

A QUALITATIVE EXPLORATION OF INDIVIDUAL MOTIVATION FOR INTERMITTENT FASTING SUPPORTED BY EXERCISE USING SELF-DETERMINATION THEORY

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Abstract : Obesity remains a global health issue with significant physical, social, and psychological impacts. One increasingly popular approach to managing obesity is the Intermittent Fasting (IF) diet. This study aims to examine the motivation and effectiveness of IF among fitness center members who also engage in regular exercise. Using the Self-Determination Theory (SDT) framework, this research explores internal and external factors influencing participants' commitment to IF. This qualitative descriptive study employed semi-structured interviews conducted at Idachi Fitness Metro Indah Mall. Thematic analysis following Braun and Clarke's six-phase process was used to identify key themes. The findings revealed five categories of motivation: intrinsic regulation, identified regulation, introjected regulation, external regulation, and amotivation. Participants highlighted the benefits of IF, such as weight management, increased energy, and improved sleep quality. These findings underscore the importance of combining IF with exercise for achieving optimal health outcomes. Additionally, external motivations, such as social support and encouragement from trainers, often developed into intrinsic motivations as participants experienced health improvements. Further research is recommended to explore the long-term effects of combining IF and exercise on health and motivation.

Keywords : intermittent fasting; self-determination theory; motivation categories; weight management; physical activity; social support



INTRODUCTION

Obesity is a persistent public health issue, and no country has yet successfully overcome it (Vogel et al., 2019). Obesity has now become a global issue, with a rapid increase observed in developing regions such as the Caribbean, the Middle East, and the Pacific Islands (Strauss, 2021). In 2014, over 1.9 billion adults were overweight, with 600 million classified as obese. It is projected that 60% of the global population will reach a critical BMI level by 2030 (Favieri et al., 2019). Some risks associated with obesity include hypertension, diabetes, ischemic heart disease, gallstones, osteoarthritis, and certain types of cancer (Cade & O'Connell, 1991). Furthermore, obesity increases the risk of non-communicable diseases such as type 2 diabetes, cardiovascular diseases, hypertension, stroke, and cancer, while also imposing significant health and economic burdens (Peng et al., 2022). Obesity has a significant impact on the cardiovascular system, increasing the risk of hypertension, heart disease, atrial fibrillation, heart failure, type 2 diabetes, and serving as a risk factor for benign prostatic hyperplasia (BPH) and prostate cancer (Safaei et al., 2021). Obesity also significantly impacts social, financial, and psychological status, potentially triggering depression (Karri et al., 2019).

Several factors contributing to obesity or excessive weight gain include physical activity levels, dietary intake, rest, genetic factors, as well as activity and dietary patterns (Ermona & Wirjatmadi, 2018). Weight gain can also be driven by the body's physiological tendency to return to its previous weight or by the inability to maintain healthier lifestyle habits and eating behaviors (Stubbs et al., 2011). To address obesity, individuals should consume a variety of staple foods, limit the intake of sugary, salty, and high-fat foods, and engage in regular physical activity to maintain an ideal body weight (Akbar Maulidini & Aidha, 2020). The WHO states that obesity, despite its rising prevalence, can be prevented through primary interventions such as physical activity, limiting the intake of fats, salt, and sugar, and increasing the consumption of vegetables, fruits, and whole grains (Morais et al., 2021).

Researchers have implemented various programs to prevent obesity through physical activity, dietary management, and various types of diets. In 2013, Mosley and Spencer published *The Fast Diet*, a bestseller promoting a two-day-per-week fasting regimen combined with regular eating on other days. Consequently, this diet is recommended as an effective approach for weight loss (Susanne Garverich, Christopher

G. Prener, Margaret E. Guyer, 2021). Another study discusses low-calorie diets, emphasizing daily caloric intake reduction as a key factor for weight loss. Low-calorie prescriptions, particularly low-fat or low-carbohydrate options, are recommended as an initial strategy, although Very Low-Calorie Diets (VLCDs) are sometimes necessary for short-term implementation (Kim, 2021).

