

Research Paper

The Relationship of Adult Eating Behaviour, Exercise Regulation and Psychological Well-Being

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ABSTRACT

This study examines the relationship between adult eating behaviours, exercise regulation, and psychological well-being. A suboptimal diet—lacking essential nutrients such as vitamins, minerals, proteins, healthy fats, and fiber, while containing excessive amounts of unhealthy ingredients like sugar, unsaturated fats, and processed foods—combined with insufficient physical activity and being overweight, contributes to health issues including obesity, malnutrition, cardiovascular diseases, diabetes, and other chronic health complications. Behavioural change techniques (BCTs) targeting these areas may enhance overall well-being. Interpersonal relationships significantly influence adult eating habits, exercise routines, and mental health, as individuals often seek guidance and support from others when making lifestyle choices. Social interactions play a crucial role in shaping health-related behaviours, affecting diet, exercise, and mental health. The study utilized the Pearson correlation coefficient to assess validity and reliability, yielding results that surpassed threshold values. Demographic details of respondents, including age, gender, and occupation, were recorded and presented descriptively. Regression analysis revealed that 75% of the variance in psychological well-being could be explained by adult eating behaviour and exercise management. The importance of interpersonal connections in health practices, highlighting the role of social factors in well-being initiatives. Understanding how individuals balance healthy eating, regular exercise, and psychological well-being within their relationships can inform strategies to improve behaviour and quality of life.

Keywords: *Adult Eating Behaviour, Exercise Regulation, Psychological Well-Being*

Interpersonal interactions significantly influence numerous facets of adult life, eating behaviour, exercise management, and psychological well-being. Individuals frequently seek reminders and support from their peers when making lifestyle choices. The relationship between social connections and health behaviours highlights the significance of how our relationships affect not only our dietary choices and exercise habits but also our overall mental well-being. Eating patterns can be significantly influenced by social settings, where group dynamics or shared cultural norms may determine whether individuals opt for unhealthy choices or maintain balanced diets. Exercise routines are frequently shaped by social factors, including peer encouragement and involvement in group activities, which can

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significantly boost motivation and accountability (Pickens et al., 2018). Furthermore, the quality of social relationships plays a crucial role in mental health; robust social support networks help to alleviate stress and enhance emotional resilience, whereas isolation or interpersonal conflicts can result in anxiety, depression, or stress-related eating behaviours (Benjamin et al., 2019).

Comprehending the interplay among factors such as dietary habits, exercise management, and mental health is crucial for enhancing overall health and psychological well-being in adult populations (World Health Organisation, 2024). Eating behaviour consists of dietary choices, meal patterns, portion sizes, and attitudes towards food, all of which can influence physiological and psychological well-being outcomes. The regulation of exercise, the frequency, intensity, and duration of physical activity, is crucial for sustaining a healthy lifestyle and mitigating the risk of numerous chronic diseases. Psychological well-being, encompassing factors like Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life and Self-Acceptance, is associated with eating behaviour and exercise habits. Examining the relationships between these areas can yield important insights for creating effective interventions and strategies aimed at enhancing holistic health and wellness in adults (Flegal et al., 2013). Figure 1. Gives a graphical presentation of a conceptual framework.

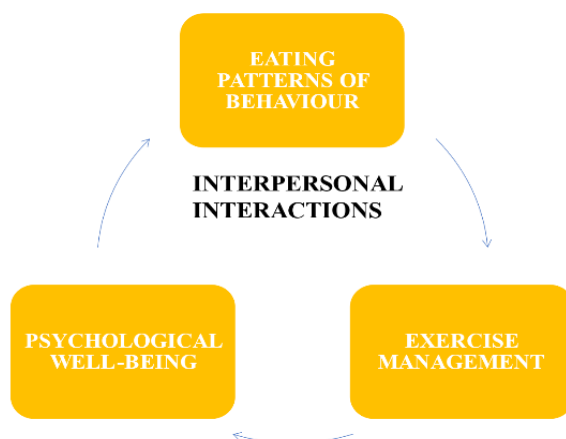


Figure 1. Overall Framework of the Study

LITERATURE REVIEW

Interactions among individuals can impact adults' dietary habits, exercise routines, and mental health. The relationships in question are complex, as social dynamics, communication, and support systems are interwoven with lifestyle behaviours and mental health. This is an overview of the connections between these elements as established in prior literature:

Eating Patterns Among Adults

In India, dietary patterns and physical activity levels present significant public health challenges. A study by the Indian Council of Medical Research (ICMR) revealed that 98.4% of Indian adults consume less than the recommended five daily servings of fruits and vegetables (Swachh India, 2021). This inadequate intake is concerning, given that low consumption of fruits and vegetables is among the top ten risk factors contributing to attributable mortality worldwide (Pandey, 2016).

