health and emotional well-being. Regular exercise has been linked to a reduction in symptoms of depression, anxiety, and stress (Schuch et al., 2018; Rebar et al., 2019). Physical activity stimulates the release of endorphins, neurotransmitters that promote feelings of happiness and well-being, leading to improved mood and reduced psychological distress (Boecker et al., 2017). Developing a physical activity plan can provide structure and motivation to engage in regular exercise, thereby enhancing mental health outcomes.

Cognitive Function and Brain Health. Physical activity is not only beneficial for the body but also for the brain. Research suggests that regular exercise improves cognitive function, memory, and attention span (Hillman et al., 2008; Loprinzi et al., 2020). Physical activity promotes the growth of new neurons, increases cerebral blood flow, and enhances the release of neurotrophic factors, all of which contribute to improved brain health (Cotman et al., 2007; Erickson et al., 2019). By incorporating physical activity into a comprehensive plan, individuals can optimize their cognitive abilities and reduce the risk of cognitive decline.

Enhanced Quality of Life. Engaging in regular physical activity has a direct impact on an individual's overall quality of life. Physical activity improves functional capacity, increases energy levels, and enhances the ability to perform daily activities (Borodulin et al., 2016). It promotes social interaction, boosts self-esteem, and fosters a sense of accomplishment (Bize et al., 2007). A physical activity plan tailored to individual preferences and capabilities can provide structure, accountability, and motivation, leading to long-term adherence and an improved quality of life.

Increase Cardiovascular Endurance and Stamina. Engaging in aerobic activities like group fitness classes, running/jogging clubs, and cycling groups helps improve cardiovascular endurance and stamina. These activities involve continuous movement and elevated heart rate, leading to increased lung capacity, improved circulation, and enhanced overall fitness (American College of Sports Medicine, 2020). The budget for group fitness classes and cycling groups can cover instructors, equipment, and facility rentals (if needed).

Improve Strength and Muscular Endurance. Strength training activities, such as using gym equipment, bodyweight exercises, and resistance band workouts, promote muscle strength and endurance. These exercises increase muscle mass, improve bone health, and enhance functional capacity (Garber et al., 2011). Yoga and Pilates classes can also contribute to strength and core stability. The budget for gym memberships, resistance bands, and class fees may be required.

Enhance Flexibility and Joint Mobility. Flexibility and joint mobility are crucial for injury prevention, posture improvement, and overall physical performance. Activities like yoga, stretching routines, dance classes, and martial arts can improve flexibility, range of motion, and joint health (American College of Sports Medicine, 2020). Yoga and Pilates classes offer structured flexibility training, while dance and martial arts classes provide dynamic movement patterns. These activities may involve membership fees or class fees.

Promote Mental Well-being and Stress Management. Physical activity has a positive

impact on mental health by reducing stress, improving mood, and promoting relaxation (Stubbs et al., 2017). Yoga, meditation, outdoor hikes or nature walks, and mindfulness workshops contribute to stress reduction and improved mental well-being. The budget for yoga classes, meditation workshops, and therapy services may vary.

Foster Social Connections and Community Engagement. Physical activity can be an excellent opportunity for college students to socialize, build connections, and engage with their community. Intramural sports leagues, fitness challenges, outdoor adventure clubs, and fitness buddy systems encourage teamwork, camaraderie, and social interaction. These activities promote a sense of belonging and provide opportunities for students to meet new people with similar interests. The budget for intramural sports leagues or occasional events like fitness challenges may be required, while other activities may be cost-free.

Figure 4. Conceptual Framework of the Proposed Physical Activity Plan.

Vision of the Physical Activity Plan

A physical activity plan that promotes active engagement to students through the implementation of various physical activity programs. It intends to create healthier and more active individuals that will encourage all students to increase their participation in exercise; health promotion; education and awareness; collaboration and partnership; and improvement to achieve overall development.

Mission of the Physical Activity Plan

To provide opportunities for students to live an active lifestyle through accessible, engaging, and evidence-based physical activity programs that inspire individuals to adopt, maintain, and increase physical activity participation.