Another study indicates that a ketogenic diet can help patients lose approximately 2 kg more than a low-fat diet over the course of one year. However, high-quality studies have not found significant differences between these approaches. Weight loss typically peaks around the fifth month but often does not persist over time. The outcomes vary widely, with some individuals losing up to 30 kg or gaining up to 10 kg regardless of the type of diet followed (Ting et al., 2018). Another study discussing alternative weight loss methods focuses on the intermittent fasting (IF) diet, which has recently gained popularity for its effectiveness in promoting weight loss and enhancing metabolism (Zubrzycki et al., 2018). Another study discusses time-restricted intermittent fasting, such as the 16-hour fasting and 8-hour eating pattern, which has the potential to aid in weight loss, reduce inflammation, and improve long-term health outcomes (Malinowski et al., 2019). Other studies on Intermittent Fasting (IF) have also demonstrated that IF may prevent cancer by facilitating weight loss and exerting direct effects on tumor biology (Clifton et al., 2021; Patterson & Sears, 2017; Susanne Garverich, Christopher G. Prener, Margaret E. Guyer, 2021). Another study indicates that intermittent fasting is effective for short-term weight loss in individuals with normal weight, overweight, and obesity (Ganesan et al., 2018).

However, it is essential to examine participants' motivation in adhering to IF, particularly because its success can be influenced by either external pressure or voluntary intent. The effectiveness of IF when practiced voluntarily requires further investigation. Previous studies have explored motivation in IF using the Health Belief Model (HBM) (Rathomi et al., 2025). Another relevant theory concerning motivation is the Self-Determination Theory (SDT), which is frequently applied in research on physical activity, including diet programs that are more effective when combined with exercise. Therefore, this study aims to examine the motivation and effectiveness of IF among participants who also regularly engage in exercise.

METHOD

This study employed an ex post facto design with a qualitative descriptive data collection method to explore participants' motivations for adopting the Intermittent Fasting (IF) diet and to identify the dominant motivational factors based on Self-Determination Theory (SDT) in their adherence to IF practices. The study population comprised individuals who had experienced or were actively practicing the IF diet model. These participants were members of Idachi Fitness Metro Indah Mall, with no researcher-imposed controls or interventions. Data collection involved direct research through semi-structured interviews conducted with participants who had successfully adopted or previously attempted the IF diet. The research procedure began by obtaining permission from the relevant authorities at Idachi Fitness Metro Indah Mall. The purpose of the study was explained to the participants who had experience with the IF diet model. Subsequently, direct interviews were conducted with the sample participants at the fitness center.

Data collection and analysis were conducted concurrently. An iterative thematic analysis was employed, following Braun and Clarke's six-phase process. (Braun & Clarke, 2023). Assisting in data management, the steps involved include data familiarization, data coding, creating sub-themes, developing themes, summarizing, and grouping data according to themes and sub-themes. The first author (GZ) conducted the initial coding, while other authors (YR), (J), and (KS) served as secondary coders, ensuring accuracy and a high level of agreement on codes and themes.

Interviews were conducted until data saturation was achieved, indicated by the absence of new emerging themes. Coding and analysis were carried out inductively, with the Self-Determination Theory (SDT) framework applied to map the findings once themes were identified. This approach avoided initial assumptions during data collection while maintaining a strong theoretical foundation. Several steps were taken to ensure the accuracy of the study: Member Checking: Participants reviewed interview transcripts to confirm clarity. Detailed Descriptions: Context, participant information, and research processes were thoroughly documented. Reflexivity: The lead researcher (GZ) made efforts to minimize personal bias stemming from their experience with IF. Additional researchers not practicing IF contributed to maintaining balanced and unbiased results.

RESULTS AND DISCUSSION

A total of 21 individuals expressed interest in participating in this study, but two were ineligible, and one was unable to attend the interview despite multiple rescheduling attempts. Consequently, 21 adults (4 females, 17 males) aged 19–24 participated. Most participants were gym members at Idachi Fitness, Metro Indah Mall, Soekarno-Hatta, Bandung, West Java, Indonesia, with only four non-gym members. Fifteen participants had been practicing Intermittent Fasting (IF) for more than three months, with four of them maintaining it for over a year. Six participants had only recently started IF, practicing it for less than a month. The majority followed an 8 to 10-hour eating window, typically between 12 PM and 8 PM. Three participants chose a very short eating window, consuming just one meal per day, commonly known as "One Meal a Day" (OMAD).

There are five key themes that motivate individuals to try Intermittent Fasting (IF). Typically, they learn about IF from various sources such as family, friends, social media, or prior knowledge. These factors help shape their beliefs and encourage them to practice IF. However, each individual has different reasons, depending on what is most relevant to their personal circumstances. Additionally, specific moments often trigger their decision to adopt IF.

- Factors Influencing Changes in an Individual's Motivation to Perform Intermittent Fasting IF

Many participants shared their long-standing experiences with weight management issues, often beginning at a young age. They have consistently explored various methods to lose weight, including approaches such as intermittent fasting (IF).

