

# Exploring Exercise Dependence: A Qualitative Study of Filipino Fitness Enthusiasts' Motivations for Excessive Workouts

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Abstract. Although physical activity is essential for a healthier lifestyle, excessive exercise can lead to exercise dependence and pose significant health risks. Understanding why individuals persist in prolonged exercising, despite potential harm, is essential in addressing this emerging health concern. Hence, this study examined the motivations behind exercise dependence among at-risk Filipino fitness enthusiasts and the factors that contribute to excessive exercise. Using a descriptive qualitative approach, ten fitness enthusiasts aged 18 to 57 years, from Alabang, Muntinlupa City, and Mandaluyong City, were interviewed. The participants were selected due to their high scores on the Exercise Dependence Scale-Revised. Thematic analysis revealed three interconnected themes: 1) motivations to exercise, including health-related goals, weight management, and enhancing appearance; 2) limited awareness about the adverse consequences of excessive exercise; and 3) maladaptive behaviors stemming from misconceptions about exercise outcomes. These themes demonstrate how initial health motivations can lead to exercise dependence when individuals are misinformed or have limited awareness. Consequently, these behaviors contribute to unhealthy exercise habits. This study highlights the need to raise awareness about the risks associated with exercise dependence, aiming to reduce its adverse effects on health and well-being.

Keywords: Exercise; Exercise dependence; Fitness enthusiasts; Maladaptive behaviors.

## 1.0 Introduction

Regular physical activity is widely acknowledged for its physical, emotional, and psychological benefits; however, a growing body of literature has highlighted that, when taken to extremes, exercise may become compulsive and harmful, resulting in a condition known as exercise dependence (Hausenblas & Downs, 2002; Schreiber & Hausenblas, 2015). Exercise dependence is a maladaptive pattern of physical activity that leads to clinically significant distress or impairment (Lejoyeux et al., 2008). Drawing from the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000), Hausenblas and Downs (2002) identified seven key features of exercise dependence: tolerance, withdrawal, intention effects, lack of control, time, reduction in other activities, and continuance. While the construct was initially introduced by Glasser in 1976 as "exercise addiction" (Lichtenstein et al., 2017), contemporary scholars have emphasized its similarity to behavioral addictions such as gambling (Egorov & Szabo, 2013), thus shifting the conceptual framework toward psychopathology rather than performance enhancement. Understanding this phenomenon is particularly

important in contexts where fitness culture is gaining popularity, as excessive exercise may lead to unhealthy and harmful habits.

Previous studies indicate that excessive exercise behaviors are associated with a range of psychosocial factors, including negative mood states (Uz, 2016), body dissatisfaction (Cook et al., 2013), and eating disorders (Chhabra et al., 2024; Lejoyeux et al., 2008). In a sample of athletes, 18.9% were identified as being at risk for eating disorders, and 2.7% were likely to develop exercise addiction (Zeulner et al., 2016). Younger individuals tend to exhibit higher levels of exercise dependence, as age is inversely associated with this behavior (Costa et al., 2013; Lichtenstein & Jensen, 2016). Lejoyeux et al. (2012) linked exercise dependence with additional behavioral risks, such as compulsive buying, substance use, and alcohol intoxication. Moreover, exercise addiction, a term used interchangeably with exercise dependence, has been linked to various individual traits, including perfectionism, body dissatisfaction, depression, and obsessive-compulsive personality traits (Minutillo et al., 2024). These findings suggest that exercise dependence may function as a maladaptive coping mechanism, rather than simply an excessive pursuit of fitness.

Although both athletes and nonathletes are susceptible to developing exercise dependence, regular exercisers are at greater risk. Men participating in power sports and weightlifting, particularly those who work out for more than five hours a week, are at a significant risk (Trana, 2019). Exercise dependence was also found to be higher in elite runners, competitive powerlifters, endurance athletes, and individuals who are obsessive gymgoers (Lichtenstein et al., 2017). CrossFitters are also more likely to develop exercise addiction (Lichtenstein & Jensen, 2016). In another study, athletes were found to have twice the risk compared to leisure exercisers (Chhabra et al., 2024). These studies suggest the need for an in-depth examination of the long-term psychological effects of extreme and prolonged exercise, as well as the development of early intervention and preventive strategies, particularly among athletes.

