

**FACTORS INFLUENCING IMPLEMENTATION OF BODY
MASS INDEX IN APF, NEPAL**

A Thesis

**Submitted to APF Command & Staff College,
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for Master's Degree in
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Submitted by

RAJ KUMAR SHRESTHA

Seventh Batch (2078-2080)

Roll No.: 28MSDPS40004

TU Registration No.: 21903-95

**APF Command and Staff College
Sanogaucharan, Kathmandu, Nepal**

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DECLARATION

I hereby declare that this research paper entitled **Factors Influencing Implementation of Body Mass Index in APF, Nepal** submitted to APF Command and Staff College is entirely my original work. I have made due acknowledgments to all ideas and information cited and extracted from different sources in course of preparing this research. The result of this research paper has not been presented or submitted anywhere else for the award of any degree or any other purpose. I assure that no part of the content of this research paper has been published in any form before. I shall be solely responsible if any evidences found against my research paper.

This thesis is being submitted to Armed Police Force Command and Staff College, Faculty of Humanities and Social Sciences, Tribhuvan University in Partial Fulfillment of Master Degree in Security, Development and Peace Studies.

Signature:

Name: Raj Kumar Shrestha

Date: 24th July, 2023

LETTER OF RECOMMENDATION

I certify that this thesis entitled **Factors Influencing Implementation of Body Mass Index in APF, Nepal** was prepared by Mr. Raj Kumar Shrestha under my supervision. The researcher has fulfilled the criteria prescribed by Faculty of Humanities and social Sciences, Tribhuvan University. I hereby recommend the thesis for the final evaluation and approval.

Dr. Naresh Rimal

Thesis Supervisor

Date: July, 2023



Government of Nepal
Ministry of Home Affairs
APF Command and Staff College

Ph. No.:- 01-4513159/9851072030
Email :- paacademic2015@gmail.com
Website:- <https://csc.apf.gov.np>
Ref. No.: - (080/081)

Academic Section
Sanogaucharan, Kathmandu
Date:-2080/04/

LETTER OF APPROVAL

This Thesis entitle **FACTORS INFLUENCING IMPLEMENTATION OF BODY MASS INDEX IN APF, NEPAL** submitted by **RAJ KUMAR SHRESTHA** to APF Command and Staff College, Faculty of Humanities and Social Sciences, Tribhuvan University in partial fulfillment of Master Degree in Security, Development and Peace Studies has been approved by the undersigned members of the Evaluation Committee.

Evaluation Committee:

.....
Dr. Naresh Rimal

.....
DSP Binod Raj Khanal

.....
Prof. Dr. Tara Prasad Bhusal
External Examiner

.....
Prof. Dr. Sohan Kumar Karna
External Examiner

.....
SP Netra Bahadur Karki
Internal Examiner

.....
SP Suresh Sapkota
Internal Examiner

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ABSTRACT

Obesity is an increasing health problem for developing countries like Nepal. Obesity can be defined as a condition where fat has accumulated to such an extent that health is adversely affected. There are several measures available in determining whether a person is obesity or not. Body Mass Index (BMI) is one of the very popular and highly used measuring techniques all around the world. A great number of studies have investigated factors related to obesity in other but no research work has been conducted in APF, Nepal. This research is an attempt to identify a model which shows the relationship between BMI and gender, food habit, unit environment, Smoking, alcohol habit, life style, leadership, stress, physical activities, intellectual capabilities and geographical location in APF, Nepal.

As the initial stage of this study, a literature review was carried out to study about BMI. A conceptual model was developed by looking at the factors affecting person's overweight or obesity in Nepali context. A mixed method was adopted. A Qualitative and Quantitative research approach was undertaken by means of structured open end and closed end questionnaires which were administered to a snowballing sample of 154 APF personnel of APF, Nepal. The data were collected through the primary sources by survey, interview and KII and secondary sources. It was analyzed using both descriptive and Analytical way. Data analysis was tested using the chi-squared test and cross-tabulation by using SPSS software.

The findings show a significant association among a number of factors, overweight and obesity in APF, Nepal. The finding shows that gender, food habit, unit environment, Smoking, alcohol habit, life style, leadership, stress, physical activities, intelligence capabilities and geographical location affects the BMI. Also it concluded that healthy life style, balance and routing diet, physically active life, good unit environment, constrictive and creative leadership, avoiding smoking and taking alcohol daily, transfer system of organization, avoiding stress and increase the horizon of knowledge are effective measures to maintain normal BMI.

Keywords: Obesity, Normal weight, Overweight, Underweight, Body Mass Index, APF, Nepal.

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LIST OF ABBREVIATIONS AND ACRONYMS

APFT	Army Physical Fitness Test
APA	American Psychological Association
AR	Army Regulation
APF	Armed Police Forces, Nepal
BMI	Body Mass Index
BOP	Border Out Post
BF	Body Fitness
BFP	Body Fat Percentage
Kg/m ²	Kilograms Divided by Height in Meter Squared
NRC	National Research Council
NIH	National Institutes of Health
RAND	Research and Development
U.S.	United State
WHR	Waist-to-Hip Ratio
WHO	World Health Organization

CHAPTER- I

INTRODUCTION

1.1 Background

Body mass index (BMI) is a statistical measure that estimates a person's body fat in both men and women of any age based on their height and weight. It is calculated by taking a person's weight, in kilograms, divided by their height, in meters squared. The result of this equation is the person's BMI, which is the number it produces. Instead of using the conventional height vs. weight charts, the National Institutes of Health (NIH) now utilizes BMI to classify a person as underweight, normal weight, or overweight. These classifications for BMI are in use by the NIH and the World Health Organization (WHO) for White, Hispanic, and Black individuals. However, there are individual differences, and using BMI alone to determine whether a person is fat or malnourished is insufficient. Due to their increased muscular mass and weight, certain groups, such as professional athletes and bodybuilders, have raised BMIs that are not directly related to their health state (Weir & Jan, 2023).

Obesity is a growing health issue in both developed and developing nations, including Nepal. Obesity is characterized by an excessive accumulation of fat that has a negative impact on health. There are various methods for figuring out if someone is obese or not. Body Mass Index is one of the very popular and highly used measuring techniques all around the world.

Every person's health has a significant impact on how well they perform. The majority of the job done in the military is physically demanding. In order for any military forces to perform their duties effectively, healthy individuals are essential.

Prevalence of overweight and obesity is increasing in the general population. Although at varying rates of increase, almost every country in the globe exhibits an increase in the prevalence of both overweight and obesity (Eilerman, Herzog, & Luce, 2012). The general population's high rate of overweight and obesity has a variety of effects on the security forces. The general population's high rate of overweight and obesity, particularly among adolescents and young adults, has had an impact on military recruitment (Omar, Leong, & Moy, 2020). Unfavorable body composition, or obesity, not only adds weight and reduces performance, but it also has a negative impact on health because it increases the risk of

cancer, diabetes, heart disease, and musculoskeletal disorders, as well as the likelihood of complications and even mortality during various surgical procedures.

The Body Mass Index (BMI) is a measurement that analyzes our height and weight to determine whether our weight is healthy. The BMI calculation divides an adult's weight in kilograms by their height in square meters.

The ratio of weight in kilograms to height squared in meters is known as the body mass index (BMI), commonly known as the Quetelet index (Nuttall F.Q., 2015). When a person stands with their back to a wall, without shoes on, in such a way that the backs of their feet, calves, upper back, and heads are in contact with the wall and they are facing forward, that person's anatomic height is measured from the cranial vertex to the lower border of their foot. Height is an indicator of one's health, as someone who is short may have genetic or endocrine disorders, nutritional deficiencies, metabolic disorders, blood illnesses, cardiac diseases, lung diseases, etc.

A person who is taller may have hereditary disorders, pituitary adenoma, and other conditions. As a result, height measurement is a crucial anthropometric factor that is directly tied to a person's level of health (Baral, Shrestha & Banstola, 2021).

An individual's complete body mass is referred to as their body weight. Therefore, the body mass should be measured on a weighing machine after all heavy objects, such as shoes, keys, wallets, jackets, and woolen clothing, have been removed. Another crucial measure of someone's health status is their body weight. A person's low body weight may be a sign that they have endocrine disorders, such as diabetes mellitus, nutritional deficiencies, metabolic disorders, blood illnesses, heart diseases, pulmonary diseases, etc. (Baral, Shrestha & Banstola, 2021).

Height and weight are influencing factors. Weight grows in direct proportion to height and vice versa. Height and weight are positively correlated, as a result. Bodyweight has been divided into categories by the World Health Organization (WHO), including levels of underweight and levels of overweight. These categories are based on BMI, which is determined by dividing a person's weight in kilograms by their height in meters squared (kg/m^2). BMI is a simple and accurate way to determine relative weight and serves as a good indicator of how thin or fat a person is (WHO, 2004). Ideal body weight is defined as a BMI

of 18.5 to 24.99 kg/m², overweight as a BMI of 25 to 30, and obesity as a BMI of >30 kg/m² (WHO, 2000).

The incidence of inactivity has grown across all age groups due to modernization, an inactive lifestyle, and bad eating practices, which are believed to be key causes of obesity (Barnes, 2007). As a result, there may be an increased risk of accumulating an unhealthy quantity of adipose tissues without seeing a substantial change in weight (Carpenter, Yan, Chen et al., 2013).

Obesity has recently emerged as a major global health issue. It is linked to an increased risk of cancer, diabetes, degenerative joint disease, and cardiovascular disease.

Because of its rising tendency not only in wealthy nations but also in emerging nations like Nepal, obesity is a pressing issue in public health. In addition, being underweight or having a low BMI is a major issue because it signals that the person has poor nutritional condition. In research conducted in other nations, it was discovered that BMI varied by ethnicity and cultural group. This type of study will assist the government with national planning because BMI studies provide documentation of anthropometric data and provide for access to a country's nutritional status (Amatya, Khanal &Yadav, 2014).

Body mass index (BMI) is an important statistic for relating weight to height. It is always expressed in kilograms per square meter and is computed by dividing the body mass by the square of the body height. The BMI is an attempt to determine an individual's body mass in order to classify them as underweight, normal weight, overweight or obese.

A person's body mass index (BMI) is calculated by dividing their weight in kilograms by their height in meters squared. For weight category underweight, BMI is a cheap and simple approach. BMI is a low-cost and simple approach for determining underweight weight categories. Every security personnel do physical training as their everyday rituals to keep oneself and organization in healthy condition. Despite the physical workout, we tend to gain weight and increase our BMI if we did not take balance diet and physical activities. The nutrition value we consume daily is the constant component or input ingredient that affects our BMI. What we eat every day is what makes up our bodily structure. Food is the input, activity is the process, and our body is the result of what we eat. Fitness statistics are also required for studies in military populations that lead to the evaluation and monitoring of

existing programs to lower the frequency of injuries and improve soldiers' combat preparedness.

The Army Physical Fitness Test (APFT) is a standard procedure in the U.S. Army for gauging physical preparedness. The APFT must be taken by soldiers twice a year. Soldiers are required to take the APFT twice a year. The test includes of three events: a 2-minute push-up competition, a 2-minute sit-up competition, and a 2-mile timed run. At the APFT, height and weight are also recorded (Headquarters, Department of the Army Washington, DC, 2009).

There is also a need to calculate the weight, height, and BMI of a person from different geographical locations, such as plain districts, mountainous areas, and hilly areas. The objective of the study is to find out the factors affecting the implementation of BMI and effective measures to maintain it in APF, Nepal. APF, Nepal, has been applying the BMI since its establishment in 2001. Firstly, BMI has applied in the recruitment process, but since 2064 BS, APF, Nepal, has applied for physical tests for APF personnel every six months. Since 2022, APF, Nepal has implemented the BMI for its members.

