

# SOCIAL Physique Anxiety, Eating Behavior, and Basic Psychological Needs in Exercise Among Students in Public Secondary Schools: A Convergent DESIGN

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## ABSTRACT

This mixed methods approach, specifically convergent design, to determine the influence of social physique anxiety and eating behavior on the basic psychological needs of exercise among public junior students in Region XI. Sets of adapted survey questionnaire and an interview guide were used to extract data relative to the research questions. Results showed that the status of social physique anxiety is high, and eating behaviors and basic psychological needs in exercise were both described as moderate. Further, the results showed that eating behavior has a significant influence on basic psychological needs in exercise, while social physique anxiety has reflected no significant influence. In the qualitative phase of the study, five essential themes emerged from the lived experiences of the participants, such as positive disposition about exercise, benefits from exercise, obstacles to exercise, unfavorable impressions of exercise, and influences of exercise. Furthermore, the merging of quantitative and qualitative findings produced a merging-converging nature on the basic psychological needs in exercise and a merging- diverging nature on the roles of experiences in shaping the beliefs and attitudes and insights shared by the participants towards the basic psychological needs in exercise.

**KEYWORDS:** *Physical education, social physique anxiety, eating behaviors, psychological needs, convergent design, discipline, Philippines*

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## INTRODUCTION

The basic psychological needs in exercise are self-reported measures designed to assess how the innate psychological needs for autonomy,

competence, and relatedness are fulfilled in exercise (Vlachopoulos, 2018). Moreover, it is associated with regular physical and basic psychological needs in exercise to maximize basic psychological needs in exercise and adherence (Vlachopoulos et al., 2020). Globally, it was observed that more than 50% of the students have poor basic psychological needs in exercise that are not stimulated by intrinsic and extrinsic motivation, thereby not contributing to positive outcomes in the classroom. The basic psychological needs in exercise are not satisfied or met, which may be due to differences in the environment and individual experiences, such as life events, social contexts, interpersonal relationships, and daily activities (Lin et al., 2022).

In the United States, students in physical education need better basic psychological needs for exercise, reducing physical activity engagement. Their psychological needs for training in relatedness, competence, and autonomy should be addressed. Lower-to-higher levels of basic psychological needs in exercise are considered universally crucial for most people, and the importance of these needs in exercise may vary depending on individual values and skills (Dunton et al., 2023).

In the Philippines, students are less physically active and have better basic psychological needs for exercise. Furthermore, students need better competence, relatedness, and autonomy. Not being able to fulfill these psychological needs can lead to poor cognitive, affective, and behavioral outcomes in physical education, and the failure to address these needs may lead to decreased motivation and an experience of ill-being or boredom (Cagas & Cassandra, 2019).

In Region XI, basic psychological needs and exercise help maintain a student's overall mental and physical health. However, activity preferences differ for each student. The poor basic psychological needs in exercise affect the students' willingness and desire to do physical activities that differ from their choice, resulting in poor basic psychological needs in the class (Abucay et al., 2016). Similarly, students in physical education have poor basic psychological needs for exercise and have yielded contradictory results in health and academic performance (Uyan, 2017).

## **Theoretical Lens**

Pragmatism as a worldview arises from actions, situations, and consequences rather than precursor conditions. It focuses on the verification

process, accentuating a proposition, or the successful working of an idea. It is a problem-oriented philosophy that takes the view that the best research methods are those that help to answer the research question most effectively. Pragmatism as a worldview opens the door to multiple methods, different worldviews, and different assumptions, as well as other forms of data collection and analysis (Creswell, 2013). The combination between quantitative and qualitative methods improves data and enhances the understanding combination of quantitative and qualitative methods improves understanding of the topic under study and enriches data. (Hauken et al., 2019).

As a pragmatist, to address the problem of this research, it deals with data collection methods of quantitative and qualitative sources. Also, pragmatists when researching they explore the quantitative and qualitative presumptions (Creswell, 2011). As a pragmatist, the researcher accepts that mixing of quantitative and qualitative methods will explain on depth understanding of the real time experiences and beliefs of the participants that leads to an apprehension of human (Kivunja & Kuyini, 2017).

The Social Cognitive Theory (SCT) by Bandura (1977) was the essential theory for this research. This theory points up that individuals are more likely to follow behaviors or those examples they inspire. Further, the theory establishes the concept of self-efficacy which means that individual's principle in their capabilities to demonstrate behavior or any successful tasks.

The SCT is vital to this study's conduct because this theory provides the researcher with the essential concepts and propositions of the relationships among the variables in the study. It presents how social physique anxiety and eating behavior affect the basic psychological needs of exercise among students in public secondary schools. This means that the impact of social and cognitive mechanisms influences the student's behaviors.

## **METHODS**

### **Research Design**

A convergent design is a mixed-method design wherein the researcher collects both quantitative and qualitative data, analyzes the data separately, and then compares the results to know if the findings confirm or contradict each other (Creswell & Creswell, 2019). The convergent design comprehensively analyzes the research problem by merging the quantitative and qualitative data (Mohd Razali et al., 2019). During this time frame, an interactive approach may

be used where iterative data collection and analysis drive changes in the data collection procedures. For example, initial quantitative findings may influence the focus and kinds of qualitative data collected, or vice versa (Fetters et al., 2013).

A mixed methods using a concurrent design. Mixed methods involve collecting, mixing, or integrating both quantitative and qualitative data in a study (Creswell, 2019). Mixed-methods design involves collecting qualitative and quantitative data in response to research questions and hypotheses. It focuses on collecting, analyzing, and mixing both data to better understand research problems than either approach alone since combining methods will enhance the study's results and further explain them (Mohd Razali et al., 2019).

### **Research Locale**

The study was conducted in Region XI, an administrative region in the Philippines. It is situated in the southeastern portion of Mindanao and comprises five provinces: Davao de Oro, Davao del Norte, Davao del Sur, Davao Oriental, and Davao Occidental. Region XI shall consist of five provincial school divisions, such as Davao del Norte, Davao del Sur, Davao Occidental, and Davao Oriental, and six autonomous cities: Davao City, Digos City, Tagum City, and the Island Garden City of Samal (Census of Population, 2020).