Evidence also points to demographic and gender-based differences in risk. Men, especially those engaged in power sports, weightlifting, and endurance-based activities, are more likely to exhibit symptoms of exercise dependence (Trana, 2019; Weik & Hale, 2009). Gendered motivations contribute to these disparities; men tend to emphasize performance and longevity, while women are more influenced by appearance and weight control (Stults-Kolehmainen et al., 2013). In the Philippine context, Polman et al. (2004) found that male students exercised more frequently and intensely, while female students demonstrated higher overall physical activity levels but were more affected by media-induced body image pressures. Additionally, younger individuals and non-smokers with lower BMI reported higher levels of dependence (Zivkov et al, 2022).

What motivates individuals to engage in physical exercise? Studies have shown that motivation for exercise varies considerably. Stults-Kolehmainen et al. (2013) identified enjoyment, performance, and health reasons as the top three motives for exercise, although these motives differ by gender and age groups. Older adults in Germany were motivated by enjoyment, feeling better, and psychological well-being (Stehr et al., 2021). Engagement in physical activity was largely influenced by environmental contexts and resources, social influences (e.g., peer support), and goal setting (i.e., whether physical activity is their priority) (Brown et al., 2024). These studies, however, remain heavily Western-centric, limiting the ability to generalize findings to collectivist societies such as the Philippines, where familial expectations, communal values, and media portrayals may interact in unique ways.

Despite growing awareness of the harmful impact of exercise dependence, a significant gap remains in localized research in the Philippines. Existing studies tend to focus on physical inactivity or general fitness trends, with limited attention to the psychological risks associated with excessive exercise. Moreover, most research on exercise dependence in the Philippines lacks a qualitative, culturally grounded exploration of how individuals perceive and experience their exercise behavior.

This study aims to fill that gap by exploring the motivations and meanings associated with excessive exercise among Filipino fitness enthusiasts identified as being at risk for exercise dependence. Using a descriptive qualitative approach, this research investigates how participants make sense of their exercise behavior, their underlying motivations, and the misconceptions that may reinforce maladaptive patterns. This study seeks to provide culturally relevant insights that can inform prevention strategies and interdisciplinary interventions promoting sustainable and balanced physical activity.

# 2.0 Methodology

# 2.1 Research Design

This study employed a qualitative descriptive (QD) research design to investigate the unique experiences of individuals related to exercise dependence. Qualitative descriptive research involves a thorough description of specific and particular experiences that individuals or groups have had (Lambert & Lambert, 2012). The QD approach focuses on identifying who was involved, what was involved, and where the events took place, providing a less interpretive perspective compared to other qualitative methodologies (Sandelowski, 2000). The primary objective of this study was to investigate the experiences and motivations that influence exercise dependence among participants. We conducted in-depth, semi-structured interviews with ten Filipino fitness enthusiasts who were identified as being at risk for exercise dependence. These interviews aimed to uncover the motivations behind their exercise behaviors and the factors contributing to their exercise dependence. We used thematic analysis to analyze the data.

#### 2.2 Research Locale

The study was conducted at two health and wellness centers, one located in Alabang and the other in SM Megamall, Mandaluyong City. Participants hailed from various locations within Metro Manila but were regular members and frequent attendees of the selected facilities.

#### 2.3 Research Participants

We invited ten regular gym members who were initially identified as being at risk based on their high scores on the Exercise Dependence Scale-Revised for in-depth interviews. The participants were regular gym-goers from Alabang, Muntinlupa City, and Mandaluyong City. Inclusion criteria required participants to be: (1) 18 years or older, (2) currently enrolled in a fitness facility for at least six months, and (3) regular attendees of sessions in the past six months.

#### 2.4 Research Instrument

We developed a semi-structured interview guide for this study. The first section consisted of an informed consent form that detailed the nature of the study, its procedures, potential risks, and benefits. We asked the participants to complete a personal data sheet to collect essential demographic information. The main body of the interview consisted of open-ended questions focused on two central inquiries: "What are your reasons and motives for exercising?" and "What factors contributed to your inclination to exercise?"