1.2 Statement of the Problem

Health security is one of the elements of national security. Every military force receives the hardest physical and mental training to maintain good health. We are, according to the simple science of input, processing, and result, what we eat and how we live. Therefore, BMI has direct relation with our physiology and mental health as well. It is also accepted that the BMI of every individual differs according to the food habit, place, physical fitness and region residing in different parts of the globe. Physical and mental fitness are prerequisites for being prepared for battle. Dedication, commitment, and self-efficacy are required for excellent fitness in terms of reaching Army weight criteria (Cramer, Neal, & Brodsky, 2009).

Therefore, it is necessary to understand the physical exercise system, food habit, physical fitness and obesity, stress, mental strength and leadership style, unit environment, geographical location, intellectual capabilities, smoking and alcohol in the APF, Nepal for perfect BMI. APF, Nepal has been implementing BMI since 2022 so it is necessary to examine the factors that are affecting the normal BMI of APF personnel. This research has examined the food habit, stress, gender, stress, smoking and alcohol habit, unit environment,

leadership, affect of disease, intellectual capabilities geographical location and physical fitness of APF, Nepal personnel and effective measures to maintain normal BMI in APF, Nepal.

1.3 Research Questions

This study has systematically illustrate the relationship among the food habit, gender, stress, smoking and alcohol habit, unit environment, leadership, intellectual capabilities, affect of disease, geographical location, physical fitness and BMI for the performance of APF, Nepal. This research has guided by the following pertinent questions:

- a. How BMI factors influence the performance of APF, Nepal?
- b. What are the effective measures of implementing BMI in APF, Nepal?

1.4 Objective of the Study

The general objective of the research is to study about BMI in APF, Nepal. More importantly it focuses on the factors influencing implementation of BMI in APF, Nepal. The specific objectives of this study are

- a. To analyze the BMI factors influence the performance of APF, Nepal?
- b. To explore the effective measures to implement the BMI.

1.5 Significance of the Study

Every military personnel should be healthy to perform in hazardous, critical and dangerous situations. BMI is one of the factors to determine the health condition, Physical fitness and activeness of an individual. This research may provide guidance to security forces on how to build a professional working atmosphere that guarantees troops' fitness meets or surpasses armed services standards. The research will act as a transform model to tackle the existing problem and achieve the organization's goals by keeping accurate BMI. Soldiers understand how their BMI may fluctuate based on their food habit, gender, Physical fitness, smoking, alcohol habit, disease, lifestyle and stress management, intellectual capabilities, leadership, unit environment and geographical location.

This thesis paper offers such an understanding of factors influencing implementation in BMI of the APF in Nepal. This study is significant not only to APF personnel but to all personnel and organizations who wish to have a good understanding of better health conditions, specifically BMI.

1.6 Limitation of the Study

The study of this paper is limited to the factors influencing implementation BMI of APF, Nepal and effective measures to maintain BMI in APF, Nepal. Although, a limitation to this study is that it took place only in APF, Nepal. This study did not reflect the idea that people who have been fasting for years can continue to acquire height, muscle mass, weight, and, in the case of pregnant women, muscle mass.

.So, this study has focused only the factors influencing implementation BMI and effective measures to maintain BMI in APF, Nepal.

CHAPTER-II

REVIEW OF THE LITERATURE

In this chapter, the literature and previous research findings has reviewed to provide the theoretical background to the concept of factors affecting implementations BMI, which has focused on APF, Nepal to examine participants' Physical fitness, their lifestyle, their stress management, participants' immediate Supervisor leadership, unit environment, geographical location, smoking and alcohol habit, gender, disease, food habit and intellectual capabilities measured to their BMI. In this chapter, I examined the topic, the objective of the study, the theoretical framework, and the methodology, as well as summarized the literature on the correlations between various factors and BMI. The literature review consists of the following sections:

2.1 History of Body Mass Index

Early in the nineteenth century, Belgian mathematician Adolphe Quetelet developed the body mass index. When researching the relationship between height and weight in Belgian men, Quetelet discovered that weights divided by the square of height had a relationship, even if he did not uncover a significant correlation between height and weight. For example Quetelet observed that those who were 10 percent taller than normal were not 10 percent but 21 percent heavier. It is significant to note that Quetelet attempted to anthropometrically measure the average man rather than use the data he collected to determine illness risk (Fitzpatrick, Michael A. IV, 2014).

The link between increased adiposity and co-morbidities was not evident, despite the fact that it was acknowledged as a factor in both mortality and co-morbidities. Ancel Keys, a professor of physiology and a researcher, examined the height, weight, and body fat (BF) percentage of 7,424 males in 1972 and compared the data to three different equations to see how percentage BF correlated with height and weight measures. The results indicated that the Quetelet index (kg.m^{-2}) was most highly related to percentage BF, height and weight, with a correlation of $r = 0.80$ (Keys, Fidanza, Karvonen, et al., 1972).

Friedl (1986) stated that the main goal of fitness and body composition standards in the military has always been to select soldiers who are best suited to the physical demands of

military service, on the theory that a healthy body weight promotes physical readiness, good health, and a professional appearance. The idea of a strong, trim military soldier is certainly not a new concept. Weight-for-height has been used as a key measure of a potential recruit's fitness for military service for almost 150 years.

The Quetelet Index was renamed to Body Mass Index by Keys et al. (1972) after their study was published, and this statistic soon caught on among scientists. The authors warned against using this equation on an individual basis, despite the fact that this study was helpful in identifying body size measurements that linked with percentage BF. . They emphasized that age and gender were not considered in this equation, which could have an effect on a person's health. Unfortunately, because of its simplicity, BMI is still commonly employed as a predictor of body fatness and illness risk today. According to current research, further research is needed to better understand the impacts of ethnicity, gender, and age on BMI as a measure of body fatness (Blew et al., 2002).

Schulte et al. (2007) explained that stress at work has an influence on employees' actions including using illicit drugs outside of work and engaging in recreational activities that have been linked to success.

In the United States, where roughly 30 percent of adults are deemed obese and 65 percent of adults are classified as being overweight, obesity is a concern (Marchese & Healey, 2008). Workplace obesity is a concern that results in higher rates of illness-related absences and poorer productivity (Parks & Steelman, 2008).

The frequency of obesity has grown across all ages and socioeconomic classes, according to the article in the August 2008 issue of Occupational Medicine journal titled "Physical fitness, BMI, and sickness absence in male military personnel." Measurements of BMI, fat percentage, and waist circumference are frequently used to evaluate obesity, which has been linked to several disorders. Obesity has been found to be the most significant risk factor for metabolic syndrome. Physical inactivity is more frequent than physical activity is in humans, which means that physical exercise is a very effective way to reduce obesity.

Nuttall (2015) in his article examine the BMI, obesity, and health. The metric currently in use for measuring adult anthropometric height/weight features and grouping (categorizing) them is the body mass index (BMI). It is frequently understood to be an indicator of an individual's fatness. It is also frequently used as a risk factor for the emergence or prevalence of a number

of health problems. Furthermore, it is frequently employed in formulating public health strategies. Due to the BMI's widespread acceptability in classifying specific categories of body mass as a health concern, it has proved helpful in population-based investigations. However, it is increasingly clear that BMI is a rather poor indicator of percent of body fat. It's significant to note that the BMI does not record data on the amount of fat present throughout the body. The latter is connected to social concerns as well as unfavorable health problems. A wide range of BMIs are associated with a small mortality risk, according to the most recent studies, and this is age-related.

Until the late 20th and early 21st centuries, when medical science started to acknowledge the link between increased adiposity, mortality, and the development of diabetes, hypertension, and cardiovascular disease, Quetelet's equation had little influence on the medical world (Kuczmarski & Flegal, 2000).

2.2 Military Research

The NRC (2004) focused on the connections between nutrition, gender, age, ethnicity, and weight in order to discuss ways to improve the military's current weight control programs. The NRC recommended reviews, conclusions, and viewpoints from a number of specialists on the choices for weight control available to military communities.

Even though the NRC (2004) study concentrated on a small number of particular factors, it largely established that genetics, developmental history, physiology, age, physical activity, diet, environment, and social factors have an impact on all military service members' fitness, maintenance of it, and appropriate body fat. The study divided these variables into three broad categories: biologically predetermined variables (genetic, age, and physiology), manipulable variables (diet, exercise), and variables requiring institutional or environmental changes.

The NRC (2004) research also made the extremely interesting fact that soldiers' performance in a one-mile run and BMI were positively connected, but push up scores was negatively correlated. The study's findings for men and women were different, although quicker running was linked to a greater injury rate for both groups. Additionally, it was claimed that fitness was a standalone predictor of mortality. According to the NRC, low fitness was connected with increased mortality, while good fitness was associated with appropriate BMI.

There has been little research on the weight of soldiers, despite numerous studies on weight in the general population and among workers. BMI is related to, level of activity, cultural background, willpower, eating habits, and poverty, according to (Fuemmeler et al., 2007, Gordijin, 2010, Hare et al., 2012, Neumann & Heng, 2011). Soldiers, contrasting most civilian employees, must achieve BMI norms that are related to their height, figure, weight, and age. Overweight soldiers may be discharged from the military if their weight exceeds Army requirements.

There has been little research on the weight of soldiers, despite numerous studies on weight in the general population and among workers. According to the results of this research, BMI is correlated with eating behaviors, degree of activity, willpower, poverty, gender, and cultural background.

According to military researchers there are around 1,445,000 uniformed members of the armed forces and 580,049 civilian support personnel (Brown, 2010). 548,000 military personnel make up the Army, together with 243,172 civilians, 73,902 women, 88,093 officers, and 456,657 enlisted members (Brown, 2010, February). The military's primary goal is to carry out the nation's conflicts while causing the fewest casualties and injuries possible (Brown, 2010). Brown (2010) noted that as a result, fitness and training are significant in all military apparatus in order to complete the task.

In a study on active duty soldiers, Shrestha et al. (2013) suggested, When combined with required physical training, utilizing an accelerometer with web-based feedback capabilities does not help overweight or obese troops lose considerable weight or be able to meet APFT height/weight criteria.

Kieffer and Cole (2012) explained that diet and physical fitness are essential for weight management. Smokers perform less push-ups and sit-ups during an APFT test, according to Plavina (2008), who studied security personnel. Plavina came to the same conclusion about the accuracy of the height and weight indexes given the volume of activity done during an APFT exam. Weight prediction is well-predicted by lifestyle and APFT findings.

Physical conditioning, lifestyle modifications, and education, according to research by Kieffer and Cole (2012) on troops in warrior transition units (whose goal was to recover), are essential components in sustaining weight norms. Kieffer and Cole employed self-reported

data and neglected to investigate the impact of personal information, behavioral variables, and environmental factors on weight.

Spalevic et al. (2021) in the article examined the BMI of Montenegrin Police force. It was found that the members of the Police force's various specialized units had varied body composition indicators, and that both subpopulations' members tended to be overweight. This data suggests that members of several specialized units of the Montenegrin Police force have poor nutritional condition, and the situation is concerning. This could result in a decline in their level of physical fitness and operational effectiveness.

Stukenborg et al. (2021) found out an association between failing U.S. Army body composition standards, body image, and weight cycling among U.S. Army soldiers. Weight cycling and poor body image have both been linked to increased weight gain over the course of a person's lifespan, improper weight management techniques, and unfavorable health outcomes that may collectively impair soldier health and readiness. As a result, more research is necessary to determine if health promotion initiatives that emphasize a good body image and weight loss might enhance military health and preparedness.