In addition, Region XI has 195,430 junior high school students enrolled in the public schools as of the school year 2022-2023, given the number of public secondary schools in Region XI, four provincial divisions, namely Davao del Sur, Davao Oriental, Davao Occidental and Davao del Norte, granted permission and was considered that could give the required number of respondents to provide representative data. The public secondary schools were selected because they are among the most prominent national high schools in the above-mentioned provincial divisions. These public secondary schools are New Corella National High School, Lavigan National High School, Sulop National High School, and Mariano Peralta National High School.

### **Research Participants**

The research employed purposive sampling in selecting participants for the study. One of the national high schools was selected using purposive sampling techniques. Purposive sampling selects respondents to achieve a homogenous sample whose units share the same characteristics or traits (Creswell, 2017). Further, purposive sampling refers to a group of non-

probability sampling techniques in which units are selected because they have the characteristics you need in your sample. In other words, purposive sampling intentionally selects units (Nikolopoulou, 2022). To attain homogeneity, the following criteria were considered: a junior high school student from the participating school at any grade level, students taking the Alternative Learning System (ALS), or those who are homeschooled were not included in the study since the students from ALS do not have a broad application of various exercises compared to the regular students.

For the qualitative strand, there were 17 participants ten participants for the IDI and seven participants for the FGD group, who were selected through the purposive sampling technique. The sample size policy may have between five and 50 participants, as Creswell (2018) mentioned.

### **Data Analysis**

The collected quantitative data were examined through the following statistical tools. First, the mean measured the status of social physique anxiety, eating behavior, and basic psychological needs in exercise, which was used to characterize the average responses. The study measured the students' reactions to their social physique anxiety, eating behavior, and basic psychological needs in exercise. Whether their responses demonstrated variability or disparity determined the standard deviation. The study measured the deviation of the student's reactions regarding social physique anxiety, eating behavior, and basic psychological needs in exercise. Second, multiple linear regression determined the domains of social physique anxiety and eating behavior that significantly influenced the students' basic psychological needs in exercise.

For the qualitative data, researcher used the Colaizzi's (1978) data analysis model to arrive at the themes for this qualitative study. Colaizzi's distinctive seven-step process also enabled researchers to conduct a rigorous analysis, with each step remaining close to the data Colaizzi's said that researchers should be flexible with these steps- a deep and thorough exploration of meaning of the experiences observed. Data can be collected from face-to-face interview, written narratives, blogs, research diaries, online interview (Ganapathy, 2021). The following are Colaizzi's steps in the data analysis: familiarization, indentifying significant statements, formulating meaning, clustering themes and creating themes, developing an exhaustive description, producing the fundamental structure, seeking verification of the fundamental structure.

## Ethical Statement

The study adhered to the ethical guidelines established by the University of the Immaculate Conception's Research Ethics Committee (UIC-REC) as a result the respondents' involvement was entirely voluntary, and they were shown the highest level of respect. Concerns were handled almost away, and whatever personal information they provided was handled with the greatest confidentiality, and they were granted complete discretion to decline taking the survey at the event of any annoyance. Furthermore, the researcher ensured that the questionnaire for the survey was free of any profane, discriminatory, or demeaning language; cautious data collection to prevent collecting unnecessary data; and additional measures to protect the respondents' health. Further, the researcher rigorously upholds the values of confidentiality and confidentiality of the data covered by the Philippine Republic Act 10173, also known as the Data Privacy Act of 2012 this gave the respondents the assurance that the study's conclusions would only be applied to scholarly and academic purposes.

## RESULTS

### Quantitative Results

#### *Status of Social Physique Anxiety among Public Junior High School Students* Table 1.1

*Status of Social Physique Anxiety among Public Junior High School Students*

		Mean	SD	Description
Negative Physical Assessment Expectations				
1.	wishing they were not so uptight about their physique or figure.	3.61	.98	High
2.	having times when they are bothered by thoughts that other people are evaluating their weight or muscular development negatively.	3.52	1.05	High
3.	looking in the mirror, they feel good about their physique or figure.	3.35	1.21	Moderate
4.	making them nervous in certain social settings because of their unattractive features of their physique or figure	3.69	1.17	High

5.	knowing others are evaluating their physique or figure is making them feel uncomfortable	3.57	1.18	High
6.	being a shy person when it comes to displaying their physique or figure to others.	3.83	1.02	High
7.	often feeling nervous about how well-proportioned their body is when they are in a bathing suit.	3.61	1.24	High
<b>Category Mean</b>		<b>3.60</b>	<b>.64</b>	<b>High</b>
<b>Comfort About Body Presentation</b>				
1.	being comfortable with the appearance of their physique or figure. ®	3.15	1.24	Moderate
2.	never worrying about wearing clothes that might make them look too thin or overweight. ®	3.38	1.19	Moderate
3.	looking in the mirror, they feel good about their physique or figure. ®	3.32	1.11	Moderate
4.	being comfortable with how fit their body appears to others. ®	3.09	1.25	Moderate
5.	usually feeling relaxed even if it's obvious that others are looking at their physique or figure. ®	3.35	1.24	Moderate
<b>Category Mean</b>		<b>3.26</b>	<b>.83</b>	<b>Moderate</b>

Table 1.1 has an overall mean of 3.17, described as moderate, which means that social physique anxiety among public junior high school students is sometimes evident. Negative Physical Assessment Expectations the category mean of this is 3.60, which is described as very high. Comfort About Body Presentation the category mean of this is 3.23, which is described as moderate. As shown in the table, items in this category range from 3.09 to 3.38.

