Information Management and Business Review (ISSN 2220-3796)
Vol. 16, No. 3S(a), pp. 1138-1149, Oct 2024

The Influence of Emotional Instability on Weight Fluctuations

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Abstract: This study examines the relationships between psychological factors, specifically mood fluctuations, short temper, and feelings of negativity, and their impact on weight gain or loss among individuals. The objective is to determine how these emotional states individually and collectively influence weight changes, focusing on understanding their predictive power. A quantitative, cross-sectional design was employed. The analysis involved correlation and multiple regression techniques to explore the relationships between the variables. Results revealed that moodiness has the strongest positive correlation with weight changes and is the most significant predictor, explaining a substantial portion of the variance. Short temper and feelings of negativity also contributed to body weight variations, though to a lesser extent. The model explained the variance in weight outcomes, highlighting the meaningful role of psychological factors in weight management. This study contributes to the growing body of research emphasizing the need to integrate mental health support in weight management programs and policy interventions, recognizing the critical role of mental well-being in influencing physical outcomes such as weight fluctuations. The findings have important implications for healthcare providers, policymakers, and wellness programs aiming to address health's psychological and physical aspects.

Keywords: *Mood fluctuations, Weight gain or loss, Emotional instability, Psychological predictors, Mental health and weight management*

1. Introduction

Numerous works have established the link between mental health and health in general and weight in particular. Depression, mood fluctuation, and negative affectivity have an impact on the process of eating and metabolic processes, which affect weight. To formulate adequate manners of intervention in the health field, it is imperative to comprehend the existence of these dynamics fully. Major depression and anxiety issues are associated with poor physical health, like obesity and cardiovascular diseases (Gandhi, 2024). Fluctuating emotions also cause unhealthy food choices (Shinde, 2024). The biopsychosocial model states that the healthcare system should consider psychological and social factors to enhance the prognosis for chronic illnesses such as obesity and other related diseases, as proposed by Alsudairy et al. (2023).

Mental health illnesses are worsened by obesity, which in turn leads to captured symptomatology like fatigue and joint pain, which further declines the quality of life, hence increasing stress, anxiety, and depression (Jaison et al., 2024). Crude self-rated mental health statistics reveal that those with obesity have a higher prevalence of depression and anxiety, and these numbers may be even higher because of survey attrition. More longitudinal studies were identified by Vowels et al., 2024. Young people show a U-shape relationship between BMI scores and mental well-being by indicating raised psychosomatic complaints at low and high BMI, indicating the significance of exponential interventions (Chen et al., 2024). Lack of physical activity, which is caused by poor mental health, plays a middle role between mental and physical health, causing severe bodily pain and chronic diseases (Kocjan et al., 2023). Obesity as a disease has social prejudice and disrespect through societal stigmatization that raises both psychological stresses and prevents weight loss (Steptoe & Frank, 2023). These pathways include neuroendocrine and inflammatory mechanisms; obesity treatment, with its results, can enhance the quality of mental and psychological states (Melamed et al., 2024). Credible research provides qualitative and quantitative evidence on the causal relationship between mental and physical health to call for policy intercession to deal with mental health to enhance physical health (Shangkhum & Zikos, 2023). In other words, it is necessary to introduce multifactorial prevention aimed at the consideration of psychological and physical conditions as the significant prerequisites of obesity and weight issues in general.

Furthermore, the connection between physical activity and mental health is about how often one exercise and whether individuals are physically active. Research suggests that physically active individuals generally

experience better mental health outcomes than inactive ones (Popov et al., 2023). The positive effects of physical activity on mental health are well-documented, with evidence supporting its role in reducing anxiety, stress, and depression while also improving mood, self-esteem, and cognitive function (Singh, 2024). This relationship is also evident in adolescents, where physical exercise contributes to emotional, cognitive, and social adaptation, highlighting the physiological and psychoanalytic mechanisms through which exercise benefits mental health (Gu, 2023).

