

Article

Perceived Behavior Analysis to Boost Physical Fitness and Lifestyle Wellness for Sustainability among Gen Z Filipinos

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Abstract: The recommended moderate-intensity physical activity per week is 150–300 min for adults and 60 min of moderate-to-vigorous physical activity for adolescents. However, 81% of adolescents and 23% of adults globally do not meet the recommendations for physical activity. With the increasing business in the fitness industry on the rise, sedentary activities were also seen to be prevalent—especially due to the COVID-19 pandemic lockdown. This study aimed to identify and evaluate factors affecting the perceived behavior of Filipinos to boost physical fitness and lifestyle wellness by incorporating the Theory of Effort Minimization (TEMPA) and Protection Motivation Theory (PMT). About 565 Filipinos answered a self-administered questionnaire with 54 adapted questions (45 indicators and 9 latent variables). With the use of a convenience sampling approach, valid responses were evaluated using Structural Equation Modeling (SEM). The results showed that self-efficacy, response efficacy, automatic precursors, and controlled precursors significantly and indirectly affect perceived behavior. It was explained how self-efficacy, or one's ability to perform a specific behavior, connects with response-efficacy, which covers an individual's perception of the effectiveness of a task, in this case, health-promoting practices. The influence of others on the individual was presented as conscientiousness, neuroticism, and agreeableness. The effect on other people influences an individual's positive relationship with adaptable behavior for physical activities. Similarly, the effects of other people may influence individuals to perform healthier lifestyles. These precursors had a direct significance with the intention to adapt, which subsequently led to the perceived behavior of Filipinos in boosting physical fitness and lifestyle wellness. The results of this study could be utilized by the fitness industry, government, local government units (LGUs), and private and public institutions. Further implications were discussed both from a theoretical and practical standpoint, which can help to create successful fitness and wellness programs. Finally, the SEM constructs can be modified and extended to evaluate factors affecting perceived behavior to boost physical fitness and lifestyle wellness among other nationalities.

Keywords: physical activity; lifestyle wellness; structural equation modeling; Protection Motivation Theory; Theory of Effort Minimization in Physical Activity



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1. Introduction

Physical fitness refers to the body's ability to efficiently work together to maintain good health, perform daily tasks without fatigue, and have enough energy to enjoy leisure-time pursuits [1]. There are five components of health-related fitness: cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, and body composition, all of which are significant determinants of life quality and overall wellness [2]. Relatively, lifestyle wellness encompasses everything an individual does to engage in a living that

is optimal for well-being, preventing and reducing the risk of serious diseases, and the overall physical, mental, and social well-being that allows us to enjoy life [3]. In order to promote fitness and lifestyle wellness, it would always be associated with physical activity (e.g., walking, gardening, doing house chores) and exercises (e.g., jogging, cycling, strength, and muscle training), as well as a healthy diet. Additionally, regular physical activity is a protective factor that can help in the prevention and treatment of non-communicable diseases (NCDs) such as diabetes, heart and chronic respiratory disease, and cancer, which are the leading cause of death worldwide [4,5].

According to WHO [6], the recommended moderate-intensity physical activity per week is 150–300 min for adults and 60 min of moderate-to-vigorous physical activity for adolescents. In addition, the Canadian Society for Exercise Physiology [7] suggested that people aging 65 and above should have at least 2.5 h of aerobic-related exercises ranging from moderate to vigorous levels spread to about 10 min per session. Moreover, the focus on muscle and bone strengthening exercises throughout the week is suggested, at least twice a week, for proper balance and posture among individuals. It was also suggested that older adults should move more, reduce their sedentary lifestyle (energy expenditure less (or equal) than 1.5 metabolic equivalents (MET)), and get more sleep [8,9]. However, 81% of adolescents and 23% of adults globally do not meet the recommendations for physical activity. In contrast with sufficiently active individuals, a 20% to 30% increased mortality risk is projected for insufficiently active individuals, and physical inactivity contributes to about 5 million deaths a year.

Several studies have shown that the pandemic caused adverse effects on physical fitness and lifestyle wellness [10]. The pandemic led to less opportunity for physical activity and proper nutrition. Being forced to be in isolation has significantly affected people's well-being, showing poorer mood and increased stress levels [11]. People apply various measures to cope with stress and self-isolation, including changes in eating and sleeping habits. Additionally, included in these measures are increased use of tobacco, alcohol, and other drugs [12]. Research suggested that the trigger for increased alcohol consumption may have been because of self-isolation and stress during the pandemic [13]. A study showed that young adults aged 18 to 35 years old who exhibited increased pressure correlated to increased weekly alcohol consumption. About 31% of the respondents have reported increasing their weekly alcohol intake [11]. To which, consumption is directly associated with decreased physical activity [14].

Following the study of Reyes-Olavarria et al. [14], they have analyzed the Gen Z population when it comes to their food consumption habits and physical activity. Their study, which was conducted in Chile, found that most people under this generation consumed fried food, less water, and more than six sedentary times per day. The measurement is based on an association analysis of body weight, consumption, physical activities, and socio-demographic characteristics. This is also present among Filipinos, as seen in the study of Ong et al. [15]. The majority of their respondents were among Gen Z as well, analyzing the intention to perform and go to fitness centers during the COVID-19 pandemic. Using the physical activity maintenance theory and social cognitive theory, their study suggested considering behavioral analysis as their focus was on the cognitive aspects of individuals. Their study highlighted that both motivation and understanding the negative effects of COVID-19 caused the trigger for physical activities. However, they also highlighted the need for analysis of protective behavior, which is one aspect that has been seen to demotivate physical activities as people were not able to go out with the strict protocol in the country.

Analysis of physical activities is seen to be a need among literature, especially since the movement and increase in fitness centers are evident throughout the world. As evident in the article by Gough [16], the \$2 billion USD market of gym and fitness centers increased to \$96 billion USD in the year after. A steady increase and growth among these establishments are widespread. International Health, Racquet, and Sportsclub Association (IHRSA) [17] explained that this is especially true since the current generation is more aligned with

health-conscious behaviors, especially Gen Z, Gen Y, and Gen X, which comprise more than 50% of the fitness market. Focus is presented on Gen Zs since these are members who tend to perform physical activities in groups [16,17], which means that they are greatly influential in the fitness market of the Philippines [15].

Several studies have evaluated the intention and behaviors to perform physical activities and go to fitness centers. Avourdiadou and Theodorakis [18] assessed the types of gymgoers in Greece. It was seen from their dynamic customer evaluation that service quality and customer satisfaction are the driving forces for positive behavioral intentions, especially seen in both groups. On the other hand, Bagir and Altinig [19] assessed Sakaray Region's individual expectations. They were able to assess Gen Z's activities, which showed that they are more focused on body building, losing weight, and doing sports. Moreover, Hooker et al. [20] evaluated membership termination among gymgoers in the United States. From their evaluation, it was seen that most memberships are terminated based on poor psychological wellness and unhealthy groups. It was added based on their logistic regression method of wellness assessment that lack of engagement, lack of intervention, and stress among members caused early termination. This is one problem that the study of Ong et al. [15] has also seen in the Philippines. It was seen that motivated individuals significantly influenced their behavioral intentions. Reflecting on the study of Hooker et al. [20] and Bagir and Altinig [19], the need to reflect on the psychological aspect is needed—which is the limitation of other studies performed in the Philippines [15]. This is because promotions may be developed from the behavioral point of view, but physical health and physical activities should also focus on cognitive aspects. As explained by Mandolesi et al. [21], wellness and physical activities are aligned more on the psychological perspective for continuous progression, which was evidently dimmed during the COVID-19 pandemic due to fear, stress, and health reasons.

Moreover, physically active people before the pandemic showed a 41.8% to 42.2% decrease in physical activity such as walking, jogging, and other sports activities. Sedentary behaviors were observed among these individuals, with an increase ranging from 72.3% to 82.7% in watching TV, using electronic devices, and using social media [22]. As explained by Gronek et al. [23], physical activity is defined as a non-pharmacological treatment that does not need intense medical expenditure, is widely available, low cost, and can be performed even at home. It is beneficial since it reduces the risk of cancer, vascular aging, cardiovascular diseases, psycho-motor skills, increased fitness among cardiorespiratory parts, and quality of life in general [23]. Individuals may want to consider aerobic or endurance-focused patterned movements or activities or resistance and/or strength movements or activities. As suggested by Gronek et al. [23], the intensity and amount of activity performed on the two should be gradual and eventually lead to an increase in strength. On the other hand, food consumption was also observed in individuals during the pandemic. There was an overall increase in food intake, such as snacking after dinner, eating in response to sight and smell, and eating in response to stress.

