DISSERTATION

AT

DELOITTE CONSULTING INDIA

GENDER BASED COMPARATIVE STUDY OF NUTRITIONAL STATUS AND DIETARY PATTERN OF CORPORATE EMPLOYEES.

BY

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PG/14/050

UNDER THE GUIDANCE OF

DR. PREETHA G S

POST GRADUATE DIPLOMA IN HOSPITAL AND

HEALTH MANAGEMENT 2014-16

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH NEW DELHI

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This is to certify that Ms. **Prerna Bajpai** was on a fixed term Internship from **February 8, 2016** to **April 29, 2016**. She has successfully completed her Internship in **Application Management Services**.

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The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

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The following dissertation titled **"Gender Based Comparative Study Of Nutritional Status And Dietary Pattern Of Corporate Employees"** at **"Deloitte Consulting India Pvt. Ltd."** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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Certificate from Dissertation Advisory Committee

This is to certify that **Ms. Prerna Bajpai,** a graduate student of the **Post-Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. She is submitting this dissertation titled "**Gender Based Comparative Study Of Nutritional Status And Dietary Pattern Of Corporate Employees**" at "Deloitte Consulting India Pvt. Ltd." in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Dr. Preetha GS,
Associate Dean (Research),

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Deepika Sharma,
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INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "Gender Based Comparative Study Of Nutritional Status And Dietary Pattern Of Corporate Employees" and submitted by Prerna Bajpai, Enrollment No. PG/14/050, under the supervision of Dr. Preetha G S, Associate Dean (Research), for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 8th February 2016 to 29th April 2016, embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Prerna Bajpai

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FEEDBACK FORM

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Dissertation Organisation: Deloitte

Area of Dissertation: Nutrition status in a corporate Setup

Attendance: As per the requirement

Objectives achieved: completed the project for dissertation in a timely manner.
Has gained understanding of IT..

Deliverables: Completed the project in a timely manner
Team player
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Strengths: Team player, good Hc knowledge, willing to help Cagu to learn, is optimistic

Suggestions for Improvement:
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ABSTRACT

The nutritional needs of men and women have always been different. From calories to calcium, women and men have distinctly different needs. Some of it has to do with size. And some of it has to do with function. This study was to perform a comparative analysis of the dietary patterns, the nutritional status of men versus women and identifying lifestyle diseases prevalent among the employees of our organization.

This was a cross sectional descriptive-comparative study. For assessing the nutritional status, anthropometric measurements like height and weight are recorded, from which the Body Mass Index (BMI) is calculated. To explore the dietary pattern, 24-hour diet intake and food frequency intake was recorded with the help of a questionnaire designed for assessing nutritional wellness.

On analysis, three dietary patterns were identified with “cereal based vegetarian” being the most prevalent one. Overall all employees have a good nutritional status, with both men and women being at par with each other in almost all parameters. However, each of the two genders are found lacking on a few parameters like egg consumption is still low even in non- vegetarians. There are instances of reduced physical activity, history of smoking, and almost equal no. of males and females being overweight. Continuous efforts on the part of everyone will help in improving and maintaining the nutritional status.

ACKNOWLEDGEMENTS

Prima facia, I am grateful to God for the good health and wellbeing that were necessary to complete this internship and project report.

I am thankful to IIHMR Delhi and Deloitte Consulting India Pvt. Ltd. who provided me with the facilities required and conducive conditions for acquiring practical knowledge of consulting and the workflows followed in the organization, on a day to day basis and guiding me in completing the project undertaken by me.

I am thankful to, Deepika Shama, Manager (Core-Clinical) for helping me in selection of the project and providing me guidance, valuable support and insights throughout my internship.

Lastly, I am sincerely grateful to the employees for sharing their truthful and illuminating views on a number of issues related to the project and functioning of the organization.

Prerna Bajpai.

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LIST OF SYMBOLS AND ABBREVIATIONS

BMI	Body Mass Index
CBV	Cereal based Vegetarian
CBNV	Cereal based Non-Vegetarian
CBE	Cereal based egg-tarian
BP	Blood-pressure
RDA	Recommended Daily Allowances
ICMR	Indian Council Of Medical Research
kgs	Kilograms
kcals	Kilo-calories
m	Metres

INTRODUCTION

Health and nutritional status is seen as a multidimensional construct in today's time. It is a well-known fact, that each individual is different and has different needs, be they physical, social or psychological. Similarly, nutritional needs also differ. The differences are not that huge, but there are still distinctions between what a woman and a man should eat in order to have an optimal diet and be healthy. Optimal nutrition is essential for undergoing day to day activities. Poor diet can lead to poor nutrition, reduced immunity, diminished productivity and loss of man hours. In light of common absenteeism due to sickness, there is an expectation that companies invest in the health and wellbeing of their employees. For this, it is crucial to understand the direct link between nutritional wellbeing and productivity.

Nutritional status generally refers to whether a person is eating the correct amounts and types of nutrients and it can be determined by assessing several factors, including body composition and appearance. It is influenced by the amount of each essential nutrient that a person consumes. Dietary pattern refers to the quantities, proportions, variety or combination of different foods, drinks, nutrients in diets, and the frequency with which they are habitually consumed. Lifestyle disease is a disease associated with the way a person or group of people live. Lifestyle diseases include heart disease, hypertension, stroke, obesity, type 2 diabetes and diseases associated with smoking, alcohol and drug abuse.

PROBLEM STATEMENT

The nutritional needs of men and women have always been varied. Men need some nutrients more than women like calcium, whereas women need more iron than men. Yet having a balanced diet is imperative for being healthy. In today's times poor nutritional status and sedentary work life is causing both men and women to become victims of stress and various lifestyle diseases like hypertension, diabetes etc. in the age groups of 25-30 which is the most productive age for adults. Irregular work hours disrupt the

body clock along with disrupting regular routine. This leads to bingeing of unhealthy foods and there is no consumption of balanced diet. Consumption of more fast foods, doesn't meet the recommended daily intakes for major nutrients. So there is a higher prevalence of being overweight. Changed eating habits and other life style changes (including reduced exercise) may lead to increase in BMI, which in turn leads to poor nutritional status. Succumbing to these the productivity and efficiency of both men and women working in a corporate setup is reduced. Since both have varied needs so maintenance of optimal nutrition is essential for both the genders.

RATIONALE OF THE STUDY

A comprehensive study based on comparison of nutritional statuses of men and women in a corporate setup has not been done till date. There is dearth of literature available on such an issue hence I planned this study.

REVIEW OF LITERATURE

Over the last decades, accelerating technological changes and new forms of workplace organization have led to workers assuming increased responsibilities and more autonomy than ever before (Appelbaum et al., 2000). Although this has increased overall productivity, flexible modern working practices have also increased daily job demands, requiring employees to multi-task and leading to increased levels of workplace stress and unrealistic time pressures (Bevan, 2012).

These developments have not only led to increasing levels of sickness absence but also to the emergence of a phenomenon called ‘presenteeism’, when employees attend work while in suboptimal health. It is estimated that presenteeism driven by mental ill-health costs the UK economy £15bn per year (Centre for Mental Health, 2011). What is more, there is growing evidence that problems related to modifiable health behavior are becoming more prevalent, driven by a lack of physical activity, by smoking, or by a rise in obesity levels in the wider population (Goetzel et al., 2012). This creates economic costs not only to society at large but also, more specifically, to businesses in the form of lost productivity.

