Adoption of Health and Nutritional Practices by Tribal Farm Women

THESIS

Submitted to

Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur

In partial fulfilment of the requirements for the Degree of

MASTER OF SCIENCE

In

AGRICULTURE

(Agricultural Extension and Communication)

By

Varsha Markam

180110012

Department of Extension Education
College of Agriculture, Jabalpur
Jawaharlal Nehru Krishi Vishwa Vidyalaya
Jabalpur 482004 (M.P.)

2020

CERTIFICATE- I

This is to certify that the thesis entitled "**Adoption of health and nutritional practices by tribal farm women"** submitted in partial fulfilment of the requirement for the degree of **MASTER OF SCIENCE (Ag.)** in **Agricultural Extension and Communication** of Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur is a record of the bonafide research work carried out by **Ms. VARSHA MARKAM** under my guidance and supervision. The subject of the thesis has been approved by the Student's Advisory Committee and the Director of Instruction.

All the assistance and help received during the course of the investigation has been acknowledged by her.

Place: Jabalpur
Date:

Signature
(Dr. (Smt.) Seema Naberia)
Chairman of Advisory Committee

Thesis Approved by the Student's Advisory Committee

Committee	Name	Signature
Chairman	**Dr. (Smt.) Seema Naberia**	.....
Member	**Dr. M.K. Dubey**	.....
Member	**Dr. Ashutosh Shrivastava**	.....

CERTIFICATE- II

This is to certify that the thesis entitled "**Adoption of health And nutritional practices by tribal farm women"** submitted by **Ms. VARSHA MARKAM** to the Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur in partial fulfilment of the requirements for the degree of **MASTER OF SCIENCE IN AGRICULTURE (Agricultural Extension and Communication)** in the Department of **Extension Education** has been, after evaluation, approved by the External Examiner and by the Student's Advisory Committee after an oral examination on the same.

Place: Jabalpur
Date:

Signature
(Dr. (Smt.) Seema Naberia)
Chairman of Advisory Committee

Members of the Advisory Committee

Committee	Name	Signature
Chairman	**Dr. (Smt.) Seema Naberia**	.....
Member	**Dr. M.K. Dubey**	.....
Member	**Dr. Ashutosh Shrivastava**	.....
Head of the Department	**Dr. N.K. Khare**	.....
Director of Instruction	**Dr. Abhishek Shukla**	.....

DECLARATION AND UNDERTAKING BY THE CANDIDATE

I, **Varsha Markam**, D/o Shri Chetan Singh Markam, certify the work embodied in thesis entitled, **"Adoption of health and nutritional practices by tribal farm women"** is my own first hand bonafide work carried out by me under the guidance of **Dr. (Smt.) Seema Naberia** at Department of Extension Education, College of Agriculture, JNKVV, Jabalpur during 2019-20.

The matter embodied in the thesis has not been submitted for the award of any other degree/diploma. Due credit has been made to all the assistance and help.

I, undertake the complete responsibility that any act of misinterpretation, mistake and errors of fact are entirely of my own.

I, also abide myself with the decision taken by my advisor for the publication of material extracted from the thesis work and subsequent improvement, on mutually beneficial basis, provided the due credit is given, thereof and will not include any unauthorized name in research publications.

Place: Jabalpur **Varsha Markam**

Date: (Student)

Copyright © and IPR Rights

Jawaharlal Nehru Krishi Vishwa Vidyalaya,

Jabalpur, Madhya Pradesh

2019-20

Copyright and IPR Rights Transfer Certificate

Title of the thesis	:	"Adoption of health and nutritional practices by tribal farm women"
Name of the candidate	:	Varsha Markam
Subject	:	Agricultural Extension and Communication
Department	:	Extension Education
College	:	College of Agriculture, Jawaharlal Nehru Krishi Vishwa Vidyalaya Jabalpur (M.P.)
Year of submission	:	2020

Copyright and IPR Rights Transfer

The undersigned Varsha Markam assigns to the Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh, all right under Copyright Act and IPR right Act that may exist in and for the thesis entitled, **"Adoption of health and nutritional practices by tribal farm women"** submitted for award of M.Sc. (Ag.) degree.

Place: Jabalpur
Date:

Dr. (Smt.) Seema Naberia
(Major Advisor)

Varsha Markam
(Student)

ACKNOWLEDGEMENT

First of all, I thank the 'Almighty God' who has blessed me with the opportunity and strength to successfully complete this work.

I express my deep sense of gratitude and appreciation towards the Chairman of thesis Advisory Committee **Dr. (Smt.) Seema Naberia**, Assistant Professor of Department of Extension Education, JNKVV, Jabalpur for her illuminating guidance, valuable and constructive suggestions and generous encouragement throughout the M.Sc. (Ag.) programme.

I owe sincere regards to the member of my advisory committee **Dr. M.K. Dubey**, Professor, Department of Extension Education and **Dr. Ashutosh Shrivastava,** Professor, Department of Agricultural Economics and Farm Management, JNKVV, Jabalpur for their helpful and constant guidance during the course of investigation.

I am extremely thankful to **Dr. P.K. Bisen**, Hon'ble Vice-Chancellor, **Dr. D. Khare**, Dean, Faculty of Agriculture, **Dr. P.K. Mishra**, Director Research Services, **Dr. Abhishek Shukla**, Director Instructions, **Dr. (Smt.) Om Gupta**, Director Extension Services, and **Dr. R.M. Sahu**, Dean, College of Agriculture JNKVV, Jabalpur for providing necessary facilities according to my research.

My thanks are also due to **Dr N.K. Khare** Professor and Head, all Professors, **Dr. A.K. Pande**, **Dr. M.K. Dubey**, **Dr. D.K. Jaiswal** and Assistant Professors **Dr. Kamini Bisht** and **Dr. Parvez Rajan** of Department of Extension Education for their time to time suggestions, encouragement and help in various ways. I am also thankful to other staff members Shri S.G. Tiwari, Shri Sachin Soni, Sandeep and Sukhchain Shukla.

Words are not enough to express my heartiest feelings towards my father Shri Chetan Singh Markam and my mother Smt. Janki Markam and my elder sister Mrs. Neelu Markam and elder brother Mr. Vikas Markam for their blessings, appreciation and moral support.

Thanks are very few words for my Senior Mr. Ajay Kirar and my classmates Bindeshwari, Pooja and other lovely batch mates for their inspiration, blessings and for their support and co-operation.

Place: Jabalpur

Date: **(Varsha Markam)**

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter- I
INTRODUCTION

INTRODUCTION

The Schedule Tribal population is 104.2 million, which is 8.6 per cent of the total population of India with 5,24,09,823 males and 5,18,71,211 females (Census 2011). The decadal growth rate of the tribal population during 2001-2011 is 23.7 per cent which is higher than India's total decadal growth (17.6%). Scheduled Tribes are isolated, economically and socially disadvantaged groups, often distinct of culture settings, food and dietary patterns among themselves. By nature, geographically tribals are excluded from formal education, improper health behaviour, surrounded socio cultural taboos, poverty and dependency on primitive agriculture practices for livelihoods. Every 12^{th}women in India belong to a tribal community, therefore improving their health status become an important development goal. Health and nutrition are an essential requirement of all irrespective age, caste, creed, race, religion and economic standard.