With the evident behavioral changes, the need to assess the perspective to understand a boost in physical fitness and active lifestyle should be evaluated to understand the perceived behavior of people. The continuous change in the environment, development of health risks, and evident stagnant lifestyle need proper addressing to provide knowledge on behavioral changes. The study aims to identify and evaluate factors affecting Filipinos' perceived behavior to boost physical fitness and lifestyle wellness using structural equation modeling, incorporating theories such as the Theory of Effort Minimization and Protection Motivation Theory. Several factors from each theory were simultaneously analyzed using structural equation modeling, which is a tool commonly utilized in behavioral studies. The results of this study can be beneficial among fitness industries, government, local units (LGUs), and private and public institutions, which can help to create successful fitness and wellness programs. Finally, the SEM constructs can be modified and extended to evaluate factors affecting perceived behavior to boost physical fitness and lifestyle wellness among other nationalities.

Related Studies and Theoretical Research Framework

As seen in Figure 1, two frameworks have been considered for this study. These include the Protection Motivation Theory (PMT) and the Theory of Effort Minimization in Physical Activity (TEMPA). This study utilized the PMT as this is a framework that evaluates both the behavioral and cognitive aspects of protective motivations [24]. As Bui et al. [24] explained, PMT can be highly utilized, especially when the cognitive mediation process among individuals is seen during behavioral changes. Since this study was performed near the end of the COVID-19 pandemic in the Philippines, it was evident that behavioral changes happened at the pandemic's peak due to fear, stress, and health behaviors [15]. The said theory is known to recognize people's behavioral feedback to potential risks and classify it to the threat's likelihood and severity [25]. It was highlighted that people changed during the COVID-19 pandemic, especially evidenced by the increase in sedentary activities and lack of physical activities [11–14]. With that, the need for consideration of PMT is needed as this theory measures the social cognition of healthy behavior [26]. Studies performed by Westcott et al. [27] and Rad et al. [28] utilized PMT on how people view perceived health hazards and how these can contribute to the development of safeguarding health behaviors; however, it is highly reliant on personal protection behavior. Thus, the need to extend the framework was suggested to be addressed to completely assess the behavior of people.

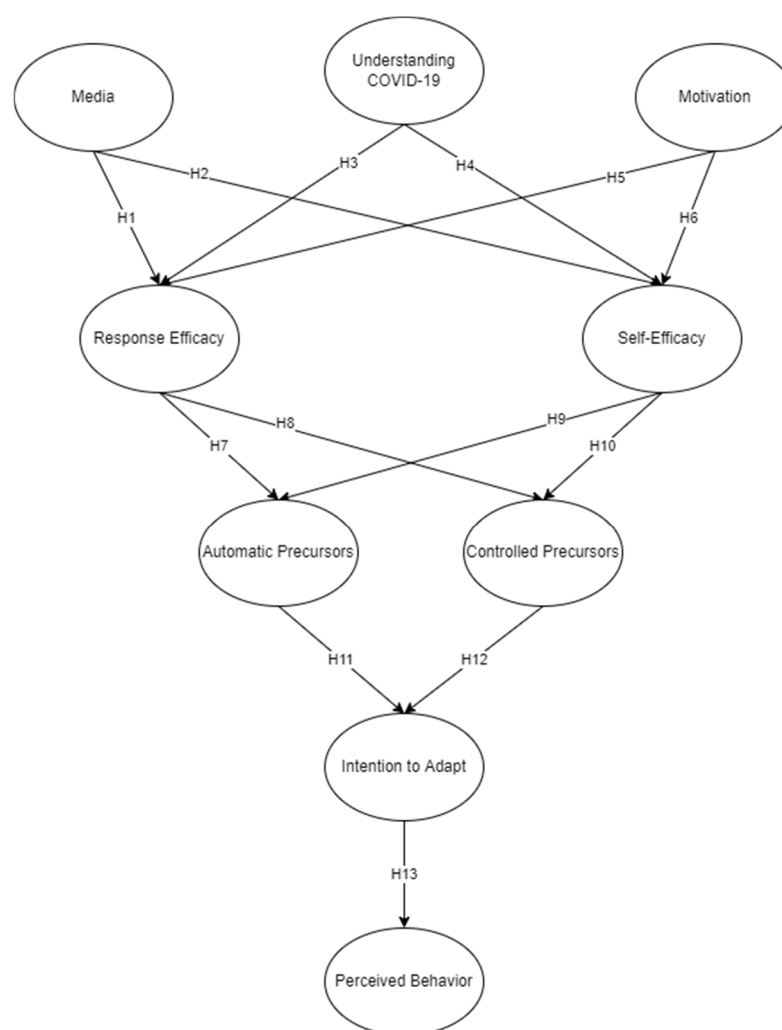


Figure 1. Theoretical research framework.

In addition, TEMPA was used by several studies in accordance with physical efforts by individuals. Cheval et al. [29] presented that TEMPA is a model that holistically measures the precursor of individuals to perform physical activities, including the potential factors for people to fail to engage themselves in their intentions. It is innate to people to develop physically inactive behaviors; various cognitive functions should neutralize this demeanor [30]. In their study, individual autonomy positively influenced people's intention to perform physical activities. However, a neutral evaluation of autonomy was done. Their study suggested that individuals' reasons for performing physical activities should be evaluated [31]. Thus, it could be deduced that the evaluation of automated actions or controlled actions be assessed. Similarly, TEMPA was suggested as one of the highly significant measures of an individual's exercise motivation and physical (in)activity, as evidenced by the related studies [26,27,32].

Thogersen-Ntoumani et al. [33] suggested that TEMPA alone can be indicative of overprediction. This is why the need for expansion of theoretical measures is needed. Thus, this study integrated both PMT (as preceding latent [24–28]) and TEMPA to holistically measure protective social cognitive aspects of physical fitness and lifestyle wellness, as most Filipinos have shifted their perspective on improving their fitness and lifestyle wellness after the onset of COVID-19 pandemic and see it with great importance.

Media is defined as a means to communicate across time and space, including channels of communication, mass media, and modes of artistic expression [34]. Media can potentially reach a wide range of audiences, so it influences public opinion. As such, when used responsibly, media may be information vehicles, accountability mechanisms, and discourse platforms. According to Vasuja and Balamurugan [35], mass media can influence consumers to change their daily routine—from eating to physical activity. The use of television for watching during treadmill and exercise has been a habit of some individuals; this has improved participants' exercise experience and made exercising more attractive, possibly by serving as entertainment and distraction [36].