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Physical inactivity is another pressing issue. The World Health Organization (WHO) reported that in 2022, 45.4% of Indian adults were insufficiently active, a significant increase from 22.4% in 2000 (Times of India, 2023). This trend is alarming, as insufficient physical activity is a major risk factor for non-communicable diseases such as cardiovascular diseases and diabetes.

Obesity rates in India have also been on the rise. The National Family Health Survey (NFHS) conducted between 2019 and 2021 indicated that 24% of women and nearly 23% of men aged 15 to 49 were either overweight or obese, up from 20.6% of women and 19% of men in 2015-2016 (Reuters, 2024). This upward trend in obesity prevalence underscores the need for effective public health interventions. Critical need for comprehensive strategies to promote healthier eating habits and increase physical activity among the Indian population. Addressing these issues is essential to curb the rising burden of non-communicable diseases in the country.

Only 27% of 9–12th graders satisfy physical activity standards (Benjamin et al., 2019). The WHO believes that 31% of persons worldwide (28% males, and 34% women) are inadequately active (WHO, 2019). Around the world, thirty-seven percent of men and thirty-eight percent of women are overweight (Benjamin et al., 2019).

Individuals often replicate the dietary practices of their peers. In social settings, individuals may adjust their eating habits based on the behaviours exhibited by those around them. Group meals can influence eating behaviours, either leading to overeating or fostering healthy choices, based on the prevailing social norms (Flegal et al., 2013). Adults may encounter peer pressure that influences their eating habits, potentially leading to either healthy dietary choices or unhealthy behaviours such as overeating, undereating, or the consumption of junk food. On the other hand, supportive interactions from friends and family can promote healthier eating habits, including balanced diets and mindful eating (Hunot et al. 2016). Close relationships may influence emotional eating behaviours. Interpersonal conflicts, loneliness, or relationship challenges can contribute to unhealthy eating behaviours, whereas robust social connections and emotional support may help reduce tendencies toward emotional eating (Blanchflower et al., 2013).

Given the strong correlation between these three risk factors and traditional risk biomarkers about the diseases (Folsom et al., 2011), interventions aimed at eating healthy foods, exercising regularly, or maintaining good physic must be central to initiatives focused on disease prevention and the enhancement of public health.

Exercise Management

In 2022, India's Ministry of Health & Family Welfare's Directorate General of Health Services reported. Stroke makes up 3.5% of DALY in India. Hypertension, diabetes, heart disease, a positive family history, and lifestyle factors such as an unhealthy diet, obesity, inadequate physical exercise, stress, and tobacco use considerably increase its risk. Lifestyle changes, behaviour patterns, demographic characteristics including a growing elderly population, sociocultural influences, and technological improvements contribute to stroke prevalence. Simple lifestyle changes may reduce this problem. Diet and inactivity are adjustable risk factors.

The Ministry of Health and Family Welfare, Government of India, 2017, indicated that an unhealthy diet is a primary contributor to non-communicable diseases (NCDs). There is a

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swift transition from traditional diets to energy-dense, nutrient-deficient foods that are elevated in fat, sugar, and salt. Non-communicable diseases arise from such dietary habits. In India, we encounter the challenges of both undernutrition and excessive overnutrition. Over-nutrition is increasingly emerging as a significant issue, particularly in urban environments. The World Health Organization reports that one-fourth of the adult population and one-fifth of school-aged children in India are classified as overweight. A nutritious diet lowers the risk of heart disease and diabetes. A healthy diet contributes to an improved quality of life, reduced psychosocial issues, and enhanced productivity.