It has also been found that People with type 2 diabetes appear to experience incremental decrements in work performance that may affect their current and future health and performance. Lower incomes of people with diabetes suggest that both people with diabetes and their employers bear the cost of any work efficiency losses. (Lavigne et al., 2003)

In a study to understand the impact of globalization on urban India it has been found that the impact of globalization on low-income groups has been one of undernourishment because of the failure to create more jobs and provide higher incomes. Its impact on the middle- and higher-classes is increased consumption of high-calorie foods and increased incidence of obesity. A dietary pattern devoid of

balanced diets across all classes is responsible for the incidence of micronutrient deficiencies and related problems such as iodine deficiency disorders, anaemia and growth disorders. (Swarna Sadasivam Vepa, 2004)

In a study to evaluate the impact of a multicomponent workplace health promotion program on employee health risks and work productivity it was found that a well-implemented multicomponent workplace health promotion program can produce sizeable changes in health risks and productivity. (Mills et al., 2007)

While analyzing factors associated with incidental sickness absence among employees in one health care system it came out that different patterns were observed in association with taking incidental sickness absence among age and gender subgroups. Among the overall population, three health risks (smoking, overweight, and use of medication for relaxation) were positively associated with taking absence. Participation in a wellness program for more years was also associated with a less likelihood of taking absence. Therefore, sickness absence is an important productivity concern of employers. Employers may implement early interventions to focus on preventable causes. Special interventions may target absence-causing risks such as smoking behavior and excess body weight. (Wen Pai et al., 2009)

For a multicenter randomized controlled trial of a nutrition intervention program in a multiethnic adult population in the corporate setting it was found that a dietary intervention improves depression, anxiety, and productivity in a multicenter, corporate setting. (Agarwal et al., 2013)

OBJECTIVES

General

- Identifying the prevalent dietary pattern and assessing current nutritional status of male employees versus female employees.

Specific

- Performing dietary analysis on the basis of frequent food consumption patterns
- Nutritional status analysis in co-relation with weight to height ratio analysis (BMI)
- Identifying lifestyle diseases prevalent in the population (if any)
- Performing comparative analysis for both the gender.
- Proposing recommendations for improvement of diet and nutritional status.

METHODOLOGY

- **STUDY AREA –** The area of study for my project was the Bangalore office of Deloitte USI consulting.

- **STUDY DESIGN –** The study design used for conducting the study is Descriptive Cross sectional - comparative in which data has been collected within a defined period of time to assess nutritional status and identifying the prevalent dietary patterns while comparing them for males versus females.

- **STUDY PERIOD –** The time period in which the study was conducted is from the 4th of April to the 15th of April

- **STUDY POPULATION –** For this study, the employees of Deloitte were interviewed

- **SAMPLE SIZE –** The sample size was of 100 employees; 50 males and 50 females.

- **SAMPLING METHOD –** The sampling method employed for this study was of Non-probability convenience sampling

- **DATA COLLECTION –** For assessing the nutritional status, anthropometric measurements like height and weight were recorded. From these measurements the Basal Metabolic Index (BMI) is calculated. To explore the diet pattern, 24 hours diet intake and food frequency intake was recorded with the help of a questionnaire designed for assessing nutritional wellness.

- **DATA ANALYSIS –** The data analysis was done using Microsoft Excel, Using RDAs and formulas for measuring BMI published by ICMR.
    - Formula for BMI = $\frac{\text{Weight (in kgs)}}{\text{Height}^2 \text{ (in m)}}$

- **PARAMETERS ASSESSED –**
    - Anthropometric – BMI
    - Calorie Intake
    - Dietary pattern
    - Health History

        - Heart Disease
        - Heart Attack
        - Stroke
        - Elevated Cholesterol
        - Elevated Triglycerides
        - Smoking
        - Exercise
        - High BP
        - Bone or Joint Problem
        - Physical Reason for No Exercise
    - Dietary consumption
        - Cheeses Having 20% More Fat
        - Homogenized Milk
        - Yogurt That Is More Than 1% Milk Fat
        - Ice Cream
        - Pastries, Cakes, Cookies
        - Rich Desserts
        - Premium Ice Cream
        - Doughnuts
        - Use of Cream in Tea or Coffee
        - Routine Use of Butter
        - Egg Consumption
        - Fried Foods Consumption
        - High Fat Snack Foods
        - High Sugar N Carbohydrate Foods N Drinks

- Vegetable Consumption
- Starchy Foods
- Alcohol
- 3 Or More Cups Coffee Consumption/Day

OBSERVATIONS

Once the data was collected, the following were observed:

- The age group of the respondents was between 23-35 years of age.
- The BMI of the study population was found to be between 17.52 and 30.05.
- The individual calorie intake for the previous day, for the population lay between 1880 kcal to 3050 kcal.
- Three dietary patterns; “Cereal based Vegetarian”, “Cereal based non-vegetarian”, “Cereal based egg-tarian” were identified.

ANALYSIS

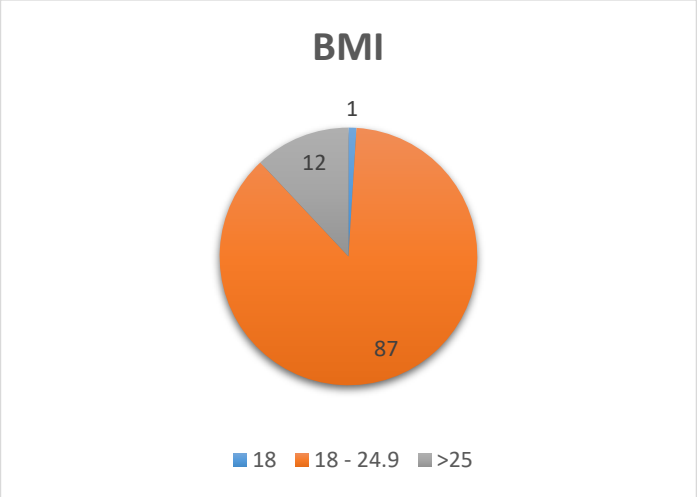

Fig.1 – Division of people falling under various BMIs

Based on responded height and weight, out of the 100 employees analyzed, 87 fall in the category of normal BMI, 12 in the category of overweight BMI, and one in the category of underweight BMI, which signifies that most of the employees are having good nutritional status.