On the other hand, social media use may have negative consequences, such as reduced physical and psychological health due to a sedentary lifestyle, poor dietary and sleeping habits, and cognitive impacts, such as social isolation and negative self-perception. [37,38]; and mental health risk concerns such as depression, anxiety, stress, poor mood, and body dissatisfaction [39]. The definition of a sedentary lifestyle was applied from the discussion made by the Sedentary Behavior Research Network [9]. This study relates to the reduced amount of physical activity or performance, characterized by an energy expenditure less (or equal) than 1.5 metabolic equivalents (MET). Therefore, the following was hypothesized:

H1: *Media has a significant direct effect on response efficacy.*

H2: *Media has a significant direct effect on self-efficacy.*

Several studies have proven that the COVID-19 pandemic affected the mental well-being of people around the world. Recently, evidence has pointed out how knowledge of COVID-19 may have a role in the intention to adopt physical fitness and lifestyle wellness. Knowledge helps people to receive information and understand that performing precautionary measures would be beneficial [40]. Moreover, understanding COVID-19 implications brings about people's consciousness and, therefore, more confidence in their ability to achieve specific goals [41]. However, it is essential to note that COVID-19 understanding as a factor needs to be better established and requires more exploration. Thus, the study considered the latter as a predictor of perceived behavior and hypothesized the following:

H3: *COVID-19 understanding has a significant direct effect on response efficacy.*

H4: *COVID-19 understanding has a significant direct effect on self-efficacy.*

On the other hand, motivation is how goal-directed behaviors are actuated and maintained [42]. In the context of fitness, physical literacy has become a topic of interest in

determining the association of motivation with physical fitness. Physical literacy involves physical competence, inspiration, confidence, and understanding to commit to physical activities and engagement. As expressed by Alves et al. [43], adolescents have higher physical activity motivations, which has resulted in better cognitive functions leading to positive academic performance. The study presents the benefit of their motivation to perform physical activities, which reflects adolescents' response and self-efficacy. The response of an individual towards a healthier lifestyle significantly and directly affects their efficacy [22,37,38]. Thus, it was hypothesized that:

H5: *Motivation has a significant direct effect on response efficacy.*

H6: *Motivation has a significant direct effect on self-efficacy.*

Protection Motivation Theory (PMT) is a value-based theory that proposes that behavioral intentions are influenced by beliefs and attitudes, such as response efficacy and self-efficacy [44]. Response efficacy refers to the belief in how effective a specific behavior is in eliminating or preventing potential harm. At the same time, self-efficacy is the confidence in one's capability to perform a recommended behavior [45]. Additionally, the PMT considers intrinsic and extrinsic behavior to understand how people cope with stressful situations, where an individual's fitness and lifestyle wellness can prevent and remove health concerns and enable adaptive responses [45]. As explained by related studies [24–30], people will have the efficacy in performing an activity such as exercising or self-protection for the prevention of a health problem that may occur. Thus, it could be posited that response and self-efficacy are preceding factors affecting precursors, whether voluntarily or automatically. Therefore, the following were hypothesized:

H7: *Response efficacy has a significant direct effect on automatic precursors.*

H8: *Response efficacy has a significant direct effect on controlled precursors.*

H9: *Self-efficacy has a significant direct effect on automatic precursors.*

H10: *Self-efficacy has a significant direct effect on controlled precursors.*

The Theory of Effort Minimization in Physical Activity (TEMPA) describes why individuals who intend to be physically active may not be active [46,47]. Cheval and Boisgontier [31] noted that TEMPA integrated automatic responses triggered by physical activity cues and automatic attraction to minimize effort, providing a new perspective on the neuropsychological determinants of movement-based behaviors. Movement-based behaviors are influenced by controlled and automatic processes that can be activated using movement-related cues. Their study also noted that positive (perceived pleasure) or negative (perceived displeasure) evaluation of these cues affects the effort evaluation related to the cues and eventually will influence the automatic and controlled processes [31,48]. For these precursors to propel the behavioral intention to physical activity engagements, the automatic and controlled processes supporting this intention should exhibit a more vital driving force to outweigh the negative processes that support effort minimization [31]. The following precursors were hypothesized:

H11: *Automatic precursors have a significant direct effect on intent to adapt.*

H12: *Controlled precursors have a significant direct effect on intent to adapt.*

Intent to adapt is the intention to perform an activity, such as when an individual is ready to perform physical activities to adapt a healthy lifestyle. Most people intending to be physically fit can successfully translate it into physical activity and complete the said behavior [46]. Moreover, higher levels of enjoyment can trigger the effect of intentions relating to the commitment and persistence to exercising and being physically fit [48]. Additionally, individuals who intend to be physically active would most likely maintain the behavior in the long term since they find pleasure and joy in doing the said activity [49]. Relating to the context made by the study of Raglewska and Demarin [50], they explained

that physical activity does not relate to something that is specifically for fitness. Physical activities are considered to be a non-pharmacological manner of endurance, fitness, strengthening, and flexibility. A person's intention to adapt to this perspective does not focus solely on fitness but to keep the overall movement present in order to reduce sedentary positions and prolonged stagnant reduced movement. Thus, it was hypothesized that:

H13: *Intent to adapt has a direct effect on the perceived behavior.*

2. Methodology

2.1. Participants

The questionnaire was disseminated online due to health reasons and strict health protocols in the Philippines. Due to late response, the Philippines has not lifted all health protocols from the pandemic. A convenience sampling approach from an online survey was considered—disseminated among different social media platforms [15]. It was evident from related studies [15,51] that a greater number of respondents may encompass the measurement using structural equation modeling (SEM). With greater than eight latent variables, at least 500 respondents should be collected.

Only those who have the intention to perform physical activities or are aligned with lifestyle wellness were assessed (Table 1). The google forms used prompted a question regarding this, and those who were not inclined with these were not directed to the survey question. The filtering question answered by a YES (proceed to the questionnaire) and NO (directed to the end of the survey) was “Do you have the behavioral intention to perform physical activities or engage in positive lifestyle wellness?”. After gaining 300 respondents, a reliability test was performed to ensure the validity and consistency of the questionnaire [52]. Based on the results, the Cronbach's Alpha values of each factor are reliable (>0.70), making the questionnaire consistent and could be disseminated further for use in the study. A total of 565 valid respondents participated in the survey—adhering to the recommendation of Hair et al. [50]. It was explained that a sample size of less than 500 can imply more variability and less stability in the solutions.

Table 1. Respondents' descriptive statistics (n = 565).

Characteristics	Category	N	%
Gender	Male	306	54.2
	Female	259	45.8
Age bracket	Gen Z (18–25)	542	95.9
	Millennials (26–41)	14	2.5
	Gen X (42–57)	8	1.4
	Boomers II (58–67)	1	0.2
Occupation	Student	517	91.5
	Part-time employee	8	1.4
	Full-time employee	29	5.1
	Self-employed	6	1.1
	Unemployed	4	0.7
	Retired	1	0.2
Monthly Income Allowance	Below P10,957	464	82.1
	P10,957–P21,914	60	10.6
	P21,914–P43,828	25	4.4
	P43,829–P76,668	11	1.9
	P76,669–P131,484	3	0.5
	P131,485–P219,140	2	0.4
	Above P219,140	0	0.0

Table 1. Cont.

Characteristics	Category	N	%
Geographical Residence	National Capital Region (NCR)	276	48.8
	Cordillera Administrative Region (CAR)	1	0.2
	Region I—Ilocos Region	11	1.9
	Region II—Cagayan Valley	3	0.5
	Region III—Central Luzon	93	16.5
	Region IV-A—CALABARZON	154	27.3
	Region IV-B—MIMAROPA	1	0.2
	Region V—Bicol Region	6	1.1
	Region VI—Western Visayas	4	0.7
	Region VII—Central Visayas	5	0.9
	Region VIII—Eastern Visayas	1	0.2
	Region IX—Zamboanga Peninsula	2	0.4
	Region X—Northern Mindanao	5	0.9
	Region XI—Davao Region	1	0.2
	Region XII—SOCCSKSARGEN	1	0.2
	Region XIII—Caraga	1	0.2
Do you exercise?	Sometimes	404	71.5
	Yes	53	9.38
	No	108	19.12
If yes, how often do you exercise?	Daily	92	16.3
	Weekly	221	39.1
	Monthly	100	17.7
	N/A	152	26.9
Do you have a nutritionist?	Yes	9	1.6
	No	556	98.4
Do you follow a specific diet?	Yes	69	12.2
	No	496	87.8

Among the respondents, 306 (54.2%) were male, and 259 (45.8%) were female. The majority of the survey participants belonged to Gen Z (18–25) (95.9%) age bracket, 2.5% belonged to Millennials (26–41), 1.4% from Gen X (42–57), and 0.2% from the Boomers age bracket (58–67). Moreover, most respondents were Students (91.5%), followed by Full-time employees (5.1%), Part-time employees (1.4%), Self-employed individuals (1.1%), Unemployed individuals (0.7%), and Retired individuals (0.2%). In addition, 82.1% of the respondents had a monthly income allowance of below P10,957, 10.6% had a monthly income allowance of P10,957–P21,914, 4.4% had a monthly income allowance of P21,914–P43,828, 1.9% had a monthly income allowance of P43,829–P76,668, individuals who had a monthly income allowance of P76,669–P131,484 and P131,485–P219,140 amounted to 0.5% and 0.4% of the total respondents, respectively. None of the respondents had a monthly income allowance above P219,140. Regarding their geographical residence, almost half of the survey respondents reside in the NCR (48.8%), more than a quarter reside in Region IV-A (27.3%), followed by individuals residing in Region III (16.5%), Region I (1.9%), Region V (1.1%), Region VII and Region X (0.9%) each, Region VI (0.7%), Region II (0.5%), and CAR, Region IV-B, Region VIII, Region XI, Region XII, and Region XIII (0.2%) each. Most of those who said they exercise do it weekly (39.1%), 17.7% do it monthly, and 16.3% do it daily. Meanwhile, a significant percentage of the respondents did not have nutritionists (98.4%), and only 9 or 1.6% had nutritionists. Moreover, 87.8% of the respondents do not follow a specific diet, and only 12.2% follow a particular diet.