A previous study by Yang & Zikos (2024) stated that body fitness affects mental health through physical exercise. Positive psychological states result in increased chances of the individual participating in physical activities, which positively impacts that individual's physical health. It produced evidence that apart from contributing to health complications, inactivity triggers the worsening of physical health problems, including bodily pain and chronic diseases, by people with depression who are less active. Other research also shows that other mental health issues like depression, anxiety or stress are also linked to poor physical health like heart disease, obesity, and diabetes (Gandhi, 2024). Physical activity also helps prevent mental disorders and enhances mental health; hence, physical activity promotion can be a practical approach to preventing and even treating mental health disorders(Lacerda et al., 2024). These results suggest that organized physical education programs benefit physical and mental health and that such intervention improves total health and mental health indicators (Nashwan, 2024).

The biopsychosocial model reveals how mental and physical health are intertwined and illustrates how mental disorders affect health behavioral patterns, medication compliance, and how diseases affect cognition (Kagee & Freeman, 2023). That is interesting to know that even though mental health challenges are known to be directly correlated with negative impacts on people's physical health, it is crucial to remember that there are still many people with mental health issues but without adverse physical health, which makes this connection more complex and in need of further research to find out the best ways to improve interventions and policies that can help people with poor mental health to become healthier both mentally. Obesity requires attention to the psychological approaches to address since psychological distress is now associated with obesity. Depression and obesity have been observed to have a positive relationship, whereby people with higher BMI reported more symptoms of stress, anxiety, and depression as found by (Gandhi, 2024).

This comprehensive understanding of the interplay between mental and physical health, mediated by physical activity, is crucial for developing strategies to enhance public health and reduce the societal impact of mental and physical health disorders. The relationship between emotional states and weight management is intricate. Negative emotions such as moodiness and negativity significantly influence behaviors like emotional eating and self-regulation, which in turn can affect weight changes. Research by Annesi and Powell (2023) suggests that baseline negative mood can moderate the relationship between emotional eating and weight change. It implies that individuals with a higher baseline negative mood may experience more pronounced weight fluctuations due to emotional eating. Improvements in self-regulation have been linked to reductions in negative mood and emotional eating, indicating that enhancing self-regulation skills can mitigate the adverse effects of negative emotions on weight management (Annesi, 2021a; Annesi & Powell, 2023).

Furthermore, emotion dysregulation has been identified as a mediator between pathological eating styles and psychopathological traits, emphasizing the importance of emotion regulation in managing obesity, particularly in bariatric surgery candidates (Belloli et al., 2024). Additionally, adaptive emotion regulation skills can help manage food intake following hunger-induced negative emotions, suggesting that individuals who can regulate their emotions may better control their eating behaviors and maintain a healthy weight (Ackermans et al., 2023). These findings highlight the need for a comprehensive approach to obesity treatment that considers psychological, biological, and environmental factors. Addressing emotional states and enhancing emotion regulation skills could improve weight management and mental health outcomes. Individuals who lose weight often report improvements in mental health, while those who gain weight may experience declines (Hill et al., 2024; Belloli et al., 2024; Annesi & Powell, 2023; Ackermans et al., 2023).

The association between these two is, thus, complex and not straightforward. Mental attitudes like mood swings and negativity have a significant say in the behavioral patterns of people, like emotional eating and self-control, which, in one way or another, can lead to weight fluctuations. According to the study by Annesi and Powell

(2023), the negative mood at baseline can interact with the effect of emotional eating on weight change. More precisely, it means that people with higher indexes of negative mood at the baseline level will have more significant shifts in weight caused by appetite regulation by emotions (Annesi & Powell, 2023). Increased positive self-regulatory behaviors have been associated with reduced negative mood/ emotional eating. Hence, when clients learn to increase functions that help manage self-regulation, the negative effects of mood on weight will be minimized by Annesi and Powell (2023). In addition, emotion dysregulation has been indicated as a mediator between pathway eating styles and psychopathological features, suggesting the need to regulate emotions to overcome obesity, especially among bariatric surgery candidates (Belloli et al., 2024).

It is common knowledge that different emotions lead to different changes in our weight. Emotional stress, as well as anxiety and depression, significantly affect body weight in a negative manner or way. Cognitive eating, especially eating as a result of emotions, is a very common cause of weight gain and obesity. It often leads to eating unhealthy like fast foods (Dakanalis et al., 2023). It has also been established that depressive symptoms and negative life events can lead to weight gain, and this is particularly so for people who have had the habit of emotional eating. Those psychological factors may escalate weight concerns in the long run (Van den Hout et al. (2023). In addition, emotional eating has also been found to mediate the effects of physical activity on weight change. It implies that mood and emotional state could significantly improve.