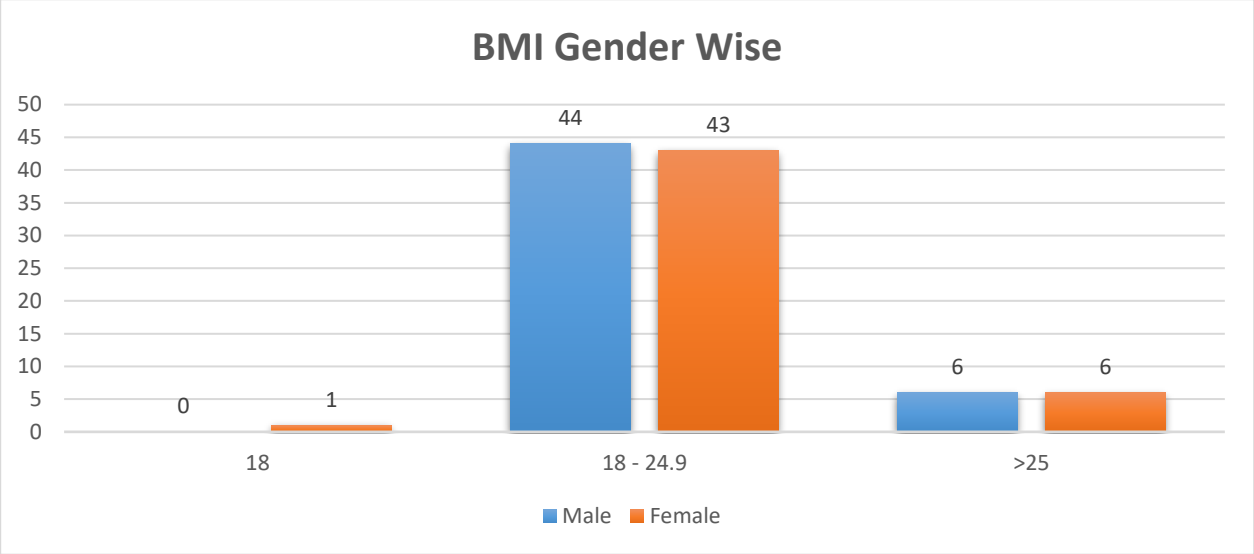

Fig 1.1 – Gender wise division of BMIs

Dividing the employees on the basis of gender, we find that 44 males (88%) and 43 females (86%); each out of 50, are having normal BMI. While assessing them on overweight and underweight categories, we find that 6 employees each (12%); male and female are overweight and 1 female is ranked in the underweight category.

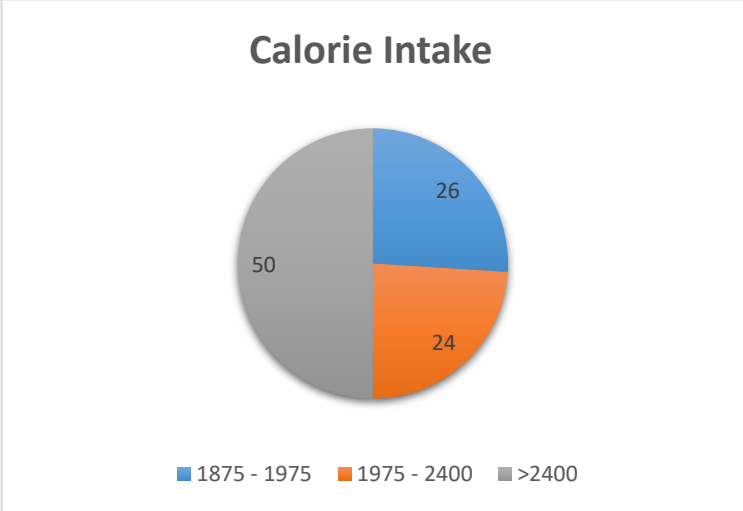

Fig 2. – Calorie based division of employees

On the basis of calorie, half of the employees analyzed are found having a calorie intake of more than 2400 kcals, while 24 and 26 employees are found having a calorie intake of 1975-2400 kcals and 1875-1975 kcals.

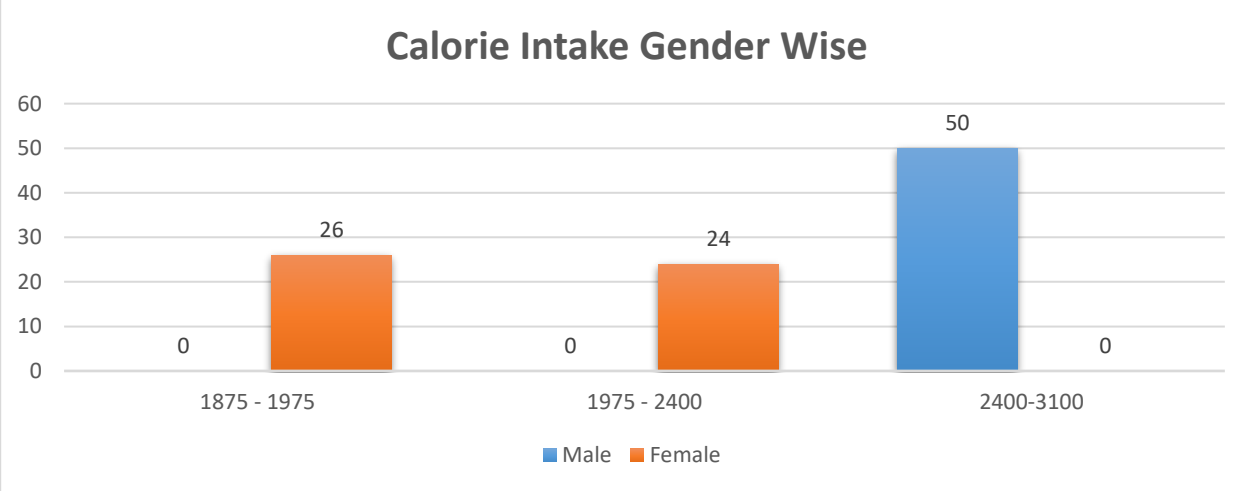

Fig 2.1 Gender wise division of calorie intake

On analyzing gender wise, we find that 26 females out of 50 lie in the calorie intake of 1875-1975 kcals, while 24 females are in the 1975-2400 kcals bracket. We also analyzed that the males are all under the bracket of 2400-3100 kcals.

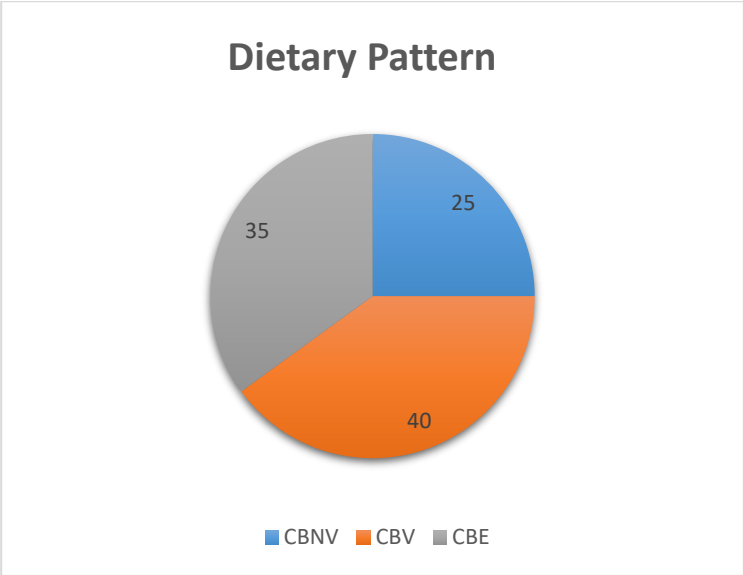

Fig 3. – Division of employees having the identified dietary patterns

Out of the 3 identified dietary patterns of cereal based vegetarian, cereal based non-vegetarian and cereal based egg-tarian, maximum no. of employees have the cereal based vegetarian pattern, in which 40 employees were identified, the next being taken by cereal based egg-tarian pattern as 35 employees were identified for it and the lowest being the cereal based non-vegetarian pattern where 25 employees were identified.