2.2. Statistical Analysis

Different authors have detailed three superior characteristics that make it different from other models. For one, it considers unobserved factors that are not directly measured. Errors in the measurement of the observed variables, as well as the relationships between

their errors, are taken into consideration. This is something that traditional regression analysis lacks since it neglects potential measurement errors. Lastly, it is often used to examine complex and multi-faceted constructs and to show direct and indirect relationships between dependent and independent variables [50,53–58]. At the same time, SEM is based on the covariance matrix, earning SEM another name, covariance structure modeling, or analysis of covariance structure [59]. Despite their differences, structural equation modeling shares the same assumptions that apply to regression models [56,60].

It was explained that SEM is beneficial since it identifies that path latent variables considered can be considered that affect the target object [26]. In this study's case, the different latent variables under PMT affect TEMPA and eventually affect the behavior factor target. Similar to the discussion of Hair et al. [51], SEM can identify the direct, indirect, and total effects among exogenous and endogenous latent variables. The study using logistic regression on physical activities [20] also presented limitations, such as not being able to fully assess the different relationships of their factors, which SEM can do. This was suggested to be done; thus, the related studies [15,26] have also utilized SEM for their analysis. Since the current study established an integrated model that needs holistic measurement like that of other studies [15,26], SEM will be beneficial to fully comprehend the different interactions present in the considered framework [61].

2.3. Questionnaire

A self-administered questionnaire (SAQ) is structured for respondents to answer to completion without requiring the researchers to be present or involved. The data measure (Table 2) was used to identify significant factors affecting Filipinos' perceived behavioral intention to boost physical fitness and lifestyle wellness amidst the COVID-19 pandemic, with the integration of both Protection Motivation Theory (PMT) and Theory of Effort Minimization in Physical Activity (TEMPA). The SAQ included the following sections: (1) Data Privacy, (2) Demographic information, including age, gender, region, employment, educational attainment, and monthly income/allowance, (3) Media, (4) COVID-19 Understanding, (5) Motivation, (6) Response Efficacy, (7) Self Efficacy, (8) Automatic Precursors, (9) Controlled Precursors, (10) Intent to Adapt, and (11) Perceived Behavior were adapted from several studies. The variables in each construct were measured by respondents using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Table 2. Table of constructs and measures.

Constructs	Items	Measures	Supporting References
Media	ME1	I think the media influences me a lot to be physically active because of the personal experience of others.	Kaur et al. [62]
	ME2	I think that media, when used more carefully can cause individuals to feel less fear, panic, and confusion about contracting diseases.	Obi-Ani et al. [63]
	ME3	Given the readily available online fitness programs, I think the media influences me to be more physically active.	Culos-Reed et al. [64]
	ME4	I became more inclined to choose healthier food options because of media advertisements.	Ragelienė et al. [65]

Table 2. Cont.

Constructs	Items	Measures	Supporting References
COVID-19 Understanding	CU1	I think that health authorities help us prevent COVID-19 by providing safety information such as minimum health protocols, COVID-19 statistics, and vaccination updates.	El-Far Cardo et al. [66]
	CU2	I think COVID-19 is less fatal to individuals with comorbidity if healthy habits are incorporated into our lifestyle.	McGurnaghan et al. [67]
	CU3	I exercise to be in good health and prevent COVID-19 implications.	Wilczyńska et al. [68]
	CU4	Knowing the effects of COVID-19 makes me uneasy, so I engage in physical activities to improve my emotional well-being.	Wilczyńska et al. [68]
Motivation	M1	I think that I will be more motivated to exercise if I can do it in fitness and recreational centers.	Kaur et al. [62]
	M2	I am more encouraged to engage in physical activities when exercising with others.	
	M3	I am more excited to perform outdoor exercises like walking, jogging, cycling, and other sports.	Matsumura et al. [69]
	M4	The work-from-home setup motivates me to exercise and have a healthier diet.	Makruf and Ramdhan [70]
	M5	Having workout equipment motivates me to be more physically active.	Abdul Manaf et al. [71]
Response Efficacy	RE1	I am encouraged to engage in exercise programs because it would improve my physical function.	Ngo-Huang et al. [72]
	RE2	I am encouraged to engage in exercise programs because it would improve my metabolism.	Füzéki, Groneberg, and Banzer [73]
	RE3	I believe that being physically active would lessen my chances of getting sick.	Kolokoltsev et al. [74]
	RE4	I believe regular physical activity has positive effects on psychological health.	Maugeri et al. [75]
	RE5	I believe that eating healthy would lessen the threats of cardiovascular disease.	Pallazola et al. [76]
Self-Efficacy	SE1	I am confident in my ability to do resistance exercises (e.g., squats, lunges).	Van Baak et al. [77]
	SE2	I like to challenge myself to engage in aerobic physical activities.	Füzéki, Groneberg, and Banzer [73]
	SE3	I like to challenge myself to engage in muscle-strengthening physical activities.	Füzéki, Groneberg, and Banzer [73]
	SE4	I am confident that I can do physical exercises regularly.	da Silveira et al. [78]
	SE5	It is easy for me to stick to my fitness goals.	Raggatt et al. [79]
	SE6	I can control my food intake and adhere to a strict diet plan.	Raggatt et al. [79]
	SE7	If I set my mind to reduce or stop drinking alcohol, smoking, and other unhealthy substances, I could immediately do so.	Perski et al. [80]

Table 2. Cont.

Constructs	Items	Measures	Supporting References
Automatic Precursors	AP1	I feel good after completing a workout routine.	Cheval and Biosgontier [31]
	AP2	I view the experience of physical activity to be pleasant.	Brand and Ekkekakis [47]
	AP3	After completing a workout routine, I think of working out again in the following days.	Slawinska and Davis [81]
	AP4	If I were asked about my feelings regarding exercising, I would say it is enjoyable.	Brand and Ulrich [82]
	AP5	If I were asked about my feelings regarding exercising, I would say it is enjoyable.	Brand and Ekkekakis [47]
Controlled Precursors	CP1	I evaluate first the benefits and outcomes of physical activities before doing it.	Brand and Ekkekakis [47]
	CP2	I think eating nutritious foods may take a little effort but is beneficial for me.	Cheval and Boisgontier [31]
	CP3	I think exerting effort to exercise is worthwhile.	Kim and Kim [83]
	CP4	Regular exercise will enable me to become physically and mentally healthy.	Cheval and Boisgontier [27]
	CP5	I think having a healthy lifestyle is rewarding in the long run.	Hofmann et al. [84]
Intent to Adapt	ITA1	I intend to exercise for me to be physically fit.	Kim and Kim [83]
	ITA2	I intend to eat nutritious food in order for me to be healthy.	Brand and Ekkekakis [47]
	ITA3	I intend to avoid consuming too much junk, sweets, and other processed foods.	Rahmati-Najarkolae et al. [85]
	ITA4	I intend to keep myself away from heavy alcohol consumption, cigarette smoking, and other unhealthy substance use.	Tapera et al. [86]
	ITA5	I intend to sleep 7 to 9 h daily to boost my immune system.	Strong et al. [87]
Perceived Behavior	PB1	I believe I stayed fit during the past month.	
	PB2	I think I have eaten nutritious foods during the past month.	
	PB3	I think I have kept myself away from consuming too much junk food, sweets, and other processed foods during the past month.	
	PB4	I think I have kept myself from consuming too much alcohol, cigarette smoking, and other unhealthy substance use during the past month.	
	PB5	I think I slept 7 to 9 h a day during the past month.	