2.3 Body Mass Index

The military has a serious obesity problem, and troops who don't keep their BMI under acceptable limits risk being fired (AR 600-9, 2007). According to the Military Services Fitness Database, between 1999 and 2007: (a) According to Regulation 600-9, almost 2400 troops were dismissed for being overweight or failing to satisfy weight norms. (b) Of that total, 2,342 soldiers were dismissed from the Army after failing their APFT and (c) in 2009, more than one-third of males in service did not fulfill weight requirements (Bacon, 2010).

Caperchione et al. (2008) research looked at how weight increase might affect someone's motivation to exercise. According to Caperchione et al., BMI is a reliable indicator of a person's intention to participate in physical activity. The best indicator of intentions is one's attitudes regarding weight-related problems. Attitude and perceived behavioral control impact the connection between BMI and physical activity intention. In addition, Caperchione et al. found that intention to work out is a factor in weight. According to research by Fuemmeler et al. (2007), 78 percent of respondents believe that a lack of willpower is to blame for the obesity pandemic. A person's outlook on the future, in addition to their intention to exercise,

may have an impact on their health. According to Adam and White (2009), people's engagement in health-promoting practices is correlated with how much they value their future.

Fuemmeler et al. (2007) examined the relationship between obesity and poor eating habits, willpower, a lack of diet education, a lack of physical activity, and poverty. According to Schulte et al. (2007), stress at work has an influence on employees' actions including using illicit drugs outside of work and engaging in recreational activities that have been linked to success.

RAND (2011) shown that drinking and smoking had less negative health effects than obesity. Physical fitness and wellness programs have been made available to people in an effort to reduce the negative effects of obesity on productivity and to raise their understanding on how to handle this issue.

According to the BMI perspective, the study has an alarming prevalence of overweight (45.5percent) and obesity (24.2 percent) that could cause adverse health effects and diseases like hypertension, cardiovascular conditions, and type II diabetes mellitus in military personnel in Montenegro as well as reduce their physical fitness and effectiveness of military service (Banjevic, Popovic & Masanovic, 2020).

Omar, Leong and Moy (2020) in their article, a thorough analysis of the trend and prevalence of overweight and obesity among military personnel found that these conditions are becoming more common among the general public on a global scale. However, research on the patterns and occurrence of overweight in the military is rare. The effects of overweight/obesity in the military include greater injury rates, decreased job productivity, higher healthcare expenses, and early service separations.

Zhu et al. (2020) attempted to investigate if BMI and WHR may reflect the fat mass of Chinese military members. The obesity rate among Chinese military members was incredibly low, as measured by either BFP (0.3percent) or BMI (0.6percent). When overweight and obese adults were combined, the prevalence of overweight/obesity as measured by BMI and WHR was 22.4 percent and 17.0 percent, respectively, compared to the BFP-based normal (4.0 percent) ($P < 0.05$). In comparison to the control group, BMI, BFP, and WHR have a significant false-positive rate. BMI and WHR show higher false-positive rates for BFP than the control group. Further investigation revealed that a substantial proportion of BFP

low BMI high and/or BFP low WHR high subpopulations made up the Chinese military. The obesity prevalence among Chinese military troops is extremely low. Due to their inability to adequately reflect the mass of adipose tissue, BMI and WHR have substantial false-positive rates in relation to BFP, which causes obesity to be misclassified.

2.4 Social Cognitive Theory (STC)

Setting/knowing a person's goals, according to the SCT, can lead to behavioral adjustments (Bandura, 1977; Ferguson & Wojnowicz, 2011). In the SCT, a behavior, a state of mind or a condition can be explained by a variety of elements, including personal, behavioral, and environmental aspects. People are products of their social environment, worldview, and upbringing. According to the American Psychological Association (APA; 2010), SCT is the concept that people copy the actions of role models (Bandura, 1977).

Bandura's (1977) SCT, also known as social learning theory, was utilized to assess factors such as leadership style to determine if being married had an influence on the soldiers' weight and how the leadership style affected it positively or adversely. According to Fitzpatrick & Michael A. IV (2014) physical fitness, intelligence, lifestyle, supervisor leadership, self-efficacy and stress management all support Bandura's (1980) thesis that people use their mind, absorb information from their surroundings, and model the leaders who most encourage them.

When workers are satisfied and joyful, they work more and produce more (Aamodt, 2007). A higher return on investment might be a result of happier employees. If the notion foundation positive psychology is true, then troops who are happy with their surroundings would also feel good about themselves. These troops could be anticipated to care more about their appearance and do more effort to keep them in shape, exhibiting more self-efficacy.

Researchers may be able to gather information on the necessary intellectual and physical components of programs that are required to assist people manage healthy fitness levels by determining the influence of personal, behavioral, and environmental variables on obesity.

Stress management, behavior, leadership, BMI, and people characteristics were the elements that led my research.

2.5 Determining Factors Model

The research model is to build and test participants' competencies measured by lifestyle, physical fitness, stress management, direct supervisor leadership, self-efficacy, and, finally, BMI.

2.5.1 Personal Factors

The model's personal factors include physical fitness and intellectual capabilities as measured.

Intelligence involves knowledge, mastery, and the ability to learn or reproduce information learned. In a study on adolescent developmental abilities and exercise, Davis et al. (2011) found that a correlation between strong intellectual capacity in young people and physical fitness and concluded that exercise boosted people's intelligence. Davis et al. also published earlier data from adult research; showing that for 55 to 77 year-olds, exercising by undertaking a 20- to 40-minute-per-day aerobic walk exercise over six months enhanced prefrontal brain activity and improved results on an executive function test (Colcombe et al., 2004).

Altus (1949) reported that Army trainees discharged for inaptness were of lower mentality than the ones who graduated. Altus concluded that a more intelligent soldier was generally heavier and taller than the less intelligent, when intelligence is defined by a score on the Army General Classification Test.

The National Institutes of Health (NIH; 2012) discovered that a person's intellectual capacity can influence their decision-making as well as their commitment to and capacity for exercise. According to research from the NIH and the U.S. Department of Health and Human Services (HHS) from 2012, persons with arithmetic learning disabilities may also have trouble with day-to-day tasks like calculating a bill or assessing how many calories to include in a meal. Therefore, a person's brain may provide motivation for them to make healthy lifestyle decisions. The desire to exercise whether it is organized or unorganized, regulated or not may be a result of brain function. Regardless of age, it is uncommon to find troops with higher levels who are unable to pass their PT exams, according to statistics from the military.

There are few studies linking weight and intellectual capacity in both the general community and the Army. Altus (1949) came to the conclusion that higher intelligence was associated with larger and taller soldiers.

2.5.1.1 Army Physical Fitness Test

The APFT consists of analyzing the weight and soldier's height the morning of the physical exam, followed by two minutes of pushups, two minutes of sit ups, and a 2 mile run time based on the soldier's age and the Army's male and female requirements (AR 600.9, 2013). On the day of the PT exam, each soldier's weight and height are measured, and their results are recorded. Each soldier who does not meet the height and weight requirements is recorded in accordance with Army procedures.

2.5.1.2 Physical Readiness

One of this study's most important and complicated factors is physical preparedness. An exercise test evaluating fitness is used to determine a soldier's physical readiness every six months while they are on active service, regardless of their deployment status or profile (Theus, S.,2014).

Different people place different values on exercise and derive different benefits from various exercise motions. Exercise is a collection of scheduled and routine activities that can help you stay physically healthy (Thompson, Jarvie, Lahey, & Cureton, 1982). Exercise and eating habits are crucial aspects in any successful weight management plan, according to Mata et al. (2011). Neumann and Heng (2011) found that during weight-training-style exercise, the concentration of one's attention affects heart rate and muscle activity. Workout dedication and motivation depend on an individual's or team's level of self-efficacy. High activity levels were associated with greater fitness in the majority of early weight-and-fitness investigations (Caperchione et al., 2008 & Fuemmeler et al., 2007).

While some people may feel more physically exhausted after engaging in endurance exercise (such as long distance running, riding, or rowing), others may feel more physically exhausted after engaging in weight lifting, leg or upper body exercises, or gentle workouts like supervised yoga.

2.5.2 Behavioral Factors

The military members' lifestyles and behavior were used to assess behavioral characteristics. The NRC (2004) proposed a behavioral modification theory in military studies, contending that lifestyle decisions may be altered for both maintenance and weight loss. The key areas of the NRC review were diet, gender, age, and ethnicity. The lifestyle emphasis takes into account factors like stress levels, sleep partners, drug use, alcohol use, and automobile safety.

Istiany (2012) studied the link between BMI, gender, and lifestyle choices and bone mineral density in metropolitan environments was examined in a study of teenagers in Indonesia. Istiany came to the conclusion that lifestyle, which is here defined as eating habits and healthy lifestyle choices, was associated with bone mineral density (BMD). Istiany asserted that other variables made up 89.76 percent of BMD and that lifestyle accounted for just 10.24 percent of BMD. Istiany advised local teenagers to consume more milk and engage in more physical activity for better, stronger bones. Istiany demonstrated how lifestyle may impact weight since BMD or weight is included in the calculation of BMI, but he did not define or discover any link between BMI and lifestyle. Although there were teenagers in the research sample, Istiany's findings are relevant to this one in that lifestyle decisions do have an impact on individuals and should be carefully examined, even in adult populations.

Kent and Worsley (2009) conducted a study on changes in adult BMI, diet, and lifestyle in Australia between 1976 and 2005 and discovered a potential link between lifestyle and adult BMI. According to Kent and Worsley's findings, wealthy living patterns tended to predict higher BMIs, whereas sensible lifestyle patterns looked to predict lower BMIs. They also discovered that eating in between meals was positively related to BMI. While Kent and Worsley made some suggestions regarding correlations, they cautioned that further research was required to confirm or refute any potential links between BMI and way of life.

Stinson (2018) analyze the overweight in the Military. Among retirees and their dependents, obesity is more common and has worse health effects. Even though they might be more physically fit than their counterparts in the civilian world, exercise levels drop after retirement. Active duty personnel and their families may experience obesity issues as a result of their prior reliance on exercise to maintain weight control. Encouragement to maintain an active lifestyle among retirees and more attention to diet among active duty may reduce these problems. The body mass index (BMI), which is determined by dividing weight by height

squared, is the most often used indicator of overweight. A BMI of 25 or more is considered to indicate overweight, while a BMI of 30 or above indicates obesity.

Parks and Steelman (2008) explain that effective stress management has been related to mental and physical well-being. According to Kim et al. (2009) stress management has been shown to reduce drug usage and increase physical activity in general populations.

2.5.2.1 Stress Management

The isolation from family and peers, long hours, and deployments to difficult zones all contribute to the stress of a soldier's profession. Schulte (2007) established link between high BMI and job-related stress. Long workdays (12 to 24 hours for certain troops), physical demands at work, long hours, and stress can all affect BMI and raise stress levels. Parks and Steelman (2008) concluded that the ability to regulate stress is correlated with physical fitness. Furthermore, work happiness is correlated with one's ability to manage stress (Wood, Olmstead, & Craig, 1989). Hare et al. (2012) found that stress from the present or the past delayed or reduced the anxiolytic effect of exercise without impacting exercise itself in a research on mice. The relationship between stress and exercise raises issues about the neuropsychological impact of stress, which is relevant to a person's capacity for exercise as well as the influence of exercise on level of stress management.

Various environmental components could have an impact on a soldier's stress management level. Considering these findings, it is important to determine how stress management levels affect soldiers' BMI in security forces.

2.5.3 Environmental Factors

Environmental factors consisted of leadership style. Leadership style is a measurement of the troops' leaders, platoon sergeants, team leaders, or immediate commanders as perceived by the soldiers.