- Intrinsik regulation

People engage in intermittent fasting (IF) driven by their own personal desire, stemming from an intrinsic awareness to adopt a healthier lifestyle. This aligns with Self-Determination Theory, particularly at the level of intrinsic regulation, where individuals are motivated by internal reasons, such as the desire to improve health, fitness, or overall quality of life, rather than external pressures or social obligations (Verstuyf et al., 2012).

- Self-Driven Desire for IF

People choose Intermittent Fasting (IF) for health, achieving an ideal weight, or adopting a healthier lifestyle according to their preferences. Many learned about IF through social media, YouTube, podcasts, and books. Although not yet widely popular, the term "intermittent fasting" has gained attention due to trends. Some participants were familiar with fasting variations, such as the 5:2 method, before transitioning to daily IF practices.

"I first learned about IF from YouTube, specifically from Om Dedy Corbuzier's podcast. It caught my interest because it showed positive results, and other individuals besides him also succeeded with it. That motivated me to try it myself." (M 00:47.000 --> 00:55.000)

"I initially found out about IF from TikTok videos by Ade Rai. At that time, I was already dieting but didn't know exactly what approach to take. His TikTok video happened to appear, and it explained IF as an effective way to lose weight. I immediately decided to try it because I was also preparing for a competition that required weight reduction." (F 00:24.000 --> 00:40.000)

- **Satisfaction in Practicing IF**

People express satisfaction with intermittent fasting due to strong self-driven motivation, with tangible benefits ranging from increased energy levels to noticeable improvements in overall health (Murta et al., 2023).

"In my personal view, I have experienced numerous benefits from intermittent fasting. During the two months I tried the program, the results were remarkable. My body felt much better and healthier, and my sleep quality significantly improved. Overall, my physical condition felt noticeably better compared to when I consumed unhealthy and unregulated meals daily. With intermittent fasting, there are eating windows and restrictions that help maintain discipline." (R 00:20.000 --> 00:55.000)

"There is a lot of satisfaction gained. First, I noticed significant improvements in blood circulation and sleep quality. I no longer stayed up late, and my sleep schedule became well-regulated. Additionally, my dietary intake became more controlled, and many people recommended this approach because it aligns with what should be practiced. We can't just eat carelessly or consume anything without considering its impact on our health." (R 02:50.000 --> 03:26.000).

- External regulation

Some individuals begin the Intermittent Fasting (IF) diet due to encouragement from close relations such as family, friends, or their social environment. According to Self-Determination Theory, this motivation often originates as a form of extrinsic regulation driven by social pressure. Over time, it can develop into intrinsic regulation as individuals begin to understand the health benefits and internalize them as part of their personal values or goals.

- Initial Introduction to IF from Family and Friends

Individuals decide to adopt an intermittent fasting (IF) diet due to encouragement from close relationships, such as family and friends, who wish to see them achieve better health or support their fitness goals.

"I first learned about IF from a friend who practiced it to lose weight. At the time, his weight was significantly above average, and IF helped him achieve substantial weight loss. I found it intriguing and eventually tried IF myself for three weeks." (T 00:22.000 → 00:46.000)

"My parents also practice IF, and I received similar encouragement from friends. Moreover, I found a lot of information circulating online." (J 00:46.000 → 00:56.000)

- Learning About IF from Trainers and Recommendations for Practice

One of the factors motivating individuals to adopt Intermittent Fasting (IF) is encouragement from their coaches and the necessity to maintain optimal physical condition for competition preparation.

"Initially, I saw it on Instagram Reels while scrolling. The coach said I had to lose weight. So, aside from the daily routine exercise, I was advised to combine it with a diet. Then I started exploring, not intentionally, but I came across it while scrolling through IG or Google. It seemed interesting, so I decided to try it. My diet routine starts at 7 AM with drinking water until 9 AM, followed by a meal. I drink water again and have another meal at 3 PM. I maintain this schedule every day." (S 00:37.000 – 01:19.000).

- Identified regulation

Individuals engage in intermittent fasting (IF) because they recognize the importance of understanding its benefits, such as improving health and aiding weight management. They practice it regularly with efforts to maintain consistency, despite occasionally experiencing anxiety or discomfort when unable to adhere to the routine (Fairuz et al., 2024).