3. Results

The initial SEM for the factors affecting Filipinos' perceived behavioral intention to boost physical fitness and lifestyle wellness is shown in Figure 2. It could be seen that motivation to self-efficacy (Hypothesis 6) was deemed insignificant, with a value greater than 0.50. In addition, factor loading of less than 0.50 was considered insignificant, which was also removed [51]. To improve the model fit, covariances from modification indices were utilized between indicators; thus, the final model is shown in Figure 3. Moreover, the descriptive results of the indicators are shown in Table 3.

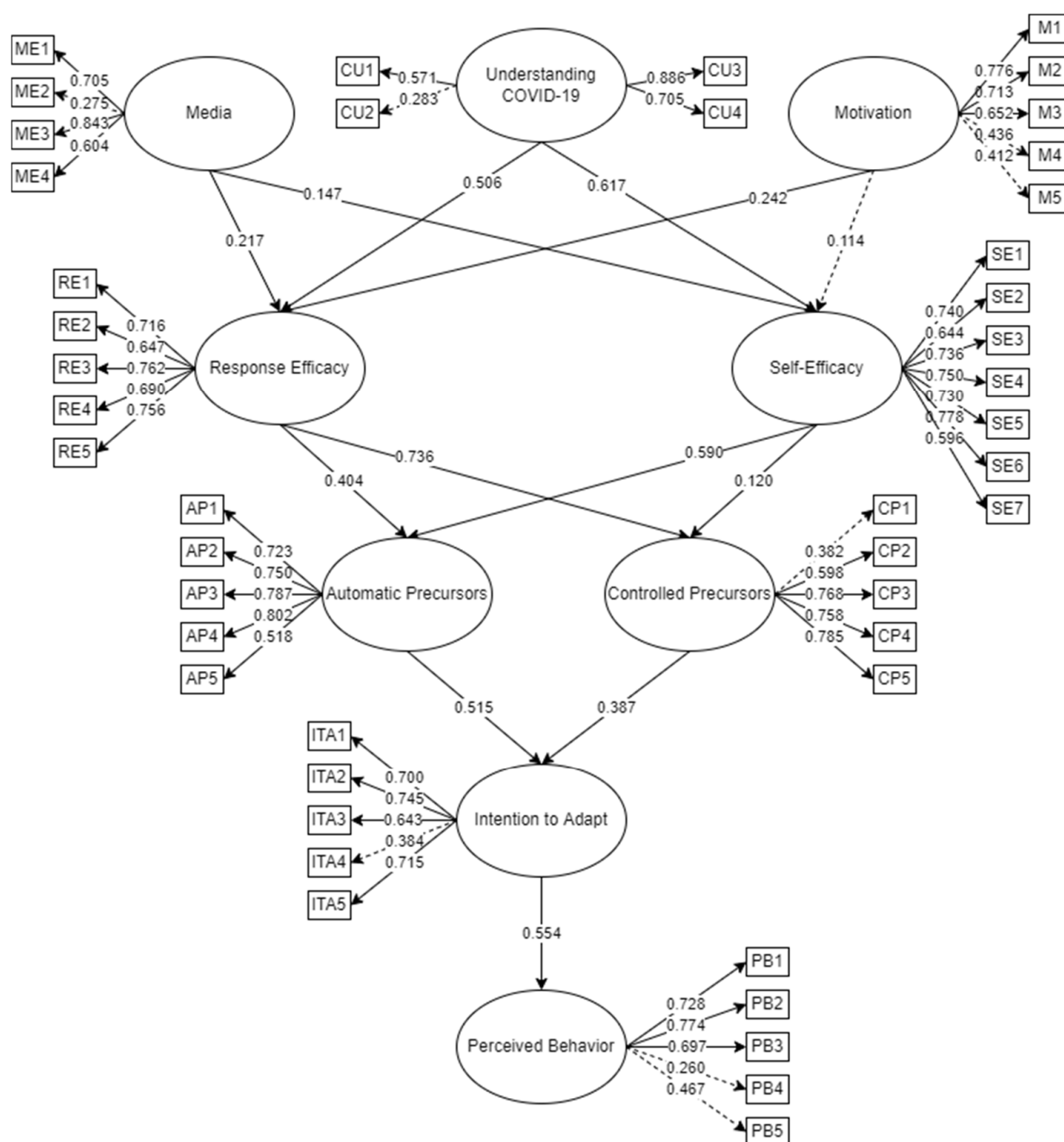


Figure 2. Initial SEM for factors affecting Filipinos' perceived behavior to boost physical fitness and lifestyle wellness.

Table 3. Descriptive statistics results.

Latent Variables	Item	Mean	StDev	Variance	Factor Loading	
					Initial	Final
Media	ME1	3.742	1.069	1.142	0.705	0.715
	ME2	4.336	0.806	0.649	0.275	-
	ME3	3.731	1.036	1.073	0.843	0.836
	ME4	3.273	1.156	1.337	0.604	0.604

Table 3. Cont.

Latent Variables	Item	Mean	StDev	Variance	Factor Loading	
					Initial	Final
Response Efficacy	RE1	4.156	0.884	0.782	0.716	0.716
	RE2	4.096	0.952	0.906	0.647	0.647
	RE3	4.428	0.768	0.589	0.762	0.767
	RE4	4.607	0.683	0.466	0.690	0.696
	RE5	4.614	0.658	0.432	0.756	0.762
Self-Efficacy	SE1	3.853	1.134	1.285	0.740	0.739
	SE2	3.708	1.100	1.211	0.644	0.643
	SE3	3.919	1.116	1.245	0.736	0.735
	SE4	3.589	1.197	1.434	0.750	0.754
	SE5	3.002	1.205	1.452	0.730	0.735
	SE6	3.158	1.148	1.317	0.778	0.782
	SE7	4.165	1.078	1.163	0.596	0.597
Automatic Precursors	AP1	4.467	0.768	0.590	0.723	0.721
	AP2	4.262	0.918	0.843	0.750	0.748
	AP3	3.950	1.067	1.139	0.787	0.788
	AP4	4.085	0.978	0.957	0.802	0.802
	AP5	3.961	1.140	1.300	0.518	0.517
Controlled Precursors	CP1	3.970	1.009	1.019	0.382	-
	CP2	4.266	0.836	0.699	0.598	0.595
	CP3	4.446	0.726	0.528	0.768	0.764
	CP4	4.591	0.653	0.427	0.758	0.771
	CP5	4.657	0.649	0.421	0.785	0.798
Intent to Adapt	ITA1	4.352	0.882	0.778	0.700	0.729
	ITA2	4.211	0.899	0.808	0.745	0.726
	ITA3	3.637	1.133	1.285	0.643	0.638
	ITA4	4.349	0.966	0.933	0.384	-
	ITA5	3.611	1.172	1.373	0.715	0.742
Perceived Behavior	PB1	3.159	1.263	1.595	0.728	0.734
	PB2	3.372	1.139	1.298	0.774	0.782
	PB3	3.243	1.259	1.585	0.697	0.688
	PB4	4.131	1.209	1.462	0.260	-
	PB5	2.866	1.327	1.762	0.467	-

To assess the compliance of the model, various fit indices were measured. As shown in Table 4, Incremental Fit Index (IFI), Tucker–Lewis Index (TLI), Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Adjusted Goodness of Fit Index (AGFI) had parameter estimates greater than the cut-off value of 0.80 which demonstrates the study’s acceptable model fitness [88]. The Root Mean Square Error of Approximation (RMSEA) showed a value of 0.065, which fits the cut-off value between 0.05 and 0.08, as indicated by Civelek [89], suggesting an acceptable model fit.

Table 4. Model fit indices.