## 2.5 Data Gathering Procedure

Prior to participation, we obtained written consent from the fitness enthusiasts, ensuring they were informed of their rights. At the beginning of each interview, we explained the nature and purpose of the study. Data collection involved in-depth interviews facilitated by a semi-structured interview guide. Ten at-risk fitness enthusiasts were selected for interviews conducted in a blend of English and Filipino, utilizing open-ended questions to delve into their exercise motivations. All interviews were recorded and transcribed. The transcripts underwent multiple readings to identify significant statements, which led to the assignment of codes and the organization of narratives into clusters, allowing themes to emerge. Anonymity and confidentiality were prioritized throughout the study. After the interviews, participants were invited to raise any questions or concerns, and each received a token of appreciation for their participation.

# 2.6 Data Analysis

The audio recordings of the interviews were transcribed verbatim. The transcripts were read and coded. We followed the thematic analysis procedures outlined by Braun and Clarke (2006), which included six steps: (1) Familiarizing with the data; (2) Generating initial codes; (3) Searching for themes; (4) Reviewing themes; (5) Defining and naming themes; and (6) Producing the report. We sought member validation and achieved consensus on the themes before finalizing the significant themes and subthemes.

#### 2.7 Ethical Considerations

This research adhered to ethical guidelines established by the university. Participants provided informed consent prior to their involvement, with clear communication that participation was voluntary and they could withdraw at any time. Strict protocols were implemented to safeguard data privacy and maintain participant anonymity and confidentiality in accordance with the Data Privacy Act of 2012. Identifying information was replaced with unique identifiers to ensure data anonymity. All electronic data were securely stored in a restricted Google Drive

account, accessible only to the research team. Physical data copies were kept in secure locations to prevent unauthorized access.

#### 3.0 Results and Discussion

Ten Filipino fitness enthusiasts who were assessed to be at risk of exercise dependence participated in interviews. The transcripts of these interviews were coded, and the relationships between the emerging themes were analysed. The thematic analysis of how the participants make sense of their exercise behavior, and their underlying motivations revealed three major themes: 1) motivations to exercise, which included health concerns, pursuing of personal goals, and positive effects of exercise such as "relieves stress," "develops confidence," and "look younger"; 2) limited awareness regarding adverse effects of excessive exercise, characterized by a lack of self-awareness about excessive exercise and a perception of positive consequences; and 3) maladaptive behaviors stemming from misconceptions about exercise outcomes, which encompassed manifestations of maladaptive behaviors and indicators of risk behaviors. Table 1 presents a summary of the major themes and subthemes.

**Table 1.** Major Themes and Subthemes

Major Themes	Subthemes	Sample Statements
Motivations to exercise	Address health concerns	"Most of my answers are five because exercise to me is a need, because health is wealth. I came from a family with health problems" - Participant 1, Female.
	Pursuing personal goals	"Because I am aiming at body transformation. My goal is to remove my body fats and also maintain a good physique and a faster metabolism." - Participant 3, Male.
	Benefits of physical exercise	"First, you do not get tired easily, your endurance is increased, you become stronger, you do not get tired easily, and it improves your memory." – Participant 2, Female.
Limited awareness of	Lack of self-awareness	"Sometimes, I would be surprised at myself that I have been exercising for 7 days; I do not have a rest day." -Participant 8, Male.
adverse effects	No acknowledgment of potential risks	"For me, it only has its advantages, so exercise results in advantageous consequences rather than negative consequences." - Participant 10, Female.
Maladaptive	Manifestations of maladaptive	"So I work out every day. Otherwise, the membership will go to waste." - Participant 10,
behaviors	behaviors	Female.
	Indicators of risk behaviors of exercise dependence	"I also exercise at home because I have some equipment at home." - Participant 5, Female.

#### 3.1 Motivations to Exercise

Central to the participants' accounts of their exercise behavior were the underlying motivations for engaging in physical activity. Many described exercising to stay physically fit, achieve a youthful appearance, manage their weight, and maintain a desirable body shape. These recurring responses formed the basis of the first central theme: Motivations to Exercise. Analysis revealed three distinct subthemes that captured participants' primary reasons for engaging in regular and, at times, excessive physical activity: (1) addressing health concerns, (2) pursuing personal goals, and (3) experiencing the perceived benefits of physical exercise.

#### Addressing Health Concerns

Participants consistently reported that they engaged in exercise as a means to manage or prevent health-related issues. For many, exercise was closely tied to maintaining physical well-being and preventing chronic illness:

This motivation was especially salient among older participants or those already managing health conditions. One participant explained:

"I can feel its effect on my body, especially at my age. I am already taking maintenance medication for my hypertension... although I am still borderline, I still need to reduce it. So, I can maintain it at that level with exercise." (P9, female)

Participants also expressed that exercise had become a necessity due to aging and a family history of illness.

