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Research Article

Exercise Motivation Inventory And Body Mass Index Among High School Teachers: Basis For Activity Design

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Abstract

The study investigates the relationship between exercise motivation and body mass index (BMI) among high school teachers at Carmen National High School, serving as a basis for a customized activity design. The study is grounded in concerns over physical inactivity and unhealthy lifestyles among Filipinos, as highlighted by the World Health Organization, which increase the risk of chronic diseases. A quantitative descriptive research design is employed, utilizing complete enumeration sampling with 98 high school teachers as respondents. Exercise motivation is assessed using the Exercise Motivations Inventory version 2 (EMI-2), measuring intrinsic and extrinsic motivators, while BMI is categorized according to WHO standards to determine potential health risks. Data analysis involves weighted mean, frequency, and percentage. The findings indicate that teachers are primarily driven by intrinsic motivators, with Affiliation (mean: 3.60), Health Pressures (3.58), and Appearance (3.53) scoring the highest. In contrast, external motivators, such as Social Recognition and Competition, receive lower scores. BMI results reveal that 65.1% of teachers fall within the normal range, while 30.6% are overweight, 3.1% underweight, and 1% obese, suggesting a need for targeted health interventions. The study proposes a Zumba-based activity design, structured to accommodate various BMI categories, promoting inclusivity and engagement. By incorporating enjoyable and socially interactive exercises, the approach aims to improve teachers' overall well-being and encourage healthier lifestyles.

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1. Introduction

Teachers play a crucial role in shaping students' futures, equipping them with the knowledge and skills necessary to contribute to society. Given their significant responsibilities, prioritizing teachers' well-being is essential. However, low physical activity remains a pressing concern, contributing to increased cases of non-communicable diseases (NCDs) such as cardiovascular disease and type 2 diabetes. The World Health Organization (WHO, 2019) reported a high prevalence of physical inactivity in the Philippines, further elevating health risks. Globally, chronic NCDs are now the leading causes of morbidity and mortality, driven by sedentary lifestyles, unhealthy diets, and insufficient exercise.

Higher participation in leisure-time physical activity is associated with better health perceptions and overall well-being. Lacson and Tolentino, (2024) emphasized the importance of identifying key motivations for exercise among Filipinos to promote regular physical activity. Despite recognizing the importance of teacher wellness, schools rarely implement structured health programs for educators. Regular exercise is vital for teachers to manage stress, prevent illnesses, and enhance mental well-being, (Henrietta, 2023). Understanding their exercise motivation can help schools design effective health initiatives to support their physical and mental health.

This study examines the exercise motivation of high school teachers at Carmen National High School using the Exercise Motivation Inventory-2 (EMI-2) to identify the factors influencing their physical activity engagement. Additionally, it assesses their Body Mass Index (BMI) to gain insights into their physical health. Based on the findings, the study proposes customized activity programs tailored to teachers' fitness needs and preferences.

The results will serve as a guide for Carmen National High School in developing health interventions that enhance teacher well-being. Through collaboration with stakeholders, these initiatives aim to support both the professional and personal growth of teachers, ultimately benefiting students, (Datnow, & Park (2018). Healthier teachers create a more positive and productive learning environment, reinforcing the importance of prioritizing their well-being for overall academic success.

2. Materials and Methods

The current study employed a quantitative research methodology (Esto, 2024; Tanoja , & Sumayo (2024) specifically a descriptive approach, to analyze the exercise motivations and body mass index (BMI) of high school teachers at Carmen National High School. This approach was chosen to systematically assess respondents' exercise motivations and physical health status without manipulating any variables, (Stults-Kolehmainen et al., 2023). The study included a total of 98 high school teachers, utilizing a complete enumeration technique, meaning all teachers were included as respondents. This method ensured a comprehensive and accurate representation of exercise motivation and BMI distribution within the school, Mujere, 2016). The selection aimed to understand the factors driving their exercise motivation, helping identify gaps in wellness programs. The insights gained from this study served as a basis for developing customized activity plans to support a healthy and balanced lifestyle among teachers.