Program of Activities

Goal: By 2024, the Bachelor of Physical Education program will have the following programs considering the top motives of the pre-service physical educators (Positive Health, Appearance, other motives (requirement). Since "lack of time" and "interferes with school" were also mentioned as the top barriers of PSPEs, integrating exercises in discussion was also necessary.

Objectives/ Goal	Activity/ Strategy	Persons Involved	Budget	Dimension	Success Indicator/s	Time Frame
• To understand health and fitness as a way to improve quality of life and positive health	Seminar in health and fitness	Fitness Expert, Physical Education expert and students	P5,000	• Disease Prevention and Management • Enhanced Quality of Life • Cognitive Function and brain health	90% of the students attend the seminar on health and fitness	1-day seminar
• To identify bad eating habits/pattern • To identify the different types of nutrition • To apply healthy eating as a lifestyle • To understand that nutrition is part of being healthy	Seminar in Exercise and Sports Nutrition	Dietitian, students, and teachers	P5,000	• Weight Management and Obesity Prevention • Disease Prevention and Management • Enhanced Quality of Life	90% of the students attend the seminar on nutrition	1-day seminar
• To identify different types of exercises • To create an exercise program that suits and achieves their personal and fitness goal	Seminar-workshop in exercises (prescription and programming)	Fitness Expert coaches in exercise, students, and teachers	P5,000	• Weight Management • Disease Prevention and Management • Enhanced Quality of Life	90% of the students attend and participated the seminar-workshop in exercise (prescription and programming)	1-day seminar

Matrix of Integrated Activities (*continued*)

1. To identify certain exercises that can be integrated in discussion 2. To prepare sets of exercises and activities that can be integrated in topics and discussion	Seminar-workshop in Integrating exercises in discussion	Expert in Physical Education and Teachers teaching Bachelor of Physical Education students	P5,000	1. Weight Management 2. Disease Prevention and Management 3. Enhanced Quality of Life 4. Disease Prevention and Management 5. Mental Health and emotional well-being	100% of the teachers attend and participate in the seminar-workshop in integrating exercise in discussion	1-day seminar
Goal: ● To increase physical activity participation of students ● To improve skills and knowledge in terms of sports and dances ● To build up sportsmanship and camaraderie ● To enhance strength and endurance	Sports Club ● Basketball ● Volleyball ● Table Tennis ● Badminton ● Arnis ● Sepak ● Swimming ● Taekwondo ● Athletic Events Dance/Cultural Club 1. Contemporary 2. Hip hop 3. Folk Dances	Assigned coaches for sports, and students	P10,000	6. Foster social connections and community engagement 7. Improve strength and muscular endurance 8. Enhance Flexibility and joint mobility 9. Increase cardiovascular endurance and stamina 10. Enhanced quality of life	100% of the students join sports or dance/cultural club based on their	Ongoing, recruitment and practices
2. To build sportsmanship and camaraderie 3. To increase student engagement in physical activity 4. To increase confidence 5. To improve skills in dancing and playing sports 6. To develop and improve motor abilities	Sports and Cultural Fest Sports: • Basketball • Volleyball • Table Tennis • Badminton • Arnis • Sepak • Swimming • Traditional Games • Athletic Events Cultural: 1. Contemporary 2. Hip hop 3. Folk Dances	Teachers and Students Officials per game and coaches	P20,000	11. Foster social connections and community engagement 12. Cognitive function and brain health 13. Weight management and obesity prevention 14. Promote mental well-being and stress management	100% of the students and teachers participate in the sports and cultural fest.	Before the Christmas break in December. 2024

Proposed Short-Term Physical Activity Plan (Activity-Specific)
This may be followed for the motives of the students in ***"positive health and appearance."***