Another participant emphasized the preventive value of exercise, stating:

<sup>&</sup>quot;I exercise to be a healthy person." (P4, male)

<sup>&</sup>quot;Health-wise, I am not getting any younger." (P7, female)

"Exercise for me is a need. Health is wealth. I came from a family with many health issues. My mom is diabetic, and my father is hypertensive." (P1, female)

For some, the motivation was deeply personal, shaped by witnessing the consequences of poor health in family members. As Participant 1 (female) recounted:

"We spent a lot of money on health issues, not just high sugar levels, but even kidney complications, to the point that my father is undergoing dialysis... I saw how difficult it was, and I do not want to go through that." (P1, female)

These accounts reflect a strong belief in exercise as a form of preventive healthcare, deeply influenced by personal and familial experiences with illness. For these participants, staying physically active was not only a lifestyle choice but a proactive response to perceived health risks. Participants' accounts of exercising "to stay healthy" resonate with the well-established physiological benefits of regular physical activity. Consistent exercise is known to improve weight regulation, blood pressure, glycaemic and lipid control, and respiratory reserve; it also lowers morbidity and mortality from cardiovascular disease, stroke, and multiple cancers, strengthens post-menopausal bone, reduces accident rates and viral infections, and enhances mood and sleep quality (Hegde, 2003; WHO, 2017). The prominence of health maintenance in the current data aligns with findings from diverse contexts. Brazilian students exercise to prevent disease (Guedes et al., 2013); similar to Slovenian exercisers' motivation to avoid ill-health (Vuckovic & Duric, 2024); South Africans exercise to avoid illness, gain strength and endurance (Meyer & Bevan-Dye, 2014); while Filipinos exercise to be healthy and to lose weight (Mungcal et al., 2021). These findings show that the participants recognize the role of exercise in promoting and maintaining physical health.

## **Pursuing Personal Goals**

Most participants reported that they exercised to achieve their ideal physique, manage their eating habits, and maintain a healthy body weight. For some, the goal was to become slimmer or maintain a toned appearance.

"I want to be slim." (P5, female)

Others were motivated by the need to gain weight or undergo body transformation. As Participant 6 (male) explained:

"My goal when I started working out was weight gain because I tend to lose weight when I am not working out." (P6, male)

Similarly, Participant 3 (male) emphasized:

"The reason why I am exercising is for body transformation. My goal is to remove my body fats, maintain a good physique, and achieve faster metabolism." (P3, male)

Beyond physical appearance, participants also associated exercise with developing discipline and self-control, particularly in relation to food intake.

"My goal is to have discipline. I used not to be able to control myself - that was my weakness, so I strive to have some self-control." (P3, male)

These reflections highlight how participants view exercise not only as a tool for physical transformation but also as a means of cultivating healthier lifestyle habits. Weight management emerged as a common motive, but male and female participants framed it differently. The female participants work out to "stay in shape", maintain a "slim figure", and "shed weight", whereas males aim for a better physique and improved performance (e.g., greater endurance, increased strength). These gender differences are consistent with earlier studies wherein women prioritize weight control and appearance, and men focus on physical fitness and competition (Guedes et al., 2013; Polman et al., 2004). This finding raises important concerns as weight dissatisfaction among men is linked to higher exercise dependence symptoms than women (Cook et al., 2013), and competitive athletes were more at risk of developing exercise dependence (Conesa et al., 2017).

## Benefits of Physical Exercise

Participants consistently emphasized the many benefits they experienced from regular exercise, describing it as

essential for both physical and mental well-being. They associated exercise with increased strength, better endurance, fatigue resistance, and a more youthful appearance.

"You become stronger, your endurance is strengthened... you glow, you look younger" (P2, female)

Beyond physical improvements, participants also mentioned clearer thinking and better memory:

"I can think quickly; it removes my stress, and I can think better in my business" (P4, male)

These views align with the findings of Othman et al. (2022), who noted that appearance, health outcomes, and social connection often motivate individuals to exercise.

The social and emotional benefits of exercise were clear to the participants. Several participants mentioned gaining new friendships and feeling happier through gym interactions.