Participating in group exercises, including fitness classes, team sports, or exercising with a friend, can enhance motivation and commitment to exercise routines. Supportive feedback and motivation from colleagues strengthen accountability and dedication (Fararouei et al., 2013). Engaging in exercise within a group or community setting can occasionally promote competition, leading to both beneficial and detrimental effects. Healthy competition can motivate individuals to enhance their fitness levels; however, excessive comparison may result in anxiety, burnout, or negative body image concerns (Mikolajczyk et al., 2009). Social groups that emphasize physical activity can effectively encourage individuals to sustain a routine of regular exercise. Active friends or partners can function as motivators, whereas sedentary social environments may hinder exercise (Richard et al., 2015).

Flegal et al., (2013) highlighted that obesity significantly contributes to various physical and psychological health issues, along with elevated mortality rates. Hunot et al. (2016) indicate that the Adult Eating Behaviour Questionnaire (AEBQ) offers three age-appropriate assessment tools aimed at evaluating similar eating behaviours. The use of AEBQ scores can enhance the development of weight management interventions by offering personalized recommendations for addressing appetitive traits. Additionally, it could improve the identification of individuals at risk for weight gain, facilitating targeted strategies for obesity prevention.

Psychological Well-Being

Ryff (1995) Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life and Self-Acceptance are the components of psychological well-being.

Robust interpersonal relationships are crucial for psychological well-being. Support from family, friends, and significant others can effectively reduce stress, anxiety, and depression. Conversely, strained relationships or social isolation can worsen mental health challenges. Blanchflower et al., 2013 study, that participating in a social group that emphasizes healthy behaviours, such as a fitness community or a group that advocates for balanced eating, can enhance a sense of belonging and elevate self-esteem. On the other hand, social exclusion, or the perception of being different from peers regarding health behaviours can adversely affect mental health (Oswald and Stewart-Brown, 2013).

Cultural norms related to food, body image, and fitness significantly influence psychological well-being. The pressure to conform to societal standards, such as achieving a certain body type or adhering to specific dietary practices, can result in stress and dissatisfaction when these expectations are not fulfilled (Mujcic and Oswald 2016). Adopting a nutritious diet and engaging in consistent physical activity, frequently supported by uplifting social connections, enhances mental well-being by increasing energy levels, alleviating stress, and

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promoting the release of endorphins. Consequently, improved psychological well-being can lead to healthier choices in eating and exercise habits (Lesani et al. 2016).

Liu et al. (2016), Peltzer and Pengpid (2017), and Khalid et al. (2016) have explored the relationship between food habits and mental well-being, as well as depression and distress. The regular intake of fruits, vegetables, and breakfast is acknowledged as a beneficial dietary habit, linked to positive self-reported health outcomes, increased happiness, and improved sleep quality (Blanchflower et al., 2013; Lesani et al., 2016; Liu et al., 2016; Khalid et al., 2016; Peltzer & Pengpid, 2017; Franckle et al., 2015; Katagiri et al., 2014).

The consistent consumption of fruits, vegetables, and breakfast has been shown to have an inverse relationship with perceived stress, mental distress, and depression, as demonstrated by numerous studies (Roohafza et al., 2013; Mujcic & Oswald, 2016; Lesani et al., 2016; Peltzer & Pengpid, 2017; Peltzer et al., 2013; Grant et al., 2009; White et al., 2013; El Ansari & Berg-Beckhof, 2015; Kingsbury et al., 2016; Piqueras et al., 2011; Kim et al., 2015; Conner et al., 2015; Tajik et al., 2016; Papier et al., 2015; Chang & Nayga, 2009; Lengyel et al., 2009).

The Correlation Between Adults' Eating Patterns of Behaviour, Exercise Management & Psychological Well-Being

In addition to skipping breakfast and consuming a lot of caffeine, unhealthy eating habits like consuming soft drinks, fast food, sweets, and snacks have also been linked to depression, mental or psychological distress, feelings of unhappiness, and poorer sleep quality (Liu et al., 2007; Zahedi et al., 2014; Katagiri et al., 2014; El Ansari et al., 2014; Papier et al., 2015; Kim et al., 2015; Chang et al., 2009; Moor et al., 2014; Wang et al., 2016; Richard et al., 2015; Weng et al., 2007; Khalid et al., 2016; Hayward et al., 2016;). According to Takada et al.'s 2017 research, depression was linked to higher milk product intake. According to research by Meyer et al. (2013), drinking milk is positively correlated with having better sleep.