Of all the strategies used in community-based interventions, self-regulation, and increased physical activity override emotion-led eating and enhance mood, resulting in better weight control outcomes (Annesi, 2021b). Stress and anxiety have been reported to be associated with weight maintenance difficulties, especially in persons with weight cycling behavior; eating behavior has been identified to moderate the relationship (Li et al., 2024). The psychological effects of obesity necessitate approaches that consider all aspects of human persons, including the psychosocial ones. Through previous research, it is evident that obesity is highly correlated with decreased health-related quality, stress, anxiety, and depression (Jaison et al., 2024). Weight control programs may also be enriched by intervention components related to self-regulation, self-efficacy, and mood improvements (Annesi, 2020). Thus, psychological support should be included in weight loss programs to focus on the psychological aspects of weight gain and loss to achieve better results and quality of life.

The interaction between emotional states and obesity in the context of weight loss interventions has become a paramount public health concern. Changes in mood, including anxiety, depression, or emotional fluctuations, have been shown to disrupt eating patterns, energy balance, and metabolism significantly. Emotional distress is increasingly recognized as a risk factor for obesity; however, the precise mechanisms through which emotional instability influences weight gain or loss are not well understood. This gap in knowledge limits the development of targeted interventions. This issue is further complicated by the bidirectional nature of the relationship, where weight fluctuations negatively affect psychological well-being, perpetuating unhealthy dietary behaviors and limiting long-term weight management success. For example, emotional instability often triggers behaviors such as binge eating, loss of self-control, and avoidance of exercise, all of which are critical factors in weight gain or failure to lose weight. Without adequately addressing emotional triggers, individuals are more likely to relapse into maladaptive eating patterns, hindering the success of weight control programs.

This study is significant because it offers more profound insights into how emotional instability influences weight outcomes, providing a comprehensive understanding of the psychological factors that underpin unhealthy weight changes. By identifying the direction and magnitude of this relationship and exploring key moderators (e.g., emotional regulation and self-control), the study contributes to more refined and effective weight management strategies. The findings will help inform tailored interventions that address psychological and physiological factors, improving outcomes for individuals struggling with weight management.

Ultimately, understanding the influence of emotional instability on weight will allow healthcare providers and policymakers to design more sustainable, personalized approaches for weight control. Such strategies would promote healthier eating patterns, consistent exercise, and reduce emotional distress, ensuring long-term weight stability and overall well-being.

Research Objectives (RO)

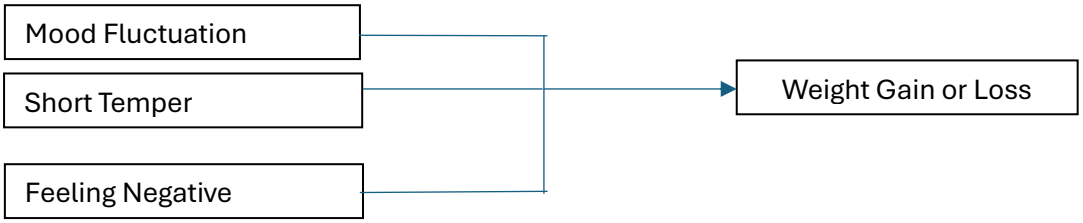
The following were the objectives of the study:

RO1: To determine if a significant relationship exists between mood fluctuations and weight gain or loss among individuals.
RO2: To examine whether short temper significantly affects weight gain or loss among individuals.
RO3: To explore the relationship between feelings of negativity and weight gain or loss among individuals.

This study hopes to address the following research questions:
Research Questions (RQ)
The following were the research questions of the study:
RQ1: Is there a significant relationship between mood fluctuations and weight gain or loss among the respondents?
RQ2: Does a short temper significantly impact the weight gain or loss of the respondents?
RQ3: Is there a significant relationship between feelings of negativity and weight gain or loss?