"I formed new friendships." (P5, female)

"Working out has had a huge impact on my social life... I found new friends." (P1, female)

Exercise also provided a sense of relaxation and joy.

"If I go to the gym, I find happiness... It makes me relax" (P4, male)

Psychologically, participants felt that exercise improved their confidence, self-esteem, and overall outlook:

"You will feel better, you become confident... My self-confidence is much better now." (P3, male)

"Exercise improves your outlook in life." (P10, female)

Many participants also described exercise as their primary means of managing stress.

"It releases your stress." (P1, female)

"To relieve stress," (P4, male)

"It relieves my stress." (P9, female)

"It is a different tiredness from work; when you work, that is stress. When you work out, it relieves your stress." (P8, male)

Participants also emphasized the psychological and emotional relief they experienced through exercise. For instance, one participant described the gym as a personal "playground" where he felt a sense of "freedom" and could release both work-related and personal stress (P8, male). This experience aligns with findings by Vuckovic and Duric (2024), who reported that individuals who exercise alone in fitness centers are often driven by the desire to manage stress. Two participants also linked their motivation to food consumption. One shared:

"So that I can eat what I want." (P7, female)

"I do not feel guilty when I eat a lot since I am working out." (P8, male).

For these individuals, exercise served as a compensatory behavior, allowing them to maintain a balance between eating freely and managing their weight.

These narratives reflect the diverse range of perceived benefits that motivate exercise engagement, from stress relief and body image goals to emotional and lifestyle balance. These motivations align with prior research, which identifies enjoyment, performance enhancement, and health outcomes as key motivations for exercise (Stults-Kolehmainen et al., 2013). Among Filipino university students specifically, enjoyment has been found to play a

significant role in sports participation (Cagas et al., 2015). Broader evidence also supports the psychological and physiological benefits of exercise, including improved mood, a better quality of life, and a reduced mortality risk, particularly among individuals with mental health conditions (Zubala et al., 2017; Posadzki et al., 2020).

#### 3.2 Limited Awareness of the Adverse Effects

The second major theme centers on participants' limited awareness of excessive exercise, with two key subthemes emerging: (1) a lack of self-recognition that their exercise routines may be excessive, and (2) the belief that exercise leads only to positive outcomes, with little or no acknowledgment of potential risks.

## Lack of Self-Awareness

Most participants were unaware that their exercise routines had become excessive. While they remained highly motivated to maintain their fitness habits, many did not recognize the potential risks of overexercising. Several described consistent patterns of daily workouts without sufficient rest. For instance, Participant 1 (female) shared:

"I exercise even if I am tired. I feel the need to exercise. It is important for me. I try to exercise at least one hour a day, every day, or at least five times a week." (P1, female)

Similarly, Participant 10 (female) admitted:

"So, I exercise every day, right? It is a shame to waste my membership. I exercise 4 times a week now." (P10, female)

Some participants gradually became aware of the lack of rest days in their routines.

"Sometimes I am not aware that I am exercising for 7 days, and that I do not have rest days. Now, I am more aware. I try to have two rest days." (P8, male).

These accounts suggest a normalization of intense, frequent exercise among participants, despite limited recognition of its potential consequences.

Athletes are more susceptible to exercise dependence compared to non-athletes (Juwono et al., 2021; Weinstein et al., 2015). However, research examining gender differences among athletes yields mixed results. While Szabo et al. (2013) reported a higher risk of exercise addiction in male athletes, other studies found no significant difference between male and female athletes (Levit et al., 2018; Bingol & Bayansalduz, 2016). Although less common, exercise dependence is also present among non-athletes. A systematic review by Marques et al. (2018) estimated the prevalence of exercise dependence risk to range from 3% to 7% among regular exercisers and university students. Despite the potential for adverse consequences, individuals with exercise dependence often do not experience or report the level of psychological distress typically required for it to be classified as a clinical disorder (Lichtenstein et al., 2017).