According to Aizawa et al. (2016), greater levels of the beneficial gut microbe Bifidobacterium were linked to the amount of fermented milk intake. Additionally, they found that Bifidobacterium and/or Lactobacillus, two more helpful bacteria, are often found in lower concentrations in individuals with severe depressive illness. This suggests a connection between gut microbiota makeup and mental health, particularly in depressed individuals. According to Zahedi et al. (2014), mental distress—which includes stress, depressive disorders, disorientation, anxiety, insomnia, violence, and feelings of worthlessness—was substantially correlated with children's and adolescents' consumption of junk food, which includes fast food, desserts, drinks with sugar, and salty snacks.

According to Kim et al. (2015), eating fast food was linked to teenage females' sadness. According to Weng et al. (2012), snacking among teenagers was linked to psychological symptoms. Bellisle (2004) and Bamber (2007) reported that the insufficient nutritional value found in fast, or junk foods could adversely affect normal brain function, consequently influencing negative mood states by impacting the production of neurotransmitters such as serotonin. Lien et al. (2006) suggest that the consumption of soft drinks or sugar may influence mental health through various nutritional or behavioural factors. Tajik et al., 2016 indicated that regular breakfast consumption among secondary school students was associated with reduced levels of mild or moderate stress. Students might have used

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caffeinated products as a strategy to manage stress (Richards & Smith, 2015; Ríos et al., 2013).

There was a correlation between increased unhealthy dietary behaviours and elevated mental distress, whereas healthier dietary habits demonstrated a consistent trend: as individuals adopted healthier eating practices, their psychological well-being improved. Conversely, it is still uncertain whether the adoption of healthier dietary behaviours directly contributes to improved well-being, or if individuals who possess better psychological well-being are more likely to opt for healthier food choices (Hong & Peltzer, 2017). According to Keyes et al. (2002), psychological well-being is characterized as "engagement with existential challenges of life." After conducting a thorough literature study, Ryff and Keyes (1995) developed a six-dimensional framework for mental health. Self-acceptance, a life purpose, personal development, environmental mastery, constructive interpersonal relationships, and autonomy are all included in this concept.

According to Mehrotra et al. (2013) approach, different cultures may display variations in the elements of psychological well-being. To better understand how culture affects psychological health and to improve assessment instruments in the Indian setting, qualitative research methodologies are crucial. Insufficient information on the relationship between food conduct, mental health, and routines of exercise among Asian teenagers prompted the start of the research. Adopting good eating habits improves psychological well-being and lessens psychological discomfort, whereas bad eating habits worsen psychological distress and impair psychological well-being.

Research Gap

Although the area of study of interpersonal relationships and their influence on the eating habits, exercise management, and psychological well-being of adults is quickly developing, there are still several research gaps that have not been well investigated. It is possible that addressing these gaps may improve our knowledge of the intricacies that exist within these interactions, as well as the treatments that are designed to promote better lifestyles and mental health outcomes. Much of the study that has been done up to now has been mostly on certain demographics, such as Western populations or age groups. Throughout adulthood, there is a considerable knowledge gap about the way interpersonal impacts on food and exercise behaviours express themselves across various age groups. Because of this, the capacity to create treatments that are responsive to diverse cultures and the generalizability of the present results are both hindered.

Research Objectives:

- The study interpersonal interactions that occur between people who exhibit varied eating patterns of behaviour.
- To study the impact of exercise and eating habits has on individuals.

Research Variables

At various points throughout the investigation, the following research variables were utilized: Gaining an understanding of how individuals manage the challenges of maintaining a healthy diet, regular exercise, and psychological balance within the context of their relationships is one way to gain insight into the process of encouraging beneficial behavioural changes and improving the overall quality of life. This can be accomplished by gaining an understanding of how individuals manage the obstacles that they face. Table 1. Gives the list of variables, measurement items, and their contributors to the study.