**Status of Eating Behaviors among Public Junior High School Students****Table 1.2***Status of Eating Behaviors among Public Junior High School Students*

		<b>Mean</b>	<b>SD</b>	<b>Description</b>
<b>Cognitive Restraint</b>				
1.	deliberately eating minimal servings as a means of controlling their weight.	3.28	1.08	Moderate
2.	consciously holding back at meals in order not to gain weight.	2.89	1.10	Moderate
3.	not eating some foods because they make them fat.	2.48	1.15	Low
4.	avoiding “stocking up” on tempting foods.	2.83	.93	Moderate
5.	being likely to consciously eat less than they want.	3.04	1.24	Moderate
6.	eating whatever and whenever they want.	3.36	1.26	Moderate
	<b>Category Mean</b>	<b>2.98</b>	<b>.65</b>	<b>Moderate</b>
<b>Uncontrolled Eating</b>				
1.	finding it very difficult to keep from eating, even if they have just finished a meal when they smell a sizzling steak or juicy piece of meat.	2.95	1.12	Moderate
2.	when they start eating sometimes they just can't seem to stop.	2.83	1.15	Moderate
3.	being with someone who is eating often makes them hungry enough to eat also.	3.27	1.10	Moderate
4.	seeing a real delicacy, often get them so hungry that they have to eat right away.	2.87	1.16	Moderate

5.	getting so hungry that their stomach often seems like a bottomless pit.	2.98	1.19	Moderate
6.	being always hungry so it is hard for them to stop eating before they finish the food on their plate.	2.85	1.23	Moderate
7.	being always hungry enough to eat at any time.	3.05	1.18	Moderate
8.	often feeling hungry.	3.11	1.12	Moderate
9.	binge eating even if they are not hungry.	2.78	1.19	Moderate
	<b>Category Mean</b>	2.97	.76	Moderate
<b>Emotional Eating</b>				
1.	finding themselves eating when they feel anxious.	3.24	1.30	Moderate
2.	often overeating when they feel blue.	2.76	1.08	Moderate
3.	consoling themselves by eating when they feel lonely.	3.25	1.24	Moderate
	<b>Category Mean</b>	<b>3.08</b>	<b>.99</b>	<b>Moderate</b>
	<b>Overall Mean</b>	<b>3.01</b>	<b>.61</b>	<b>Moderate</b>

It is shown in Table 1.2 that, in totality, the status of eating behaviors among public junior high school students has an overall mean of 3.01, described as moderate, which means that good eating behaviors of public junior high school students are sometimes demonstrated. Cognitive Restraint this category's mean rating of 2.98 is described as moderate. The items in this category were obtained very high. In particular, the mean ratings in this category range from 2.48 to 3.36. Uncontrolled Eating this category mean is 2.97, described as moderate, with mean ratings of the items that range from 2.78 to 3.27. Emotional Eating as assessed by respondents, it has a moderate category mean of 3.08 with mean ratings of 2.76 to 3.25.

***Status of Basic Psychological Needs in Exercise among Public Junior High School Students***

Table 1.3 shows that the status of basic psychological needs in exercise

among public junior high school students has an overall mean rating of 3.36, which is described as moderate. It means that the students' basic psychological needs in exercise is sometimes manifested. Autonomy the category mean of this is 3.50 described as high. As shown in the table, the items in this category range from 3.43 to 3.58. Competence the category mean of this is 3.28, which is described as moderate. As shown in the table, all items in this category range from 3.02 to 3.63. Relatedness this category mean is 3.30, described as moderate, with item mean ratings that range from 3.06 to 3.53.

**Table 1.3**

*Status of Basic Psychological Needs in Exercise among the Public Junior High School Students*

	Mean	SD	Description
<b>Autonomy</b>			
1. the way they are exercising is in agreement with their choices and interests.	3.50	1.08	High
2. feeling that the way they exercise is the way they wanted to.	3.58	1.10	High
3. their way of exercising is a true expression of who they are	3.43	1.08	High
4. having the opportunity to make choices with regard to the way they exercise.	3.47	1.03	High
<b>Category Mean</b>	<b>3.50</b>	<b>.82</b>	<b>High</b>
<b>Competence</b>			
1. having made a lot of progress in relation to the goal they want to achieve	3.63	1.03	High
2. feeling they successfully performed the activities of their exercise program.	3.22	1.08	Moderate
3. considering Exercise as an activity which they do very well.	3.25	1.10	Moderate

4. being able to meet the requirements of their exercise program.	3.02	1.08	Moderate
<b>Category Mean</b>	<b>3.28</b>	<b>.81</b>	<b>Moderate</b>
<b>Relatedness</b>			
1. having very friendly relationships with the people they exercise	3.53	1.21	High
2. feeling they have excellent communication with the people they exercise with.	3.30	1.04	Moderate
3. being closely related with the people they exercise with.	3.06	1.38	Moderate
<b>Category Mean</b>	<b>3.30</b>	<b>.98</b>	<b>Moderate</b>
<b>Overall Mean</b>	<b>3.36</b>	<b>.72</b>	<b>Moderate</b>

**Significance of the Influence of Social Physique Anxiety, Eating Behavior towards Psychological Needs in Exercise**

**Table 2**

*Significance of the Influence of Social Physique Anxiety, Eating Behavior towards Psychological Needs in Exercise*

<b>Psychological Needs in Exercise</b>				
<b>Individual Influence of Predictors</b>	<b>Standardized Coefficient</b>	<b>t</b>	<b>p-value</b>	<b>Remarks</b>
<b>Social Physique Anxiety</b>	-.01	-.23	.82	Not Significant
<b>Eating Behavior</b>	.40	8.27	.00	Significant
<b>Combined Influence of Predictors</b>				
R	.39			
R <sup>2</sup>	.16			
F	34.82			
P	.00			Significant

Table 2 shows the results of the multiple regression analysis, which is set at the level of significance,  $\alpha = 0.05$  (two-tailed). On the one hand, the standardized beta coefficient of social physique anxiety is  $-.01$ , with t-statistics of  $-.23$  and  $p = .82$  which is greater than the  $.05$  level of significance. This indicates that in an individual capacity, social physique anxiety has a negative influence on basic psychological needs in Exercise, which is not a statistically significant predictor. It means that for every unit increase in the level of social physique anxiety, there is a corresponding decrease of  $.01$  in the status of psychological needs in Exercise, signifying a very weak influence.