The capacity to inspire others' motivation or competence within a group is known as leadership (Gibson, Ivancevich, & Donnelly, 1991; Humphrey, 2012). According to Bandura (2007), self-efficacy theorists believe that individuals under a leader's leadership who are aware of being graded on a scale have a better chance of performing than those under their own management. Leaders in organizations, like the military, try to inspire their followers to

come to work each day and complete the task (AR, 350-1, 2007). In this study, I investigated how leaders and their leadership styles affect the BMI of their subordinates. Employee fitness may be connected with certain leadership styles.

Leaders have the ability to modify troops' conduct with regard to weight. Army commanders work with their men both one-on-one and in groups. Army commanders ought to behave like coaches. Any coach or leader may use an active duty atmosphere to motivate troops who may need assistance and build a sense of self-worth in them. An active duty setting is a control and disciplined environment.

The effectiveness of leadership is dependent on how the subordinates perceive the leader's self-confidence, according to Sauer (2011), who investigated how freshly appointed leaders affect their subordinates. Low-level leaders are more effective when they use a directive style, whereas high-level leaders are more effective when they use a participative approach. Sauer also discussed how a leader's behaviors might influence how well a team or an individual performs. Physically fit troops in the Army exhibit excellent performance or self-discipline, which benefits the company, the battalion, and the American Army as a whole. Fit, self-assured, and capable leaders may be more likely to motivate their staff by setting a good example.

There are several measures available in determining whether a person is obesity or not. BMI is one of the very popular and highly used measuring techniques all around the world. BMI can be used as an alternative to more precise measurements of body fat percentage and, consequently, of the body's energy reserves. It offers a straightforward numerical assessment of a person's fatness or thinness, enabling medical providers to talk with their patients about issues with being overweight or underweight. BMI is calculated by dividing a person's weight in kilograms by their height in meters squared. It is affordable, simple to assess, repeatable, and somewhat linked with fatness.

The International Obesity Task Force and the World Health Organization (WHO) established BMI cut off values based on related co-morbidities. A BMI below 18.5 may indicate underweight, whereas one between 18.5 to 24.99 may be at a normal weight. Additionally, a BMI of 25 or above is considered overweight, while a BMI of 30 or higher is considered obese (Gibson, 2005).

2.6 Research Gap Analysis

This chapter included a summary of research findings on BMI and related topics. I provided information on the research gaps in this field. In this study, I addressed research gaps concerning physical fitness, behavior, lifestyle, stress management, intellectual ability, environment, and self-efficacy and supervisor leadership as potential factors influencing BMI implementation.

But there is lack of studies on the factors affecting implementation BMI in APF, Nepal and effective measure to maintain the BMI. This study tried to fulfill the research gap factors affecting implementation BMI in APF, Nepal and effective measure to maintain the BMI.

Most of the research in this area has been focused on how to solve the obesity problem as a whole. Gaps in prior studies about factors affecting implementation of BMI could be filled by pursuing a quantitative and qualitative analysis using a theoretical framework. This research is focusing on analyzing the following factors in APF, Nepal: behavioral factors (stress management and lifestyle), environmental factors (supervisor leadership and environment), personal factors (physical fitness and intellectual capabilities), self-efficacy, and other factors (geographical location and diseases) to fill the gap. In APF, Nepal, there is no research about the factors influencing the implementation of BMI. So the gap is to find the factors affecting implementing BMI in APF, Nepal.

CHAPTER-III

RESEARCH METHODOLOGY

This chapter describes the research design, methods, Natures and sources of data, data processing, analysis and presentations along with conceptual framework employed for this research. Following Points was considered in research methodology.

3.1 Research Design

Research design is the framework that has been created to find answers to research questions. The design of this research is both qualitative and quantitative. It is descriptive since the available information is described as per the requirement. At the same time, the information that originated from various sources has been synchronized and analyzed properly. The overall research work is conducted through the collection of primary and secondary data.

A mixed method is adopted because qualitative and quantitative data are part of the study as per the demands of the research topic and the research questions. The research has been deductive, as the study has been done on a particular BMI in APF, Nepal, and the findings have been generalized to generate theory. It was based on information gathered from a variety of primary sources obtained by the interviews and Key informants. The rationale for choosing this particular BMI in APF, Nepal, is that this is the most important for sound professionalism in the organization.

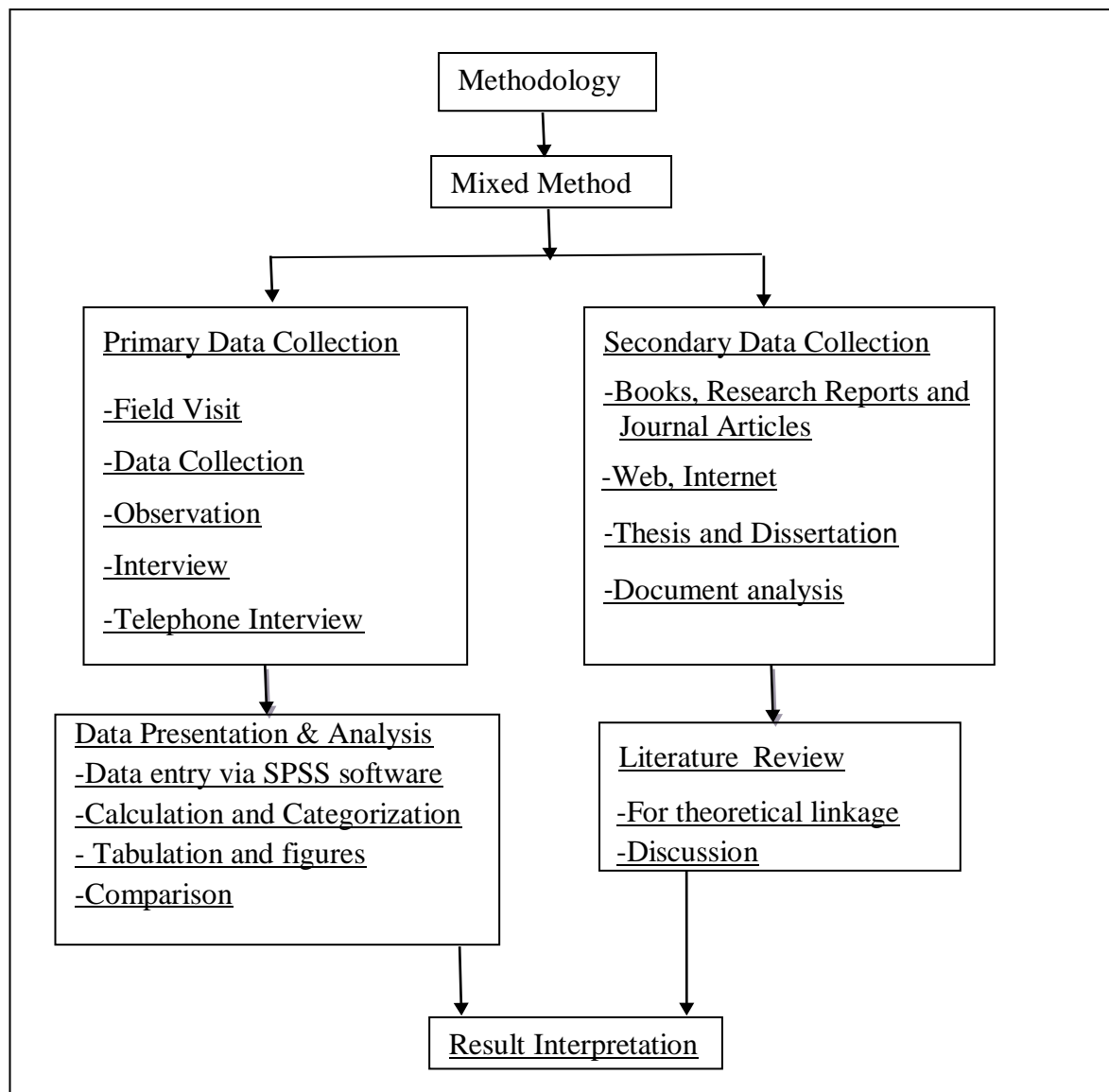
The research field visits have been conducted at four units of APF in Nepal. Pictures of the BMI have been taken and included in the research to make it more realistic. The APF personnel at various units of the APF in Nepal have been interviewed by asking open-ended and closed-ended responses, as per the demands of the study. Prior to the unit visit, official arrangements were completed with the help of the APF Command and Staff College. The collected data has been presented in figure, tabular, and descriptive analytical forms. The primary data obtained from the field has been utilized to validate the researcher's experience and existing theories.

3.2 Nature and Sources of Data

The study is based on both primary and secondary data. The primary data was collected through interview questions, survey and discussions during field visit of study area. The interview that was conducted with different respondents was presented in analytical method.

Figure 3.1

Research Design



Source: The author own work, 2023

3.2.1 Primary Data

The primary data for the study was based on the interview questions designed for APF personnel. The primary data was collected by face-to-face & telephone interview using questionnaire by the researcher and discussions. The researcher designed the questions well to understand easily by the respondents and asked questions effectively and clearly. The researcher briefed about the purpose of the study to the respondents.

Collected data was checked and verified at the end of work. Any inaccuracy and inconsistency was corrected accordingly. To control the data quality, researcher regularly verified the data during the data collection time.

3.2.2 Secondary Data

The secondary data was taken from journal articles, books, government and intergovernmental organization's reports, research papers, websites etc. Likewise, relevant works, studies/publications.

3.2.3 Data Collection

The snowball sampling method was adapted to select the 154 respondents from the different four units of APF, Nepal, for face-to-face interviews and discussions and from other units of APF, Nepal, for personnel telephone interviews to collect data during the research.

3.3 Data Processing, Analysis and Presentation

The research paper for the study has been based on APA 7th Edition for citation and referencing. Additional basis has been incorporated according to the guidance from the supervisor and APF Command and Staff College.

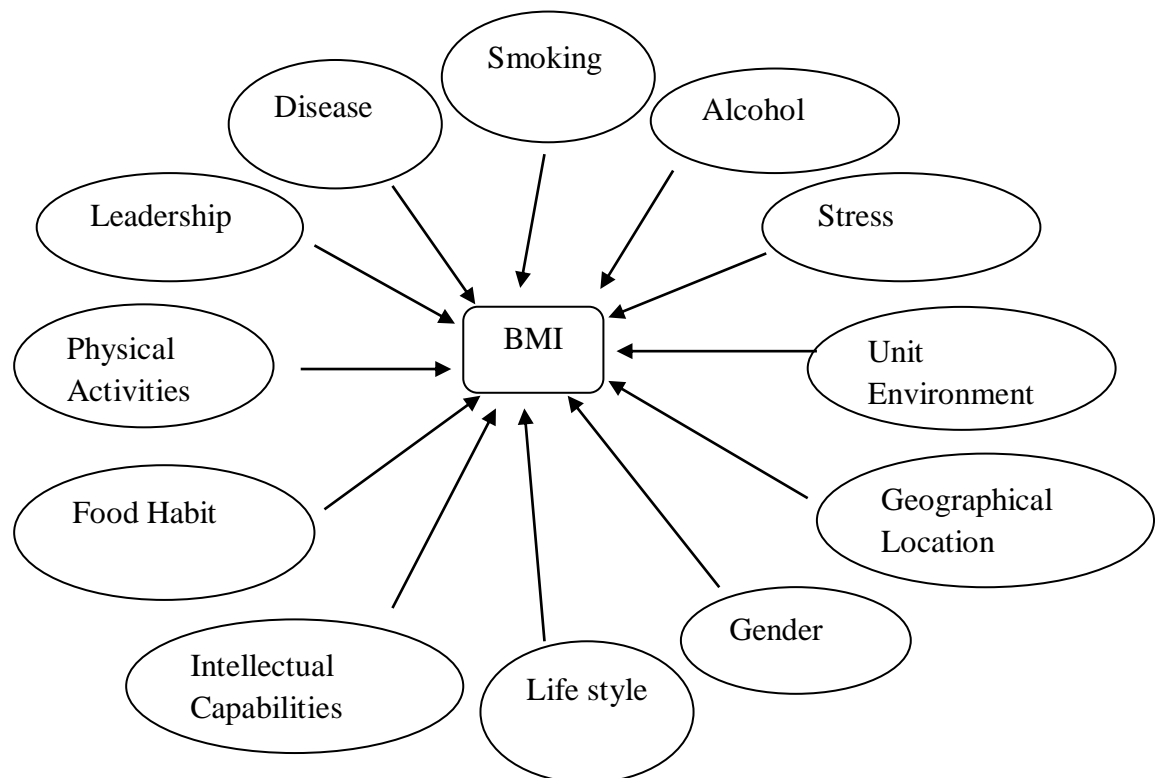
The design of this research has been mixed, and the data has been analyzed using descriptive and analytical methods. The data have been processed, classified, and presented according to their nature. Presenting the data includes a pictorial representation by using figures, charts, and other methods, but the logical and chronological arrangements have been maintained.