Table 1. List of Measuring Items, Individual Variables, and Contributors

Constructs	Measurement Items	Contributor
1.Behaviour Regulation for Exercise	Intrinsic regulation, identifiable regulation, introjected regulation, external regulation, and Amotivation.	Markland & Tobin (2004); Deci & Ryan, 1985
2.Adult Eating Behaviour	Emotional undereating, food fussiness, satiety response, food avoidance, hunger items, and delayed eating.	Hunot C et al., 2016
3.Psychological Well-being	The Autonomy subscale items are Q15, Q17, Q18. The Environmental Mastery subscale items are Q4, Q8, Q9. The Personal Growth subscale items are Q11, Q12, Q14. The Positive Relations with Others subscale items are Q6, Q13, Q16. The Purpose in Life subscale items are Q3, Q7, Q10. The Self-Acceptance subscale items a Self-reliance, environmental control, personal development, wholesome interpersonal connections, self-acceptance, and life's purpose	Ryff & Keyes, 1995

Hypotheses

The following hypotheses and used multiple regression analysis to substantiate them.

1. Adult Eating Behaviour profoundly influences the psychological well-being of adults.
2. Behaviour Regulation for Exercise profoundly influences the psychological well-being of adults.

RESEARCH METHODOLOGY

Sampling Instrument, Sample Size

We use the survey method to gather primary data and articulate the current situation in our primary research efforts. The study employs quantitative methodology to assess the impact analysis. A structured questionnaire is used to conduct a survey aimed at collecting data on the demographics of adults and the constructs examined in the study. The biological population under investigation comprises adults from various regions across India. The research employed a random sampling method to choose participants. Multiple linear regression analysis to assess the overall psychological well-being of adults.

Research instrument

This study investigates the impact of adult eating behaviour and Behaviour Regulation for Exercise on psychological well-being. One assesses adult eating behaviour and exercise management from the perspective of adults, while the other evaluates the level of psychological well-being. The BREQ comprises 19 items evaluated on a 5-point Likert-type scale, with responses ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). The AEBQ is a self-report instrument designed to assess appetitive traits, comprising 35 items, each offering 5 response options on a 5-point Likert scale (1= strongly disagree to 5= “strongly agree”). The PWB Scale utilizes a scoring system for the items (1= strongly agree, 2= agree, 3= more or less agree, 4= undecided, 5= more or less disagree, 6= disagree and 7= strongly disagree) based on a 7-point Likert scale, which evaluates the degree of agreement among subjects regarding various statements. A total of 185 respondents took part in the study.

RESULTS AND DISCUSSION

Demographic Details

The public characteristics of the participants in this study were diverse and covered various dimensions. Participants' ages ranged from 18 to 70 years and above. Gender was categorized as male or female. Information on the number of dependents in their family, living status (own house, rented home, or other), and mother tongue (Telugu, Kannada, Tamil, Malayalam, Hindi, and another language) was collected. Geographical location (urban, rural, or other) number of dependents in their family, living status (own house, rented home, or other), and Marital status options included married, unmarried, and other status. Educational status ranged from no formal schooling to Ph.D. or higher studies, with additional options for other qualifications. Occupation categories included regular or contractual government employment, non-government employment, part-time employment, self-employment, and unemployment, with monthly household income ranging from below ₹10,000 to above ₹100,000. Table 2 gives the demographic details of the respondents with their percentages.

Table 2. Demographic Profile

Category	Sub Category	Percentage
Gender	Male	86%
	Female	14%
Age	Less than 18 years	7%
	18 to 30 years	11%
	31 to 45 years	23%
	46 to 60 years	58%
Education	Secondary Education	24%
	Undergraduates	55%
	Postgraduates	16%
	Doctorates	5%
Mother Tongue	Telugu	49%
	Hindi	19%
	Kannada	12%
	Malayalam	4%
	Tamil	4%
	Others (Marwadi, Punjabi, Bengali, etc.)	6%
Annual Income	1 to 5 Lakhs	42%
	5 to 10 Lakhs	6%
	Above 10 Lakhs	52%
Geographical Location	Rural	29%
	Urban	54%
Living Status	Own House	50%
	Rented House	29%
	Other	21%
Marital Status	Married	28%
	Unmarried	43%
	Others	29%
Occupation	Government	30%
	Non-Government	35%
	Part-time Employee	14%
	Self-Employment	16%
	Unemployment	5%

Validity Test Results

The Pearson correlation coefficient serves as a tool for evaluating validity (Ariyanto & Yulianah, 2023). An instrument is considered legitimate when the Pearson correlation coefficient with the total score exceeds 0.60. The outcomes of the validity test are presented in Table 3, by the perspective provided.