Objective	**Activity**	**Target Clientele**	**Budget**	**Dimension**	**Success Indicators**	**Time Frame**
To increase cardiovascular endurance and stamina of the students	Group fitness classes (e.g., aerobics, Zumba)	BPEd Students	P10,000	• Disease Prevention and Management • Enhanced Quality of Life • Increase cardiovascular endurance and stamina	Improved cardiovascular endurance	Ongoing, 3 times/week
	Running/ jogging clubs	BPEd Students	P5,000		Increased running/ jogging distance/time	Ongoing, 2 times/week
	Cycling groups	BPEd Students	P5,000		Increased cycling distance/time	Ongoing, 2 times/week

Objective	**Sports team participation**	**Target Clientele**	**Budget**	**Dimension**	**Enhanced performance in sports**	**Time Frame**
To improve strength and muscular endurance of the students	Strength training (e.g., core training, calisthenics)	BPEd Students	P30,000	• Disease Prevention and Management • Enhanced Quality of Life • Improve strength and muscular endurance	Increased muscle strength and endurance	Ongoing, 3 times/week
	Bodyweight exercises (e.g., push-ups, squats)	BPEd Students			Ability to perform more repetitions	Ongoing, 3 times/week
	Resistance band workouts	BPEd Students			Increased resistance band tension/progression levels	Ongoing, 2 times/week

Objective	*Yoga and Pilates classes*	*Target Clientele*	*Budget*	*Dimension*	*Improved flexibility and core strength*	*Time Frame*
To enhance flexibility and	*Yoga and Pilates classes*	*BPEd Students*	*P30,000*	• *Disease Prevention and Management*	*Increased range of motion and flexibility*	*Ongoing, 2 times/week*

joint mobility of the students	*Stretching routines before and after workouts*	*BPEd Students*		• *Enhanced Quality of Life* • *Enhance flexibility and joint mobility*	*Improved flexibility in specific muscle groups*	*Ongoing, daily*
	Dance classes	*BPEd Students*			*Enhanced coordination and range of motion*	*Ongoing, 1-2 times/week*

Objective	**Tai Chi or martial arts classes**	**Target Clientele**	**Budget**	**Dimension**	**Improved balance, posture, and joint mobility**	**Time Frame**
To promote mental well-being and stress management	Yoga and meditation classes	BPEd Students	P30,000	• Disease Prevention and Management • Enhanced Quality of Life • Promote mental well-being and stress management • Mental health and emotional well-being	Reduced stress levels and improved relaxation	Ongoing, 2 times/month
	Outdoor group hikes or nature walks	BPEd Students			Increased sense of well-being and connection to nature	Ongoing, once a month
	Mindfulness workshops	BPEd Students			Enhanced mindfulness skills and stress coping	One-time event

Objective	**Activity**	**Target Clientele**	**Budget**	**Dimension**	**Success Indicators**	**Time Frame**
To foster social connections and community engagement	Intramural sports	BPEd Students	P45,000	• Disease Prevention and Management • Enhanced Quality of Life • Foster social connections and community engagement • Weight management and obesity prevention	Increased social interaction and team camaraderie	Varies
	Group fitness challenges	BPEd Students	P5,000		Active participation and completion of challenges	One-time event
	Outdoor adventure clubs	BPEd Students	P40,000		Opportunities for teamwork and outdoor exploration	Ongoing, 1-2 times/month
	Fitness buddy system	BPEd Students	P20,000		Accountability and support in physical activities	Ongoing

Note: The budget provided is an estimate and can vary depending on the specific resources and facilities available at the college or university. Additionally, the time frame for each activity can be adjusted based on the availability and preferences of the college students.

Integration of Results and Findings

General Motives of PSPEs

A total of 478 responses were obtained and coded using the EMI-2 subscales provided by Mullan et al. (1997). Responses that were not identified on the subscales were coded as "other motives". The results were as follows; "positive health" (*n* = 151; 39.02%); "appearance" (*n* = 107; 27.65%); "weight management" (*n* = 27; 6.98%); "strength and endurance" (*n* = 26; 6.72%); "ill-health avoidance" (*n* = 24; 6.20%); "affiliation" (*n* = 16; 4.13%) "stress management" (*n* = 14; 3.62%); "revitalization" (*n* = 12; 3.10%); "enjoyment" (*n* = 3; 0.78%); "challenge" (*n* = 2; 0.52%); "social recognition" (*n* = 2; 0.52%); "nimbleness" (*n* = 1; 0.26%); "health pressures" (*n* = 1; 0.26%); and "competition" (*n* = 1; 0.26%).