On the one hand, the standardized beta coefficient of eating behavior of public junior high school students is  $.40$ , with a t-statistic of  $8.27$  and  $p = .00$ , which is less than the  $.05$  significance level. This result indicates that eating behavior is a significant and better predictor of basic psychological needs in the Exercise of public junior high school students. It means that for every unit increase in the status of eating behavior, there is a 40 percent increase in the status of basic psychological needs in Exercise.

Further, the F-ratio in Table 2 indicates whether the overall regression model, which is the combined effect of social physique anxiety and eating behavior as predictors of psychological needs in Exercise, is a good fit for the data in this study. The results reveal that social physique anxiety and eating behavior significantly predict the psychological needs in Exercise of public junior high school students, as shown in the result of  $F(2, 381) = 34.82, p < .05$ . Therefore, the regression model is a good fit for the empirical data in this study.

Additionally, the R-square value shows the percentage of variation in public junior high school students' psychological needs for Exercise that eating habits and social physique anxiety can account for. The value is reported at  $16.16$ , indicating that the variability of psychological needs in Exercise can be explained by the combined influence of the predictors, social physique anxiety, and eating behavior. The remaining 84 percent is attributable to the unexplained variance or other factors not included in this study.

## **Qualitative Results**

### ***Lived Experiences of Junior High School Students as regards their Basic Psychological needs in Exercise***

Presented in Table 3.2 below are the lived experiences of junior high school students regarding their psychological needs for exercise. The data

gathered through IDI and FGD was transcribed, coded, grouped, and organized into themes. Five essential themes emerged: cheerful disposition about exercise, gains from exercise, core obstacles to exercise, detrimental impressions of exercise, and collective influence of exercise.

**Table 3.2**

*Lived Experiences of Participants are Regard Psychological Needs in Exercise*

Theme	Core
Positive Disposition about Exercise	Feeling happy by exercising Exercising when motivated Being confident to exercise Being contented about your body Being comfortable with one’s body when exercising
Benefits from Exercise	Acquiring firmer muscles Improving progress in Exercise Gaining recognition because of Exercise Sense of accomplishment after exercising
Obstacles to Exercise	Not a fan of Exercise Lack of time management No confidence to exercise Insufficient time doing Exercise Feeling awkward while exercising Getting tired easily while exercising Mood dependent disposition to exercise Liking to eat a lot, especially sweets
Unfavorable Impressions on Exercise	Not liking Exercise at all Feeling awkward to exercise Prefer to sleep instead of exercising I am not confident because I am not strong Not comfortable exercising because of how my body looks Ashamed of being not normal in term of my height and age

Influences of Exercise	Getting motivation from other people Other views influence me to do more Exercise Other people views affect my mood to exercise Other's views about Exercise are important to me Other views influence my thinking about exercise Consistency of the other people to exercise inspires me
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**Positive Disposition about Exercise.** The participants possess an inner outlook on exercise. Their innate appreciation of exercise is revealed when they claim that they feel happy when they exercise, comfortable and content with their bodies, and motivated and confident to exercise. Participants shared that they are comfortable with their body as much as they love their self-appearance. And, contented with it.

I am very comfortable with my body as much as I love my self-appearance. I am contented with it. (IDI 4)

**Benefits from Exercise.** When students were interviewed about their lived experiences of their basic psychological needs in Exercise, their responses also revealed that they gain from Exercise. The theme, gains from Exercise, emerged from the four codes, which consist of acquiring firmer muscles, improving progress in Exercise, sense of accomplishment after exercising and gaining recognition because of Exercise. Participants revealed that they always motivate and satisfy themselves the needs such as food, water and vitamins to do the activities.

I always motivate myself ... I also satisfy my needs like food, water, and vitamins so that I can do the activities. (FGD 2)

**Obstacles to Exercise.** When the student participants were interviewed about basic psychological needs in exercise, their responses were categorized into core ideas. The theme of the core obstacle to exercise emerged from the core ideas of getting tired quickly while exercising, insufficient time doing exercise, mood-dependent disposition to exercise, lack of time management, no confidence to exercise, and feeling awkward while exercising. For these

students, having one of those challenges can affect their basic psychological needs in exercise, especially since they have hectic schedules and tasks. Participants revealed that they lack motivation, lack of time and stress.

Lack of motivation, lack of time and stress.  
(IDI 9)

There are a lot of challenges such as lack of motivation, low self-esteem, and no time management especially I'm a student. (IDI 10)

**Unfavorable Impressions on Exercise.** During the interview and discussion of participants' descriptions of their basic psychological needs in exercise, the theme of detrimental impressions of exercise was generated. Participants revealed, based on their lived experiences, six core ideas: ashamed of being typical in terms of height and age, feeling awkward exercising, not confident and not uncomfortable, and not liking to exercise. Participants disclosed that

I am not that confident with my body. I think that I am too slim to my weight.  
(FGD 4)

I am not very comfortable with doing Exercise and physical activity of how my body looks, feel and more. (FGD 5)

**Influences of Exercise.** Another essential theme in participants' descriptions of their basic psychological needs in Exercise emerged from four core ideas: getting motivation from other people, the consistency of other people's Exercise, other views influence, and other views about Exercise. FGD 2 and FGD 3, students believed that their fundamental psychological needs for exercising were related to how other people inspire and motivate them.

Getting motivation from myself and others, such as family and peers. (FGD 2)

Sometimes, I get motivation to exercise when people say I should exercise, but

overall, I don't really think about how people view my physique. (FGD 2)

## Role of Experiences Shape the Beliefs and Attitudes of the Participants Towards Basic Psychological Needs in Exercise

**Table 4.1**

*Role of Experiences Shape the Beliefs of the Participants Towards Basic Psychological Needs in Exercise*

Theme	Core Ideas
Enhanced perspective about Exercise	Exercise improves quality of life Enhance determination to exercise Exercise contributes to self-growth Exercise makes one a better person Exercise causes you to decide better Exercise is important in our daily lives Exercise is not beneficial if not done everyday
Enforcing Needed support	Exercise improves socialization Family is a strong support to exercise Interaction during exercise boosts confidence Strong support system to exercise to maintain consistency

Table 4.1 below shows the experiences that in shaped the beliefs and attitudes of participants toward basic psychological needs in exercise. Based on the IDI and FGD conducted, answers were transcribed, coded, grouped, and organized into themes and the resulting themes include enhanced perspective about exercise, enforcing needed support and outcome of exercise.