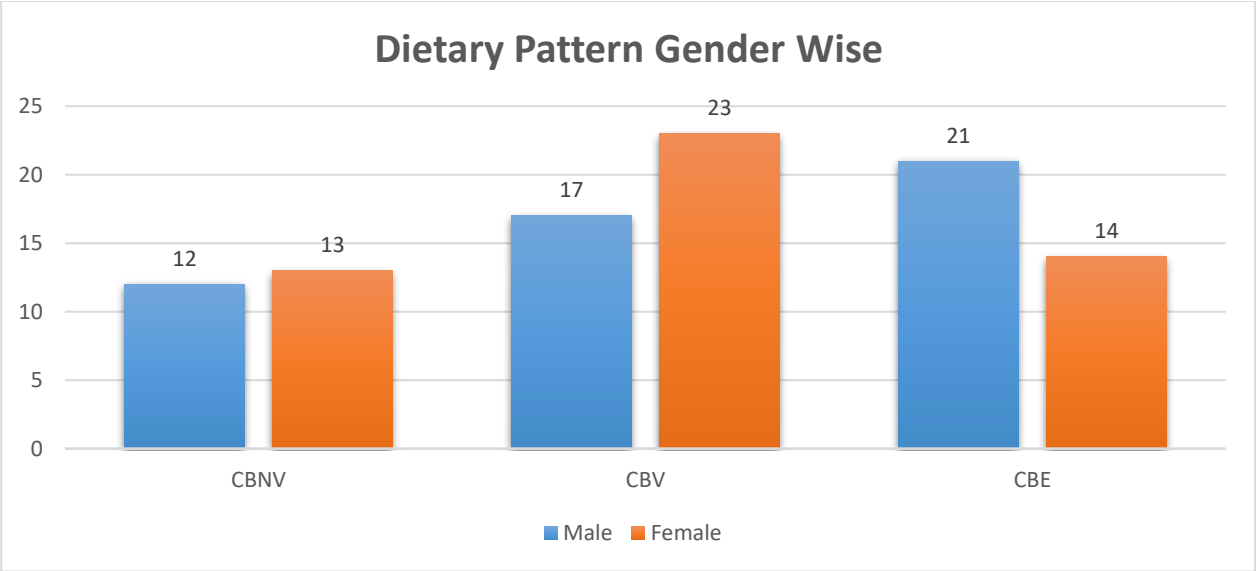

Fig 3.1 – Gender wise division of dietary patterns

On dividing the dietary patterns on the basis of genders, out of 50 female employees, 23 were identified having cereal based vegetarian dietary pattern, 14 were identified as having cereal based egg-tarian dietary pattern and 13 were identified as having cereal based non-vegetarian dietary pattern.

Out of 50 male employees, 21 were identified as having cereal based egg-tarian dietary pattern, 17 were identified as having cereal based vegetarian dietary pattern and 12 were identified as having cereal based non-vegetarian dietary pattern.

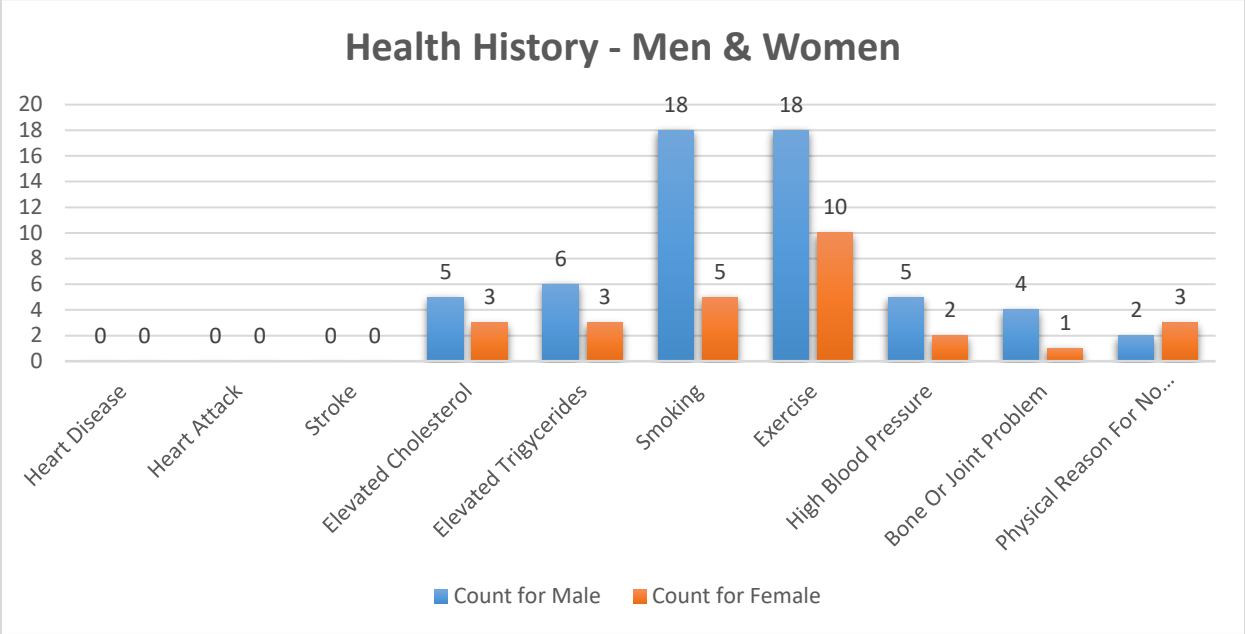

Fig 4 – Male & female employees having various health history

Out of 50 male employees, none have a history of heart disease, heart attack and stroke; 5 have history of elevated cholesterol, 6 have history of elevated triglycerides, 5 have history of high BP, 4 have bone or joint problem, 2 have a physical reason for not exercising, 18 smoke and 18 exercise regularly.

Out of 50 female employees, none have a history of heart disease, heart attack and stroke; 3 have history of elevated cholesterol, 3 have history of elevated triglycerides, 2 have history of high BP, 1 has bone or joint problem, 3 have a physical reason for not exercising, 5 smoke and 10 exercise regularly.