Conceptual framework and hypotheses development

Figure 1: The Conceptual Framework



2. Literature Review

Hypotheses development
Based on the above discussion, the following hypotheses were developed:

The relationship between moodiness and weight gain or loss is complex and multifaceted, as evidenced by various studies. Research indicates that mood disorders and obesity are often co-morbid, with both conditions sharing clinical, neurobiological, genetic, and environmental factors, suggesting a possible "metabolic-mood syndrome" (Mansur et al., 2015). Mood changes, particularly negative mood, have been shown to predict weight gain, while weight loss can lead to mood improvements, highlighting a bidirectional relationship (Koster et al., 2010). In behavioral obesity treatments, mood improvements are associated with better weight loss outcomes, with self-regulation and emotional eating mediating this relationship (Annesi, 2021a; Annesi & Eberly, 2022). Physical activity enhances mood, reduces emotional eating, and facilitates weight loss (Annesi, 2021c). Studies have shown that mood improvements are more significant in treatments emphasizing self-regulation than focusing solely on weight-loss education (Annesi, 2021c; Annesi & Eberly, 2022).

Furthermore, mood disorders such as depression and bipolar disorder are linked to higher rates of obesity, with atypical depression in females being more associated with being overweight (McElroy et al., 2004). The reciprocal relationship between mood and weight change is also evident in older adults, where depressed mood can lead to weight gain, and weight loss can result in increased depressive symptoms, partly mediated by deteriorations in health (Koster et al., 2010). The literature also suggests that sustaining physical activity beyond the initial treatment phases can maintain mood-related benefits, which are crucial for long-term weight management (Annesi, 2020). Despite the positive mood changes observed in many behavioral weight loss programs, the relationship between mood and weight is not straightforward. Not all studies report significant mood improvements, and the mechanisms underlying these changes remain fully understood (Wing et al., 1984). The use of prospective designs and a moderator-mediator framework in recent studies have advanced the understanding of these relationships, emphasizing the need for integrative and multidisciplinary approaches to address the obesity and mood disorder epidemic (Faith et al., 2004). Overall, the evidence underscores the importance of considering psychological and behavioral factors in obesity treatments, as mood changes can significantly impact weight management outcomes (Sousa, 2022).
H1: There is a significant relationship between moodiness and weight gain or loss among the respondents.

The relationship between short temper, often associated with anger and hostility, and weight gain or loss is complex and multifaceted, involving psychological, behavioral, and physiological factors. Research indicates that psychological attributes such as anger and hostility can influence weight change, particularly in the context of central obesity. For instance, a study on postmenopausal women found that higher levels of trait anger and anger expression were associated with increased visceral adipose tissue, a form of central obesity, over 13 years (Räikkönen et al., 1999). It suggests that individuals with a short temper may be at risk for weight gain, particularly in the form of central obesity, which is a known risk factor for chronic diseases. Additionally, depressive symptoms, which can be related to emotional dysregulation, such as short temper, have been shown to predict both weight gain and weight loss. A study found that higher depression scores were linked to weight gain in some groups and weight loss in others, highlighting the nuanced role of emotional states in weight change (Haukkala et al., 2001).

Furthermore, the accumulation of multimorbidity, which can be exacerbated by weight gain, has been associated with short-term weight changes in mid-aged women, indicating that emotional and psychological stressors, potentially including short temper, could contribute to weight gain and related health issues. In the context of bariatric surgery, disordered eating behaviors such as binge eating, which can be exacerbated by emotional distress and short temper, were negatively correlated with excess weight loss, suggesting that emotional regulation issues can hinder weight loss efforts post-surgery (Simpson, 2016). Moreover, interventions aimed at managing anger and aggression, such as cognitive-behavioral programs, have shown promise in reducing emotional dysregulation and potentially mitigating its impact on weight. Additionally, mental toughness, which can be inversely related to a short temper, has been studied in athletes, showing that increased mental resilience is associated with lower levels of aggression and anger, suggesting that enhancing emotional regulation could benefit weight management (Koç, 2022). While the direct relationship between short temper and weight change is not fully elucidated, the interplay of emotional regulation, psychological stressors, and behavioral responses such as eating habits significantly influence weight gain or loss. Addressing these emotional and psychological factors through targeted interventions could be crucial in managing weight effectively.

H2: There is a significant relationship between short temper and weight gain or loss.