**Enhanced Perspective on Exercise.** In the discussion regarding the participants' beliefs that shaped their basic psychological needs in exercise, participants disclosed the main ideas: the importance of exercise in our daily lives, enhanced determination to exercise, contribution to self-growth, and improved quality of life when exercising. Participants shared that their experiences in exercise are important for health especially in managing stress though it's difficult to make it consistent.

**Table 4.2**

*Role of Experiences Shape the Attitudes of the Participants Towards Basic Psychological Needs in Exercise*

Theme	Core Ideas
Outcome of Exercise	Becoming openminded through Exercise Becoming emotionally stable through Exercise Becoming healthy in mind and in body through Exercise Maintaining well-being through Exercise Becoming physically healthy in the future
Sustaining Behavior to Exercise	Eating a balanced diet Being determined to exercise regularly Feeling a sense of accomplishment after exercise Seeing progress Improves motivation to exercise

Even as I was still a child, I greatly believed that Exercise is important and up until now, I have the same view. (IDI 2)

My experiences show Exercise is important for health, especially to manage stress, but it's hard to make it a consistent priority. (IDI 1)

**Enforcing Needed Support.** When participants were asked their beliefs with regards to the basic psychological needs in Exercise, they expressed that interaction during Exercise boost their confidence and a strong support maintain consistency when exercising. Participants stressed that a sense of belonging to a group of people also help in executing exercises.

A sense of belonging to a group of people. Towards your colleagues in doing exercises. (FGD 1)

It helped shape my relationship as it

allowed me to connect with others ... It made me close with my parents who were supportive. (IDI 3)

**Outcome of Exercise.** Another essential theme on participants' description on how they shape their beliefs and attitudes towards basic psychological needs in Exercise that were generated are outcomes of Exercise that emerged from five core ideas namely: openminded through Exercise, emotionally stable through Exercise, becoming healthy in mind and in body, physically healthy in the future and maintaining well-being through Exercise. Participants believed that meeting psychological needs in exercise will significantly affect their well-being and have a positive outcome of exercise.

Attaining more of your needs will positively affect your well-being. (FGD 2)

It helped motivate me to at least do a bit of Exercise... effects of the Exercise helped motivate me to continue. (IDI 3)

***Insights Shared by the of Participants are Regard Basic Psychological Needs in Exercise***

**Table 5**

*Insights Shared by the of Participants are Regard Psychological Needs in Exercise*

Theme	Core Ideas
Proactive behaviors towards Exercise	Be consistent Prioritize Exercise Plot a schedule for Exercise Try to be better at exercising Manage time effectively
Social support system	Exercise with family and friends Getting motivation to exercise from peers Hurting comments from other people becomes a motivation

Sustaining Exercise Behavior	Combat laziness to exercise Be consistent with your routine Focus on maintaining a healthy body Choose Exercise that you prefer and enjoy Eating the right amount of food to maintain weight
Community Initiatives	Create wellness program for schools and community Provide avenue for students to engage in Exercise Create education campaigns on the benefit of Exercise, good sleep, and right amount of food

Table 5 below shows the insights shared by the participants towards psychological needs in Exercise. Based on the IDI and FGD conducted, answers were transcribed, coded, grouped, and organized into themes and the resulting themes include proactive behaviors towards Exercise, social support system and community initiatives.

**Proactive Behaviors towards Exercise.** On the discussion regarding the participants' insights that shared towards psychological needs in Exercise disclosed the main core ideas, which are be consistent on the exercises, prioritize Exercise, plot a schedule, try to be better individual, and manage time effectively. Participants unveiled that they give ample of time to create a plan and time and being always consistent.

Be consistent, work until you break but don't go overworked. (FGD 4)

**Social Support System.** When students were interviewed about their insights towards the basic psychological needs in Exercise, their responses revealed that social support system became an essential theme. The theme, social support system emerged from three core ideas, which consist of Exercise with family and friends, getting motivation to exercise from peers and hurting comments from others becomes a motivation.

Develop physical health and mental health.  
 This will influence the community to

develop and build up new relationships. And with academic life, it could help in stability. (IDI 10)

An insight I have come up from my experience that can help the community is exercise can build good relationship with yourself as it can boost self- esteem. (FGD 4)

**Sustaining Exercise Behavior.** The participants of the in-depth interview and focus group discussion specified that the importance of exercise to the individual's psychological needs offered various lessons. They expressed that doing exercise requires acknowledging the significance of mindset and a strong foundation for consistency to maintain a healthy body and mind. Encouraging a positive attitude towards exercise, setting achievable goals, and integrating routine into daily life are fundamental precursors. Participants agreed that having adherence in psychological needs in exercise give advantages to the community and to their academics to have a consistent routine.

Importance of tailoring exercise approaches to individual psychological needs, offering valuable lessons for both the community and academia. (IDI 6)

Encouraging regular Exercise and basic psychological needs has various potential advantages for the public as well as academics. (IDI 8)

### **Data Integration of the Salient Qualitative and Quantitative Findings**

The data in Table 5 are a joint display of the salient quantitative and qualitative findings of the basic psychological needs of public junior high school students in Region XI. The first column pertains to the study's aspects, followed by the second and third columns, where the quantitative and qualitative findings are revealed. The fourth column justifies the idea of integration. The qualitative and quantitative data were compared for similarities and differences and integrated into the result.