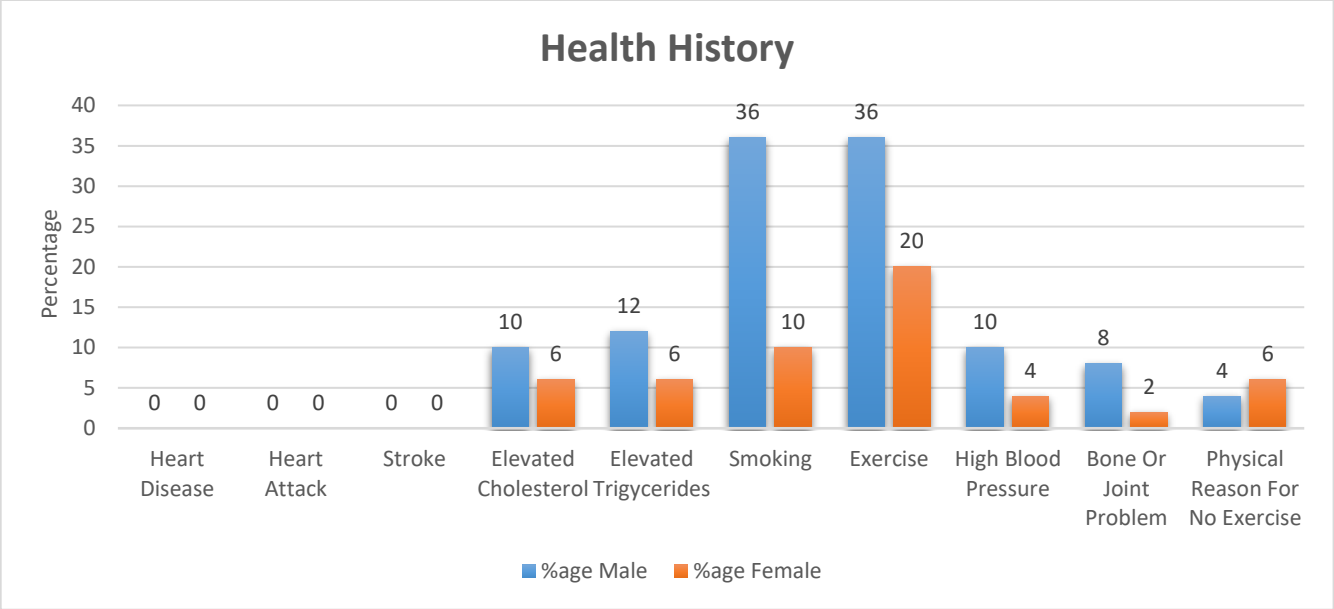

Fig 5 – Percentage division of Male & female employees having various health history

When dividing the genders on the basis of percentage, 0% was found for heart disease, heart attack, and stroke. 10% males and 6% females responded with history of elevated cholesterol, 12% males and 6% females responded with history of elevated triglycerides, 36% males and 10% females responded with history of smoking, 36% males and 20% females responded with having exercise routine, 10% males and 4% females responded with history of high BP, 8% males and 2% females responded with having bone or joint problem, 4% males and 6% females responded with having a physical reason for not doing exercise.

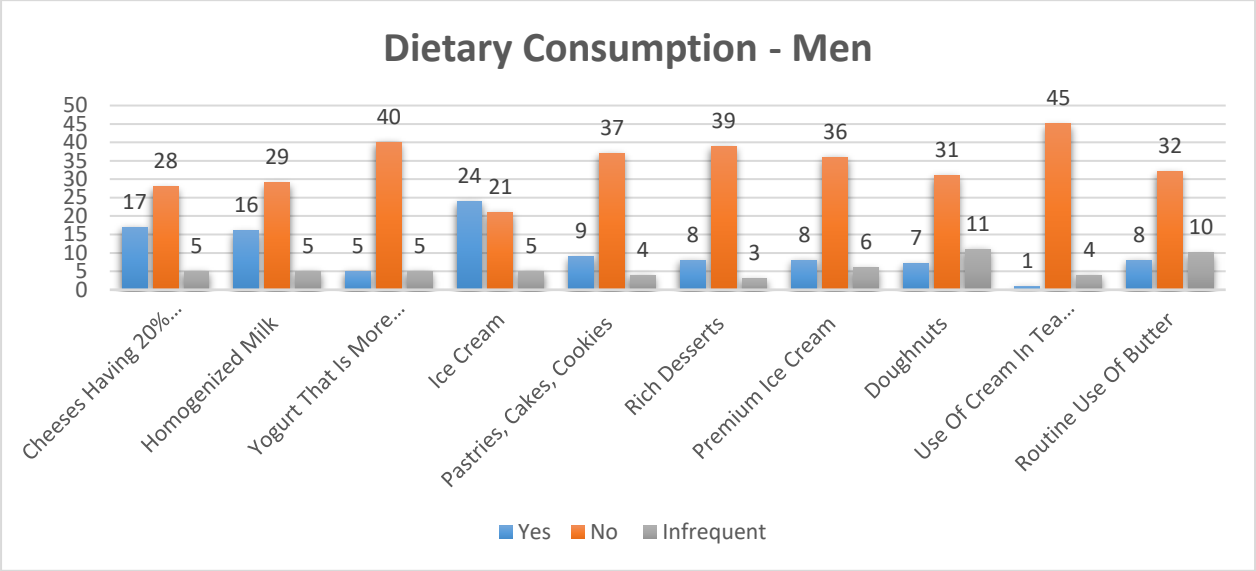

Fig 6 – Dietary consumption of male employees

For frequency of consumption, out of 50 males, 28 responded as no, 17 as yes and 5 responded infrequent for having cheeses having 20% or more fat; 29 responded as no, 16 as yes and 5 responded infrequent for having homogenized milk; 40 responded as no, 5 as yes and 5 responded infrequent for having yogurt that is more than 10% fat; 21 responded as no, 24 as yes and 5 responded infrequent for having ice creams; 37 responded as no, 9 as yes and 4 responded infrequent for having pastries, cakes, cookies; 39 responded as no, 8 as yes and 3 responded infrequent for having rich desserts; 36 responded as no, 8 as yes and 6 responded infrequent for having premium ice creams; 31 responded as no, 7 as yes and 11 responded infrequent for having doughnuts; 45 responded as no, 1 as yes and 4 responded infrequent for using cream in tea or coffee; 32 responded as no, 8 as yes and 10 responded infrequent for routinely using butter in foods.

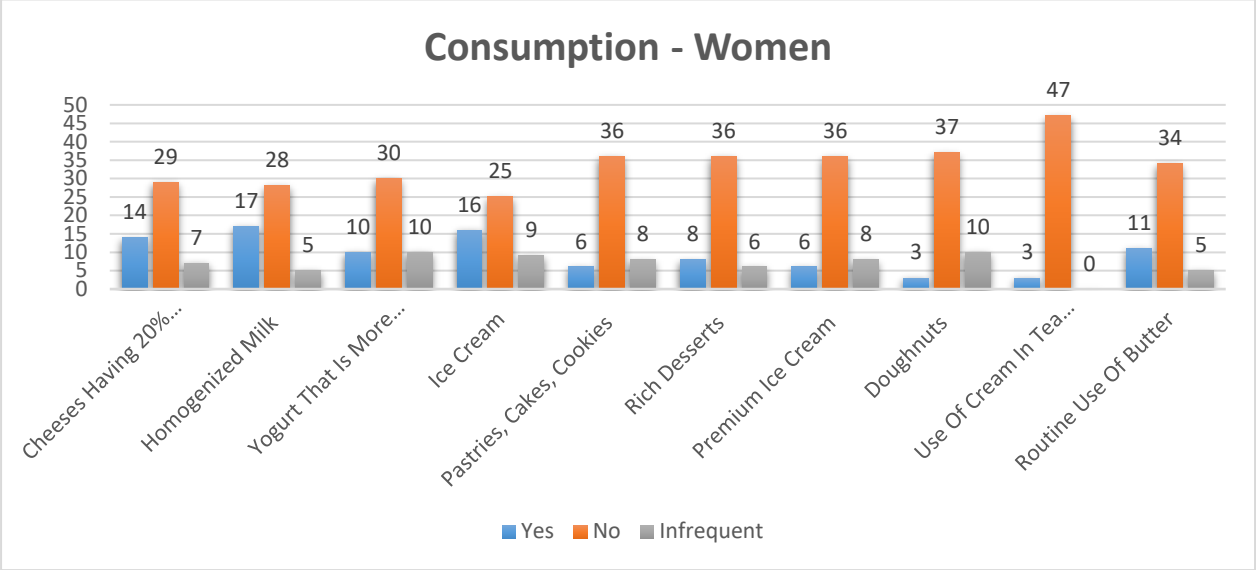

Fig 7 – Dietary consumption of female employees

For frequency of consumption, out of 50 females, 29 responded as no, 14 as yes and 7 responded infrequent for having cheeses having 20% or more fat; 28 responded as no, 17 as yes and 5 responded infrequent for having homogenized milk; 30 responded as no, 10 as yes and 10 responded infrequent for having yogurt that is more than 10% fat; 25 responded as no, 16 as yes and 9 responded infrequent for having ice creams; 36 responded as no, 6 as yes and 8 responded infrequent for having pastries, cakes, cookies; 36 responded as no, 8 as yes and 6 responded infrequent for having rich desserts; 36 responded as no, 6 as yes and 8 responded infrequent for having premium ice creams; 37 responded as no, 3 as yes and 10 responded infrequent for having doughnuts; 47 responded as no, 3 as yes and none responded infrequent for using cream in tea or coffee; 34 responded as no, 11 as yes and 3 responded infrequent for routinely using butter in foods.