Table 3. Test Results of Validity

Variable	Item	Pearson Correlation
Behaviour Regulation for Exercise	Intrinsic regulation	0.781
	Identifiable regulation	0.699
	Introjected regulation	0.785
	External regulation	0.850
	Amotivation	0.823
Adult Eating Behaviour 1. Food Approach Subscales:	Hunger (H)	0.812
	Food Responsiveness (FR)	0.845
	Emotional Over-Eating (EOE)	0.798
	Enjoyment of Food (EF)	0.877
Adult Eating Behaviour 2. Food Avoidance Subscales:	Satiety Responsiveness (SR)	0.757
	Emotional Under-Eating (EUE)	0.866
	Food Fussiness (FF)	0.756
	Slowness in Eating (SE)	0.852
Psychological Well-being	Autonomy	0.740
	Environmental Mastery	0.666
	Personal Growth	0.895
	Positive Relations with Others	0.900
	Self-acceptance	0.945
	Purpose in Life	0.856

Reliability Test Results

The objective of reliability testing is to determine the dependability of the variables being measured (Ariyanto & Yulianah, 2023). In this test, instruments accompanied by Cronbach's alpha coefficients were used; a coefficient exceeding 0.60 indicated that the instrument was deemed dependable. Table 4 presents a summary of the results of the reliability test.

Table 4. Test Results of Reliability

Measurements	Cronbach's Alpha Value
Behaviour Regulation for Exercise	0.780
Adult Eating Behaviour	0.726
Psychological Well-being	0.663

Multiple linear regression analysis

The Influence of Eating Patterns of Behaviour and Exercise Management on Psychological Well-Being – Analysis Results

Multiple linear regression analysis investigates the significant influence of the independent variable Eating Patterns of Behaviour components on the dependent variable Psychological Well-Being. Table 5 illustrates that the calculated multiple linear regression 'r' value is 0.809, while the 'R square' value is 0.821. This indicates that approximately 80% of the variations in Psychological Well-Being are influenced by the Eating Patterns of Behaviour among adults. The results of the Durbin-Watson test indicate a value of 1.977, demonstrating a positive connection between the IV and the DV.

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To find out how much the independent variable of exercise management affected the dependent variable of psychological well-being, an additional set of multiple linear regression studies was conducted. The computed multiple linear regression "r" value is 0.845, and the "R square" value is 0.853, as shown in Table 5. This suggests that adults' exercise management accounts for around 85% of the variances in psychological well-being. A significant relationship between the dependent and independent variables is shown by the Durbin-Watson test findings, which show a value of 2.789.

Table 5. Multiple Linear Regression Analysis Result

Variables	Regression	Regression Square	Adjusted Regression Square	Standard Error of Estimates	Durbin Watson
Eating Patterns of Behaviour	.809 ^a	.821	.766	.303	1.977
Exercise Management	.845	.822	.689	.505	2.789

Dependent Variable: Psychological Well-Being

Hypothesis Results

The results of the multiple linear regressions are presented in the table below (Table 6). The analysis indicates that the initial variable **Eating Patterns of Behaviour**, has a significant impact on the **Psychological Well-Being**, evidenced by a p-value below 0.05 (beta = 0.402). The second variable, **Exercise Management**, demonstrates a considerable influence on **Psychological Well-Being** (beta = 0.244), with a p-value of less than 0.05. Figure 2 displays the results of the multiple regression analysis model.

Table 6. Hypotheses testing

Variables	Unstandardized B	Standard Error and Coefficients	Beta Coefficients	T value	Significant
Eating Patterns of Behaviour	.334	.058	.402	6.452	.005
Exercise Management	.658	.102	.244	7.896	.002