**Table 5***Data Integration of the Salient Qualitative and Quantitative Findings*

<b>Aspects of Focal Point</b>	<b>Quantitative Findings</b>	<b>Qualitative Findings</b>	<b>Nature of Data Integration</b>
<i>On Social Physique Anxiety</i>	Table 1.1 on social physique in terms of negative assessment expectation with a mean of 3.60 rates as high with SD of .64. In particular, the item looking in the mirror, they feel good about their physique or figure with a mean of 3.35 rated as high with SD of 1.21	Table 3.2 The theme positive disposition about Exercise, the core idea being comfortable with one's body when exercising	<b>Merging-Converging</b>
<i>On Eating Behavior</i>	Table 2 on eating behavior in terms of cognitive restraints with a mean of 2.98 rated as moderate with SD of .65. In particular the item, deliberately eating minimal servings as a mean of controlling thier weight with a mean of 3.38 rated as moderate with SD of 1.08	Table 5 the theme sustaining exercise behavior and the core idea "eating the right amount of food to maintain weight	<b>Merging-Converging</b>
<i>Basic Psychological Needs in Exercise</i>	Table 1.3 on the status of basic psychological needs in Exercise in terms of competence with a mean of 3.28 rated as moderate with	Table 3.2 the theme gains from Exercise, the core idea "I am not confident because I am not strong"	<b>Merging-Diverging</b>

	<p>SD of .81 In particular the item, “considering exercise as an activity which they do very well” <i>with a mean of 3.25, rated as moderate with SD of 1.10</i></p>		
<p><i>Role of Experiences Shape the Beliefs and Attitudes of the Participants Towards Basic Psychologic al Needs in Exercise</i></p>	<p>Table 1.3 on the status of basic psychological needs in Exercise in terms of relatedness with a mean of 3.53 rated as high with SD of 1.21 In particular the item, “having very friendly relationships with the people they exercise with” <i>with a mean of 3.25, rated as moderate with SD of 1.10</i></p>	<p>Table 4 the theme Enforcing Needed support, the core idea “Family is a strong support to exercise and strong support system to exercise to maintain consistency</p>	<p><b>Merging-Diverging</b></p>
<p>Insights Shared by the of Participants are Regard Psychologic al Needs in Exercise</p>	<p>Table 1.3 shows the status of basic psychological needs in Exercise in terms of relatedness, with a mean of 3.53 rated as high and SD of 1.21 In particular, the item, “feeling they have excellent communication with the people they exercise with” <i>with a mean of 3.30, and is rated as moderate with SD of 1.10</i></p>	<p>Table 5 the theme Social support system, the core “hurting comments from other people becomes a motivation”</p>	<p><b>Merging-Diverging</b></p>

*Merging.* The nature of the data in the first to fourth aspects or focal point is merging. The results from quantitative and qualitative data were integrated using joint display. In this study, the researcher first reports the quantitative statistical results and then discusses the qualitative findings that confirm the statistical results. (Creswell, 2014). Integration through merging of data occurs when researchers bring qualitative results together for analysis and comparison (Fetters, Curry, & Creswell, 2013). The data are merged when the researcher takes the two data sets and explicitly brings them together or integrates them (Creswell, 2003).

*Converging.* Based on the results, the function of integration of the first to fourth aspects or focal points in this study is converging. This function occurs when the researcher collects both quantitative and qualitative data, analyzes them separately, and then equates the results to see if the findings confirm (Creswell, 2014).

*Diverging.* Based on the findings of the study the qualitative and quantitative contradict each other. The divergence between qualitative and quantitative inferences can be interpreted in a sense- making plausible manner, researchers should reanalyze the existing data and revisit their theoretical assumptions (Pluye et al., 2009).

## DISCUSSION

The result of this study reveals that the status of social physique anxiety is high, which means it is oftentimes evident. This implies that many students in public secondary schools often feel self-conscious about their physical appearance in social situations or concerned about how they are perceived in terms of their physical attributes by their peers. The results are consistent with research by Harrington & Overall (2021), which discovered that contexts of romantic rejection or negative feedback about one's appearance may result in more negative self-esteem, contributing to more significant social physique anxiety.

Additionally, the results support a study by Ana et al. (2019) that examined the effects of long- and short-duration physical activity on memory and discovered that both types of exercise favor memory retention and improvement in a time-constrained setting. Of course, studies have also found that single sessions of moderate-to-vigorous exercise positively impact cognitive outcomes in children and adolescents. The findings also support a study by

Zhang, Y. (2022), which discovered that physical activity could effectively lower students' learning anxiety, alter their emotional states, increase their learning efficiency and learning effects, and improve their academic performance.

On the status of eating behaviors among public junior high school students is moderate. This implies that students' food consumption is neither excessively high nor low. Some students can maintain a healthy balance in their dietary habits by incorporating various foods in appropriate portions, and some lead to obesity. This result confirms the study's findings, which state that health risk behaviors like unhealthy eating habits start during adolescence and contribute to the burden of adult diseases, according to the World Health Organization (WHO) (2018). Similarly, Stok et al. (2018) show that after transitioning from adolescence to young adulthood, young adults are continuously challenged to make healthy choices when independence increases. This result aligns with research by Park et al., (2018), which discovered that participants might need help focusing on daily weight control and organic intake. People engage daily in multiple eating episodes in a sequence of processes involving interrelated decisions incorporating a variety of food behaviors.

This study reveals that the status of basic psychological needs in exercise among public junior high school students is moderate. This shows that the students' basic psychological needs for exercise are sometimes manifested. This implies that the balanced level of fulfillment or satisfaction regarding basic psychological needs related to exercise among students has occasional manifestations and that students exhibit varying levels of autonomy, competence, and relatedness within their exercise routines. This finding supports Chavez's (2020) study, which discovered the fluctuating nature of adolescents' psychological needs in exercise settings. Also, it emphasizes that these needs are only sometimes met but rather fluctuate based on contextual and personal factors. Additionally, the result supports the study with the observations made by Cowan et al. (2022) in their research on the psychological implications of regular physical activity among adolescents. They highlight those psychological needs, particularly autonomy, competence, and relatedness, are not fixed states but exhibit temporal variations. Their findings emphasize the irregular nature of how adolescents experience and fulfill these needs within exercise settings.