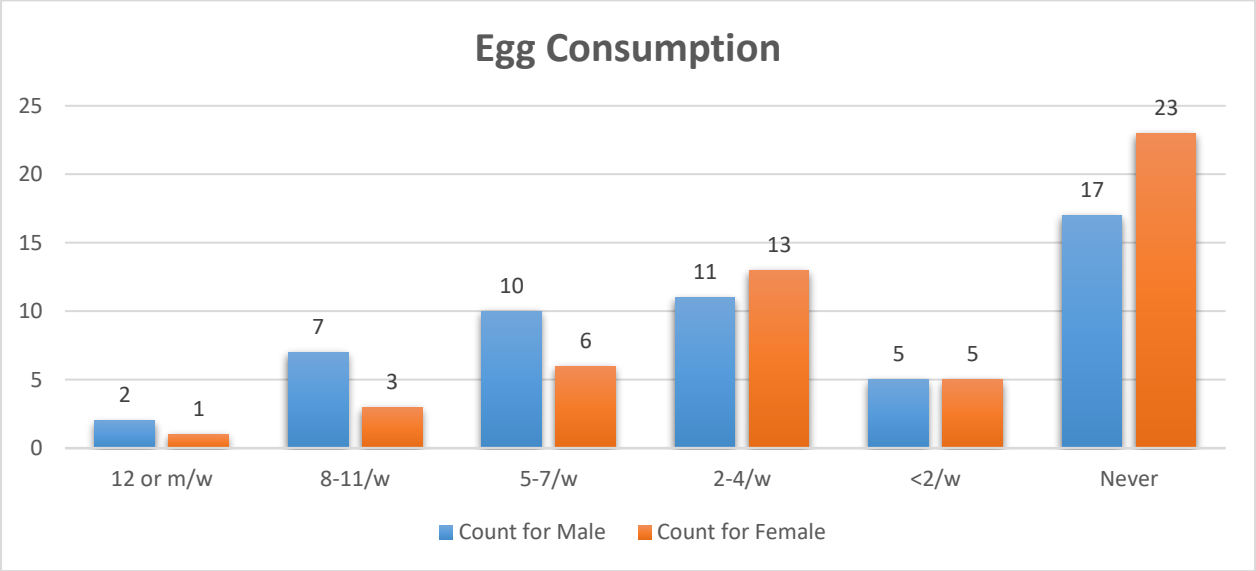

Fig 8 – Gender based consumption frequency of egg

For frequency of consumption of egg, 2 males and 1 female has responded to a consumption of 12 or more eggs per week; 7 males and 3 females have responded to a consumption of 8-11 eggs per week; 10 males and 6 females have responded to a consumption 5-7 eggs per week; 11 males and 13 females have responded to a consumption of 2-4 eggs per week and 5 males and 5 females have responded to a consumption of less than 2 eggs per week. The remaining values are those who responded to be following a vegetarian diet, signifying prevalence of low consumption frequency of eggs, even in non-vegetarians and egg-tarians.

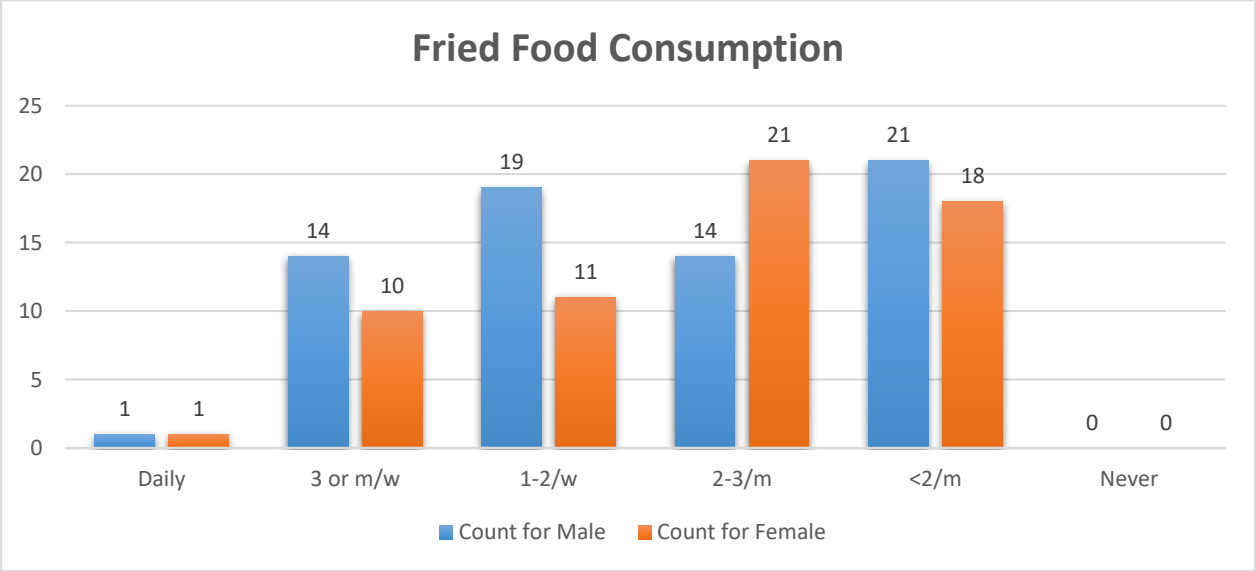

Fig 9 – Gender based consumption frequency of fried foods

For frequency of consumption of fried foods, 1 male and 1 female has responded to a daily consumption of fried foods; 14 males and 10 females have responded to a consumption frequency of 3 or more time a week; 19 males and 11 females have responded to a consumption frequency of 1-2 times a week; 14 males and 21 females have responded to a consumption frequency 2-3 times a month and 21 males and 18 females have responded to a consumption frequency of less than 2 times a month, signifying prevalence of low consumption frequency of fried foods.