A chi-squared test is a non-parametric test of goodness of fit of observed data with a theoretical distribution, or to compare two or more samples with respect to one or more

categories. A graphical and statistical method such as data analysis was tested using the chi-squared test and cross-tabulation was done using SPSS software. Guidance from the supervisor at APF Command and Staff College has been taken into due consideration.

3.4 Conceptual Framework

Figure 3.2



Source: Adapted and modified from Silva S.K.P.N., Perera K.H.D & Samarasinghe G.D., 2021

Figure 3.2 shows the conceptual framework representation of the dependent and independent variables. In this study, the dependent variable is BMI. There are twelve independent variables which will be measured by a set of questions. These are food habit, gender, life style, stress, smoking and alcohol habit, unit environment, leadership, affect of disease, geographical location, intellectual capabilities and physical fitness.

3.5 Area of Study

APF Nepal has been established all over the country. So the unit visit research for the study has been conducted at APF, Nepal No. 30 Battalion Bageshwari Banke, APF, Nepal No. 42 Reserve Battalion, Shamsherjung Banke, APF, Nepal BOP Jamunah, Banke, and the National Armed Police Force Academy, Mathatirtha, Kathmandu. And in some other units, it has been conducted through a telephone interview.

Based on the sample study, generalizations have been made about the factors influencing the implementation of BMI among APF personnel. As such, the study revolves around the importance of BMI, factors influencing its implementation, and measurers for its effective implementation.

3.6 Ethical Consideration

The researcher has adopted the code of ethics of the American Psychological Association (APA) 7th edition during this research. There has not been any malice by the researcher in the outcome of the research. These are purely academic studies, and there has been no sponsorship during the study. For acknowledgement, the rights were protected as per the existing laws during the data collection and later stages. The study has been protected by the secrecy of individuals and organizations as per the law. Informants have not been discriminated against on the basis of sex, race, or ethnicity. The study has protected the anonymity of the informants and individuals. Misleading information, exaggeration, deception, and biased data have been avoided. All communication related to research has been done with honesty and transparency. The researcher has respected intellectual property rights as per the APA model, and there has not been any dishonest practice during the entire research period. The sources and data have been kept confidential as per the ethics of the research. Thus, the research has been conducted by adopting the general principles of ethics as responsibility, integrity, justice, and respect for intellectual property rights, multiple roles, and the rule of consent, confidentiality, and privacy. Due acknowledgement has been given to all who guided and advised me to carry out this research. Any mistakes and lapses that remain are mine.

CHAPTER- IV

FINDINGS AND DISCUSSION

This Study has two main aims. The first aim is to analyze the BMI factors influence the performance of APF, Nepal. The second aim is to assess the effective measures to implement the BMI. The study has conducted among 154 respondents from the APF, Nepal No. 30 Battalion Bageshwari Banke, APF, Nepal, No. 42 Reserve Battalion Shamsheerjung Banke, APF, Nepal, APF, Nepal BOP Jamunah, Banke, and the National Armed Police Force Academy, Mathatirtha Kathmandu.

4.1 Behavioral Factors

Behavior is the way that someone or something acts. It is what a person does to make something happen, to make something change or to keep things the same. Behavior is a response to things that are happening. The study of behavior factors is a complex and ever-evolving field. However, by understanding the different factors that influence our behavior, we can better understand ourselves and others, and we can develop more effective interventions to help people/ security personnel change their behavior. So, here I focused on food habit, gender, smoking, alcohol consumption, life style and stress in this section.

4.1.1 BMI vs Gender

There is a correlation between BMI and gender, but it is not a perfect one. In general, men have a higher BMI than women at the same height and weight. This is because men tend to have more muscle mass than women. However, there is a lot of variation within each gender, so it is important to consider other factors, such as body composition, when assessing a person's weight status.

Table 4.1 shows the information about the distribution of BMI according gender. The majority of the participants had normal BMI for both female (77.8%) and male (70.1%). About 30 percent of male participants were overweight/obesity, whereas only 10 percent of female participants were overweight obesity. Underweight BMI status was more prevalent among female (11.1%). In this study, BMI status of the participants were statistically significant different according to gender ($\chi^2=12.279$; $p=0.006$).

Table 4.1*Distribution of BMI by Gender*

Variable	BMI classification				Chi- square Value	P- Value
	Normal n(%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
Female	21 (77.8)	1 (3.7)	2 (7.41)	3 (11.1)	12.279	.006
Male	89 (70.1)	7 (5.5)	30 (23.6)	1 (.79)		

Note: - The above data shows the comparative study between male and female personnel on how gender is affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and gender where gender is independent variable to BMI.

Source: Field Survey, 2023

4.1.2 BMI vs Alcohol Consumption

The relationship between BMI and alcohol consumption is complex and depends on a number of factors, including gender, age, and overall health. However, some studies have shown that there is a correlation between the two, with people who have a higher BMI tending to drink more alcohol.

Table 4.2 depicts the information about the BMI status in regard to participant's alcohol intake habits. About half of the participants (45.2%) who consumed alcohol were overweight and 3.2 percent were obese. Only 14.6 percent and 5.7 percent of non-drinking participants were overweight and obese, respectively. In this study, BMI status were statistically significant different according to alcohol consumption status by participants ($\chi^2=12.279$; $p=0.006$).

Table 4.2

Distribution of BMI status according to nature of alcohol consumption by participants

Variable	BMI classification				Chi- Square Value	P- Value
	Normal n(%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
Yes	16 (51.6)	1 (3.2)	14 (45.2)	0 (0)	12.279	.006
No	94 (76.4)	7 (5.7)	18 (14.6)	4 (3.3)		

Note: - The above data shows the comparative study between alcohol consumption and none consumption personnel on how alcohol consumption pattern is affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and alcohol consumption where alcohol is independent variable to BMI.

Source: Field Survey, 2023

4.1.3 BMI vs Food Habit

Body mass index (BMI) and food habits are two important factors that can affect a person's health. BMI is a measure of body fat based on height and weight, while food habits refer to the types and amounts of food that a person typically consumes.

There is a strong correlation between BMI and food habits. People who have a higher BMI tend to eat more foods. BMI and food habits are two important factors that can affect a person's health. By making healthy food choices and being physically active, people can reduce their risk of becoming overweight or obese.

In table 4.3 the results of this study also showed difference of BMI with regard to food habits. About half of the participants (41.7%) who having meals more than two times were overweight and 8.3 percent were obese. Only 16.9 percent and 4.6 percent of participants

eating two meals/day were overweight and obese, respectively. In this study, BMI status were statistically significant different according to food habit status by participants ($\chi^2=9.075$; $p=0.028$).

Table 4.3

Distribution of BMI status according to nature of food habit by participants

Variable	BMI classification				Chi – Square Value	P- Value
	Normal (%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
More than Two times Meal	12 (50)	2 (8.3)	10 (41.7)	0 (0)	9.075	.028
Two Times Meal	98 (75.4)	6 (4.6)	22 (16.9)	4 (3.1)		

Note: - The above data shows the comparative study between two times taking meal and more than two times taking meal personnel on how food habit is affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and food habit where food habit is independent variable to BMI.

Source: Field Survey, 2023

4.1.4 BMI vs Smoking

The relationship between BMI and smoking is complex and depends on a number of factors. However, it is clear that smoking can have a significant impact on weight. Smoking and obesity are amongst the leading avoidable causes of mortality worldwide. Understanding pathways that contribute to these risk factors, and the nature of the relationship between them, is therefore of paramount importance for disease prevention. Heavy smoking has been found to be associated with higher BMI.

Table 4.4 depicts the information about the BMI status in regard to participant's smoking habits. Majority of the participants (59.1%) who consumed alcohol were overweight and 9.1 percent were obese. Only 14.4 percent and 4.6 percent of non-smoking participants were overweight and obese, respectively. In this study, BMI status were statistically significant different according to smoking habit status by participants ($\chi^2=25.185$; $p=0.00$).

Table 4.4

Distribution of BMI status according to nature of Smoking consumption by participants

Variable	BMI classification				Chi- Square Value	P- Value
	Normal n(%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
No	103 (78)	6 (4.6)	19 (14.4)	4 (3)	25.185	.000
Yes	7 (31.8)	2 (9.1)	13 (59.1)	0 (0)		

Note: - The above data shows the comparative study between having smoking and none having smoking personnel on how smoking consumption is affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and smoking consumption where smoking is independent variable to BMI.

Source: Field Survey, 2023

4.1.5 BMI vs Stress

The relationship between BMI and stress is complex and bidirectional. Stress can lead to weight gain, and obesity can also lead to increased stress. It is important to find healthy ways to manage stress, such as exercise, relaxation techniques, and social support. These strategies can help to reduce stress and improve overall health. People who experienced stressful life events were more likely to gain weight over time than people who did not experience stressful life events.

Table 4.5 depicts the information about the BMI status in regard to participant's stress status. Half of the participants (44.4 %) who having warning signs were overweight and 11.2 percent were in under weight. Only 17.6 percent and 5.9 percent of no having warning sign participants were overweight and obese, respectively. In this study, BMI status were statistically significant different according to stress level status by participants ($\chi^2=14.318$; $p=0.003$).

Table 4.5

Distribution of BMI by stress

Variable	BMI classification				Chi- Square Value	P- Value
	Normal n(%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
No	102 (75)	8 (5.9)	24 (17.6)	2 (1.5)	14.318	.003
Warning Sign	8 (44.4)	0 (0)	8 (44.4)	2 (11.2)		

Note: - The above data shows the comparative study between not having stress and having warning sign personnel on how stress is affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and stress where stress is independent variable to BMI.

Source: Field Survey, 2023

4.1.6 BMI vs Life Style

A lifestyle is the way a person lives their life, including their habits, values, and interests. It is a complex concept that encompasses many different aspects of a person's life, such as their diet, exercise habits, sleep patterns, work-life balance, relationships, and leisure activities.

There is no one right or wrong lifestyle and what constitutes a healthy lifestyle will vary from person to person. However, there are some general principles that can help people adopt a

healthier lifestyle, such as eating a balanced diet, getting regular exercise, and getting enough sleep.

Lifestyle can have a significant impact on a person's health and well-being. People who adopt a healthy lifestyle are more likely to have lower rates of chronic diseases, such as heart disease, stroke, and cancer. They are also more likely to live longer and have a higher quality of life. It is important to focus on a healthy lifestyle to maintain BMI.