The study utilized two key instruments for data collection. Body Mass Index (BMI) was measured using a formula developed by Adolphe Quetelet in the 1830s and later

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validated by Ancel Keys in 1972 (Rasmussen, 2019). BMI was computed by dividing weight in kilograms by height in meters squared (kg/m²). The categories used to classify BMI followed the World Health Organization (WHO) standards, with classifications as underweight (BMI < 18.5), normal weight (BMI 18.5-24.9), overweight (BMI 25.0-29.9), and obese (BMI > 30). The second instrument used was the Exercise Motivations Inventory version 2 (EMI-2) developed by Markland & Ingledew (1997) to measure the factors influencing exercise motivation among the respondents. The questionnaire underwent revisions and pilot testing to enhance its effectiveness and confirm its reliability and validity in the research context, with a Cronbach's alpha of 0.952 ensuring high internal consistency. The EMI-2 consisted of several motivational factors, each measured using a 4-point Likert scale, where participants rated their agreement from 1 (strongly disagree) to 4 (strongly agree). Scale scores were computed as the mean of individual item scores.

This research adhered to strict ethical guidelines. The researcher first sought formal approval from the Dean of the Institute of Sports, Physical Education, and Recreation, as well as the Department Chairperson of the Bachelor of Physical Education, to conduct the study involving high school teachers. Upon receiving approval, informed consent forms were distributed to the participants, explaining the study's purpose, procedures, confidentiality measures, potential risks, and benefits. The participants were also informed of their right to withdraw at any time without repercussions. Following consent, the questionnaires were administered, and respondents were asked to complete them honestly. The data collected was tallied, tabulated, and analyzed using frequency and percentage for BMI classification, while weighted mean was used to assess the teachers' exercise motivation. The findings of this study provided valuable insights for developing personalized wellness programs, aiming to promote a healthier lifestyle among high school teachers at Carmen National High School.

3. Results and Discussion

Table 1 presents the descriptive statistics for the exercise motivation factors among high school teachers at Carmen National High School. The findings indicate that Affiliation is the strongest motivator for exercise, with a mean score of 3.60, suggesting that teachers are primarily motivated by the opportunity to spend time with friends while engaging in physical activities. Health Pressures follows closely, with a mean score of 3.58, highlighting the influence of health concerns and medical advice on their decision to exercise. The Appearance subscale, with a mean of 3.53, reflects teachers' motivation to improve their physical appearance, while Weight Management (M = 3.51) suggests that maintaining a healthy weight is also a significant driver of exercise participation. Revitalization, with a mean of 3.46, underscores the importance of increased energy levels as a key factor influencing teachers' engagement in physical activities.

In contrast, Social Recognition (M = 3.07) and Competition (M = 3.09) show less influence on teachers' motivation to exercise. The relatively lower mean score for Social Recognition suggests that teachers are only somewhat motivated by external validation, while the Competition subscale indicates that competitive elements do not strongly drive their participation in exercise. These results imply that external factors, such as recognition and competition, are not major motivators. Instead, intrinsic motivators, such as social connections and health benefits, play a more critical role in influencing teachers' exercise behavior.

These findings are consistent with research conducted by Geohagen et al. (2022) and Brand et al. (2019), which emphasize the significance of intrinsic motivation in sustaining long-term health behaviors. Their studies suggest that external comparisons and social pressures can

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sometimes undermine engagement, reinforcing the idea that exercise programs for teachers should prioritize social interaction, well-being, and health improvement rather than external validation. This insight is valuable for designing targeted wellness programs that align with teachers' primary exercise motivations, ultimately promoting their overall physical and mental well-being.

Table 1. Exercise Motivation of High School Teachers

Exercise Motivation	Statement	Mean	Description
Stress Management	15. It helps to reduce tension	3.59	Strongly Agree
	26. To help manage stress	3.48	Agree
	5. To give me space to think	3.31	Agree
	33. To release tension	3.01	Agree
	Mean	**3.35**	**Agree**
Revitalization	2. It makes me feel good	3.62	Strongly Agree
	23. To recharge my batteries	3.47	Agree
	13. I find exercise invigorating	3.28	Agree
	Mean	**3.46**	**Agree**
Enjoyment	35. I feel at my best when exercising	3.47	Agree
	7. I enjoy the feeling of exerting myself	3.10	Agree
	29. For enjoyment of the experience of exercising	3.09	Agree
	18. I find exercising satisfying	2.95	Agree
	Mean	**3.15**	**Agree**
Challenge	20. To give me personal challenges to face	3.41	Agree
	38. To measure myself against personal standards	3.23	Agree
	Mean	**3.32**	**Agree**
Social Recognition	14. To compare my abilities with other peoples'	3.67	Strongly Agree
	25. To gain recognition for my accomplishments	3.48	Agree
	4. To show my worth to others	2.05	Disagree
	Mean	**3.07**	**Agree**
Affiliation	8. To spend time with friends	3.72	Strongly Agree
	36. To make new friends	3.48	Agree
	Mean	**3.60**	**Strongly Agree**