The relationship between feelings of negativity and weight gain or loss is multifaceted, involving psychological, emotional, and behavioral dimensions. Negative affect has been shown to mediate the relationship between body dissatisfaction and disordered eating behaviors, such as bulimia and dietary restraint, particularly in women, indicating that negative emotions can drive unhealthy weight loss strategies (Heywood & McCabe, 2006). Furthermore, negative emotions have been found to predict the intake of unhealthy food and the seeking of social support, which can influence weight gain. In contrast, positive emotions are associated with increased physical activity, suggesting that emotional valence is crucial in weight management beyond traditional constructs like attitude and perceived control (Richards et al., 2021). Psychological threats, such as societal pressures and body dissatisfaction, can lead to long-term weight gain, as seen in studies where values affirmation helped women maintain weight by buffering against these threats (Logel et al., 2019). Daily weight gain can also trigger negative moods, guilt, and shame, leading to decreased motivation and less effective weight control behaviors, highlighting the demoralizing effect of even minor weight fluctuations on individuals in behavioral weight loss programs (Hagerman et al., 2024). Negative affectivity is linked to lower satisfaction with exercise programs and a quicker drop-off in continued involvement.

In contrast, positive affectivity correlates with higher satisfaction and sustained engagement, indicating that affective orientation significantly impacts the likelihood of maintaining health-related behaviors (Hamid, 1990). In the context of bariatric surgery, psychological factors such as anxiety and disordered eating behaviors like binge eating and night eating can predict poorer weight loss outcomes, suggesting that negative psychological states can hinder long-term success post-surgery (Simpson, 2016). The concept of negativity bias, where negative events have a more significant subjective impact than positive ones, further explains why negative emotions might substantially affect weight-related behaviors, as individuals may be more sensitive to negative stimuli, leading to maladaptive responses (Lazarus, 2021). Additionally, the neural response to losses, as measured by feedback negativity, is typically more pronounced than the response to gains, indicating a potential neural basis for the stronger influence of negative emotions on behavior (Weinberg et al., 2014).

Overall, these findings underscore the importance of addressing negative emotions and psychological threats in weight management interventions, as they can significantly influence both weight gain and loss behaviors.
H3: There is a significant relationship between feelings of negativity and weight gain or loss**.**

3. Methodology

This study adopts a quantitative, cross-sectional research design to explore the relationships between mood fluctuations, short temper, feelings of negativity, and weight gain or loss among individuals. A cross-sectional design allows data collection from a sample of respondents simultaneously, which is appropriate for analyzing relationships between psychological variables and weight changes. The target population for this study includes individuals aged 18 and above who may experience mood fluctuations, short temper, and negative feelings. These emotional states may affect their eating behaviors, physical activity, and weight changes, making them suitable participants for the study's focus. A sample of 115 respondents was selected for this study using convenience sampling. Convenience sampling was chosen due to its ease of access and time efficiency, allowing for a wide range of participants to be surveyed within a limited time frame. While this method may limit generalizability, it is sufficient for exploring the relationships between variables in an exploratory study.

Data was collected through a structured questionnaire, administered online and in paper format, ensuring accessibility for respondents with varied preferences. The questionnaire was divided into two sections, demographic information. This section gathered basic details, including age, gender, and self-reported weight changes (e.g., recent weight gain or loss). Psychological measures are the second section that measures emotional instability, including mood fluctuations, short temper, and negative feelings, using items adapted from validated psychological scales. The sources used were Mood fluctuations adapted from the Positive and Negative Affect Schedule Watson et al., (1988). The Short temper and anger items from the State-Trait Anger Expression Inventory (STAXI-2) by Spielberger (1999) and Negative feelings were adapted from the Depression, Anxiety, and Stress Scale by Lovibond & Lovibond (1995). All variables were measured using a Likert-type scale ranging from 1 to 5, with higher scores reflecting greater intensity or frequency of the psychological states (e.g., more severe mood swings or stronger feelings of negativity). Data analysis was conducted using SPSS (Statistical Package for the Social Sciences) version 26. The analysis included Descriptive Statistics, Correlation Analysis, and Multiple Regression Analysis

Validity and Reliability

The validity of the instrument was ensured through a review of the questionnaire by experts in psychology and health research to ensure that the items effectively measured the constructs of moodiness, short temper, and feelings of negativity. A pilot test was conducted with 20 respondents to refine the questionnaire, ensuring that all items were understandable and appropriately measured the intended variables. Reliability was assessed using Cronbach's alpha, with an alpha value of 0.7 or above, which is considered acceptable for internal consistency.