Tribal farm women play multifarious socio-economic roles inside as well as outside the home such as child care, collection of fodders and fuels, cooking, fetching water, attends farm activities, animal husbandry and extending helping hand in rural artisanship and handicrafts. Therefore, consumption of energy by the farm women needs to maintain good health but majority of tribal farm women have lack of knowledge about health & nutrition and also, they don't take care of themselves. Poor economic condition and their geographical condition are also responsible for their poor nutritional status. Thereafter when they go through the period of pregnancy and lactation their nutritional status become poorer because of the increased requirement of nutrients specially iron, calcium, energy, protein and vitamin A etc. Women with poor health and nutrition are more likely to give birth to low weight infants. They are also likely to be unable to provide adequate food and proper care to their children (Chatterjee, 1990 and Desai, 1994). Food, which provides our body all the nutrients such as carbohydrates, fat, protein, vitamins, minerals and water, does influence our health status.

Need and Importance of the study

Health means not the mere absence of disease but it is the “complete state of the physical, mental and social wellbeing”. Health of an individual can be affected by general health condition of the society and vice-versa. Healthy women are the prerequisite for creating a Healthy Nation.

Nutrition is the science that deals with the digestion, absorption and metabolism of food, *i.e.* the utilization of food in the body. It includes the intake of food, liberation of energy, elimination of wastes and all the processes of synthesis essential for maintenance, growth and reproduction.

The consumption of a wide variety of nutritious food is important for women’s health. Adequate amounts of protein, fats, carbohydrate, vitamins and minerals are required for balanced diet. Meat, fish, eggs and milk as well as pulses and nuts, are rich in protein. Green leafy vegetables are rich source of iron, folic acid, vitamin C, β-carotene, riboflavin and calcium. Many fruits like amla and guava are good sources of vitamin C. Bananas are rich in carbohydrates, papayas, mangoes, and other yellow fruits contain β-carotene, which is converted to vitamin A. Vitamin A is also present in milk and milk products, as well as egg yolks (Gopalan *et al.*, 1996).

The World Health Organization’s definition of anaemia (haemoglobin concentration < 12 g/dl in women and 13 g/dl in man) is most often used in epidemiologic studies of adults (WHO, 2001). Anaemia is said to be present when haemoglobin level in blood is below the normal range for the age and sex of the individual (Firkin, 1989). Anaemic status occurs at all developmental stages of the life cycle, but is more prevalent in adolescent girls and pregnant and lactating women. In India, anaemia affects an estimated 50% of population (Seshadri, 1998). Iron deficiency leading to anaemia is a wide spread nutritional problem in women of developing countries (WHO 2001). Studies have demonstrated that anaemia is not only detriment to the health status of women themselves, but it can have significant negative effects on their future pregnancy outcome, there by having a major impact on the wellbeing of generations.

Malnutrition has been defined (Jelliffe,1996) as a pathological state resulting from a relative or absolute deficiency or excess of one or more essential nutrients, this state being clinically manifested or detected only by biochemical, anthropometric or physiological tests.

In a country like India, women face serious health problems due to socio-economic, environmental conditions, nutrition and gender discrimination. Diet and health are synonymous with the well- being of an individual. In the rural area nutritional anemia and malnutrition are major problem among tribal farm women and children. A majority of rural and tribal women suffer from anemia which leads to low birth weight among babies and increases susceptibility to other diseases. Tribal women diets are generally grossly deficient in calcium, vitamin A, vitamin C, riboflavin and animal protein. Women being vulnerable section, the impact on their health are much higher. Health and Nutritional status of tribal population clearly Indicates that, the goal of health for all cannot be fully achieved unless due attention is paid to the vulnerable sections of the society *i.e.*, tribals and especially tribal women. Therefore, it is very much important to properly educate them about health and nutrition as only they can change the status of family and help in progress of the community.

Keeping the above aspects in view, the study entitled, **"Adoption of health and nutritional practices by the tribal farm women"** has been undertaken with the following objectives:

Objectives

1. To study the profile characteristics of the tribal farm women.
2. To know the adoption level of tribal farm women regarding health and nutritional practices.
3. To find out the relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices.
4. To enlist the problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them.

Scope of the study

The overall objective of the study is to bring the awareness to improve the health and nutritional status of tribal farm women. The study provides the information on the adoption of the health and nutritional practices of the tribal farm women. It would also give the information on the suggestions to improve health and nutrition status among the rural peoples.

So this study assists the planners, administrators and field level functionaries to plan and execute appropriate strategies for promoting health and nutritional practices with special attention to women folk.

Limitations of the study

Due to limitation of time, money and other resources to the student researcher, the present investigation was limited to Birsa block Balaghat district of Madhya Pradesh. The findings of the study are based on individual research work and may have limited generalizations. The study was conducted with limited number of tribal farm women and restricted to few variables only due to limited time and resources.

Organization

The dissertation has been divided in to seven chapters. The first chapter deals with brief introduction, objectives, scope and limitation of the study. The second chapter is devoted to review of literature to research problem. The third chapter is concerned with material and methods used for conducting research. The fourth chapter deals with results, followed by discussion of findings in fifth chapter. Sixth chapter is devoted for summary, conclusions and suggestions for future work and last chapter is bibliography.

Chapter- II
REVIEW OF LITERATURE

REVIEW OF LITERATURE

To develop a proper understanding of research problem and to develop a conceptual framework to conduct the study, it is very essential on the part of the researcher to review the efforts made by the earlier researchers. A systematic review of the past literatures helps the researcher to have a mental framework of their research, provides comprehensive information on methods, procedures and forms the basis for interpretation of findings. It guides the researcher throughout the investigation period. Here based on the available literature relating to the study, with best sincere effort the review of literature has been collected both from the national and international level and the literature viewed for the purpose of study is organized and presented under the following headings

2.1 Profile characteristics of the tribal farm women.

2.2 Adoption level of tribal farm women regarding health and nutritional practices.

2.3 Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices.

2.4 Problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them.

2.1 Profile characteristics of the tribal farm women

Age

Warkade (2010) concluded that higher percentage (42.50%) of respondents were middle age, (37.50%) young and (20.00%) belonged to old age group.

Shukla (2013) reported that the maximum number of the respondents (40.00%) belonged to middle while (32.00%) respondents belonged to young and (28.00%) belonged to old age group.

John and Barker (2015) explained that majority of the respondents (58.00%) belonged to middle age followed by (27.00%) belonged to old and (15.00%) belonged to young age group

Singh *et al.* (2016) revealed that majority of total respondents (53.16%) belonged to middle age group 31 to 50 years followed by (30.38%) respondents belonged to old age group of above 50 years, while 16.46 per cent respondents belonged to young age group of 22 to 30 years.