- Understanding the Benefits of Intermittent Fasting

Engaging in an Intermittent Fasting (IF) diet is crucial, as understanding its benefits—such as weight management and improved sleep patterns—enables individuals to make more informed decisions about adopting healthier and more effective dietary practices for long-term well-being (Harahap et al., 2023).

"The benefits, for one, are that I can better control my food intake, like monitoring what I consume. Secondly, it significantly helps in weight loss. The results are quite noticeable when practicing Intermittent Fasting (IF), as it allows only light consumption, like non-caloric drinks such as water. Thirdly, it is quite effective for weight reduction." (T, 01:44.000 --> 02:20.000)

"The primary benefit for me is weight loss. My weight dropped faster compared to other programs I've tried before. Although it was challenging at first since I was just starting, over time it became manageable, and my eating schedule became more structured." (M, 01:56.000 --> 02:20.000)

"My view of Intermittent Fasting (IF) is generally positive. I've tried it before, and it really emphasizes having an eating window. This approach helps in controlling and limiting food intake. Additionally, with IF, I tend to drink more water, which I believe helps reduce fat. I think IF is beneficial when applied correctly, but if overdone, it may not be suitable." (H, 00:23.000 --> 01:03.000)

- The Necessity of Consistency in IF

People engage in Intermittent Fasting (IF) driven by a strong desire to achieve health or weight loss goals, while perceiving it as a necessary practice that requires consistent adherence to attain optimal results (Fairuz et al., 2024).

"My initial consistency was driven by the motivation to keep going. Over time, I became more motivated and maintained consistency. Having already tried

intermittent fasting for 8 hours a day, it felt wasteful to suddenly stop the practice."
(H, 02:15.000 --> 02:31.000)

"In terms of maintaining consistency, it was challenging at first. It was difficult to stay consistent initially, but I kept trying by being more disciplined in managing my eating schedule and portion sizes." (A, 01:51.000 --> 02:07.000)

- **Introjected regulation**

Individuals who follow an Intermittent Fasting (IF) regimen often experience feelings of guilt, shame, or failure when they are unable to adhere to or miss a fasting session, as if they have violated the rules set to achieve their goals.

- **When Discontinuing IF**

Individuals adopt Intermittent Fasting (IF) because they realize that abandoning this method often leads to difficulties in managing their eating patterns and a lack of control over food consumption, which can impact their health and body weight.

"I once stopped doing IF because I had to prepare for a competition. Then I was given food like Padang rice, and I couldn't resist. After eating it, I immediately felt nauseous because I wasn't used to consuming rice after strictly following IF. It felt like a loss." (F, 02:20.000 --> 02:35.000)

"When I don't follow IF, I feel like I'm losing out, like I'm cheating on myself. But on the other hand, I try not to push myself too hard. I see it as a form of self-reward and just try to stay happy with it." (F, 04:05.000 --> 04:22.000)

- **Amotivation**

For some individuals, practicing intermittent fasting (IF) can be confusing due to a lack of clear understanding about its benefits or goals. Some even perceive it as inconvenient or a waste of time. However, there are perspectives suggesting that when done correctly, IF can become an enjoyable experience that offers numerous physical and mental benefits.

"In the past, I did try IF, and it was quite good since we fast for half a day, and meal times are scheduled. However, I think IF is too strict and feels restrictive, especially with the long fasting duration and prolonged hunger." (A 00:17.000 --> 00:41.000)

"I did try IF before, but I was inconsistent with the timing because I was still uncertain." (D 00:13.000 --> 00:25.000)

- Qmove

Physical activity or exercise can enhance the effectiveness of Intermittent Fasting (IF) by boosting metabolism, accelerating calorie burning, and improving insulin sensitivity, thereby supporting more optimal outcomes from the IF dietary regimen (Harahap et al., 2021).

"Honestly, my goal was to reduce body fat, and exercise really helped a lot. Without exercise, I have friends who lost weight just by diet alone, but the results seemed incomplete. Their muscles didn't develop and they just appeared to be in a resting state without muscle definition." (M, 03:38.000 --> 03:59.000)

"In my opinion, it's better to incorporate exercise because it makes the body fitter and burns calories more effectively, while also helping to shape a better physique." (A, 02:38.000 --> 02:48.000)

"For better results, EF should be combined with exercise. Without exercise, I believe EF is less effective. Combining both has a significant impact, making the body healthier and more energized." (A, 03:07.000 --> 03:31.000).