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Competition	37. I find physical activities fun, especially when competition is involved	3.47	Agree
	19. I enjoy competing	3.31	Agree
	10. I like trying to win in physical activities	2.48	Disagree
	Mean	**3.09**	**Agree**
Health Pressures	9. My doctor advised me to exercise	3.69	Strongly Agree
	30. To help recover from an illness/injury	3.46	Agree
	Mean	**3.58**	**Strongly Agree**
Ill-health Avoidance Positive Health	22. To avoid heart disease	3.50	Strongly Agree
	27. To feel healthier	3.53	Strongly Agree
	16. I want to maintain good health	2.88	Agree
	Mean	**3.20**	**Agree**
Weight Management	12. To lose weight	3.69	Strongly Agree
	1. To stay slim	3.69	Strongly Agree
	32. To help me to burn calories	3.35	Agree
	21. To help control my weight	3.30	Agree
	Mean	**3.51**	**Strongly Agree**
Appearance	24. To improve my appearance	3.60	Strongly Agree
	3. To help me look younger	3.45	Agree
	Mean	**3.53**	**Strongly Agree**
Strength and Endurance	6. To build up my strength	3.49	Agree
	17. To increase my endurance	3.35	Agree
	28. To get stronger	3.35	Agree
	34. To develop my muscles	3.02	Agree
	Mean	**3.30**	**Agree**
Nimbleness	31. To stay/become flexible	3.27	Agree
	11. To stay/become more agile	3.04	Agree
	Mean	**3.15**	**Agree**

Table 2 presents the distribution of high school teachers based on their Body Mass Index (BMI) categories, indicating that the majority fall within the normal weight range. Specifically, 64 teachers (65.1%) have a normal BMI, suggesting that most educators maintain a healthy weight. However, 30 teachers (30.6%) are classified as overweight, while a smaller proportion, 3 teachers (3.1%), fall into the underweight category. Additionally, 1 teacher (1.0%) is categorized as obese.

While the majority of teachers maintain a normal BMI, the presence of underweight, overweight, and obese individuals raises health concerns. These abnormal weight categories are linked to an increased risk of chronic diseases, including cardiovascular conditions, diabetes, and metabolic disorders. Beyond physical health risks, excessive weight fluctuations can also contribute to psychological distress and decreased overall well-being.

According to the World Health Organization (WHO, 2021), a BMI below 16.0 is associated

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with significant health risks, including poor physical performance, increased lethargy, and higher mortality rates. On the other hand, overweight and obesity are leading contributors to non-communicable diseases (NCDs), such as diabetes mellitus, coronary heart disease, stroke, and certain types of cancer. Additionally, these conditions elevate the risk of gallbladder disease, musculoskeletal disorders, and respiratory complications.

Given these findings, it is crucial to promote healthy weight management strategies within the school community. Implementing targeted health and wellness initiatives can help address weight-related concerns, mitigate the risk of chronic illnesses, and improve teachers' overall physical and mental well-being.

Table 2. Body mass index of High school Teachers

Body Mass Index	Frequency	Percentage
Normal Weight	64	65.3
Over Weight	30	30.6
Under Weight	3	3.1
Obese	1	1.0
Total	**98**	**100.0**

4. Discussion

The study underscore the predominance of intrinsic motivations in shaping the exercise behaviors of high school teachers, particularly emphasizing the role of social connection and personal well-being. The finding that affiliation is the most influential motivator suggests that teachers are more likely to engage in physical activity when it involves companionship, shared experiences, and a sense of belonging. This supports a wide range of literature highlighting the role of social support in exercise adherence, particularly in professional and group-based contexts (de Lacy-Vawdon et al., 2018). Furthermore, the prominence of health-related motivations such as health pressures and weight management reflects a broader societal trend toward prioritizing preventative health, especially among working adults facing increasing stress and sedentary lifestyles (Du Preez, 2021; Cam, 2024). Teachers, in particular, often manage high workloads and psychological demands, making physical activity not just a fitness tool, but a coping mechanism to manage occupational stress and prevent burnout (González-Valero et al., 2023). These internalized motivations demonstrate a shift away from superficial or externally imposed goals toward a more autonomous and sustainable approach to wellness, aligning with the core tenets of Self-Determination Theory (Deci & Ryan, 2000; Ryan & Deci, 2017), which asserts that behaviors grounded in internal values, such as health and connection, are more likely to be maintained long-term.