Gujar (2017) expressed that maximum number of the respondents (47.33%) belonged to the middle age category followed by old age (32.00%) and only little more than one fifth (20.67%) of the respondents belonged to young age category.

Soni *et al.* (2017) observed that majority of respondents (59.00%) were in the middle age group, (29.00%) were in the young and (12.00 %) were in the old age group.

Soni *et al.* (2018) revealed that majority of respondents (57.00%) belonged to middle age group followed by (32.00%) and (11.00%) belonged to young age and old age group respectively.

Humtsoe and Soundari (2019) reported that majority of the respondents (51.40%) belonged to the middle age group of 35-45 years.

Patil and Sankangoudar (2019) observed that majority of the respondents (38.33%) involved in adoption of home science technologies belonged to middle age group (36 – 50 years), (36.66%) of them belonged to young age (18 – 35 years) and remaining (25.00%) of the respondents are in the old age (51 and above years) category.

Education

Warkade (2010) concluded that more than (50.00%) respondents were having formal education (middle) and nearly (40.00%) were illiterate.

Gujar (2017) revealed that higher proportion of the respondents (29.33%) were educated up to middle school level, followed by (26.00%) respondents were in high school level, whereas 18.67 per cent of the respondents were in primary school level, (12.67%) of the respondents were functionally literate and in college level and only (0.66%) of the respondents were in illiterate category.

Dave (2019) revealed that most of the respondents (47%) were educated up to secondary education *i.e.* 8 to 10 Std. (middle level education) while less than one forth (20%) were illiterate.

Santhi and Kalirajan (2019) reported that one - third of the respondents (37.50%) were middle level of education.

Family type

Warkade (2010) concluded that higher percentage (55.00%) of respondents belonged to joint family and remaining (45.00%) belonged to nuclear family.

Hagone and Basunathe (2015) revealed that majority of the respondents (61.33%) belonged to joint family and remaining (38.67%) belonged to nuclear family.

Singh (2015) indicated that majority (64.00%) of respondents had joint family, whereas 36.00 per cent of respondents had nuclear family.

Soni *et al.* (2018) reported that more than half (57.00%) of the respondents had joint family followed by (43.00%) had nuclear family.

Patil and Sankangoudar (2019) observed that majority of the respondents (79.16 %) belonged to joint family and about (20.83%) of the respondents belonged to nuclear family.

Family size

Jethi and Chandra (2013) reported that in adopted and non-adopted village (31.40%) and (20.00%) respondents had small and (68.40%) and (57.10%) respondents had medium and (22.90%) (non- adopted village) respondents had large size families respectively.

Hagone and Basunathe (2015) revealed that the more than (60.00%) of the respondents were having medium family size, (20.67%) were having large size family and (17.33%) were having small size family.

Datir (2017) indicated that exactly half (50.00%) of the respondents were having medium family size of family having family members in family (5 to 8 members), followed by (36.67%) of them were having small size of family (Up to 4 members) and only (13.33%) of the tribal women were having large family size.

Land holding

Gujar (2017) observed that as per selection criteria of the respondents equal proportion of their (33.33%) were observed to marginal, medium, semi-medium category of land holding.

Shamna *et al*. (2018) revealed that majority of the respondents were marginal farmers (65.00%) who possess less than one ha of land.

Soni *et al.* (2018) reported that majority of the respondents (50.00%) belonged to marginal land holding category followed by (25.00%), (22.00%) and (3.00%) were in landless, small and semi medium land holding categories respectively.

Annual income

Dhoke (2013) reported that majority of the respondents (85.33%) were having annual income up to Rs. 70,000 whereas 10.67 per cent of them had income ranging Rs. 70,001 to Rs. 1,35,000. Very few (4.00%) of the respondents had annual income more than Rs. 1,35,000.

Soni *et al.* (2013) reported that half of the family (50.00%) had annual income up to Rs. 25,000/-, followed by (30.00%) of the family had annual income up to Rs. 25,000/- to 50,000/-, followed by (11.00%) of the family had annual income up to Rs. 50,001/- to 75,000/- and (1.00%) of the family had annual income above Rs. 75,000/-.

Patel *et al.* (2016) found that majority (78.00%) of families had an annual income up to Rs. 25,000/-, 17.00 per cent of families had an annual income from Rs. 25001/- to 50,000/- and 5.00 per cent of families had an annual income from Rs. 50,001/- to 75,000/-. None of the families had annual income above Rs.75000/-.

Datir (2017) indicated that the majority of respondents (82.50%) had annual income between 25,001/- to 50000/-, 17.50 per cent of the respondents were having annual income up to 25000/- while none of the respondents had annual income above 50000/-.

Gujar (2017) revealed that relatively higher proportion of the respondents (53.33%) comes under annual income up to Rs.60000/- followed by near about one fourth (21.33%) had ranging from Rs. 60001/- to Rs.

120000/-, (6.68%) respondents come under annual income group ranging from Rs. 180001- to Rs. 240000, (5.33%) respondents come under annual income group ranging from Rs. 120001- to Rs. 180000, and only (3.33%) respondents come under annual income group ranging from Rs. 240000/-.

Cosmopoliteness

Shukla (2013) observed that the maximum number (47.00%) of the respondents belonged to medium, while 32.00 per cent respondents belonged to low and 21.00 per cent respondents belonged to high cosmopoliteness.

Jahan (2014) revealed that the highest proportion of the respondents (86.70%) had medium compared to (9.20%) had low and (4.20%) had high cosmopoliteness.

Singh (2015) indicated that majority (56.00%) of respondents had medium, while one fourth (25.50%) of them had high and (18.50%) had low level of cosmopoliteness.

Aurangozeb (2019) found that the highest proportion (70.00%) of the respondents had medium, (22.00%) had low and only (8.00%) had high cosmopoliteness.

Patil and Sankangoudar (2019) observed that majority (45.00%) of respondents had medium, followed by (34.16%) of respondents had low and (20.83%) of respondents had high level of cosmopoliteness.

Expenditure pattern

Tandekar (2014) found clearly indicated that there was a variation in the expenditure pattern among the respondents. Majority of the respondents (72.66%) had the low annual expenditure up to Rs. 55000/- followed by little less than one fifth (19.34%) farmers had medium expenditure between Rs. 55000/- to 110000/- and (8.00%) farmers had high expenditure above Rs. 110000/- of annual expenditure.

Datir (2017) reported that 71.66 per cent of the respondents had expenditure pattern in the range of 12667 /- to 25332 /-, 21.67 per cent of the respondents had expenditure pattern up to Rs. 12666/- and 6.67 per cent of the respondents were having expenditure pattern above Rs. 25332/-.

Gujar (2017) revealed that majority of the respondents (82.67%) had the low annual expenditure up to Rs. 55000/- followed by (16.67%) respondents had medium expenditure ranging from Rs. 55000/- to 110000/- and (0.66%) respondents had high annual expenditure above Rs. 110000/-.