4. Findings and Discussion

Table 1: Correlations

		Gainlossweight	moody	shorttemper	Feelingneg
Gain loss weight	Pearson Correlation	1	.596**	.396**	.315**
	Sig. (2-tailed)		.000	.000	.001
	N	115	115	115	115
moody	Pearson Correlation	.596**	1	.341**	.182
	Sig. (2-tailed)	.000		.000	.052
	N	115	115	115	115
short temper	Pearson Correlation	.396**	.341**	1	.413**
	Sig. (2-tailed)	.000	.000		.000
	N	115	115	115	115
feeling new	Pearson Correlation	.315**	.182	.413**	1
	Sig. (2-tailed)	.001	.052	.000	
	N	115	115	115	115

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1 presents the correlation analysis revealing several significant relationships between the variables. A moderate to strong positive correlation was found between weight gain or loss and moodiness ($r = 0.596$, $p = 0.000$), indicating that as respondents become moodier, their weight fluctuates more significantly. This relationship is statistically significant ($p < 0.01$). Similarly, there is a moderate positive correlation between weight gain or loss and short temper ($r = 0.396$, $p = 0.000$), suggesting that individuals who exhibit higher levels of short temper are more likely to experience changes in their weight. The association between weight gain or loss and feelings of negativity ($r = 0.315$, $p = 0.001$) is also statistically significant, though the correlation is weaker than moodiness and short temper. These results indicate that individuals with more negative feelings are likely to experience more weight gain or loss.

In terms of the relationships between the psychological variables, moodiness, and short temper are moderately correlated ($r = 0.341$, $p = 0.000$), implying that moodier individuals tend to be more short-tempered. The relationship between moodiness and feelings of negativity ($r = 0.182$, $p = 0.052$) is weaker and not statistically significant, as the p-value is slightly above the 0.05 threshold. Finally, a moderate positive correlation was found between short temper and feelings of negativity ($r = 0.413$, $p = 0.000$), indicating that as individuals become more short-tempered, their negative feelings also increase. This relationship is statistically significant, further supporting the idea that emotional instability tends to co-occur with weight changes and other negative emotional states.

Discussion on correlations

The correlation analysis examined the relationships between weight gain or loss, moodiness, short temper, and feelings of negativity. The results indicate significant positive relationships between weight gain or loss and the psychological variables.

Weight gain or loss and moodiness ($r = 0.596$, $p < 0.01$): A moderate to strong positive correlation exists between moodiness and weight gain or loss. It suggests that individuals who experience higher levels of mood fluctuations are more likely to report changes in their weight. The significance of this correlation ($p < 0.01$) indicates that moodiness is an important factor associated with weight gain or loss in the population studied. Weight gain or loss and short temper ($r = 0.396$, $p < 0.01$): A moderate positive correlation was found between short temper and weight gain or loss. As individuals become more short-tempered, they tend to experience changes in their weight. This relationship is statistically significant, suggesting that emotional regulation may play a role in physical changes such as weight gain or loss. Weight gain or loss and feelings of negativity ($r = 0.315$, $p < 0.01$): A weaker yet statistically significant positive correlation exists between feelings of negativity and weight gain or loss. Although this relationship is less pronounced than moodiness and short temper, it still indicates that negative feelings contribute to variations in weight.

These findings suggest that psychological factors, particularly moodiness, are strongly associated with weight changes. Individuals who exhibit higher levels of mood instability or irritability may be more prone to weight gain or loss, highlighting the potential impact of emotional states on physical well-being.

Multiple Regression Analysis

The following sections will provide detailed results on the statistical significance of each predictor and their respective impacts on positive thinking. The discussion will interpret these findings in light of existing research and provide insights into their practical and theoretical implications. The limitations and potential areas for future research will also be considered.