Table 4.6 depicts the information about the BMI status in regard to participant's life style. About half of the participants (47.8%) who having average healthy were overweight and 8.7 percent were obese. Only 16 percent and 4.6 percent of having heavy healthy participants were overweight and obese, respectively. In this study, BMI status were statistically significant different according to life style status by participants ($\chi^2=13.816$; $p=0.003$).

Table 4.6

Distribution of BMI by Life style

Variable	BMI classification				Chi-Square Value	P-Value
	Normal n(%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
Heavy Healthy	100 (76.4)	6 (4.6)	21 (16)	4 (3.1)	13.816	.003
Average Healthy	10 (43.5)	2 (8.7)	11 (47.8)	0 (0)		

Note: - The above data shows the comparative study between average healthy and heavy healthy personnel on how life style is affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and life style pattern where life style is independent variable to BMI.

Source: Field Survey, 2023

Key Informants Interview explained that the behavior of personnel is important to maintaining the BMI. They stated that BMI depends on the personnel's lifestyle, food habits, gender, stress, smoking, and alcohol habits, which they learn from situations or surroundings. So they focus on personnel behaviour, they should change their behavior to maintain their BMI.

Data analysis represents significant factors that affect the BMI of APF, Nepal personnel. Based on the data analysis, 29.1 percent of males are statistically considered to be overweight or obese. The fact that 48.4 percent of alcohol consumers fall into the category of being obese or overweight is significant. It is evident that 49.9 percent of employees eat more than twice a day are overweight or obese. It can be seen that 52.2 percent are overweight or obese compared to the healthy person where as 20.2 percent are heavy healthy people fall in the same group. It can be seen that 68.2 percent of smokers fall into the overweight or obesity categories. 44 percent lie in the overweight category having some signs of stress. Key informants accept that food habits, stress, gender, smoking, lifestyle, and alcohol habits are the factors that affect the implementation of BMI, and from the Chi-square test, the same result was proved. So it clearly shows that those factors are the influencing factors for the BMI, which means those mentioned factors affect the BMI while implementing the BMI in APF, Nepal.

4.2 Personal Factors

Personal factors are those that are unique to each individual and can affect their behavior. The model's personal factors include physical activity and intellectual capabilities.

4.2.1 MBI vs Physical Activities

Physical activity is any bodily movement that is produced by skeletal muscles and that increases energy expenditure. It can be divided into three main types: aerobic, strength training, and flexibility. Aerobic activities, such as brisk walking, swimming, and biking, improve cardiovascular health and endurance. Strength training activities, such as lifting weights, help to build muscle and bone mass. Flexibility activities, such as yoga and improve range of motion and joint health.

MBI stands for Mental Body Inventory. It is a self-report measure of one's overall physical and mental health. Both MBI and physical activity are important for overall health, and they can be complementary to each other.

There is a strong relationship between BMI and physical activity. People who are more physically active tend to have lower BMIs, while people who are less physically active tend to have higher BMIs. This is because physical activity helps to burn calories and build muscle, both of which can help to lower BMI.

Table 4.7 depicts the information about the BMI status in regard to participant's physical activities. Majority of the participants (54.5%) doing light activities were overweight and 22.7 percent were obese. Only 15.1 percent and 2.3 percent doing moderate activities participants were overweight and obese, respectively. In this study, BMI status were statistically significant different according to physical activities by participants ($\chi^2=40.637$; $p=0.000$).

Table 4.7

Distribution of BMI by Physical Activities

Variable	BMI classification				Chi- Square Test	P- Value
	Normal n(%)	Obesity n(%)	Over Weight n(%)	Underweight n(%)		
Light	4 (18.2)	5 (22.7)	12 (54.5)	1 (4.5)	40.637	.000
Moderate	106 (80.3)	3 (2.3)	20 (15.1)	3 (2.3)		

Note: - The above data shows the comparative study between doing light exercise and moderate exercise personnel on how Physical activities are affecting BMI. The p value is less than 0.05 which shows the significant relationship between BMI and physical activities where physical activities are independent variable to BMI.

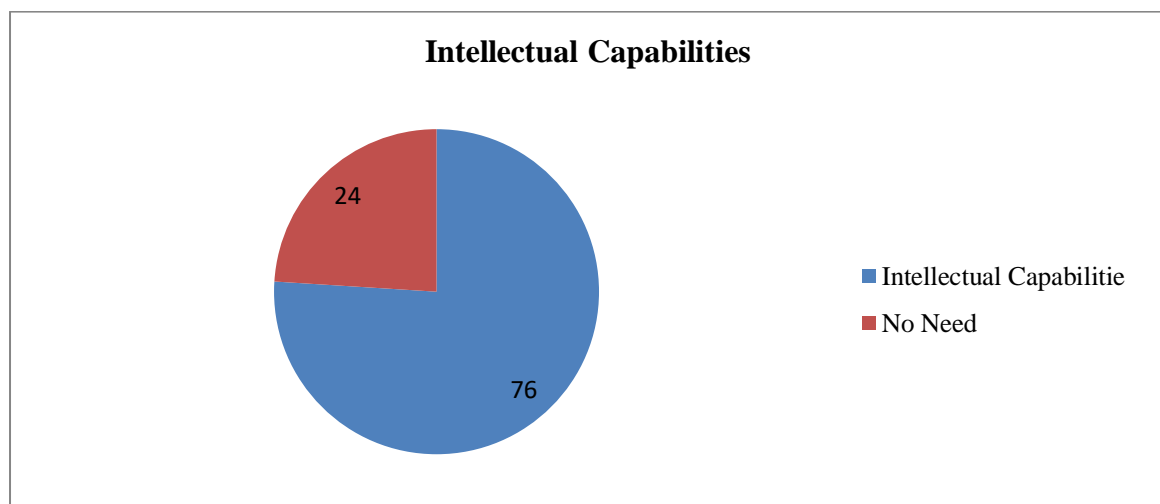
Source: Field Survey, 2023

4.2.2 MBI vs Intellectual Capabilities

Intellectual capabilities refer to a person's ability to think, learn, and solve problems. The relationship between BMI and intellectual capabilities is a complex one. MBI and intellectual capabilities are two different concepts that measure different aspects of a person's health and well-being. They are not directly related to each other, but they can be correlated. Both MBI and intellectual capabilities are important for overall health and well-being, and they can be affected by a variety of factors.

Majority (76 %) of respondents replied that individuals' intellectual capabilities could affect their decision-making and their ability to work out. An individual's brain could motivate him or her in their life choices to keep them fit. A person's drive to exercise may be a product of his or her brain function, which means it helps to maintain a good BMI, while 24 percent said that there is no need for the intellectual Capabilities to maintain the BMI because the daily routine of the units has been helping to maintain the BMI, as shown in Figure 4.1. That means the majority of the respondents concluded that intellectual Capabilities are also a factor that affects personnel BMI in the security forces.

Figure 4.1



Source: Field Study, 2023

KII 4 explained that Physical activities were the main factors in maintaining a healthy body. Every member of the security force or civilian population must engage in physical activities for at least half an hour for the healthy and one hour for the unhealthy people every day. But

for the security personnel, at least 2 miles of running, pushing up, setting up, and other obstacles are compulsory at least 5 days a week.

Based on the data analysis, 72.2 percent of participants doing light exercise fall into the category of being obese or overweight, but only 17.7 percent doing moderate exercise fall into the same category, and 76 percent of participants replied that Intelligence capability affects the BMI. Key informants interview emphasis on physical activities is the main parameter to maintain BMI.

From the Chi-square test for physical activities, the same result was proved. So it clearly shows that physical activities and intelligence capabilities are the influencing factors for the BMI, which means those mentioned factors affect the BMI while implementing the BMI in APF.

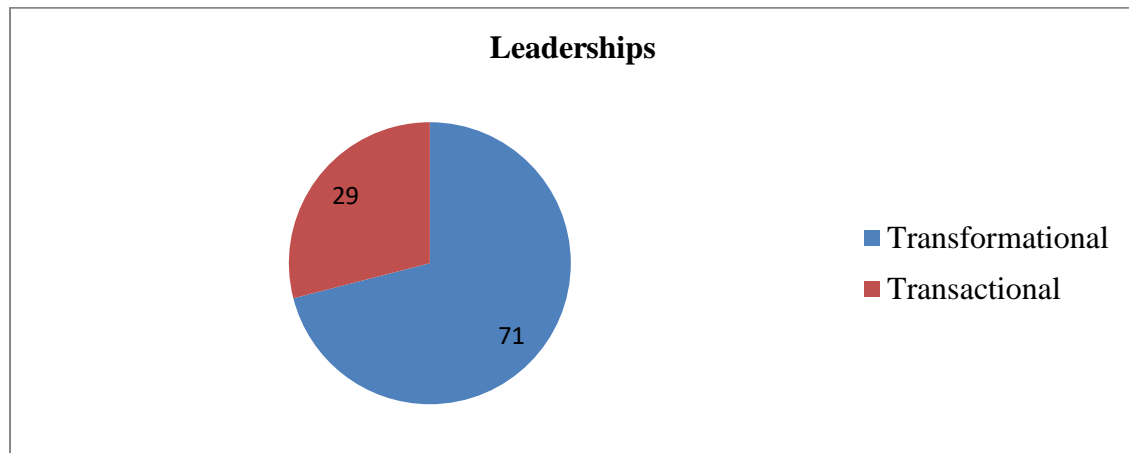
4.3 Environmental Factors

Environment is the surrounding of the personnel and that affect the personnel attitude and behavior. The leadership style and the unit environment were environmental factors. Leadership style is a measurement of how soldiers perceive their immediate leaders, team leaders, platoon sergeants, or leaders. This section was examined about this.

4.3.1 BMI Vs Leadership

Leadership is the ability to influence and motivate others to achieve a common goal. It is the art of getting people to work together towards a common purpose. Leaders are typically confident, outgoing, and have a strong sense of purpose. They are also able to communicate effectively, motivate others, and solve problems. It is also possible that people with higher BMIs are more likely to be seen as less competent or less attractive, which could hinder their ability to be effective leaders.

Majority (71%) of respondents replied that Transformational leadership is important for the good motivation and morale of the troops, which helps to maintain a good BMI, while 29 percent replied that Transactional leadership is the major contributor to the good morale and motivation of the troops, as shown in Figure 4.2. That means they explained that motivating leadership is the one basic factor that affects personnel BMI in the security forces.

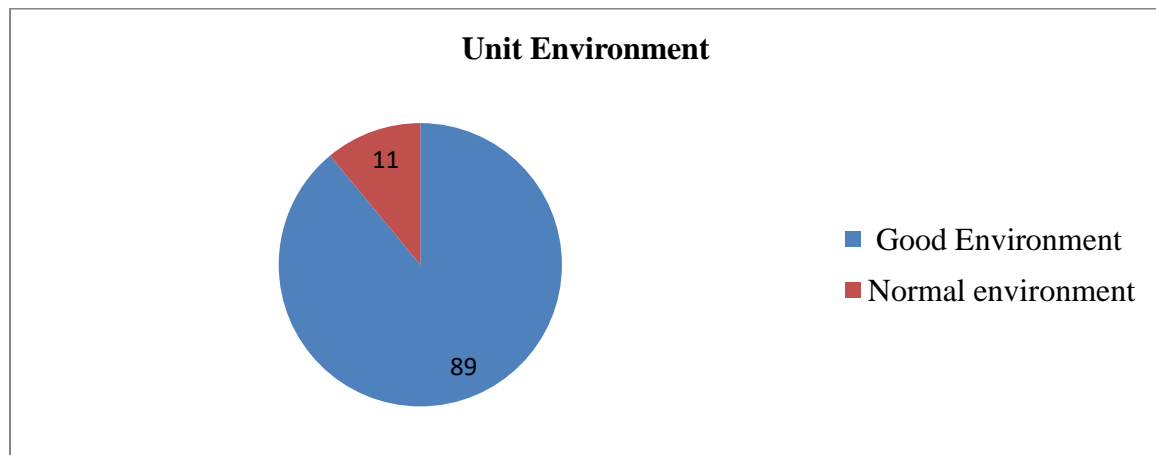
Figure 4.2*BMI vs Leadership**Source: Field Study, 2023*

In the figures, respondents were male and female personnel of the APF, Nepal, which clearly shows that leadership is one of the important factors for, maintain health.