Goodness of Fit Measures	Parameter Estimates	Minimum Cut-off	Suggested by
Incremental Fit Index (IFI)	0.899	>0.80	Gefen et al. [88]
Tucker–Lewis Index (TLI)	0.882	>0.80	Gefen et al. [88]
Comparative Fit Index (CFI)	0.898	>0.80	Gefen et al. [88]
Goodness of Fit Index (GFI)	0.868	>0.80	Gefen et al. [88]
Adjusted Goodness of Fit Index (AGFI)	0.836	>0.80	Gefen et al. [88]
Root Mean Square Error of Approximation (RMSEA)	0.065	<0.07	Civelek [89]

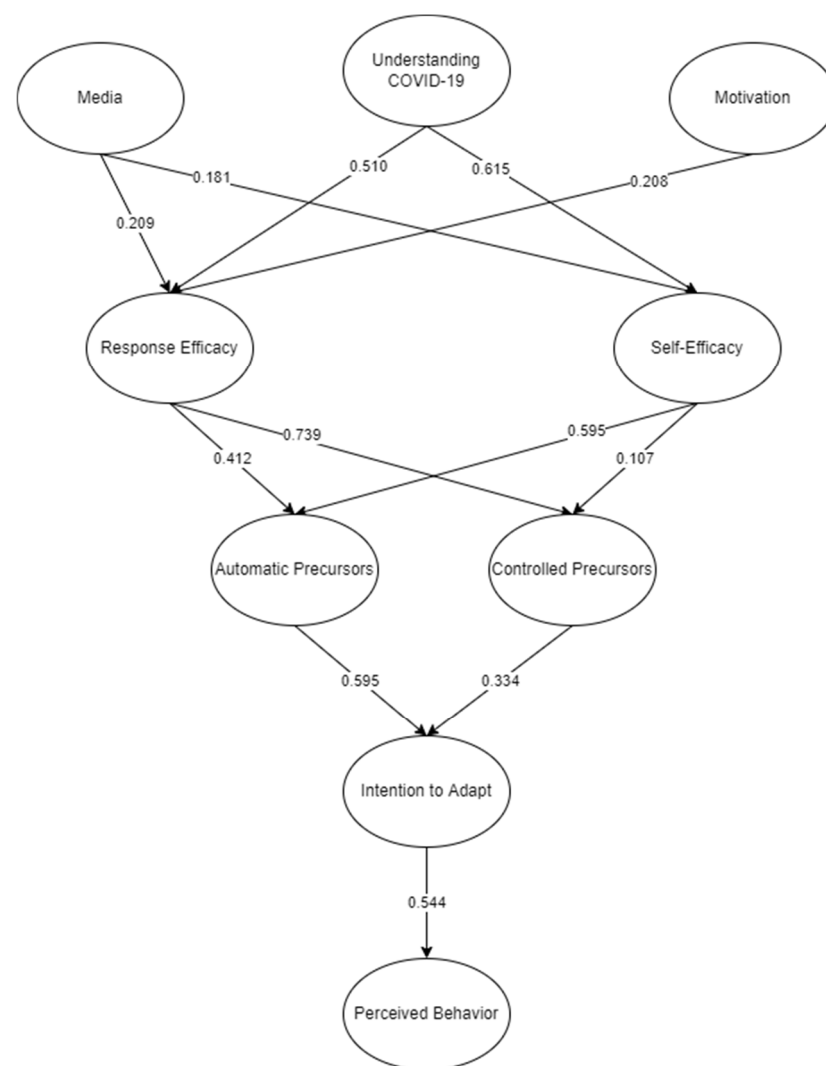


Figure 3. Final SEM for factors affecting Filipinos' perceived behavior to boost physical fitness and lifestyle wellness.

The constructs' Cronbach's Alpha and Composite Reliability values are in the acceptable cut-off range—higher than 0.700 (Table 5) [50,51]. This indicates that all measurement items are consistent and considered reliable. Moreover, the Average Variance Extracted (AVE) was within the minimum acceptable level of 0.50. Thus, it could be concluded that the validity of the constructs is acceptable [90].

Table 5. Composite reliability.

Factor	Cronbach's Alpha	Average Variance Extracted (AVE)	Composite Reliability (CR)
Media	0.756	0.765	0.525
COVID-19 Understanding	0.776	0.770	0.536
Motivation	0.625	0.781	0.544
Response Efficacy	0.824	0.842	0.517
Self-Efficacy	0.858	0.879	0.511
Automatic Precursors	0.864	0.843	0.522
Controlled Precursors	0.834	0.824	0.542
Intent to Adapt	0.732	0.802	0.504
Perceived Behavior	0.781	0.779	0.541

4. Discussion

This study aimed to determine the significant factors influencing the perceived behavior of Filipinos toward facilitating physical fitness and lifestyle wellness by incorporating the Theory of Effort Minimization (TEMPA) and Protection Motivation Theory (PMT). From the results, Understanding of COVID-19 (CU) significantly affected Self-Efficacy (β : 0.615; $p = 0.006$). Based on its indicators, knowledge and cognizance of COVID-19 implications substantially affect people's belief in their ability to control their actions. People who grasp COVID-19 implications prompt their self-consciousness and immediately think of their ability to be physically fit and have a healthier lifestyle, which would prevent and reduce virus infection. This, therefore, also prompted the direct effect of CU on response efficacy (β : 0.510; $p = 0.012$). Yıldırım and Güler [41] mentioned that people's confidence in their capabilities has a direct influence on their actions, may it be the amount of effort or the resistance to preventive action. Therefore, becoming more knowledgeable and educated will increase the individual's confidence in executing a plan of action to reach specific goals in physical fitness and lifestyle wellness.

In addition, Prasetyo et al. [40] indicated that knowledge helps to learn and receive information and is easily understood by an individual when the public believes that performing precautionary behaviors would be effective. As people can comprehend information regarding COVID-19 from health authorities, it increases their belief that being physically active and improving lifestyle wellness can prevent the disease. People have more intention to boost physical fitness and lifestyle wellness to avoid contracting diseases and be healthy. It could be seen that Canada provides suggestions on physical activities, what needs to be done, and what is encouraged [9]. Thus, informing citizens using public health information by government units and private and public institutions will make people more likely to participate in recommended fitness programs and have health-promoting behaviors to become a healthier workforce. This is consistent with Truong et al. [91], wherein perceived self-efficacy and knowledge about COVID-19 significantly affected a person's estimate of how to act in a situation. In connection, Yıldırım and Güler [41] also found that self-efficacy has a significant positive correlation with COVID-19 knowledge. Thus, this prompted the indirect effect among precursors, intention to adapt, and perceived behavior.

Second, response efficacy was found to have a significant influence on controlled precursors (β : 0.739; $p = 0.009$). This shows that an individual's belief in the effectiveness of health behaviors affects their objective view of the relevance of physical fitness and a healthy lifestyle. Similarly, an indirect effect was seen on the intention to adapt (β : 0.492; $p = 0.005$) and perceived behavior (β : 0.268; $p = 0.003$). Since perceiving the benefits of exercise entails deliberative reasoning, it goes hand-in-hand with the cognitive nature of controlled precursors rooted in reasoned attitudes, assessing whether time and effort investment in physical activities is worthwhile and beneficial [31]. As explained in the article of Gronek et al. [23], the activities performed by a person should be gradual for it to be sustainable. With it, people may develop the cognitive skills for proper physical activities, which will turn into a part of their lifestyle that will become beneficial [30]. Thus, this contributes to the likelihood of people engaging in improving their physical activities, as evident in the Theory of Effort Minimization in Physical Activity [30–32].

Third, it was seen that self-efficacy is presented as a significant influence on automatic precursors (β : 0.595; $p = 0.009$). Personal beliefs about one's capability (e.g., physical capacity, fitness equipment, time availability) to exercise and regularly practice healthy behavior contribute to an individual's affective reactions or sentiments (e.g., emotions, feelings, and experiences) towards executing these behaviors. A person's immediate response to exercise-related stimuli is pre-determined when they already know that they are capable or not engaging in physical exercises. Results also show that self-efficacy has a significant indirect relationship with intention to adapt (β : 0.390; $p = 0.004$) and perceived behavior (β : 0.212; $p = 0.002$). An individual's engagement in physical activity is associated with one's perceived capabilities of executing the behavior [46,92,93]. Relating to the study of Raglewska and Demarin [50], they explained that people have the ability to have the

motivation for physical activities such as dancing to promote cognitive and social needs, not just for exercising and physical activities solely.