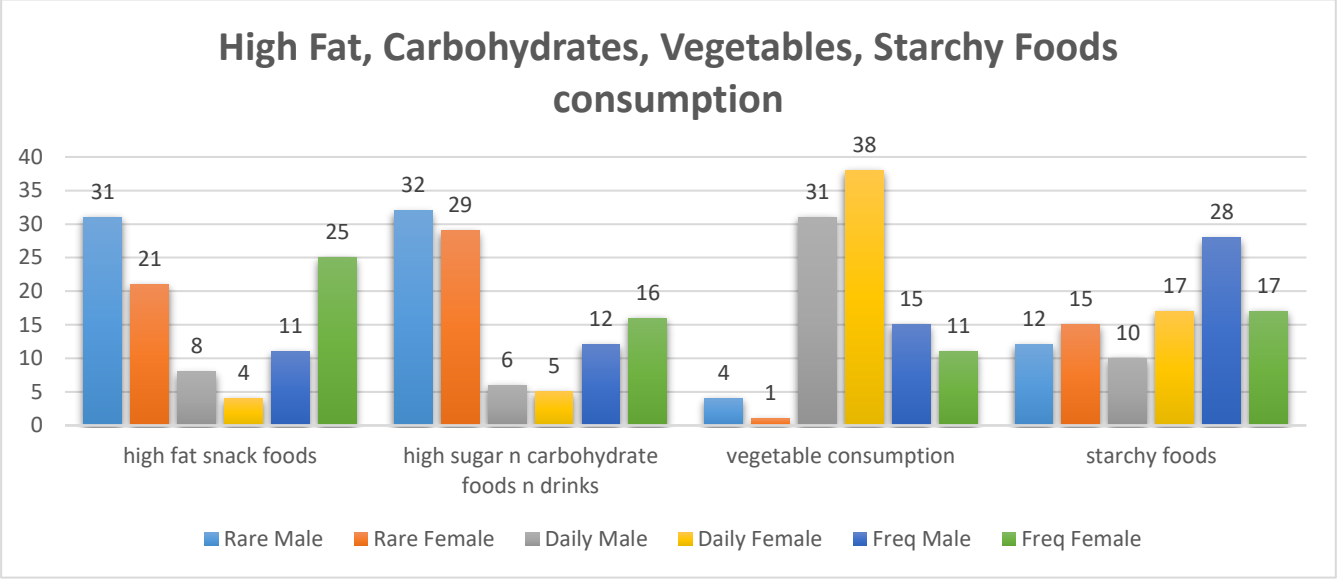

Fig 10 – Gender based consumption frequency of high fat, carbohydrates vegetables and starchy foods

While analyzing responses for consumption frequency of high fat, carbohydrate base, vegetables and starchy foods, out of 50 males and 50 females; for high fat snack foods, 31 males and 21 females responded with rare consumption; 8 males and 4 females responded with daily consumption and 11 males and 25 females responded with frequent consumption, signifying prevalence of rare and frequent consumption.

For high sugar and carbohydrate foods and drinks, 32 males and 29 females responded with rare consumption; 6 males and 5 females responded with daily consumption and 12 males and 16 females responded with frequent consumption, signifying prevalence of rare consumption.

For vegetables consumption, 4 males and 1 female responded with rare consumption; 31 males and 38 females responded with daily consumption and 15 males and 11 females responded with frequent consumption, signifying prevalence of daily consumption.

For starchy foods, 12 males and 15 females responded with rare consumption; 10 males and 17 females responded with daily consumption and 28 males and 17 females responded with frequent consumption, signifying prevalence of frequent consumption.

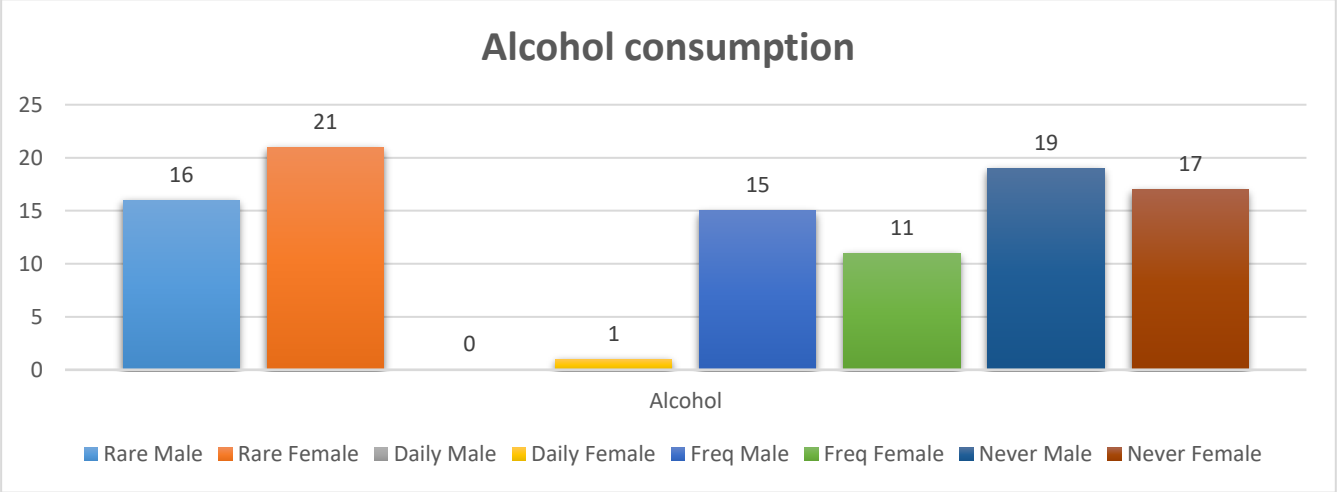

Fig 11 – Gender based consumption frequency alcohol

For consumption frequency of alcohol, 16 males and 21 females responded with rare consumption; 0 males and 1 female responded with daily consumption; 15 males and 11 females responded with frequent consumption and 19 males and 17 females responded with a consumption frequency of never having alcohol, signifying that there is a more prevalence of drinking alcohol rarely or never.

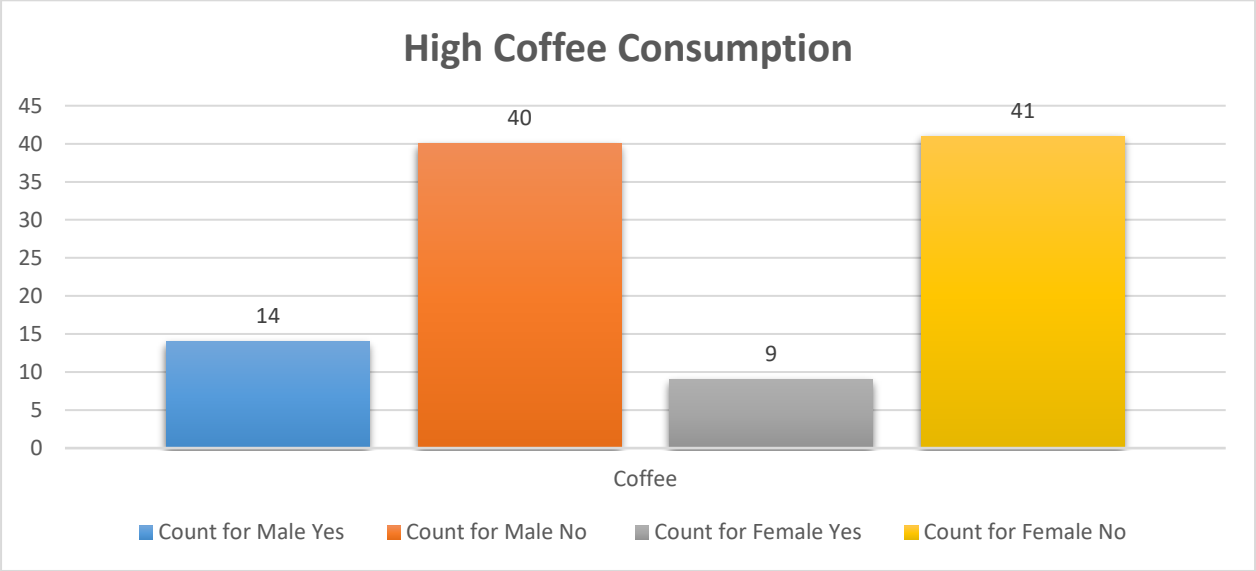

Fig 12 – Gender based consumption of 3 or more cups of coffee on a daily basis

For consumption frequency of 3 or more cups of coffee on a daily basis, out of 50 males and 50 females; 14 males and 9 females responded with a 'Yes' and 40 males and 41 females responded with a 'No', signifying that most people do not have a high consumption of coffee.