Significant level p-value < 0.05, Dependent Variable: Psychological Well-Being

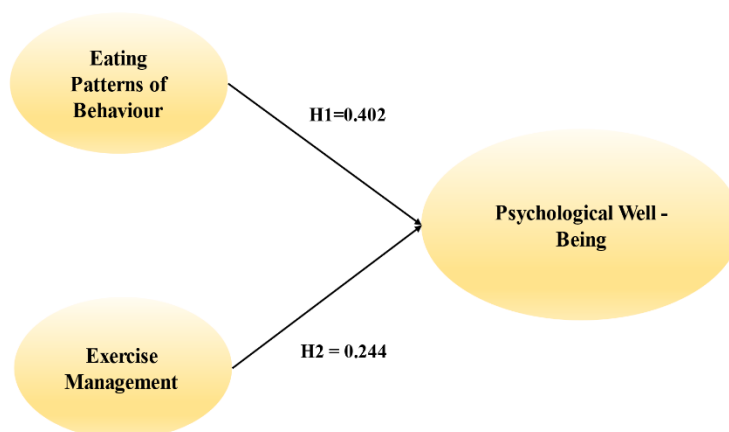


Figure 2. Multiple Linear Regression Analysis – Model Results

DISCUSSION

The findings of this study highlight the intricate relationships among adult eating behaviours, exercise regulation, and psychological well-being, emphasizing the role of interpersonal interactions and social influences. Behavioural counselling techniques, such as the balance sheet approach (Ministry of Family Welfare, 2017a), have been shown to effectively address psychological barriers to dietary modifications by promoting self-awareness and motivation. This structured framework allows individuals to reflect on the positive and negative aspects of their dietary habits and the potential benefits of change. High scores on Enjoyment of Food (EF = 0.877) and Hunger (H = 0.812) suggest that individuals derive significant satisfaction from their diet, which can serve as a foundation for sustainable modifications.

The statistical analysis revealed significant correlations between eating behaviours and psychological well-being, particularly in the domains of Satiety Responsiveness (SR = 0.757) and Emotional Over-Eating (EOE = 0.798). These findings align with existing literature, which suggests that maladaptive eating patterns, such as emotional eating, are strongly influenced by psychological states and interpersonal dynamics (Directorate General of Health Services, 2017). The correlation between Positive Relations with Others ($r = 0.900$) and psychological well-being highlight the critical role of supportive social environments in fostering healthy behaviours.

Exercise regulation also emerged as a significant predictor of psychological well-being, as evidenced by the high correlation coefficients for Intrinsic Regulation ($r = 0.781$) and External Regulation ($r = 0.850$). These findings suggest that both internal motivation and external support are vital for maintaining consistent exercise routines. Group-based interventions, such as community or workplace fitness programs, enhance accountability and promote long-term adherence to healthy lifestyles. The high adjusted regression square value for Eating Patterns ($R^2 = 0.766$) and Exercise Management ($R^2 = 0.689$) indicates that these behaviours significantly contribute to psychological well-being.

This order makes a flow wherein an individual (Self-Acceptance → Personal Growth → Autonomy → Purpose in Life → Positive Relations with Others → Environmental Mastery) makes logical sense in terms of psychological development and well-being, and it aligns conceptually with Ryff's framework, even though Ryff does not explicitly propose a specific sequence. Self-Acceptance: It logically begins with an individual's foundational ability to accept themselves, their strengths, and their weaknesses. Self-acceptance is a core prerequisite for building other aspects of well-being. Personal Growth: Once an individual accepts themselves, they are better positioned to strive for continuous self-improvement, learning, and realizing their potential. Autonomy: With self-acceptance and personal growth as a base, individuals are likely to develop independence and self-determination, enabling them to make choices aligned with their personal values. Purpose in Life: Autonomy provides the foundation for living with a clear sense of direction, meaningful goals, and purpose, as individuals align their actions with their values and aspirations. Positive Relations with Others: Once individuals achieve purpose and autonomy, they are better equipped to cultivate meaningful and supportive relationships, enhancing their sense of belonging and connection. Environmental Mastery: The sequence culminates in individuals' ability to effectively manage their environment, demonstrating competence in adapting to or shaping their surroundings to meet personal needs. This sequence reflects a developmental progression, starting with an individual's internal sense of self and culminating in their ability to manage and adapt to their external environment.