#### No Acknowledgment of Potential Risks

All participants believed that exercise resulted only in positive outcomes. There was a shared perception that even excessive exercise carried no significant risks. As one participant expressed:

"The consequences? Healthy body, healthy mind. Your wallet is healthy!" (P1, female)

Others echoed this sentiment, stating:

"I do not see anything negative. The consequences are all positive" (P10, female)

"For me, no, none, no negative consequence" (P6, male)

Most participants viewed their exercise habits as entirely beneficial, with no perceived negative consequences. As Participant 10 (Female) shared:

"The consequences are all positive; it is more of an advantage rather than a negative consequence." (P10, female)

The only drawback mentioned was the financial burden of maintaining the habit, particularly the cost of gym

memberships and supplements. As Participant 6 added:

"It is expensive; the supplements are expensive." (P6, male)

This highlighted that for some, the economic aspect of regular exercise posed the only downside. This finding suggests that individuals at risk may lack awareness of the potential physical or psychological harms associated with excessive exercise.

Extensive research highlights the well-documented benefits of physical exercise. For instance, regular exercise increases levels of beta-endorphins, which help alleviate pain, reduce stress, and elevate mood (Fuss et al., 2015). It is also associated with psychological hardiness, which enhances one's ability to cope with stress and adversity (Weinberg & Gould, 2015). However, despite these positive outcomes, studies on exercise dependence have shown that excessive exercise can have harmful effects. Individuals with exercise dependence may experience withdrawal symptoms such as heightened anxiety, disrupted sleep, restlessness, and increased sexual tension (Szabo et al., 2015). Furthermore, exercise dependence has been linked to impaired quality of life and elevated anxiety levels (Mayolas-Pi et al., 2017). Findings from the present study suggest that at-risk individuals were largely unaware of these potential negative consequences, perceiving their excessive exercise habits as purely beneficial.

# 3.3 Maladaptive Behaviors Stemming from Misconceptions about Exercise Outcomes

The third central theme has two subthemes: 1) manifestations of maladaptive behaviors and 2) maladaptive behaviors as indicators of risk behaviors.

## Manifestations of Maladaptive Behaviors

Since the participants in this study were identified as being at risk of developing exercise dependence, all of them exhibited some form of maladaptive exercise behavior. These behaviors were often subtle and normalized, but they reflected psychological patterns consistent with dependence. One participant, for instance, shared feelings of guilt associated with missing workouts, stating:

"I have been exercising for a long time, probably more than a decade. I have been feeling guilty if I do not exercise." (P9, female)

This sense of guilt, despite long-term engagement in physical activity, highlights a compulsive aspect of their routine, suggesting an emotional reliance on exercise that may indicate the onset of dependency.

# **Indicators of Risk Behaviors**

The occurrence of maladaptive behaviors, which may be signs of potential risk for exercise dependence, emerged as a prominent theme in the data. Participants exhibited symptoms consistent with key indicators of exercise dependence, including tolerance, withdrawal, excessive time investment, intention effects, reduction in other activities, and continuance. The following statements are illustrative text that illustrates the maladaptive behaviors and the corresponding risk behaviors/ symptoms:

**Tolerance.** Tolerance was reflected in participants pushing their bodies beyond their comfort zone. As Participant 1 (Female) explained:

"If you are used to exercising more frequently, even if your mind tells you to stop, your body cannot help it – even if your knees are already hurting." (P1, female)

**Withdrawal.** Withdrawal symptoms were also commonly reported. Participants described feeling irritable, unmotivated, or emotionally low when they missed workouts.

"If I do not work out, I am not motivated. I cannot move. My body feels heavy." (P5, female)

"When I got into an accident, I was not able to exercise for three months. I got lonely, and I felt depressed. My body misses being in the gym." (P9, female)

**Time.** Spending excessive time on exercise was another typical pattern. Even when unable to go to the gym, participants found ways to work out at home or incorporate physical activity into their routines.

"It has been a part of my routine. If I really cannot go to the gym, I would run and do a little push-up." (P8, male)

**Intention effects.** Intention effects refer to doing more exercise than initially planned. Participant 4 (Male) admitted:

"I exercise more than I intend to." (P4, male)

"After basketball, I would still work out. Alternatively, I would play basketball even after working out." (P8, male)

**Reduction in other activities.** Participants also described a reduction in other activities as a result of prioritizing exercise. Participant 6 (Male) admitted:

"I am late to work almost every day because I work out first." (P6, male)

Participant 6 shared that he sometimes declined social invitations to keep his gym routine.

**Continuance.** Continuance was observed in participants who exercised despite physical discomfort or injury.

"It is not that painful, so I would still go to the gym." (P6, male)

This demonstrates a disregard for physical well-being in favor of maintaining the habit. These patterns collectively illustrate how at-risk individuals may exhibit behaviors that align with the diagnostic symptoms of exercise dependence, often without recognizing the potentially harmful consequences.