Table 2: Analysis of Variance ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.749	3	10.916	26.554	.000[b]
	Residual	45.633	111	.411		
	Total	78.383	114			

a. Dependent Variable: Gainlossweight

b. Predictors: (Constant), feelingneg, moody, short temper

Table 2 presents the F-statistic of 26.554, indicating the overall significance of the regression model, with a large value suggesting that the model is a good fit for the data. Additionally, the p-value (Sig. = 0.000) is highly significant ($p < 0.01$), meaning that the predictors—moodiness, short temper, and feelings of negativity collectively have a significant impact on the dependent variable, weight gain or loss. This statistical significance confirms that the model is reliable in explaining the variations in weight gain or loss based on these psychological factors.

Table 3: Coefficients of the Regression Model

Model		Unstandardised Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.605	.135		4.496	.000
	moody	.441	.066	.515	6.672	.000
	shorttemper	.117	.063	.155	1.863	.065
	feelingneg	.110	.055	.158	1.978	.050

a. Dependent Variable: GAinlossweight

Table 3 shows the coefficients table illustrates the individual contributions of each predictor to the model. The constant (B = 0.605) represents the predicted value of weight gain or loss when all other predictors (moodiness, short temper, and feelings of negativity) are zero, and it is statistically significant with a p-value of 0.000. For moodiness, the unstandardized coefficient (B = 0.441) indicates that for every 1 unit increase in moodiness, there is a predicted increase of 0.441 units in weight gain or loss, holding all other variables constant. The standardized coefficient (Beta = 0.515) suggests that moodiness has a significant relative impact on weight gain or loss among the predictors, with a highly significant t-value of 6.672 and a p-value of 0.000.

For short temper, the unstandardized coefficient (B = 0.117) shows that for every 1 unit increase in short temper, there is a predicted increase of 0.117 units in weight gain or loss, holding other variables constant. However, its standardized coefficient (Beta = 0.155) indicates that a short temper has a more minor relative impact than moodiness. The t-value of 1.863 and a marginally non-significant p-value of 0.065 suggest that while short temper is not a strong predictor, it may still influence weight gain or loss with borderline significance.

Lastly, feelings of negativity show an unstandardized coefficient (B = 0.110), meaning that a 1 unit increase in negativity predicts a 0.110 unit increase in weight gain or loss. The standardized coefficient (Beta = 0.158) implies a slightly significant relative effect than short temper but is still less influential than moodiness. The t-value of 1.978 and p-value of 0.050 indicate that feelings of negativity have a weak yet statistically significant impact on weight gain or loss.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.646[a]	.418	.402	.64118

a. Predictors: (Constant), feelingneg, moody, short temper

Table 4 shows the Model Summary, which indicates several important statistics about the regression model. The R-value is 0.646, representing the correlation coefficient, which measures the strength of the relationship between the observed and predicted values of the dependent variable (weight gain or loss). An R-value of 0.646 suggests a moderate positive correlation between the predictors (moodiness, short temper, and feelings of negativity) and the outcome (weight gain or loss). The R^2 value of 0.418 means that 41.8% of the variance in weight gain or loss is explained by these predictors, which suggests that the model explains a significant portion of the variability in the dependent variable. The Adjusted R^2 value of 0.402 considers the number of predictors in the model. It is very close to the R^2 value, indicating that the model is well-fitted and does not suffer from an excessive number of predictors given the sample size. Finally, the Standard Error of the Estimate is 0.64118, representing the average distance that the observed values deviate from the regression line, indicating the model's precision in predicting weight gain or loss.

Discussion on Multiple Regression Analysis

The multiple regression analysis further explored the predictive power of moodiness, short temper, and feelings of negativity on weight gain or loss. The model was statistically significant ($F = 26.554$, $p < 0.01$) and explained 41.8% of the weight gain or loss variance, indicating that these psychological factors are meaningful predictors of weight changes.

Moodiness emerged as the strongest predictor of weight gain or loss, with a standardized coefficient (Beta) of 0.515. It suggests that mood fluctuations have a substantial impact on weight. The unstandardized coefficient ($B = 0.441$, $p < 0.01$) indicates that weight gain or loss increases by 0.441 units for every unit increase in moodiness. The finding aligns with the correlation analysis and reinforces mood's significant role in affecting physical outcomes.