Conversely, the lesser influence of social recognition and competition as motivators reveals that teachers are not primarily driven by external validation or performance-based incentives when it comes to physical activity. This pattern may reflect the inherently cooperative and altruistic nature of the teaching profession, where success is measured through collective achievement and student outcomes rather than individual performance (Donohoo, 2018). Moreover, excessive emphasis on competition or recognition can sometimes backfire, creating pressure, self-comparison, or feelings of inadequacy, which research has shown can demotivate individuals, particularly in non-athletic populations (Jayathunga &

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Chandana, 2019). Mouatt et al. (2020) reinforce this by highlighting that when exercise becomes a source of external comparison rather than intrinsic reward, it may lead to lower self-efficacy and reduced engagement. Therefore, wellness initiatives designed for educators should avoid relying heavily on competitive structures or reward systems. Instead, they should prioritize strategies that enhance intrinsic satisfaction, such as promoting social bonding, stress relief, and physical rejuvenation. Studies by Bredahl et al. (2015) suggest that such approaches are especially effective in supporting exercise adherence in workplace settings. Ultimately, recognizing and aligning with the intrinsic motivations of teachers—centered on health, connection, and emotional well-being—can lead to more impactful and sustainable health interventions.

On the body mass index of the teachers, it underscore the predominance of intrinsic motivations in shaping the exercise behaviors of high school teachers, particularly emphasizing the role of social connection and personal well-being. The finding that affiliation is the most influential motivator suggests that teachers are more likely to engage in physical activity when it involves companionship, shared experiences, and a sense of belonging. This supports existing literature emphasizing the value of social support in sustaining regular exercise, especially in structured environments such as workplaces or schools (Scarapicchia et al., 2017). Similarly, the prominence of health-related motivations, such as health pressures and weight management, aligns with the growing awareness among adults regarding the importance of preventing chronic illness and managing stress, especially in demanding professions like teaching (Thompson, 2024). These internalized motivations reflect a sense of responsibility toward maintaining health and vitality, rather than responding to external demands or standards, which is consistent with the principles of Self-Determination Theory (Deci & Ryan, 2000), which posits that behavior is more sustainable when driven by internal values rather than external rewards or pressures.

Conversely, the lesser influence of social recognition and competition as motivators reveals that teachers are not primarily driven by external validation or performance-based incentives when it comes to physical activity. This may be reflective of the nature of the teaching profession, where success is often measured by student outcomes and collaborative achievements rather than individual accolades, making competitive or recognition-based exercise environments less appealing. Such findings resonate with Korschun (2015), who argue that external pressures like competition and recognition can even hinder long-term engagement if they conflict with an individual's core values or sense of identity. For wellness initiatives to be effective among educators, they must therefore focus less on achievement and reward, and more on fostering inclusive, socially engaging, and health-oriented environments. Programs that prioritize stress reduction, social connection, and accessible group-based activities are more likely to align with the teachers' motivations and promote consistent participation in physical activity.

5. Conclusions

The findings from Tables 1 and 2 highlight the significant role of intrinsic motivation and the importance of healthy weight management among high school teachers. Teachers are primarily driven to exercise by factors such as social affiliation, health pressures, and personal well-being, rather than external rewards like recognition or competition. This underscores the value of designing wellness programs that focus on social engagement, health improvement, and revitalization.

At the same time, while a majority of teachers maintain a normal BMI, a notable percentage

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fall into overweight, underweight, or obese categories—raising concerns about potential health risks. These deviations from normal weight are associated with increased susceptibility to chronic diseases and psychological stress. Together, these insights emphasize the need for holistic health initiatives that not only foster intrinsic motivation for exercise but also promote sustainable weight management. By aligning wellness programs with teachers' internal motivations and health needs, schools can better support their physical and mental well-being.

Conflicts of Interest: The authors declare no conflict of interest.

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