Although previous research on motivation for Intermittent Fasting (IF) employed the Health Belief Model (HBM) theoretical framework (Rathomi et al., 2025). The findings of this study indicate that individuals' motivation to engage in intermittent fasting (IF) varies and is influenced by both internal and external factors. Based on Self-Determination Theory (SDT), participants' motivation can be categorized into five types: amotivation, identified regulation, introjected regulation, external regulation, and intrinsic regulation.

Participants who were intrinsically motivated to follow IF did so due to personal awareness of its benefits for their health and well-being. They cited observable advantages such as improved weight management, increased energy, and enhanced sleep quality. These findings align with previous research suggesting that intrinsic regulation encourages voluntary participation in a healthy lifestyle.

External factors, including personal conditions such as socioeconomic status and social environment, also influenced participants' perspectives on IF and the likelihood of adopting it (Adi Supraba et al., 2020). However, as participants began experiencing the health benefits of IF, their initial external motivation often evolved into intrinsic motivation. These findings align with other studies indicating that value internalization can transform external regulation into internal regulation (Hamzah, 2020).

In addition to encouragement from friends and family, some individuals adopt Intermittent Fasting (IF) due to motivation from their coaches and the need to meet competition requirements that demand optimal physical condition (Afriani et al., 2023). Despite facing challenges, participants were more likely to remain consistent with intermittent fasting (IF) when they understood its benefits, such as better dietary control and effective weight management. This awareness strengthened their determination to maintain IF over the long term. Some participants reported feelings of guilt or discomfort when discontinuing IF, even while recognizing the importance of maintaining flexibility to achieve psychological balance. These findings highlight a conflict between the need for flexibility and the demand for consistency.

A small number of participants expressed uncertainty or confusion about the benefits of IF, which reduced their motivation to continue the program. This underscores the importance of providing appropriate education to enhance understanding and participation in IF. The study also found that exercise increased the effectiveness of IF in facilitating weight loss and improving body composition. Compared to participants who practiced IF without physical activity, those who regularly exercised reported more optimal outcomes. These findings align with previous research indicating that combining exercise with proper dietary practices yields the best results for achieving optimal health.

This study has several strengths. Through semi-structured interviews, researchers gained an in-depth understanding of participants' reasons and experiences in following the intermittent fasting (IF) diet. The theoretical framework used, Self-Determination Theory (SDT), provided a comprehensive analysis of participants' motivations. The study sample was diverse, including participants with varying experiences and durations of IF practice, offering a more complete perspective. Data

analysis was systematically conducted using Braun and Clarke's method (Braun & Clarke, 2023). To identify key themes in the research, this study demonstrated that combining exercise with IF yields better results in weight management. However, the study has certain limitations. Since it was conducted in a single gym with a limited number of participants, the findings may not be generalizable to the broader population. The interview data were subjective, relying on participants' memories and opinions. The absence of a control group not engaged in IF or exercise makes it difficult to determine the direct impact of the combined intervention.

Additionally, the short duration of the study, with some participants having practiced IF for less than a month, may not be sufficient to observe long-term health changes. Although social media was mentioned as a motivational factor, its influence was not explored in depth. Future research should address these limitations by investigating long-term effects, including control groups, and involving a more diverse range of participants to obtain more comprehensive results.

This study highlights the importance of both internal and external motivation in the effectiveness of the Intermittent Fasting (IF) diet. The combination of IF and exercise has been proven to enhance its effectiveness, making it a promising approach for weight management and overall health improvement (Reynolds, 2019). The findings of this study can serve as a guide for developing programs that integrate Intermittent Fasting (IF) with regular exercise as a strategy to address obesity. Social support and education also play a crucial role in enhancing participants' motivation. Further research with larger sample sizes and extended study durations is necessary to better understand the long-term effects of combining IF and exercise

CONCLUSION

This study reveals various internal and environmental factors influencing individuals' motivation to engage in intermittent fasting (IF). Based on the Self-Determination Theory (SDT), participants' motivation can be classified into five categories: amotivation, identified regulation, introjected regulation, external regulation, and intrinsic regulation. Most individuals intrinsically motivated to practice IF do so due to personal awareness of its health benefits, such as improved sleep quality,

increased energy, and better weight management. However, for some participants, initial motivation driven by external factors—such as friends, family, or trainers—gradually transformed into intrinsic motivation after experiencing the health benefits of IF.

Despite challenges, individuals who recognize the benefits of IF tend to be more consistent in maintaining it, while others may experience guilt when deviating from their fasting schedule. This study highlights the importance of understanding the factors influencing motivation for the successful implementation of IF and underscores the need for a more personalized approach to support the effective adoption of this dietary practice.

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