Short temper ($B = 0.117$, $p = 0.065$) showed a weaker relationship with weight gain or loss than moodiness. While the direction of the relationship was positive, its significance level ($p = 0.065$) indicates that short temper is only marginally predictive of weight changes. The standardized coefficient (Beta = 0.155) also shows that its relative contribution to the model is much smaller than moodiness. These results suggest that a short temper may influence weight, but its effect is weaker and less consistent.

Feelings of negativity ($B = 0.110$, $p = 0.050$) also demonstrated a relatively weak but statistically significant influence on weight gain or loss. With a standardized coefficient (Beta = 0.158), it contributed more than short temper but far less than moodiness. This finding suggests that while feelings of negativity play a role in predicting weight changes, they are not as impactful as moodiness in this context.

The regression analysis confirmed that moodiness is the most critical psychological factor associated with weight gain or loss. Short temper and feelings of negativity contribute to the model but are less influential. The fact that the model explains a substantial portion of the variance (41.8%) indicates that emotional and psychological states are essential determinants of weight gain or loss. These findings highlight the need for addressing mood and emotional regulation in efforts to manage or understand weight-related issues, suggesting that interventions focused on mood stabilization could potentially help in weight management strategies.

5. Contribution of the Study

This research contributes to the study of how psychological factors such as mood swings, short fuse, and negativity lead to weight gain or loss. Thus, the results indicate that mood swings affect weight loss most of all, and evidence proves that instability plays an important role in weight loss. It also highlights the other but equally essential contribution of short temper and feelings of negativity contributing to chronic diseases, making the literature rich in the emotional and psychological aspects of health status. Thus, it highlights and supports the factors of combining the emotional and psychological approaches to weight management strategies, potentially enhancing the reduction or increase of obesity interventions.

Policy Implications

The results of this study suggest several important policy implications, particularly in healthcare and mental health support. Policymakers should consider incorporating psychological assessments into weight management programs, as emotional states like moodiness significantly impact weight fluctuations. It could include regular mental health screenings or counselling services as part of comprehensive obesity and weight loss programs. Public health campaigns could also raise awareness about the links between emotional health and weight changes, promoting mental well-being as a preventive measure for physical health issues such as obesity. Employers and organizations could also consider incorporating mental health support systems in wellness programs to help employees manage stress and emotional instability, which could positively influence their physical health.

Limitations of the Study

Despite its contributions, this study has several limitations. First, convenience sampling limits the generalizability of the results to a broader population, as the sample may not be fully representative. Second,

the cross-sectional design of the study does not allow for causal inferences, meaning that while significant relationships between variables were found, the study cannot determine whether changes in moodiness, short temper, or negativity directly cause weight gain or loss. Additionally, the reliance on self-reported data introduces the possibility of response bias, where participants may not accurately report their emotional states or weight changes. Finally, while the study explains a significant portion of the variance in weight gain/loss (41.8%), other potential psychological or environmental factors influencing weight changes were not examined.

Conclusion

Based on this study, psychological factors, especially mood swings, are important in determining a person's weight change or loss. The individuals' moods were the most significant predictors, showing that mood swings play a role in weight variations. Intolerance also pulled down weights and negativity, although in a lesser way than height/length fluctuations. It may also be concluded that obesity control OAD interventions should consider psychological variables because of the close relationship between emotional and physical health. The current study reaffirms the role of the affect regulatory system in obesity and demonstrates that weight control could require mental health assistance.

Recommendations

Based on the findings of this study, several recommendations can be made. For example, healthcare providers and weight management services should offer psychological support, including mood regulation therapies and counselling, to help individuals manage emotional fluctuations that may contribute to weight gain or loss. Future research should use a longitudinal design to explore the causal relationships between psychological factors and weight changes over time, providing more precise insights into how emotional states impact weight in the long run. Public health campaigns should educate individuals about the impact of emotional well-being on physical health. It could encourage individuals to seek help for mood instability and emotional distress as part of their overall health maintenance. Future studies can include additional psychological, social, and environmental factors that might influence weight gain or loss. Understanding the factors affecting weight changes could lead to more comprehensive interventions. Finally, organizations should integrate mental health services within employee wellness programs to address stress, emotional instability, and negative effects, which can indirectly contribute to better physical health outcomes, including weight management.

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