These findings highlight that at-risk fitness enthusiasts are mainly unaware of the negative consequences of excessive exercise, making them more vulnerable to developing exercise dependence. Among the symptoms, tolerance was the most common, while continuance was the least reported. Tolerance symptoms in exercise dependence resemble those seen in other behavioral addictions like pathological gambling, compulsive shopping, and internet addiction (Lejoyeux et al., 2008).

In terms of time spent exercising, males were found to be at a higher risk, as they tend to engage in longer and more frequent workouts (Vuckovic et al., 2022). Anxiety has also been identified as a major predictor of exercise dependence (Back et al., 2019), but it may also function as a withdrawal symptom. Individuals with high anxiety may use exercise as a coping mechanism, leading to excessive exercise. When they are unable to work out, their anxiety increases, reinforcing the cycle of dependence.

Cognitive distortions or irrational beliefs contribute to this risk. These irrational beliefs (i.e., the misconception that exercise only yields positive consequences) are evident in the current study and can mask harmful patterns. Among cyclists, for example, those at risk for exercise addiction reported poorer quality of life, disrupted sleep, and higher anxiety levels, with these effects being more severe in women than in men (Mayolas-Pi et al., 2017).

Although exercise is often linked to improvements in metabolic health, Flockhart et al. (2021) found that increasing exercise loads over four weeks led to a decline in mitochondrial function and glucose tolerance. Elite endurance athletes exhibited worse glucose regulation than non-athletic controls, suggesting that excessive exercise may, in fact, compromise health rather than enhance it.

Figure 1 illustrates the key themes and subthemes that emerged from the participants' experiences with excessive exercise. It highlights their motivations as well as a general lack of awareness about the potential adverse effects of over-exercising.

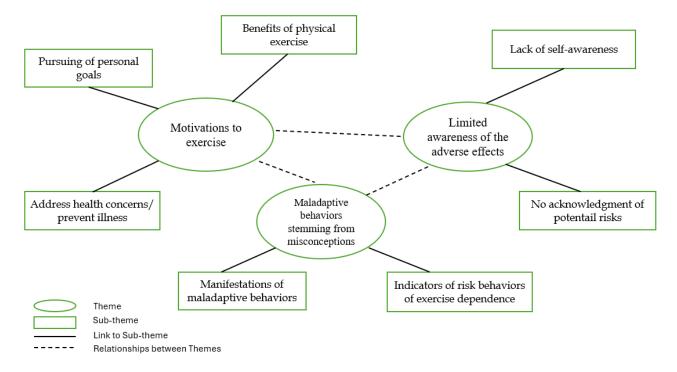


Figure 1. Major Themes and Subthemes

## 4.0 Conclusion

Regular physical activity is widely recognized for its health benefits; however, this qualitative study reveals that excessive exercise can put Filipino fitness enthusiasts at risk for exercise dependence. Across ten in-depth interviews, participants framed exercise primarily as a means to (a) maintain health and prevent illness, (b) manage weight and achieve an ideal physique, and (c) relieve stress. Most viewed these outcomes as wholly positive and reported little awareness of potential harm despite exercising through pain or fatigue. Signs of dependence, especially tolerance (pushing past discomfort), withdrawal (irritability or guilt when unable to work out), and excessive time spent exercising, were common. These findings highlight three practical concerns. First, fitness professionals should educate clients about healthy training volumes and monitor early indicators of dependence (e.g., daily high-intensity sessions without rest). Second, gym personnel must be prepared to refer clients who persist despite injury for medical or psychological support. Third, public health messaging should address irrational beliefs, such as the assumption that "more is always better" ("bigger is better"), which may fuel risky exercise patterns.

Exercise dependence research suggests that underlying distress can be more severe than surface behaviors imply (Berczik et al., 2012); therefore, early intervention remains critical. Future studies should recruit more diverse samples, refine cut-off scores for screening tools, and test targeted interventions that balance fitness goals with injury prevention and mental well-being.

#### 5.0 Contributions of Authors

EGH - conceptualization, results writing, data analysis, revisions, editing JMRG - conceptualization, writing, data gathering, transcribing DPRR - supervising, verifying, and data analysis

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#### 7.0 Conflict of Interests

We declare that there is no conflict of interest.

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