4.3.2 BMI vs Unit environment

Unit environment is a more holistic measure of a person's surroundings. Unit environment can be a useful tool for understanding how the environment can impact a person's health and well-being.

When the respondents were asked about the unit environment, 89 percent replied that the good environment of the unit is crucial to boost the morale and motivation of the soldier so that the soldier will be dedicated to the organization, which means all the soldiers will be fit to fulfill the mandate of the organization, whereas 11 percent replied that a normal environment will be enough for the soldier to function well in the unit, as shown in Figure 4.3. Both responders said that BMI and Unit environment have a positive relationship.

Figure 4.3*BMI vs Unit Environment**Source: Field Study, 2023*

KII 3 explained that transformational leadership is one of the main factors to make good relation of the unit and motivate to the personnel to perform their task according to mandates.

KII 3 explained that persons who are directed by a leader and are aware that they will be evaluated on a scale have a higher possibility of performing than persons who are managed by themselves. The unit environment includes soldiers' team leaders, platoon commanders, immediate leaders or leaders, and relations between same ranks.

The above figures show that the majority (71%) of respondents accept that transformational leadership helps to maintain BMI, and the Majority (89%) of respondents accepts that the good environment of the unit helps to maintain BMI. Key informants illustrated that leadership and unit environment are the factors that affect BMI. So it clearly shows that transformational leadership and unit environment are the influencing factors for the BMI, which means those mentioned factors affect the BMI while implementing the BMI in APF.

4.4 Other Factors

The factors which could not managed by the person are considered the other factors. In this section, respondent were interviewed about the geographical location and diseases.

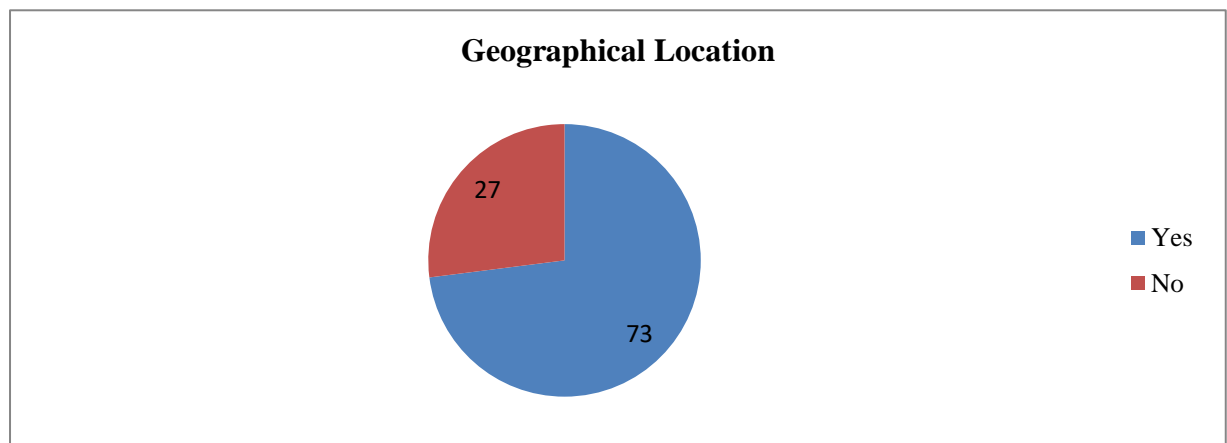
4.4.1 BMI vs Geographical Location

Geographical locations are defined as places on the earth's surface that can be identified by their physical features, human activity, or cultural significance.

Majority(73%) respondent replied that there is a dependent relationship between BMI and geographical location because one can't perform the same activities within the same time periods in the other region (hilly or mountain) areas compared to the Tarai areas, while 27 percent replied that there are no differences when transferring to another geographical location, as shown in Figure 4.4.

Figure 4.4

BMI vs Geographical Location

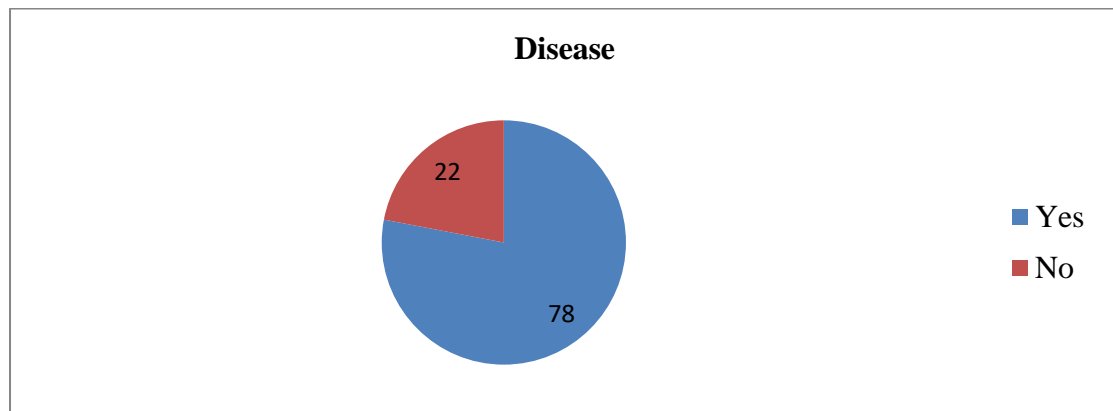


Source: Field Study, 2023

4.4.2 BMI vs Diseases

Diseases are specific medical conditions that can affect a person's health. There are many different types of diseases, and they can be caused by a variety of factors, including genetics, environment, and lifestyle.

Majority (78%) of respondents, who were suffering from diseases, explained they have felt unable to maintain their physical activities compared to when they were healthy. 22 percent of soldiers replied that they were not feeling any change in their physical fitness, although they are suffering from the diseases shown in Figure 4.5. They admitted that there is also dependent relationship between BMI and disease.

Figure 4.5*BMI vs Disease**Source: Field Study, 2023*

KII 3 explained that geographical location is also one of the factors that affect the personnel endurance because of the climate and the weather conditions. So, every person could not the same performance while they transfer to another geographical location.

One of the KII explained that Post pregnancy status, hormone change, back pain, mental health condition, thyroid, chronic medical conditions and lifestyle are the affecting factors for BMI

The above figures show that the majority (73%) of respondents accept that geographical location and the majority (73%) of respondents accept that health problems affect maintaining BMI. Key informants explained that geographical location and diseases are factors that affect the BMI. So it clearly shows that geographical location and diseases are the influencing factors for the BMI, which means those mentioned factors affect the BMI while implementing the BMI in APF.

4.5 Armed Police Force, Nepal and Body Mass Index

APF, Nepal, was established during the Maoist conflict in 2001. It has the mandate to perform tasks during conflict and peacetime. Since its establishment, it has proven its efficiency. APF, Nepal, has always been committed to making its personnel physically healthy, competent, and sound professionals in every field given by the mandates. So, APF, Nepal, has formulated and implemented the BMI procedure since 2022, but BMI has also

been practiced since its establishment. The main aim of this procedure is to maintain the BMI of the APF personnel so they can achieve the goals of the organization through their physical fitness and sound professionalism. Since its establishment, it has been committed to maintaining the BMI of its personnel through different physical activities, training, and other measures to motivate and encourage them. Now, the organization has been fully committed to implementing BMI to maintain the high standard and sound professionalism of the organization and achieve the mandates given by the government of Nepal.

4.5.1 Necessity of Implementing of BMI in Armed Police Force, Nepal

In general, police employment is regarded a dangerous occupation, thus their health should be handled seriously, keeping in mind that health is an individual's total physical, social, and mental well-being, not just the absence of disease. In all countries, the police play a vital role in ensuring the social stability essential for society's healthy development. When performing a given work, these police personnel have a high prevalence of obesity, which is linked to hypertension, hyperlipidemia, smoking, and a sedentary lifestyle. Most police officers work long days and nights, which can be hazardous to their health. Circadian rhythm abnormalities, insufficient sleep, psychiatric issues, metabolic diseases, type 2 diabetes mellitus, and heart disease are among side effects of this work.

Armed Police Force Nepal is one of the security organizations of Nepal that is paramilitary in nature. APF, Nepal, was established in 2001 in an adverse situation of conflict in Nepal. The Armed Police Force is occupied in a dual role as both a military and law enforcement agency. Most of the mandates are field-based in nature. Physical fitness is essential as per the nature of the job for human resources at APF. Core functions like disaster search and rescue, riot control, and deployment on insurgency and other security-related specific jobs demand human resources with sound health, smarts, and mental fitness. Likewise, all mandatory tasks are in the risk zone. Quick reaction and imitative mobilization are essential for their nature.

4.5.2 Benefits of Implementing of BMI in APF, Nepal

APF, Nepal divided human resources into two categories: administration, infantry, and technical. The body mass index is more reliable for infantry forces. Inclusiveness has already been accepted in APF Nepal, that is why female human resources are also in APF Nepal, and both the category and the organization's policy are to increase their number.

There are benefits to the implementation of BMI in organizations. It helps to standardize the APF personnel and keep them fit. The BMI has been developed as per the age group, which will take into consideration their age and growing obesity. BMI implementation will increase motivation among the personnel to be fit and reach a certain category. Likewise, the implementation of body mass index helps personnel stay fit, mentally sound, smart, stress-free, and willing to do something. It motivates the personnel, and motivated personnel are the assets to the organization in achieving the goal.

As mentioned above, human resources are divided into two categories: infantry and technical. Body mass index is more reliable for infantry than technical staff. Body mass index must contribute to their performance appraisal, and then there will be complete implementation. APF Nepal is paramilitary in nature, but the deployment of APF is not intact. Nepal is deployed in small areas, like the base and BOP, where there is complexity in implementation. The organization's responsibility is to provide a platform for that purpose, but small units are in limited areas, so they cannot have enough space for physical exercise. Intactness in deployment can assist organizations in implementing it.

And other essential administration jobs are also handled by the infantry staff in almost all units; most of the time, they are busy with administration jobs. They cannot get sufficient time for fitness, so all administration jobs should be categories.

It will create a disparity among the personnel regarding their BMI category. This doesn't take account of different aspects like small-height personnel, muscle-developed personnel, and mostly in women's cases, pregnant female personnel.

4.6 Measures to be taken for Effectively Implementation of the Body Mass Index

BMI is the main parameter of the physical fitness. So the BMI is affected from the different factors. So here are some measures to mitigate the influencing factors BMI.

- a. When interacting with APF personnel, it is observed that physical fitness is the main element in maintaining BMI. Respondents suggest that at least five days a week are compulsory for every employee to do moderate exercise. It is better to do at least 2 miles of running, a set-up, a chin-up, and other different types of exercise daily.