Social participation

Gulkari *et al.* (2014) observed that majority of the respondents (76.88%) were belong to the members in only one organization group.

Chandravadia *et al.* (2018) revealed that majority of the respondents (64.40%) having membership in one organization.

Patil and Sankangoudar (2019) reported that social participation of respondents and Its relationship with their contribution in agriculture and animal husbandry majority of the women (62.51%) were members in one organization, (26.66%) were not a member in any organization and only (10.33%) of the respondents were members in more than one organization.

Extension participation

Singh (2015) inferred that majority of respondents (60.50%) had medium whereas, about one fifth (21.50%) had high and (14.00%) had low level of extension participation.

Datir (2017) indicated that exactly half of the respondents (50.00%) were participated in extension activities at medium extent, followed by one third (32.50%) in high category of participation in extension and only (17.50%) were having extension participation at low category.

Gujar (2017) revealed that majority of the respondents (52.67%) had medium, (26.00%) of the respondents had low followed by (21.33%) of the respondents had high extension contact.

Poshiya *et al.* (2018) observed that more than half of the (55.00%) respondents had medium, (24.00%) of respondents had low and (21.00%) of respondents had high level of extension participation.

Soni *et al.* (2018) reported that majority of the respondents (21.00%) had participated in Mahila Mandal and very less (1.00% to 4.00%) had participation in Bhajan Mandal.

Poshiya *et al.* (2019) indicated that majority of the respondents (52.00%) had medium, followed by (33.00%) had low and (15.00%) had high level of extension participation.

Source of information

Bhange (2013) revealed that majority of the respondents (59.16%) had medium source of information followed by high (22.51%) and low (18.33%) source of information of IPM technology.

Shukla (2013) reported that maximum number (46.00%) of the respondents had medium information source, while 30.00 per cent of the respondents had high information source and only 24.00 per cent of respondents had low information source for performing their work.

Datir (2017) indicated that majority of the respondents (51.67%) had medium source of information followed by high (35.83%) and low (12.50%) category of sources of information.

Knowledge of health and nutrition practices

Chauhan (2012) reported that majority of the respondents had low level of knowledge (75.00%) before contact with KVK. After contact with KVK, 89.00 per cent of them had high level of knowledge.

Shukla (2013) concluded that the maximum number (46.00%) of the respondents possessed high knowledge followed by medium (31.00%) and low (23.00%) level of knowledge of health and nutrition practices.

Datir (2017) observed that majority (56.67%) of the respondents had high level of knowledge followed by medium level (43.33%) of knowledge whereas none of them were in low knowledge level of health and nutritional practices.

Soni *et al.* (2018) revealed that majority (80.00%) of the respondents had very high level of knowledge about preservation technology followed by high (11.67%), medium (6.67%) and low (1.66%) level of knowledge respectively.

Poshiya *et al.* (2019) indicated that majority of the respondents (76.00%) had high level of knowledge score followed by medium level of knowledge score (24.00%), while none of the respondents obtain lower level of knowledge score related to value addition.

2.2 Adoption level of tribal farm women regarding health and nutritional practices

Sharma *et al.* (2013) revealed that majority (79.50%) of TFW (Trainee Farm women) had medium level of adoption regarding FVP (Fruit and Vegetables Preservation) techniques, whereas 20.50 per cent of them had high level of adoption, which meant that no respondent was having low level of adoption of FVP techniques. In case of NTFW (Non-Trainee Farm women), all of them had low level of adoption of FVP techniques.

Datir (2017) inferred that more than half (66.67%) of the respondents had medium level of adoption, followed by high level (33.33%) of adoption of health and nutritional practices. None of the tribal women had low adoption level regarding health and nutritional practices.

Patil and Sankangoudar (2019) observed that regarding adoption level of the respondents on importance of food and food pyramid, maximum number of the respondents (45.00%) had medium level of adoption score, followed by high (40.00 %) and low (17.50%) level of adoption score.

Dave (2019) reported that majority of the respondents showed medium level of adoption (67.50%) followed by high (14.17%) and low (18.33%) level of adoption of healthy food practices.

2.3 Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices

Bhange (2013) revealed that variable age had negative and significant correlation with the adoption level.

Sharma *et al*. (2013) indicated that age showed a negative but significant relationship with the extent of adoption of FVP training programme.

Aurangozeb (2019) reported that age of the rural women had negative and significant relationship with adoption of integrated homestead farming technologies.

Samantaray *et al*. (2020) concluded that age showed negative but significant relationship with the extent of adoption of farm women regarding Fruit and Vegetable Preservation training programme.

Bhange (2013) revealed that education was positively and significantly correlated with their level of adoption of IPM technology.

Sharma *et al*. (2013) revealed that education had positive and significant correlation with the extent of adoption.

Datir (2017) indicated that education showed positive and highly significant relationship with the adoption of tribal women respondents, at 0.01 per cent level of probability about the health and nutritional practices.

Aurangozeb (2019) reported that education had significantly positive relationship with the adoption of integrated homestead farming technologies.

Dave (2019) revealed that education had significantly positive relationship with the adoption level of the respondents regarding healthy food practices.

Samantaray *et al*. (2020) reported that education showed positive and significant correlation with the extent of adoption of farm women regarding fruit and vegetable preservation training.

Dhoke (2018) indicated that family type showed negative and non-significant relationship with the adoption of health and nutritional practices by respondents.

Malabasari and Hiremath (2016) reported that type of family was found to have non-significant and negative relationship with adoption level of trained rural women about home science technologies.

Malabasari and Hiremath (2016) reported that family size was found to have non-significant and negative relationship with adoption level of trained rural women about home science technologies.

Datir (2017) indicated that family size showed negative and non-significant relationship with the adoption of health and nutritional practices by respondents.

Bhange (2013) revealed that land holding had positive and significant correlation with their level of adoption of IPM technology.

Datir (2017) indicated that land holding had positive and significant relationship with the adoption of health and nutritional practices by respondents.

Samantaray *et al*. (2020) reported that land holding showed positive and significant correlation with the extent of adoption of farm women regarding fruit and vegetable preservation training.

Bhange (2013) revealed that annual income was positively and significantly correlated with their level of adoption of IPM technology.

Soni *et al*. (2018) reported that annual income was positively and significantly correlated with adoption of fruits and vegetable preservation technology by tribal farm women.

Aurangozeb (2019) reported that cosmopsoliteness had significantly positive relationship with the adoption of integrated homestead farming technologies.

Datir (2017) indicated that expenditure pattern showed positive and non- significant relationship with the adoption of health and nutritional practices by respondents.

Bhange (2013) revealed that social participation was positively and significantly correlated with their level of adoption of IPM technology.

Sharma *et al*. (2013) revealed that, social participation had positive and significant correlation with the extent of adoption.

Datir (2017) indicated that social participation showed positive and highly significant relationship with the adoption of tribal women respondents, at 0.01 per cent level of probability about the health and nutritional practices.