Other Motives of PSPEs

A total of 91 out of 478 responses were coded as other motives of the PSPEs, particularly "time availability" (n = 20; 21.98%); "personal" (n = 19; 20.88%); "requirements" (n = 14; 15.38%); "general fitness" (n= 10; 10.99%); "lifestyle" (n = 8; 8.79%); "athletic goals" (n = 7; 7.69%); "social influence" (n = 6; 6.59%); "equipment and place" (n = 6; 6.59%) and "application" (n = 1; 1.10%)

General Barriers to PSPEs

Apart from motives, there were hindrances that the PSPEs faced in participating in the exercise. There were 455 responses in total that were obtained of their barriers, particularly; "lack of time" (*n* = 169; 76.13%); "feel too tired" (*n* = 27; 12.16%); "have an injury or disease" (*n* = 11; 4.95%) "lack of money" (*n* = 8; 3.60%); "fear of injury" (*n* = 5; 2.25%); and "lack of company" (*n* = 2; 0.90%).

Other Barriers to PSPEs

Responses that were not coded within the subscales of the barriers to physical activity of Reichert et al. (2005) were coded as other barriers and there was a total of 234 out of 455 responses. These other barriers were "interferes with school" (n = 79; 33.76%); "too lazy" (n = 60; 25.64%); "lack of equipment" (n = 17; 7.26%); "lack of motivation" (n = 15; 6.41%); "no convenient places" (n = 14; 5.98%); "family obligations" (n = 10; 4.27%); "personal" (n = 8; 3.42%); "food" (n = 7; 2.99%); "interferes with social life" (n = 5; 2.14%); "mobile devices" (n = 5; 2.14%); "interferes with work" (n = 4; 1.71%); "bad weather" (n = 3; 1.28%); "family does not encourage" (n = 2; 0.85%); "lack of knowledge" (n = 2; 0.85%); "medical problems" (n = 1; 0.43%); "takes too much discipline" (n = 1; 0.43%); and " pandemic" (n = 1; 0.43%).

The qualitative phase of the general motives to exercise among PSPEs unveiled that they are exercising to continuously acquire and sustain positive health and well-being. Involvement and participation in regular active physical activities were stipulated as they bring benefits and contribute to the holistic health of the participants. The exposure and engagement in exercise produced multi-forms of health factors namely physical, emotional, mental, social, and spiritual. These components generated congruency in the lives of the participants. In addition, having a masculine and well-shaped body was likewise taken down as the second-leading motive among participants. This manifested that PSPEs are motivated to be physically fit and be on the social standard norm of the body, and thus avoid body criticisms and shaming. Other motives to exercise were also captured and recorded as these reasons embark PSPEs to be motivated. It was noted that time availability allows them to do and participate in exercise activities. PSPEs mentioned that when the available time occurs, they are driven to move so they can achieve their exercise plans. Considering this factor is a great opportunity for them because of the vast undertakings they are facing. Given the stimulation of intrinsic pursuit generated by exercise and physical activities in wide dimensions, personal motives were correspondingly indicated which include self-confidence, positive energy vibes, and healthy mental condition. Importantly, when PSPEs gain their desire