Findings backs up the study by Teixeira et al. (2018), which found that people's behavior changes, like going from being slightly active or even passive to regularly exercising, when their basic psychological needs are met. This

makes them move from a more controlled motivation to a more autonomous one, forming the exercise behavior as a habit.

The results revealed that beyond physical benefits, exercise may contribute to better mental health, increased self-esteem, and enhanced social interactions among junior high school students. These findings imply the holistic impact of regular physical activity on various aspects of their lives, emphasizing the importance of promoting active lifestyles for overall well-rounded development. This finding supports the study conducted by Rodrigues et al. (2021) that, considering that enjoyment reflects positive feelings about exercise, it is plausible that a better affective response would be related to a better individual perception of a joyful activity or exercise experience. This outcome is consistent with the research by Calder et al. (2020), which highlighted enjoyment as a significant determinant of intention to continue and exercise adherence.

Similarly, Vasconcellos et al. (2020) note that PE strategies and contexts differ from those associated with many other academic subjects, such as physical education sessions, demonstrations, and assessments of competence, which are often public, whereas, in other educational sessions at school, an individual's performance may be relatively more covert. In addition, Cuevas-Campos et al. (2020) found that many learning goals in PE are different from those of other academic subjects, and healthy behaviors are a possible predictor of satisfaction of basic psychological needs in students. Ryan et al. (2020) also stressed that the satisfaction of students' needs at school is closely related to their social and learning outcomes.

### **Implication for Educational Practices**

The result of this study is emphasizing the need for the administrators, teachers, and parents to prioritize the holistic well-being of students in public secondary schools. This fosters body positivity and self-acceptance to interact in the societal which give impact to social physique anxiety, integrate strategies to promote healthy eating behavior and creating an environment that help students' basic psychological needs for exercise which includes sense of competence, autonomy, and relatedness. These programs should raise awareness about their impact on students' exercise behaviors and overall well-being. By addressing social physique anxiety through holistic initiatives, schools can create a more supportive and inclusive environment that fosters positive exercise behaviors

and promotes students' overall well-being in public secondary schools. To improve this to a very high level, schools' administrators, teachers, and parents may implement strategies within the curriculum that specifically target the eating behaviors of public junior high school students, focusing on balanced eating habits and promoting mindful eating practices. By integrating these into the curriculum, schools can empower students to make informed. Results revealed a moderate level of concern for the basic psychological needs of exercise among public junior high school students. Enhancement and improvement may be done by restructuring physical education classes to improve this to a very high level. This could involve incorporating various activities to meet individual preferences and skill levels, enabling students to explore diverse forms of physical activity. Eating behavior significantly influences basic psychological needs in exercise, while social physique anxiety has reflected no significant influence among public junior high school students in Region XI. Future researchers may explore other factors influencing basic psychological needs in exercise aside from social physique anxiety and eating behaviors.

## **CONCLUSION**

From the results and analyses, the researcher may conclude the following: social physique anxiety is high which implies that students often emphasize that physical appearance may contribute to a sense of unease or self-consciousness, which is often evident, that emphasis on physical appearance highlights societal pressures and cultural norms prioritizing specific beauty and attractiveness standards. As a result, students feel compelled to conform to these ideals, leading to their concern about appearance. Overall, physical appearance among students has an unfavorable effect on their psychological well-being, and attention should be paid to the educator's parents to promote body positivity and self-acceptance.

The eating behaviors among public junior high school students were described as moderate and interpreted as sometimes demonstrated which implies that some students make choices that align with a nutritious and balanced diet, while others may opt for less healthy options. This finding emphasizes public secondary school students' diverse eating behaviors and preferences. Some students prioritize nutritious and balanced diets for reasons such as concern for their health, weight management goals, or upbringing in environments that promote healthy eating habits. It highlights the need for comprehensive strategies to promote healthy eating habits among students in public secondary schools. Public junior high school students' basic psychological needs for

exercise are moderate which means that they generally feel in control of their exercise routines, have a sense of competence in their physical activities, and perceive a connection or relatedness to others in the context of their exercise pursuits.

Further, when the quantitative results merged with the qualitative results, a merging-converging nature existed regarding basic psychological needs in exercise. However, a merging-diverging nature was found in the roles of experiences shaping beliefs, attitudes, and insights shared by the participants toward basic psychological needs in exercise. This indicates that the relationship between experiences and forming beliefs, attitudes, and insights was convergent and divergent. Some aspects of participants' experiences may have aligned and led to shared perspectives, while others may have diverged, resulting in varied viewpoints. This highlights the complexity and diversity of how individuals' experiences influence their perceptions of basic psychological needs in exercise.

## REFERENCES

- Abucay, P. M., Miranda, L., and Cervera, R. (2016). Motivation to Exercise and Activity Preferences of Junior High School Students of the University of the Immaculate Conception ARETE, 4(1).
- Bandura, A.. (1977). Self-efficacy: toward a unifying theory of behavioral change. 84(2). <https://doi.org/10.1037/0033-295X.84.2.191>
- Cagas, J., and Hassandra, M. (2019). The Basic Psychological Needs in Physical Education Scale in Filipino: An Exploratory Factor Analysis. *Philippine Journal of Psychology*, 47(1):19-40.
- Chavez, C. (2020). What Is Body Positivity?. <https://www.verywellmind.com/what-is-body-positivity-4773402>
- Cowan, R., Nash, M., and Anderson, K. (2021). Basic psychological needs in exercise barrier prevalence and association with basic psychological needs in exercise status in individuals with spinal cord injury. *Spinal Cor*, 51:27–32. doi: 10.1038/sc.2021.53
- Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing among Five Approaches* (3rd ed.). Thousand Oaks, CA: SAGE
- Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing among Five Approaches* (3rd ed.). Thousand Oaks, CA: SAGE
- Creswell, J. W., and Plano Clark, V. L. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, California: BMJ Publishing Group, 2011.