Samantaray *et al*. (2020) reported that social participation showed positive and significant correlation with the extent of adoption of farm women regarding fruit and vegetable preservation training.

Datir (2017) indicated that extension participation showed positive and highly significant relationship with the adoption of tribal women respondents, at 0.01 per cent level of probability about the health and nutritional practices.

Bhange (2013) revealed that sources of information were positively and significantly correlated with their level of adoption of IPM technology.

Datir (2017) indicated that sources of information showed positive and significant relationship with the adoption of health and nutritional practices by respondents at 0.05 percent of level of probability.

Soni *et al*. (2018) reported that sources of information were significantly correlated with adoption of fruits and vegetable preservation technology by tribal farm women.

Bhange (2013) concluded that knowledge was positively and significantly correlated with their level of adoption of IPM technology.

Gade *et al*. (2012) revealed that knowledge regarding clean milk production practices had positive and significant correlation with adoption of clean milk production practices of dairy farm women.

Prajapati *et al*. (2016) reported that adoption level of tribal dairy farmwomen regarding no-cost and low-cost technologies of animal husbandry had positive and highly significant correlation with their knowledge level.

Soni *et al*. (2018) concluded that knowledge was significantly correlated with the adoption of fruits and vegetable preservation technology by tribal farm women.

2.4 Problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them

Problems faced by tribal farm women to adopt health and nutritional practices

Deshpande *et al.* (2011) revealed that majority of farm women had not participated due to cultural/social taboos, financial problems etc.

Pawar (2013) reported that major problems recorded by the tribal farm women were little or no rest period (68.33%), exertion to body due to over work (61.66%), working under unfavourable condition (46.66%), burden of family work (45.00%), health problem (37.50%) and illiteracy percent is high (33.33%).

Shamna *et al*. (2018) explained that lack of education, knowledge, and skill, lack of child care facilities, low income derived from agriculture, etc. were the major problems expressed by the tribal women.

Aurangozeb (2019) revealed that the highest proportion (51.00%) of rural women had medium followed by high (24.00%) and low (25.00%) problem confrontation during adoption of integrated homestead farming technologies.

Dhayal and Mehta (2020) indicated that seasonal migration for labourers was the most serious constraint (86.11%) followed by low literacy rate in tribal area (85.00%), tribal farm women are very shy in nature (83.61%), poor economic condition (83.00%), inadequate support from government to purchasing dairy animals (81.11%), and least constraints perceived by farm women was social security (54.72%), lack of local farm women organizations (48.89%).

Suggestion offered by them

Deshpande *et al.* (2011) revealed that majority of the farm women suggested need of training, reward of good work and moral support from men.

Bhange (2013) revealed that majority of the respondents (89.16%) suggested that pest resistance varieties should be developed, 86.86 per cent of the respondents suggested that pesticide should be made available at reasonable level, 69.16 per cent of the respondents suggested that demonstration should be arranged specially for the women for identifying the alternate host weed.

Datir (2017) indicated that great majority (95.00%) and (90.83%) of the respondents were suggested that training should be given to the tribal women on kitchen garden to meet the nutritional requirement and villages should be kept clean by developing drainages and dust bins respectively. The suggestions like, safe disposal of non-degraded and hazardous products from village and mobility of services should be provided to Anganwadi workers were reported by majority of the respondents (78.33%) and (75.00%) respectively.

Chapter -III
MATERIAL AND METHODS

MATERIAL AND METHODS

Research methodology is a detailed action plan of investigation. This chapter narrates the methods and procedure of investigation used during the entire course of study and is presented under the following heads:

3.1 Location of the study

3.2 Research Design

3.3 Sampling techniques used

3.3.1 Selection of block

3.3.2 Selection of villages

3.3.3 Selection of respondents

3.4 Selection of variable, and their operationalization and measurements

3.5 Source, Instruments and method of data collection

3.6 Processing and statistical analysis of the data

3.7 Validity and reliability of the tool

3.8 Derivation of hypothesis

3.1 Location of the study:

The study was conducted in Balaghat district of Madhya Pradesh. The district is situated in the Satpura region of the state and lies between 21°19' to 22°24' in North latitude and 79°31' to 81°3' East longitude. It occupies the south eastern region of Satpura and upper Wainganga valley. Balaghat district is surrounded by Mandla (M.P.) in north, Dindori (M.P.) in north-west, Rajnandgaon district (C.G.) in east, Gondia and Bhandara districts (M.H.) in south, and Seoni district (M.P.) in west.

The geographical total area of the Balaghat district is 9,245 km^2 and the population 17,01,698 (according to 2011 census) of which are males 8,42,178 and remaining are females 8,59,520 and the literacy level is 85.36 per cent in male and 69.04 per cent in female (2011).

The Wainganga and its tributaries are the most important rivers in the district. In MP Balaghat district has much natural beauty, mineral deposits (like Manganese, Bauxite and Copper) and also prosperous with forests. The climate of Balaghat district is sub- tropical characterized by a hot summer and general dryness except during the southwest monsoon season. The normal annual rainfall of Balaghat district is 1294.5 mm. The district is broadly covered by three types of soils. Black cotton soils, sandy loam & lateritic soil. The principal crops grown in the district are paddy, wheat, sugarcane, maize, jowar, pulses & oil seeds. The district comprises of 10 blocks, *viz.* Balaghat, Baihar, Birsa, Paraswada, Katangi, Waraseoni, Lalbarra, Khairlanji, Lanji and Kirnapur.

3.2 Research Design

The design of research is the most important and crucial aspect of the research methodology. It is the entire process of planning and carrying out the research. To seek the answers for the research questions descriptive research design was used in this investigation, because it describes phenomenon with adequate interpretation. It clearly states the characteristics of the particular situation of group or individuals. In this design the variables are to be known.

3.3 Sampling techniques used:

The sample of present study was selected by proportionate random sampling methods. The various stages of the sample were-

3.3.1 Selection of block

3.3.2 Selection of villages, and

3.3.3 Selection of respondents

3.3.1 Selection of block

The study was conducted in Birsa block of Balaghat district of Madhya Pradesh. The district comprises of 10 blocks, *viz.* Balaghat, Baihar, Birsa, Paraswada, Katangi, Waraseoni, Lalbarra, Khairlanji, Lanji and Kirnapur. Out of which **Birsa block** was selected purposively because as per the land record sources maximum number of tribal farm women are present in the block**.**