Fourth, Automatic Precursors (AP) showed a direct effect on Intention to Adapt (ITA) (β : 0.595; p = 0.007). People with a positive connotation with exercising and doing physical activity, may be from past experiences and shared experiences of others, have a higher probability of being determined to act to have a healthier lifestyle. The study by Liao et al. [94] showed that peer and parent relationships influenced younger generations on physical activities and lifestyle wellness. The influence of others on the individual was presented as conscientiousness, neuroticism, and agreeableness. The effect on other people influences an individual's positive relationship with adaptable behavior for physical activities. Similarly, the effects of other people may influence individuals to perform healthier lifestyles as expressed by different literatures [95,96]. However, Ekkekakis et al. [97] mentioned that as people intensify their physical exercise activities, the more they become uninspired.

In addition, 71.6% of the currently exercising respondents are more likely to adapt it as a routine, and 67.2% of the respondents agree that they are thinking of working out again in the following days upon completing a workout routine. Gordon and Bloxham [98] established that constant physical activities and exercise benefited the physical health of individuals, which is why people who have performed physical activities would continue performing them. Kaur et al. [62] also established that those who had been working out before the COVID-19 pandemic found ways to perform home workouts just to continue with their routines. The effects of exercising have led to a habitual lifestyle, wellness performance, and activities. Thus, prompting the indirect relationship on perceived behavior (β : 0.324; p = 0.004). A good notion of a healthy lifestyle and physical activities would significantly lead to a higher approach and perception of one's ability to engage in healthier habits and physical activity opportunities.

Fifth, SEM revealed that controlled precursors have a significant direct effect on intent to adapt (β : 0.334, p = 0.009) and a significant indirect effect on perceived behavior (β : 0.128, p = 0.009). Based on its indicators, reflective evaluations or an individual's reasoned attitudes, outcome expectancy, and perceived benefits affect their intent to adapt or readiness to perform physical activity and healthy lifestyle wellness. This also entails that the controlled precursors propel an individual's intent into physical engagements, therefore suggesting that the respondent-controlled precursors exhibit a stronger driving force that outweighs negative processes that promote effort minimization [31]. Furthermore, controlled precursors are considered higher-level cognitive operations (e.g., deliberative reasoning) that deal with one's needs and values, which contribute to the decision-making process of an individual [99]. This meant the respondents evaluated their actions based on the benefits and possible outcomes before performing the behavior. Hagger [100] emphasized that an intent to commit behavior is determined by the processes guided by reflection on an action's value and anticipated outcomes, leading to adaptive behaviors. Thus, if an individual perceives something to be beneficial for them, the clearer their intentions to adopt a healthy lifestyle, which then helps them to translate their intent into behavior or action.

With most of the respondents belonging to the Gen Z age bracket, this substantiated the study of Sogari et al. [101], revealing that controlled precursors have influenced young adults to consume healthier food and pursue a healthier lifestyle. People in the Gen Z bracket have adequate energy levels compared to the older generation, which poses greater motivation to improve their lifestyle wellness. This is evident in the aging population's decreased physical behaviors due to a lack of subjective energy availability [32].

Consistently, Shaikh and Dandekar [102] also observed that when an individual realizes that an activity will be useful for them (i.e., health-related), they intend to perform that behavior, emphasizing that the interaction between perceived benefits is crucial to a person's adherence to the said activity. Moreover, an individual's intention is more vital when behavior is regarded as beneficial, significantly when it outweighs the barriers [103]. As explained in the study of Alves et al. [43], boys have higher levels of physical function

notion and physical activity motivations among younger generations. Which most focused on cardiorespiratory activities and exercises and muscle strengthening and fitness. The active lifestyle was correlated with the increase in academic performance. However, it was noted that some studies expressed an equal relationship between boys and girls, which cannot be generalized among boys yet.

It was also seen that media has a significant direct effect on response efficacy (β : 0.209, $p = 0.014$) and self-efficacy (β : 0.181, $p = 0.023$). This result indicates that media as an information-sharing tool affects the efficacy of individuals concerning their intent to be physically active and adopt a healthy lifestyle. With the massive advancement of social media nowadays, people are given more readily available materials regarding the benefits of physical activity and having a healthy lifestyle overall, which then influences them to practice the said behavior. This confirms that Filipinos' primary motivator of media consumption is information [104–106]. The study by Kaur et al. [62] showed that active fitness enthusiasts during the COVID-19 pandemic made use of home workouts available on social media. Similarly, Durau et al. [95] presented how social media fitness influencers have gained popularity among individuals. Especially in the age where technology and social media are being considered by all generations, their impact has been considered by both genders as a form to develop a healthier lifestyle. Moreover, Mema et al. [96] also explained that media plays a significant role in sedentary and active physical activities by individuals. They have shown how those without the influence of media have greater risks of being stagnant due to fewer interactions with others. The Department of Health (DOH) in the Philippines has used social media to spread health information and advocacies [15]. Various informational campaigns, such as preventing and beating cardiovascular diseases, cancer, diabetes, and other diseases, as well as habit campaigns that encourage the public in different health-promoting actions and behaviors, are regularly released on their various social media pages.

In the past years, it was revealed that many adult Internet users sought health-related information on different health issues on social media [107,108]. Therefore, as people use media more as a way to obtain information, they trust that their action effectively reduces several health threats such as COVID-19, cardiovascular diseases, and other diseases. Vasuja and Balamurugan [35] have consistently claimed that mass media influences individuals to change their daily routine by practicing good eating habits and physical activity. The evidence stated by Farooq et al. [109] aligns with this result, as it was revealed that compulsive media consumption via social media is linked with increased coping appraisals and enhanced preventive behaviors in the context of COVID-19. Similarly, attention to anti-obesity media content results in higher coping appraisals for exercising and maintaining a healthy diet, as these actions are deemed as prescriptions to avoid the said disease [110]. In summary, the media is an effective channel to disseminate essential information regarding preventive behaviors for the public, which can facilitate the making of necessary changes [91,111]. Therefore, it justifies the indirect effects on precursors, intention to adapt, and perceived behavior.

Lastly, intention to adapt presented a significant direct effect on perceived behavior. This indicates that as people are more likely to perform activities to boost physical fitness and practice a healthy lifestyle, their belief in their ability to perform the said behavior increases. Klompstra et al. [112] have explored this relationship and instigated that patients who have performed and adapted to physical and lifestyle wellness will have positive behavior on performing the activity. Their study on HF-Wii usage among patients with heart failure showed that they have different motivational and self-efficacy triggers. The lower the motivation and self-efficacy, the less likely these people would adapt and have positive behavior. On the other hand, the current study results are consistent with a meta-analysis where they found that most people who had the intention successfully translated it into physical activity [46]. Hagger [100] highlighted those intentions as the most contiguous stimuli of subsequent behavior and moderated the effects of the beliefs on behavior.

Based on the results, the relationship between motivation and self-efficacy is insignificantly related to an individual's actions to achieve physical activity and overall wellness. It signifies that when a person is motivated by internal or external drivers, they may perform better, thus leading to efficient performance [112]. Furthermore, physical and overall wellness self-efficacy also includes staying motivated to uphold consistency [113,114]. However, the current results showed an indirect effect on intention to adapt and perceived behavior. High motivation may correlate with the individual's confidence that he can perform physical activities because of his ability to face challenges. Self-efficacy has a positive relationship not only to physical activity but also to motivation, where the individual is motivated to be physically active [115]. Motivation, as a psychological process and driver, directly affects an individual's perception of themselves and the activities they may engage in. Han et al. [113] explained that Gen Z realizes the positive effects of being physically active or having a healthier lifestyle when exercise behavior is achieved via self-efficacy. Similarly, Zhao et al. [114] showed that motivation is a chain of self-efficacy that prompts positive behavior on physical and lifestyle wellness.

This may be affected by internal factors such as personal goals or external factors like media influence, motivation, control, and behavior. With this, self-efficacy may vary depending on one's motivation level. Thus, it could be deduced that the relationship between motivation and self-efficacy is not one way; instead, one can positively or adversely affect the other. Moreover, increased self-efficacy may also increase motivation. As an individual discovers and works on improving their practices to stay healthy and uphold wellness, their performance may be more efficient, pushing them to maintain or improve their lifestyle.