through exercise, it will bring about self-esteem. In addition, their degree program, which requires an active and vigorous physical demand, was added as one of the contributory agents to exercise. The courses in physical education produce vital aspects that trigger them to take constant action. Due to the running over responsibilities and obligations of the PSPEs, lack of time was rated first as their barrier to exercise. This top-tier reason impedes them from joining daily physical activities and not fully engaging in such. The work at home and role in the family were stipulated by the participants about the lack of time. It is inevitably undeniable that various activities faced by the PSPEs consume most of their time, and thereby this constraint hinders their participation. Moreover, deeper reasons were found for the second barrier which is too tired. It was claimed that physical wear out and mental exhaustion are caused by arduous and demanding requirements. In this observation, the feeling of extreme tiredness is experienced by the pre-service physical educators. It was also revealed that instead of doing moderate to vigorous physical activities, they would rather choose to rest. The school tasks brought by numerous activities of the courses that PSPEs are enrolled in were specified as other barriers that block their participation in exercise. These factors interfered with their desire to be physically active. This time-consuming reason hinders the participants from achieving their exercise plans and routines. It was also revealed that PSPEs' other barrier is being too lazy. They would just like to use their gadgets and hang out with family and friends over doing physically active occupations. These two leading factors were classified as other barriers of the PSPEs which obstruct their exercise preferences.

The Physical Activity Plan was developed based on the results of the study and considering the top motives of the pre-service physical educators (Positive Health, Appearance, other motives (requirement). Since "lack of time" and "interferes with school" were also mentioned as the top barriers of PSPEs, integrating exercises in discussion was also necessary.

Conclusions

Based on the results of the study, the following conclusions are drawn:

1. The subscales from the EMI-2 for coding the motives to exercise the PSPEs are still apparent in contemporary times. The three most identified motives of the PSPEs were "positive health", "appearance", and "weight management". On the other hand, "nimbleness", "health pressures", and "competition" had the same lowest response. Other motives appeared apart from the subscales of the EMI-2. The three most identified other motives were "time availability", "personal", and "requirement".
2. Most of the barriers identified in the Barriers to Physical Activity (Reichert et al., 2005) were quite relevant but needed further investigation by corroborating other subscales and factors of the barriers in this contemporary time since more than half of the responses were coded as "other barriers". Most of the responses of the PSPEs that were coded from the barriers to physical activity (Reichert et al., 2005) were "lack of time", "feel too tired" and "have an injury or disease" while "feel too old" and "dislike exercising" were not identified as a barrier to exercise. Aside from the subscales of the Barriers to Physical Activity (Reichert et al., 2005), other barriers were identified. The three most identified other barriers of the PSPEs were "interferes with school", "too lazy" and "lack of equipment" while "medical problems", "takes too much discipline" and "pandemic" had the least responses.
3. The qualitative stage of the study further investigates the identified phenomena within Filipino pre-service physical educators which strengthens the findings. In this phase, the top general motives are positive health and appearance while time availability, personal motives, and requirements were recorded as other motives. Due to the hindrances that PSPEs are experiencing which are mostly on their everyday obligations and responsibilities at school and home, lack of time, and great tiredness were noted as their general barriers while

the other barriers include interference with school and being too lazy.

4. The initial draft of the Physical Activity plan was developed based on the results of the study considering the top motives and barriers of the PSPEs' responses and inputs from the suggestions and recommendations from the focus group discussion.

Recommendations

In light of the results of the study, and the methodological limitations posted in the study, the following recommendations are hereby proposed:

1. It is recommended that Bachelor of Physical Education faculty members emphasize integrating exercises, particularly in promoting health and fitness considering that "positive health" was the most identified motive to exercise among PSPEs, in programs, discussions, and activities.
2. Considering the barriers of the PSPEs, having "interferes with school" is the top barrier, it is suggested that faculty members may integrate exercises in school activities and other programs that may increase their participation in exercise.
3. Faculty members of the BPEd program can capitalize on the motives of students in designing appropriate programs and curriculum content in the promotion of physical activity as a life-long pursuit. Moreover, the barriers serve as a critical milieu that should also be addressed by providing feasible mechanisms to actively engage in physical activities.
4. The Proposed Physical Activity Plan may be utilized by the Bachelor of Physical Education program in accordance with the existing operational and administrative provisions of the university. The flexibility of the PAP lies in how the program will be implemented by the university.
5. A qualitative, phenomenological exploration of the underlying and in-depth factors may likewise be facilitated in future research undertaking to understand why such motives or barriers developed over time by the students or where they are actually rooted. Looking at the phenomenon from a qualitative lens would unravel the unseen and untouched realities.

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