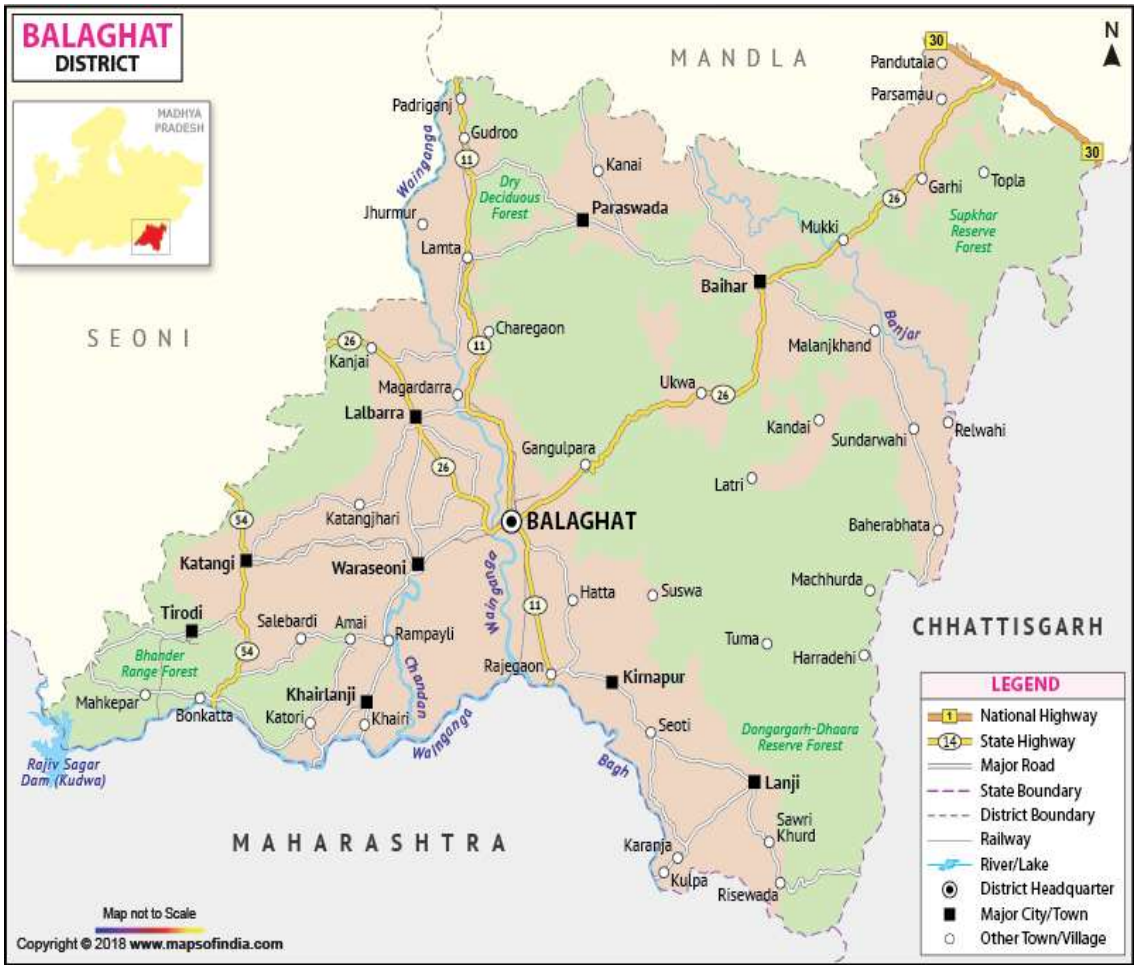

Fig. 3.1: Map of Balaghat District of Madhya Pradesh

Table 3.1 Particulars of selected blocks and tribal farm women

S. No.	Name of block	Total Tribal farm women
1.	Balaghat	1113
2.	Baihar	2467
3.	**Birsa**	**2978**
4.	Paraswada	2543
5.	Katangi	620
6.	Waraseoni	188
7.	Lalbarra	1282
8.	Khairlanji	473
9.	Lanji	438
10.	Kirnapur	347

Source: Office of Land Records Department District Balaghat, 2015-16

3.3.2 Selection of villages:

Birsa block is comprised 149 villages. Out of which 10 villages were selected purposively on the basis of maximum tribal farm women population.

3.3.3 Selection of respondents:

From each selected village, 10 per cent respondents were selected by proportionate random sampling technique. Thus a sample of 120 tribal farm women was prepared from ten villages of Birsa block.

Table 3.2 Particulars of selected villages and tribal farm women

S. No.	Name of selected villages	Number of tribal farm women	Selected tribal farm women
1	Chichgaon	200	**20**
2	Relwahi	200	20
3	Surwahi	200	20
4	Kaindatola	190	19
5	Karonda	100	10
6	Chainatola	50	5
7	Shakha	90	9
8	Dhorli	80	8
9	Badgaon	40	4
10	Garratola	50	5
Total		**1200**	**120**

(Source: Patwari office Birsa block)

3.4 Variables, their operationalization and measurements

Keeping in view, the objectives of the study, the independent and dependent variables were selected for the study, their operationalization and measurement were as follows:

Table 3.3 Variables and their empirical measurement

S. No.	Variables	Measurement
A. Independent Variables (X)		
1	Age (X_1)	Actual Chronological age in year
2	Education (X_2)	Self-scoring
3	Family type (X_3)	Self-scoring
4	Family size (X_4)	Self-scoring
5	Land holding (X_5)	In Hectare
6	Annual income (X_6)	In Rupees
7	Cosmopoliteness (X_7)	Scale of Nandapurkar (1981) with slight modification
8	Expenditure pattern (X_8)	Self-scoring
9	Social participation (X_9)	Scale developed by Supe (2007)
10	Extension participation (X_{10})	Self-scoring
11	Source of information (X_{11})	Self-scoring
12	Knowledge of health and nutritional practices (X_{12})	Self-scoring
B. Dependent variable (Y)		
1.	Adoption of health and nutritional practices (Y)	Index developed

Operational definition of variables-

A) Independent variables:

3.4.1 Age:

It refers to the number of years an individual has completed at the time of investigation and was measured as per actual chronological age of the respondent. The age was categorized as follows-

S. No.	Categories	Scores
1.	Young	Up to 35 years
2.	Middle	36 to 55 years
3.	Old	Above 55 years

3.4.2 Education:

It refers to ability or inability to read and write and the number of classes of the formal education passed by the respondents. The information pertaining to the formal education was collected by asking the respondents. All the respondents were classified into seven groups according to the number of years of their formal education.