- b. In the study, when interacting with the respondent, it was found that food habits also affect the BMI; if someone eats more than is necessary, he or she cannot maintain the BMI. And also observed that many personnel are maintaining their BMI through the dieting system. So, we should eat healthy and suitable food for our bodies.
- c. From the interaction and observation, Smoking and alcohol are the factors that affect maintaining the BMI, especially for people who usually take those things. This suggests that sometimes people can take those things but do not take them regularly.
- d. From the interaction and observation, it is found that stress is the main cause of the BMI being affected. APF personnel are staying far from their families for a long time; low salaries, long working hours, low levels of living conditions, a short-term leave system, and other causes cause many personnel in their professional lives to face stress. That is why organizations should focus on that matter so that it helps to maintain BMI.
- e. In the study, it was found that if personnel's lifestyles are healthy, they will be less stressed, which will help them achieve happiness and perform their tasks joyfully. So it is important to understand that a healthy lifestyle is necessary to maintain a good BMI.
- f. Through interaction and self-examination, transformational leadership is another contributing factor to maintaining a good BMI because it creates a good environment for the unit and motivates the personnel to perform their tasks. So, visionary leadership is another factor to maintaining a good BMI.
- g. Through observation, interaction, and self-experience, the environment in the unit is the major factor that affects the BMI. The environment of the unit is important, which means the cordial relationship between and among the Unit commander, different levels of commander, and equal levels of soldiers in the same unit. So there must be a good environment within the unit, which helps to maintain a good BMI in the organization.
- h. Through the telephone interview, interview, and group discussion, it was found that the geographical location also affects personnel performance. That means if a person transfers from the Terai to a hilly or mountain area that affects the BMI because of the weather and other factors. So if possible, transfer a person who is from the same geographical region, i.e., Tarai, Mountain, and Hilly Mountain.

i. Respondents believed that disease and intellectual capabilities are other main factors that affect the performance of personnel, so every APF person should be healthy. For this, mental and physical fitness are necessary for a person, increase the horizon of the knowledge and Medical facilities are a key element for timely treatment. So, maintaining good physical health and mental health, and increase the horizon of knowledge are the important parameter for maintaining BMI.

4.7 Summary of the Chapter

Data analysis represents significant factors that affect the BMI of APF, Nepal personnel. Based on the data analysis, 29.1 percent of males are statistically considered to be overweight or obese. The fact that 48.4 percent of alcohol consumers fall into the category of being obese or overweight is significant. It is evident that 49.9 percent of employees eat more than twice a day and are overweight or obese. It can be seen that 52.2 percent are overweight or obese and 20.2 percent are heavy healthy fall same categories. It is significant that 77.2 percent of overweight people do light exercise, but only 17.7 percent do moderate exercise, which are in the overweight or obesity categories. It can be seen that 68.2 percent of smokers fall into the overweight or obesity categories. 44 percent lie in the overweight categories and have some signs of stress. From the open-ended interview, it has been concluded that leadership, intellectual capabilities, unit environment, geographical location, intellectual capabilities and disease are the factors that affect the implementation of BMI. So it clearly shows that those factors are the influencing factors for the BMI, which means those mentioned factors affect the BMI while implementing the BMI in APF, Nepal.

Also, from the key informant interview (KII), we can conclude that food habits, gender, stress, smoking and alcohol habits, unit environment, leadership, chronic disease, geographical location and physical fitness are the factors influencing BMI.

From the Chi- Square test and cross tabulation food habit, gender, stress, smoking and alcohol habit, physical fitness and life style are associated with BMI.

From the KII, and interviews with APF personnel, it is clear that for the effective implementation of the BMI, any organization and person should focus on a healthy lifestyle, a balanced diet, a physically active life, a good unit environment, constrictive and creative

leadership, avoiding smoking and drinking alcohol daily, changing the transfer system, Increase the horizon of knowledge and avoiding stress.

From the above data analysis, the Chi-square test, tabulation and interview with APF personnel and the KII, It is concluded that food habits, gender, stress, smoking and alcohol habits, unit environment, leadership, intellectual capabilities, chronic disease, geographical location, and physical fitness are the factors affecting BMI.

For the effective implementation of the BMI, a healthy lifestyle, a balanced diet, a physically active life, a good unit environment, constrictive and creative leadership, avoiding smoking and drinking alcohol daily, a transfer system, and avoiding stress are important factors.

CHAPTER –V

SUMMARY AND CONCLUSION

5.1 Summary

Any person's health has a significant impact on how well they function. Any armed force must have a healthy member for it to function well. The adult's weight in kilos is divided by their height in square meters to determine their BMI. Body mass index is the ratio of one's weight in kilograms to one's height in meters squared (Nuttall F.Q., 2015). To maintain the health of the company and themselves, every security employee engages in physical exercise as part of their daily routine. Even when we exercise physically, if we do not balance our nutrition and physical activity, we tend to gain weight and raise our BMI. The BMI of every individual differs according to their food habits, stress, disease, smoking and alcohol habits, lifestyle, physical fitness, intellectual capabilities and region of residence in different parts of their geographical location.

APF, Nepal has been applying the BMI since its establishment in 2001. The research has examined food habits, stress, disease, smoking and alcohol habits, life style, physical activities, leadership, unit environment, intellectual capabilities the affect of geographic location on APF and Nepal personnel, and effective measures to implement BMI.

The survey has been conducted in four different units of the APF, Nepal No. 30 Battalion Bageshwari, Banke, APF, Nepal No. 42 Reserve Battalion Shamsheerjung Banke, APF, Nepal BOP Jamunah, Banke, and National Armed Police Force Academy, Mathatirtha, and through a telephone interview with the APF personnel deployed in Different units.

The study focuses on the Influencing factors in implementing BMI. The research studied the different factors affecting the BMI, such as gender, food habit, unit environment, Smoking, alcohol habit, lifestyle, leadership, stress, physical activities, and geographical location.

Data analysis shows that 29.1percent of the male, 48.4 percent of alcohol consumed person, 49.9 percent who takes meal more than two times in a day, 52.2 percent average healthy, 77.2 percent who does light exercise, 68.2 percent having Smoking habit, 44 percent having some sign of stress are overweight or obesity category and also Chi-square test it has given the same result. From the open-ended interview, it has been concluded that leadership, unit

environment, geographical location, and disease are the factors that affect the implementation of BMI. And also from the expert view (KII), gender, food habit, unit environment, Smoking, alcohol habit, life style, leadership, stress, physical activities, intellectual capabilities and geographical location are the influencing factors in implementing BMI.

So, for the effective implementation of the BMI, any organization and person should focus on a healthy lifestyle, a balanced diet, a physically active life, a good unit environment, constrictive and creative leadership, avoiding smoking and drinking alcohol daily, a transfer system, increase the horizon of knowledge and avoiding stress..

This research paper doesn't take account on different aspect like heightly personnel, muscle developed, and dieting personnel and mostly in women case pregnant female personnel.

5.2 Conclusion

Body mass index (BMI) is a statistical tool that calculates a person's body fat percentage based on their height, weight, and age. It is computed by dividing the individual's weight in kilos by their height in square meters. Many factors affect BMI during its implementation in the security forces. APF, Nepal units were selected for the research.

The research has focused on examining participants' Physical fitness, their lifestyle, stress, their immediate supervisor leadership, unit environment, geographical location, smoking and alcohol habits, gender, disease, food habits, and intellectual capabilities measured by their BMI.

Lifestyle, stress management, and physical fitness all have an impact on happiness. All of these characteristics are manageable through coaching, supervisory assistance, or motivation. Additionally, there were notable relationships between self-efficacy, behavioral factors, environmental variables, personal factors, other factors and BMI.

It is concluded from the research that gender, food habit, unit environment, Smoking, alcohol habit, lifestyle, leadership, intellectual capabilities stress, physical activities, and geographical location are the influencing factors in implementing BMI. A healthy lifestyle, a balanced diet, a physically active life, a good unit environment, constrictive and creative leadership, avoiding smoking and drinking alcohol daily, a transfer system of organization, increase the horizon of knowledge and avoiding stress are the measures to maintain a normal BMI.

APPENDICES

Appendix 'A'

(Refers to Page 25-33)

Questioners to the APF personnel

A. Information about the respondents

1.	Personal Details		
(a)	Rank:	(b)	Name:
(c)	Types of Duty :	(d)	Service Year:
(e)	BMI:	(f)	Unit:
(g)	Location:	(h)	Age
(i)	Height	(J)	Weight

B. Questioner for respondents

2 Gender

(a) Male (b) Female

3 Married Status

(a) Married (b) Unmarried

4 Education

(a) SLC(SEE) (b) IA (+12) (C) Bachelor

5 Location

(a) Tarai (b) Mountain (C) Hilly

6 Disease

(a) No (b) Yes (Mention name.....)

7 Smoking

(a) Former smoker (b) Smoker (c) No smoker

8 Alcohol

(a) Yes (b) No

9 Dietary Habits

(a) More than 3 Meals a day (b) 2 Meals a day (c) 3 Meals a day

- 10 Physical Activities
(a) Sedentary (b) Light (c) Moderate (d) Intensive
- 11 Sleeping Hours
(a) 6 hrs (b) 7 hrs (c) 8 hrs (d).....Hrs
- 12 Working Hours
(a) More than 8 hrs (b) Less than 8 hrs
- 13 Stress
(a) No stress (b) Warning signs (c) Stressors (d) Stress effects
- 14 Leadership
(a) Transformational (b) Transactional (c) Passive avoidant
- 15 Life style
(a) Very healthy (b) Average Healthy (c) Below
- 16 Unit Environment
(a) Very Good (b) Normal (c) Below

(Refers to page 34-38)

Interview Questions to APF Personnel

A. Information about the respondents

1.	Personal Details		
(a)	Rank:	(b)	Name:
(c)	Types of Duty :	(d)	Service Year:
(e)	BMI:	(f)	Unit:
(g)	Location	(h)	Age
(i)	Height	(J)	Weight

B. Question for responders

- 1 Do you know about Body Mass Index? Describe shortly.
- 2 Describe, have you felt any change in your BMI after posting to the other geographical location? (Mountain to plain or Hilly region).
- 3 Are you suffering from any disease? If yes then how it is affecting your BMI.
- 4 Does your regular physical exercise help to maintain your BMI? Describe.
- 5 Are you taking alcohol or smoking? If yes, how does it affect your BMI?
- 6 How does your unit's environment affect your BMI?
- 7 Describe, stress will affect the BMI (Professional or Personnel).
- 8 What types of physical activities are you doing regularly to maintain your BMI?
- 9 Why do you think BMI is an important health parameter to the security forces?
- 10 Does obesity affect BMI? If yes, explain in short?

- 11 How does your food habit help to maintain your BMI?
- 12 How does your unit food system affect your BMI?
- 13 How your lifestyle is affecting maintaining the BMI?
- 14 What types of leadership help to maintain the BMI? Explain.
- 15 Why your BMI is normal/under/overweight? Give reason.
- 16 What are the challenges to implementing BMI in APF, Nepal?
- 17 What are the factors influencing the implementation of Body Mass Indexes in APF, Nepal? Explain shortly.
- 18 What effective measures will have to be taken to maintain a normal BMI?
- 19 Any suggestion to the researcher regarding the BMI?

Key Informants Interviews (KII) Questions

- 1 How does disease affect the BMI?
- 2 Does a regular physical activity help to maintain BMI? Describe.
- 3 Does regularly taking alcohol or smoking impact the MBI?
- 4 Will stress affect the BMI (Professional or Personnel)?
- 5 Why do you think BMI is an important health parameter to the security forces?
- 6 Does obesity affect BMI? If 'Yes' explain in short?
- 7 Does food habit help to maintain BMI?
- 8 What are the challenges to implementing BMI in APF, Nepal?
- 9 What are the factors influencing the Implementation of Body Mass indexes in APF, Nepal? Explain shortly.
- 10 What effective measures will have to be taken to maintain a normal BMI?

Pictures



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