- Creswell, J., & Creswell, J. D.. (2019). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 31(3). <https://doi.org/10.1002/NHA3.20258>
- Cuevas-Campos, R., Fernández-Bustos, J. G., González-Cutre, D., & Hernández- Martínez, A. (2020). *Need Satisfaction and Need Thwarting in Physical Education and Intention to be Physically Active*. 12(18). <https://doi.org/https://doi.org/10.3390/su12187312>
- Dunton, G., Do, B., Crosley-Lyons, R., Naya, C., Hewus, M., and Kanning, M. (2023). Assessing basic and higher-level psychological needs satisfied through physical activity. *Front. Psychol.*, 14. doi:10.3389/fpsyg.2023.1023556
- Fetters, M., Curry, L., Creswell, J. W. (2013). Achieving Integration in Mixed Methods Designs— Principles and Practices. *Health Serv Res*. 2013 Dec; 48(6 Pt 2): 2134–2156. doi: 10.1111/1475-6773.12117
- Harrington, A. G., & Overall, N. C. (2021). Women’s attractiveness contingent self- esteem, romantic rejection, and body dissatisfaction. 39,78–79. <https://doi.org/https://doi.org/10.1016/j.bodyim.2021.06.004>
- Hauken, M. A., Larsen, T., & Holsen, I. (2019). Back on Track: A Longitudinal Mixed Methods Study on the Rehabilitation of Young Adult Cancer Survivors. 13(3). <https://doi.org/10.1177/1558689817698553>
- Kiyunja, C., & Kiyuni, A. B. (n.d.). Understanding and Applying Research Paradigms in Educational Contexts. 6(5), 26. <https://doi.org/https://doi.org/10.5430/ijhe.v6n5p26>
- Lin, S., Li, L., Zheng, D., and Jiang, L. (2022). Physical Exercise and Undergraduate Students’ Subjective Well-Being: Mediating Roles of Basic Psychological Need Satisfaction and Sleep Quality. *Behav Sci (Basel)*. 2022 Sep; 12(9): 316. doi: 10.3390/bs12090316
- Mohd Razali, F., Abdul Aziz, N. A., Mohamad Rasli, R., Zulkefly, N. F., & Salim, S. A. (2019). Using Convergent Parallel Design Mixed Method to Assess the Usage of Multi-Touch Hand Gestures Towards Fine Motor Skills Among Pre-School Children. 9(14). <https://doi.org/10.6007/IJARBS/V9-I14/7023>
- Nikolopoulou, K. (2022). What Is Purposive Sampling? <https://www.scribbr.com/methodology/purposive-sampling>

- Park, M. K., Freisling, H., Huseinovic, E., Winkvist, A., Winkvist, A., Huybrechts, I., Crispim, S. P., de Vries, J. H. M., Geelen, A., Niekerk, M., van Rossum, C.
- Rodrigues, F., Pelletier, L. G., Neiva, H. P., Teixeira, D. S., Cid, L., & Monteiro, D. (2021). *Initial validation of the Portuguese version of the Interpersonal Behavior Questionnaire (IBQ & IBQ-Self) in the context of exercise: Measurement invariance and latent mean differences*. 40(8). <https://doi.org/10.1007/S12144-019-00374-Y>
- Ryan, R. M., & Deci, E. L. (2020). *Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions*. 61. <https://doi.org/10.1016/J.CEDPSYCH.2020.101860>
- Stok, F. M., Hoffmann, S., Volkert, D., Boeing, H., Ensenaue, R., Stelmach-Mardas, M., Kiesswetter, E., Weber, A., Rohm, H., Lien, N., Brug, J., Holdsworth, M., & Renner, B. (2018). *The DONE framework: Creation, evaluation, and updating of an interdisciplinary, dynamic framework 2.0 of determinants of nutrition and eating*. 12(2). <https://doi.org/10.1371/JOURNAL.PONE.0171077>
- T. M., & Slimani, N. (2018). *Comparison of meal patterns across five European countries using standardized 24-h recall (GloboDiet) data from the EFCOVAL project*. 57(3). <https://doi.org/10.1007/S00394-017-1388-0>
- Teixeira, P. J., Carraça, E. V., Markland, D. et al. (2022). Exercise, physical activity, and self-determination theory: A systematic review. *Int J Behav Nutr PhysAct* 9:78. doi:10.1186/1479-5868-9-78
- Uyan, U. P. (2017). A Study between Sports Participation and Academic Performance. Retrieved from <https://www.coursehero.com/file/48000509/A-Study-between-Sports-Participation-anddocx/>
- Vasconcellos, D., Parker, P. D., Hilland, T., Cinelli, R., Owen, K. B., Kapsal, N., Lee, J., Antczak, D., Ntoumanis, N., Ryan, R. M., & Lonsdale, C. (2020). *Self-determination theory applied to physical education: A systematic review and meta-analysis*. *Journal of Educational Psychology*, 112(7), 1444–1469. <https://doi.org/10.1037/edu0000420>
- Vlachopoulos, S., Ntoumanis, N., and Smith, A. (2020). The Basic Psychological Needs in Exercise Scale: Translation and Evidence for Cross-Cultural Validity. *IJSEP*, 8:394-412.
- Vlachopoulos, S.P., Ntoumanis, N., & Smith, A.L. (2018). The basic psychological needs in exercise scale: translation and evidence for cross-cultural validity. *International Journal of Sport and Exercise*

Psychology, 8, 394e412.

Zhang, Y. (2022). The influence of social support on the physical exercise behavior of college students: The mediating role of self-efficacy China Adult Educ, 31, 131-133. 10.3389/fpsyg.2022.1037518

2020 Census of Population and Housing (2020 CPH) Population Counts Declared Official by the President | Philippine Statistics Authority | Republic of the Philippines. (2020, March 1). 2020 Census of Population and Housing (2020 CPH) Population Counts Declared Official by the President | Philippine Statistics Authority | Republic of the Philippines. <https://psa.gov.ph/content/2020-census-population-and-housing-2020-cph-population-counts-declared-official-president>.