S. No.	Level of education	Scores
1	Illiterate	0
2	Can read only	1
3	Can read and write	2
4	Primary school level	3
5	Middle school level	4
6	High school and higher secondary school level	5
7	Graduate and above	6

3.4.3 Family Type:

Type of family included whether it is a joint or a nuclear family. Nuclear family includes the families limited to husband, wife and their children. Joint family type includes the families who were having all the members living together and where individual earning and common mode of cooking were pooled together to run the family by family head. The categories were:

S. No.	Categories	Scores
1.	Nuclear family	1
2.	Joint family	2

3.4.4 Family Size:

Family size refers to the number of members in family living together under one roof and having common mode of cooking and eating. The scores were assigned as below:

S. No.	Categories	Scores
1.	Small (Up to 5 member)	1
2.	Medium (6 to 8 member)	2
3.	Large (above 8 member)	3

3.4.5 Land holding:

It refers to an area (in hectare) of total land possessed by a respondents for the purpose of cultivation. On the basis of ownership of landholding respondents were categorized as:

S. No.	Categories	Scores
1.	Marginal	Up to 1 ha
2.	Small	1.01 – 2 ha
3.	Medium	2.01 ha – 4 ha
4.	Large	Above 4 ha

3.4.6 Annual income:

It refers to the income earned in rupees by the respondents from agriculture and other occupations. Based on the total annual income, the respondents were categorized into three groups-

S. No.	Categories	Scores
1	Low	Up to Rs. 90,000/-
2	Medium	Rs. 90,001/- to Rs. 1,60,000/-
3	High	Above Rs.1,60,000/-

3.4.7 Cosmopoliteness:

It is operationalized as the degree to which the respondent is oriented to his immediate outside social system. It is the degree to which an individual was oriented toward outside his/her social system, community or the village that might make them more assessable to cosmopoliteness. There were 5 statement in the scale and the variable was measured on two- point continuum as yes and no and the scores 1 and 0 were given respectively. A respondent can obtain a minimum of 0 and maximum of 5 scores. On the basis of range of scores the respondents were categorized into following categories:

S. No.	Category	Scores
1	Low	Up to 1
2	Medium	2 to 3
3	High	Above 4

3.4.8 Expenditure pattern:

It is operationally defined as the annual expenditure of individual respondent on food, housing, education, clothing, health, electricity, travelling, religious function and agriculture operations were considered. The expenditure pattern of individual respondent was ascertained in terms of rupees for each item.

Later on, expenditure pattern in terms of rupees were summed up and respondents were categorized as follows:

S. No.	Category	Rupees	Score
1.	Low	Up to Rs. 62,000/-	1
2.	Medium	Rs. 62,001/- to 1,06,000/-	2
3.	High	Above 1,06,000/-	3

3.4.9 Social participation:

Social participation refers to degree of involvement of the respondent in formal and informal organizations, simply as a member or an office bearer. Social participation can be calculated on the basis of the nature of participation and the number of organizations.

S. No.	Category	Scores
1	Member of one organization	1
2	Member of more than one organization	2
3	Office Holders	3
4	Distinctive features	6

3.4.10 Extension participation:

It was operationalized as the degree to which a respondent is involved in extension activities conducted by extension agencies. The extension participation was measured by self-scoring. This attribute contains three statements. The responses of the respondents were obtained on three point continuum *i.e.* regular, occasionally and never and the scores 2, 1 and 0 were given respectively. A respondent can obtain a minimum of 0 and maximum of 6 scores. On the basis of range of scores the respondents were placed in three categories namely low, medium and high participation.

S. No.	Category	Scores
1	Low	Up to 2
2	Medium	3 to 4
3	High	Above 4

3.4.11 Source of information:

Source of information refers to different information sources consulted by tribal farm women for getting information on health and nutritional aspects. There were 12 items (*i.e.* information source) and the variable was measured on three- point continuum as regular, occasionally and never and the scores 2,1 and 0 were given respectively. A respondent can obtain a minimum of 0 and maximum of 24 scores. On the basis of range of scores the respondents were placed in three categories namely low, medium and high.

S. No.	Category	Scores
1	Low	Up to 8
2	Medium	9 to16
3	High	Above 16

3.4.12 Knowledge about health and nutritional practices:

It is operationally defined as the information gained by the individual tribal farm women regarding general health and nutritional practices. The following aspects were considered to measure the knowledge level of tribal farm women regarding health and nutritional practices:

a) Supplementary nutrition

b) Health check-up

c) Nutrition and health education

d) Family welfare

Accordingly the questions were framed to assess the knowledge of tribal farm women.

(A) Knowledge of health practices:

According to WHO, health is defined as state of complete mental, physical, social and spiritual well-being free from any infirmity or disease.

Total seven statements were taken under health practices. The variable was measured on three-point continuum as complete knowledge, partial knowledge and no knowledge with the score of 2, 1 and 0 respectively.

A respondent can obtain a minimum of 0 and a maximum of 14 scores. On the basis of range of scores the respondents were categorized as:

S. No.	Category	Score
1	Low	Up to 5
2	Medium	6 to 11
3	High	Above 11

(B) Knowledge of nutritional practices:

Nutrition may be defined as the science that interprets the relationship of foods to the functioning of living organism. It includes the intake of food, liberation of energy, elimination of wastes and all the processes of synthesis essential for maintenance, growth and reproduction.

There were 17 statement related to nutritional practices. The variable was measured on three-point continuum as complete knowledge, partial knowledge and no non knowledge with the score of 2, 1 and 0 respectively. A respondent can obtain a minimum of 0 and a maximum of 34 scores. On the basis of range of scores the respondents were categorized as:

S. No.	Category	Score
1	Low	Up to 11
2	Medium	12 to 23
3	High	Above 23

Overall Knowledge:

The score obtained by the respondents for all the two parameters (*viz*., knowledge of health practices and nutritional practices by tribal farm women) were combined and that formed the knowledge of health and nutritional practices by tribal farm women. There were 24 statement related to health and nutritional practices. The variable was measured on three-point continuum as complete knowledge, partial knowledge and no knowledge with the score 2, 1 and 0 respectively. A respondent can obtain a minimum of 0 and a maximum of 48 scores. Thus on the basis of total scores respondents can be classified as follows:

S. No.	Category	Score
1	Low	Up to 16
2	Medium	17 to 32
3	High	Above 32

B. Dependent variable

1. Adoption of health and nutritional practices:

According to Rogers and Shoemaker (1971) “Adoption is a decision to make full use of an innovation as the best course of action available.”

Operationally Adoption is defined as use of health and nutritional practices by the tribal farm women. To measure this variable, individual tribal farm woman was asked whether they are adopting the practices of health and nutrition or not.

(A) Adoption of health practices:

Adoption of health practices by respondents was measured by using schedule developed for the study. There were 7 statements related to health practices. The variable was measured on three-point continuum as complete adoption, partial adoption and no non adoption with the score of 2, 1 and 0 respectively. A respondent can obtain a minimum of 0 and a maximum of 14 scores. On the basis of range of scores the respondents were places in three categories namely low, medium and high.

S. No.	Category	Score
1	Low	Up to 5
2	Medium	6 to 11
3	High	Above 11

(B) Adoption of nutritional practices:

There were 17 statements related to nutritional practices. The variable was measured on three-point continuum as complete adoption, partial adoption and no adoption with the score 2, 1 and 0 respectively. A respondent can obtain a minimum of 0 and a maximum of 34 scores. On the basis of range of scores the respondents were categorized as follows:

S. No.	Category	Score
1	Low	Up to 11
2	Medium	12 to 23
3	High	Above 23

Overall Adoption:

The score obtained by the respondents for all the two parameters (*viz*., adoption of health practices and nutritional practices by tribal farm women) were combined and that formed the adoption of health and nutritional practices by tribal farm women. There were 24 statements related to health and nutritional practices. The variable was measured on three-point continuum as complete adoption, partial adoption and no adoption with the score 2, 1 and 0 respectively. A respondent can obtain a minimum of 0 and a maximum of 48 scores. Thus on the basis of total scores a respondents can be classified as low, medium and high adoption categories based on class interval (inclusive) method as follows.