CONCLUSION

As the objective of this study was to identify the prevalent dietary patterns and assessing current nutritional status of male employees versus female employees, we can see that three dietary patterns were identified with “cereal based vegetarian” being the most prevalent one in both males and females and overall all employees have a good nutritional status, with both men and women being at par with each other in almost all parameters. However, each of the two genders are found lacking at one or the other parameters like egg consumption is still low even in non- vegetarians, lack of exercise and history of smoking, and almost equal no. of males and females being overweight.

A low yet significant percentage of people have frequent consumption of fried foods, high fat foods, starchy foods, high sugar foods as well as alcohol. Similar instances are found with respect to lifestyle disease like hypertension, bone and joint problems, elevated cholesterol and triglycerides levels. To tackle these problem areas there are some recommendations that may prove beneficial.

RECOMMENDATIONS

I. Non- vegetarians and egg-tarians can try to include more amount of eggs in their diet by incorporating them in their daily menu in different forms as egg is a complete food and helps in improving as well as maintaining a good nutritional status.

II. Reduction in consumption of high fat and sugar foods, along with fried foods and starchy foods can be done by individual efforts to avoid fast foods and unhealthy bingeing.

III. From an overall health perspective, frequent consumers of alcohol can reduce their consumption as high levels of alcohol in the blood, interfere with the normal absorption of nutrients and their utilization for maintenance of the body and performing regular activities.

IV. All employees can find easy ways of incorporating exercising in their daily routine by doing ordinary things like walking after eating food, taking the stairs and avoiding the lifts.

V. People having history of smoking can try and avoid smoking as it does more damage than any other thing and can resort to substitutes like nicotine gums etc.

VI. Starting of health promotion programs and nutritional counselling can help achieve and maintain a good nutritional status and a healthy lifestyle.

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ANNEXURES

Annex A – Questionnaire Used for the study

Dietary Intake Questionnaire

Age: _____ Height: _____ Weight: _____ Sex: _____

24 Hour Recall Form (individual intake)

Please fill in all the food and food items in the table below, that you had eaten in the previous day, from morning to night, whatever you can recall.

Quick List of Food Items	Column 1		Column 2		Column 3	Column 4
	A. Time	B. Occasion	A. Food/Drink and additions	B. Description of Food/Drink and ingredient	How much of this (food) did you actually eat/drink?	Where did you obtain the food

Occasion: 1. Breakfast 2. Brunch 3. Lunch 4. Dinner 5. Late night meal 6. Fruit 7. Food and/or beverage break, snack, alcohol beverage or other beverage 8. Other (specify): _____

Source of food: 1. Homemade 2. Restaurant/cafeteria/fast food shop/deli 3. Food stall/hawker 4. Supermarket/Food store 5. Friend/relative's home 8. Party/BBQ/banquet/special event 9. Other (specify): _____

Questions

1. Was the amount of food that you ate yesterday about usual, less than usual, or more than usual?
(1) Usual (Go to 2) (2) Less than usual (Go to 1a) (3) More than usual (Go to 1b)

1a. What is the main reason the amount you ate yesterday was less than usual?
(1) Sickness
(2) Short of money
(3) Traveling
(4) At a social function, special meal or on a special day
(5) On vacation
(6) Too busy
(7) Not hungry
(8) Dieting
(9) Fasting
(10) Bored
(11) Stressed
(12) Other reason: _____

1b. What is the main reason the amount you ate yesterday was more than usual?
(1) Traveling
(2) At a social function, special meal, or on a special day
(3) On vacation or day off
(4) Very hungry
(5) Bored or stressed
(6) Some other reason: _____

2. How could you describe your current dietary habit?
(1) No special diet, I eat almost everything
(2) Vegetarian
(3) Non-Vegetarian
(4) Egg-tarian
(5) Special diet: _____

Please answer the following questions to help us assess your nutrition and wellness status.
1. Has your doctor ever said you have heart trouble? Yes ❒ No ❒
2. Do you frequently have pains in your heart or chest? Yes ❒ No ❒
3. Has your doctor ever said your blood pressure was too high? Yes ❒ No ❒
4. Do you have a bone or joint problem that is aggravated by exercise? Yes ❒ No ❒
5. Is there a good physical reason not mentioned here why you should not follow an activity program even if you wanted to? Yes ❒ No ❒

B. Health History
Do you have a history of: Heart disease Yes ❒ No ❒
Heart attack Yes ❒ No ❒
Stroke Yes ❒ No ❒
Elevated cholesterol Yes ❒ No ❒

Elevated triglycerides Yes ❒ No ❒

C. For Women Only
Are you pregnant? Yes ❒ No ❒
Are you breast-feeding? Yes ❒ No ❒

D. Lifestyle Factors (non-diet related)
Are you a smoker? Yes ❒ No ❒
If yes, how many per day? ____
Describe your present exercise routine:

E. Dietary Information
1. How often, on average, do you consume any of the following foods, answer in Yes, No, Infrequently: -
♦ Cheeses that are more than 20% milk fat (i.e., cheddar cheese, mozzarella, Monterey Jack, brick, cream cheese, parmesan)
♦ Homogenized milk
♦ Yogurt that is more than 1% milk fat
♦ Ice cream
♦ Pastries such as cakes, croissants, turnovers, cookies (3 or more)
♦ Rich desserts
♦ Premium ice cream
♦ Doughnuts

2. Do you use cream in your coffee or tea? If yes, how many cups per day do you average?
_____
3. Do you routinely use butter on bread products such as toast, bagels, etc. ❒ Yes ❒ No

4. What is your weekly whole egg consumption on average?
A. 12 or more eggs per week B. 8-11 eggs per week C. 5-7 eggs per week D. 2-4 eggs per week E. Less than 2 eggs per week

5. How often do you eat fried foods?
A. Daily B. 3 or more times per week C. 1 to 2 times per week D. 2 to 3 times per month E. Less than 2 times per month F. Never

6. How often, on average, do you consume any high fat snack foods (e.g., potato chips, nachos, any fried chips, chocolate bars, cheesies, etc.?)
7. How often, on average, do you consume any sugary carbohydrate snacks and drinks (e.g., regular soft drinks, licorice, jujubes, hard candies, gummy bears, etc.?)
8. On average, how many servings per day do you consume of garden type vegetables (e.g., carrots, tomatoes, broccoli, cauliflower, peppers, lettuce, spinach?)
9. On average, how many servings per day do you consume of any starchy carbohydrate foods such as pasta, rice, beans, peas, corn, barley or oatmeal?
10. What is your average alcohol consumption?
11. Do you drink 3 or more cups of coffee per day on average? ❒ Yes ❒ No

Thank you for your co-operation!! Date: _ _ / _ _ / _ _ _ _