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However, the study also highlights the negative impact of stress and unfavourable social comparisons on psychological well-being. Interactions emphasizing body ideals or unrealistic expectations may lead to maladaptive behaviours, such as emotional eating or reduced exercise participation. These findings are consistent with previous research demonstrating the cyclical nature of stress, poor dietary habits, and diminished mental health (Directorate General of Health Services, 2017). Understanding these dynamics is crucial for designing interventions that mitigate the influence of negative social dynamics while leveraging positive interpersonal relationships to promote healthier lifestyles

CONCLUSION

This study demonstrates that adult eating behaviours, exercise regulation, and psychological well-being are deeply interconnected, with interpersonal interactions playing a pivotal role in shaping health behaviours. Supportive relationships, as reflected by high scores in Positive Relations with Others ($r = 0.900$) and Self-Acceptance ($r = 0.945$), foster healthy eating habits, consistent physical activity, and enhanced mental health. Conversely, stress, conflict, and unfavorable comparisons can detrimentally impact psychological well-being and lead to maladaptive health behaviours.

Adopting a holistic lifestyle that incorporates asanas, a low-fat vegetarian diet, stress management, tobacco avoidance, and regular physical exercise can significantly enhance health and well-being. Dietary recommendations include increasing the intake of green leafy vegetables and fresh fruits to at least 400 grams per day, consuming less than 5 grams of salt daily by avoiding the addition of extra salt to both cooked and uncooked foods, and moderating the consumption of high-salt preparations such as pickles, chutneys, sauces, ketchups, papads, chips, salted biscuits, cheese, salted butter, bakery products, and dried salted fish. Opting for steamed and boiled foods over fried options, avoiding fast foods and aerated drinks, and choosing fruits instead of fried snacks are also advised. In practice, using a mixture of oils is beneficial; this can be achieved by purchasing different oils each month or cooking various food items in different oils. Oils suitable for mixing and matching include mustard oil, soybean oil, groundnut oil, olive oil, sesame oil, and sunflower oil. The consumption of ghee, vanaspati, margarine, butter, and coconut oil should be moderated. For non-vegetarians, it is recommended to consume more fish and chicken, prepared without frying, while red meat should be consumed in small quantities and less frequently. Regular physical activity is a key determinant of energy expenditure and is important for promoting weight control or weight loss. Engaging in moderate to vigorous exercise for 5 to 7 days per week is recommended, starting slowly and gradually increasing intensity. At least 30 minutes of accumulated physical activity per day is suggested for cardiovascular disease protection, 45 minutes per day for fitness, and 60 minutes per day for weight reduction. It is also advisable to discourage spending long hours in front of the television and to encourage outdoor activities such as cycling and gardening. Incorporating yoga and meditation can further contribute to stress management and overall health. (Ministry of Family Welfare, 2017b)

The findings emphasize the importance of behavioural counseling techniques, such as the balance sheet approach, in promoting self-awareness and sustainable lifestyle changes. Interventions that incorporate cultural and economic contexts, such as meal planning and gradual goal-setting (e.g., 10% weight loss), are particularly effective for managing cardiovascular disease risk factors, including hypertension and diabetes.

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Future interventions should focus on leveraging social support systems to enhance motivation, accountability, and adherence to healthy routines. Community-based programs that encourage group engagement in physical activity and dietary changes can create environments conducive to sustained behaviour change. By fostering positive interpersonal interactions and supportive environments, these strategies can contribute to enduring physical and psychological well-being.

Addressing the psychological and social dynamics underlying these relationships is essential for developing interventions that promote long-term health and psychological well-being.

Limitations & Future Research Scope

The relationships among dietary habits, physical activity, and mental health are intricate and shaped by various elements, including individual personality traits, cultural influences, and socioeconomic conditions. Isolating the specific impact of interpersonal relationships within a multifaceted context presents challenges. Current studies frequently concentrate on demographic segments, including middle-class or Western populations. The results may not apply to individuals from varied cultural, racial, or socioeconomic backgrounds, as they may encounter distinct social dynamics and health behaviours. Long-term studies investigating the evolution of interpersonal interactions and the effects of changes in social relationships on eating exercise, and mental well-being are insufficient. Increased focus is warranted on examining the effects of negative social influences, including relationship stress, peer pressure, and social isolation, on unhealthy eating behaviours and diminished physical activity. Comprehending the mechanisms underlying these influences may facilitate the development of targeted interventions. Future research may investigate the influence of digital communication, social media, virtual interactions, online communities, and fitness applications on health behaviours and mental well-being. The role of social media in influencing healthy lifestyles is an increasingly significant area of research.

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Conflict of Interest

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