5. Conclusions

Findings showed that self-efficacy, response efficacy, automatic precursors, and controlled precursors significantly and indirectly affect perceived behavior. For instance, self-efficacy, or one's ability to perform a specific behavior, connects with response-efficacy, which covers an individual's perception of the effectiveness of a task, in this case, health-promoting practices. These indicators may affect perceived behaviors in a way that they influence one's decision-making on performing healthy lifestyle habits. The relation between self-efficacy and response-efficacy also shows that as individuals perceive tasks like exercising as beneficial, their motivation to perform exercises within their capabilities will likely increase.

On the other hand, automatic precursors, which cover the person's experiences, feelings, or emotions, also relate to controlled precursors, including an individual's outcome expectancy, reasoned decisions, and view of lifestyle impact on their overall health. The indicators mentioned indirectly affect perceived behavior but are significant in driving an individual to either perform or not habits and practices that promote a healthier lifestyle. Overall, these are the essential factors that govern the perceived behavior of an individual to have a healthy lifestyle. These factors must be considered and intervened with appropriate measures to increase the likelihood of an individual becoming a health-oriented person. The results of this study can be beneficial among fitness industries, government, local units (LGUs), and private and public institutions, which can help to create successful fitness and wellness programs. Finally, the SEM constructs can be modified and extended to evaluate factors affecting perceived behavior to boost physical fitness and lifestyle wellness among other nationalities.

5.1. Theoretical Contribution

The current study integrated both the Protection Motivation Theory and the Theory of Effort Minimization in Physical Activity. As explained by related studies, both theories have limitations when used separately. Thogersen-Ntoumani et al. [33] suggested that TEMPA alone can be indicative of overprediction. This is why the need for expansion of theoretical measures is needed. As explained by Bui et al. [24], PMT can be highly utilized, especially when the cognitive mediation process among individuals is seen during

behavioral changes. Since PMT has been widely utilized to measure both the behavioral and cognitive aspects under protective motivations, its autonomy aspect, individual physical effort, and precursor of individuals to perform physical activities could be added to the protective behavior analysis for holistic measurement of physical fitness and lifestyle wellness. The continuous change in the environment, development of health risks, and evident stagnant lifestyle need proper addressing to provide knowledge on behavioral changes. Thus, this is the theoretical contribution that this study wanted to promote, which has not been covered in related studies. With the use of structural equation modeling, the holistic measurement of the causal relationship between the integrated theories was prompted—creating a more inclusive rationale to assess protective behaviors, including cognitive and physical activities. Provided that 12 out of 13 hypotheses were deemed significant, the full analysis was deemed to be highly acceptable, as seen with the model fit of the SEM analysis. Finally, the SEM constructs can be modified and extended to evaluate factors affecting perceived behavior to boost physical fitness and lifestyle wellness among other nationalities.

The integrated framework of PMT and TEMPA validated the factors affecting perceived behavior to boost Filipinos' physical fitness and lifestyle wellness. Perceived behavior was shown to be subsequent to people's motivation, understanding of COVID-19, and media use. At the same time, high self-efficacy and response efficacy affected automatic and controlled precursors toward the intention to adapt. This study utilized the characteristics of PMT, which increased the reliability of the belief that stronger response efficacy and self-efficacy will lead to adopting or engaging in a behavior. At the same time, TEMPA strengthened the requirement of cognitive resources to engage in physical activity and lifestyle wellness, overriding the automatic and controlled attraction toward effort minimization. The framework could be utilized and extended to evaluate factors affecting perceived behavior to boost physical fitness and lifestyle wellness in different nationalities besides Filipinos.

5.2. Practical Implications

This paper can benefit the government, local government units (LGUs), and private and public institutions to create and improve fitness and wellness programs in the Philippines. Findings showed that the intent to adapt is the most influential factor in perceived behavior. Moreover, self-efficacy, response efficacy, automatic precursors, and controlled precursors were also found to correlate significantly with perceived behavior. To increase the likelihood of an individual performing physical fitness and healthy behaviors, decision-makers must first focus on the key factors that drive an individual's intention, which translates into physical activity.

First, in facilitating self-efficacy, a simple fitness guide or alternative workout routine that everyone can perform without needing fitness equipment can be an option. This can be helpful, especially for first-timers, as this can be a great starting point for them. From there, these individuals can be more confident participating in physical activities without thinking much about the lack of fitness equipment and other barriers. Institutions could also provide inexpensive fitness tools such as hand weights, resistance bands, yoga mats, and the like with exercise guides to better encourage an individual. Fitness centers can provide guidelines for initial assessments for workout programs and even promote diets suited for individuals after assessment, which may help improve motivational aspects among individuals. When individuals can identify areas for improvement, understand better their routine, and what strengths and weaknesses they have, their understanding, motivation, and self-efficacy can improve. Moreover, government units such as the Department of Health can partner with nutritionists and create healthier alternatives to regular viands at a low cost. In this way, more people can participate in healthy eating habits without considering the cost of a healthy meal.

Second, to facilitate response efficacy, a practical health seminar with a dynamic and compelling presentation of the benefits of physical activities can increase the audience's

likelihood of manifesting health-promoting behaviors by local government units [110]. These interventions will serve as a self-controlling resource on the individuals' affective reactions and complement their reflective evaluation of the value and benefits of exercise. Once self and response efficacy factors are intervened, they will eventually correspond and result in positive outcomes of automatic and controlled precursors of an individual that will ultimately affect their perceived behavior. Following related studies, the promotion and understanding of response efficacy may motivate individuals to adopt and have positive perceived behavior in physical activities and healthy lifestyles [15].

Additionally, it was found that automatic precursors (AP) were more significant than controlled precursors (CP) in the intent to adapt (ITA), leading to Filipinos' perceived behavior (PB) to boost physical fitness and lifestyle wellness. A person must have an excellent initial experience to have a good immediate response to find that improving their routine and lifestyle could be easy, increasing the likelihood of exercise involvement [116]. Therefore, building introductory programs that provide fun and engaging exercise imagery will help people recognize physical activities and healthy lifestyles as manageable and may be performed regularly [117].

The same can also be applied in the telemedicine and telehealth field. The results of this study suggest that shared experiences and past experiences should have positive connotations for people to repeat their actions or start participating in the said activity. Healthcare providers should focus on improving client experiences so more people would purchase their service. Administrators should highlight the effectiveness of telemedicine since response efficacy also plays an essential role in intent to adapt.

5.3. Limitations and Future Research

As promising as the results of this study are, the researchers admit that there are several areas for improvement and further study that future researchers can consider. First, due to COVID-19 restrictions, the researchers could only disseminate the survey online. As a result, most respondents (95.9%) belonged to the Gen Z age bracket, as they were more likely to stay connected online. This means that generalization on the Philippine population may not be considered by the study. Thus, a suggestion to cover other generations—equally distributing the demographic characteristics to holistically measure physical activity and lifestyle wellness among Filipinos. Other statistical tools may also be performed, such as the consideration of machine learning algorithms, classification techniques, and the method of Croon.

Consequently, most survey respondents are students and likely to have a monthly allowance below PhP. 10,957. This constraint hindered older generations and the impoverished population, who did not have any devices to answer the online survey, from participating in the study. Connecting with the said population face-to-face and gathering data from them can provide more robust results for the study. Moreover, the researchers had inadequate respondents representing individuals with higher monthly income brackets. These individuals may have a higher self-efficacy and perceived behavior than those with less income as they have more means to link with professionals such as a nutritionist, have a better recreational environment, and overall have more resources and fewer obstacles to face, which future research may consider identifying. The need for more geographical representation from other regions, especially in the Visayas and Mindanao islands, is also something that future researchers can improve on so a more generalized finding and discussion could be implied. A prospective study comparing the residents from the three major island groups of the country and their perceived behavior towards physical fitness and lifestyle wellness can also be a good topic since different cultural factors can arise. Integrating self-control, discipline, and mental toughness as added variables may contribute to a more comprehensive study. Lastly, with the given results, future researchers could also construct a holistic fitness and lifestyle program that all institutions and government agencies concerned could apply.

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