S. No.	Category	Score
1	Low	Up to 16
2	Medium	17 to 32
3	High	Above 32

3.5 Source, Instruments and method of data collection

3.5.1 Sources of data collection

3.5.1.1 Primary data

The respondents of the selected villages were the primary source of data collection. The primary data was collected personally by the researcher by interviewing the selected respondents with the help of structured and pre-tested interview schedule.

3.5.1.2 Secondary data

The secondary data were obtained from various Government offices like Land record department district office, Patwari office, SADO office and Anganwadi Supervisor etc.

3.5.2 Instrument and methods of data collection

The instrument of data collection was the interview schedule which was prepared on the basis of objectives of the study. The interview schedule was designed for collecting the relevant information of selected variable. The questions in the interview schedule framed were simple, clear and directly related to the purpose of the study. It comprised of three parts. First part consists of questions related to profile characteristic of the tribal farm women, second part consists of questions related to knowledge and adoption level of tribal farm women regarding health and nutritional practices and the third part included the problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them.

3.6 Processing and statistical analysis of the data

Appropriate statistical tools will be used for analysis of data like frequency, percentage and Pearson’s coefficient correlation and t- test etc. to draw the valid conclusion.

3.6.1 Frequency

Frequency is the number of items a variable is repeated in a class interval.

3.6.2 Percentage

The term “percentage” means a fraction whose denominated is 100 and the numeration of the fraction is called percentage. For calculating percentage, frequency was multiplied by 100 and divided by total no. of respondents.

$$P = \frac{X}{N} \times 100$$

Where,

P = Percentage (%)

X = Frequency of respondents

N = Total number of respondents

3.6.3 Pearson’s Correlation of Coefficient (r)

Pearson’s product moment correlation coefficient was employed to assess the relationship between the dependent and independents variables *i.e*. to determine the linear relationship of profile characteristics with the adoption of health and nutritional practices by tribal farm women. The values of the correlation coefficients were then tested for statistical significance. Correlation coefficient “r” was worked out by using the following formula:

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[\, n\Sigma x^2 - (\Sigma x)^2 \,][\, n\Sigma y^2 - (\Sigma y)^2 \,]}}$$

Where,

r = Correlation of Coefficient

N = number of pairs of score

∑xy = sum of the products paired scores

∑x = sum of x scores

∑ y = sum of y scores

$\sum x^2$ = sum of squared x scores

$\sum y^2$ = sum of squared y scores

3.6.4 t-test

t-test was used to measure the significance of correlation coefficient.

3.7 Validity and reliability of the tool

Validity refers to whether the data collection instrument measure what is supposed to measure. Validity of interview schedule for this study was maximized by taking the following steps**:**

1 The interview schedule was thoroughly discussed with the members of the authority, advisory committee and their suggestions were incorporated.

2 Pre-testing of the interview schedule provide on additional check for improving the instrument.

3 The relevance of each question in the term of the objectives was checked carefully.

Reliability of an interview schedule refers to its consistency. It has been observed properly that the interview had reliability, before it was used as a data collection instrument.

3.8 Hypothesis

Derivation of hypothesis

Hypotheses are proposition, which can be put to test to determine its validity. It may prove correctness or incorrectness of a proposition. In any event, however, it leads to an empirical test. In studying relationship between variables, research hypotheses are formulated which state anticipated relationship between variables. However, for statistical test it becomes necessary to formulate null hypotheses, which state that there is no relationship between the variables. If null hypotheses are rejected on the basis of a statistical test, it is assumed that there is relationship between the concerned variables.

Hypothesis for study

Following null hypotheses were developed for the purpose of conducting the study:

HO_1: There is no significant relationship between age of tribal farm women and adoption of health and nutritional practices.

HO_2: There is no significant relationship between education of tribal farm women and adoption of health and nutritional practices.

HO_3: There is no significant relationship between family type of tribal farm women and adoption of health and nutritional practices.

HO_4: There is no significant relationship between family size of tribal farm women and adoption of health and nutritional practices.

HO_5: There is no significant relationship between land holding of tribal farm women and adoption of health and nutritional practices.

HO_6: There is no significant relationship between annual income of tribal farm women and adoption of health and nutritional practices.

HO_7: There is no significant relationship between cosmopoliteness of tribal farm women and adoption of health and nutritional practices.

HO_8: There is no significant relationship between expenditure pattern of tribal farm women and adoption of health and nutritional practices.

HO_9: There is no significant relationship between social participation of tribal farm women and adoption of health and nutritional practices.

HO_{10}: There is no significant relationship between extension participation of tribal farm women and adoption of health and nutritional practices.

HO_{11}: There is no significant relationship between knowledge and adoption of health and nutritional practices.

Fig: 3.2 Researcher interacting with tribal farm women at the time of data collection

Chapter- IV
RESULTS

RESULTS

This chapter deals with the analysis and interpretation of the collected data. The data were collected from a sample of 120 respondents through a well-structured interview schedule. Appropriate calculation was made in terms of mean, percentage, coefficient of correlation etc. The data were processed and analyzed in line with the objectives of the study and presented as under.

4.1 Profile characteristic of the tribal farm women.

4.2 Adoption level of tribal farm women regarding health and nutritional practices.

4.3 Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices.

4.4 Problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them.

4.1 Profile characteristic of the tribal farm women.

4.1.1 Age

Table 4.1: Distribution of the respondents according to their age

S. No.	Categories	Frequency	Percentage (%)
1.	Young (Up to 35 years)	**4**	**3.33**
2.	Middle (36 to 55 years)	**59**	**49.17**
3.	Old (Above 55 years)	**57**	**47.50**
	Total	**120**	**100.00**

The data presented in table 4.1 shows the distribution of respondents according to their age. It is observed that majority of the respondents (49.17%) belonged to middle age group followed by old (47.50%) and young age group (3.33%) respectively.

Thus, it may be concluded that majority of respondents (49.17%) belonged to middle age group.

4.1.2 Education

Table 4.2: Distribution of the respondents according to their education

S. No.	Categories	Frequency	Percentage (%)
1.	Illiterate	30	25.00
2.	Can read only	0	0.00
3.	Can read and write	2	1.67
4.	Primary school level	38	31.67
5.	Middle school level	39	32.50
6.	High school and higher secondary school level	10	8.33
7.	Graduate and above	1	0.83
	Total	**120**	**100**

The data presented in table 4.2 shows the distribution of respondent according to their education level. It is observed that majority of respondents (32.50%) had studied up middle school level, followed by primary school level (31.67%), illiterate level (25.00%), high school and higher secondary school level (8.33%), graduate and above (0.83%) and can read and write (1.67%) respectively.

Thus, it may be concluded that majority of the respondents (32.50%) were educated up to middle school level.

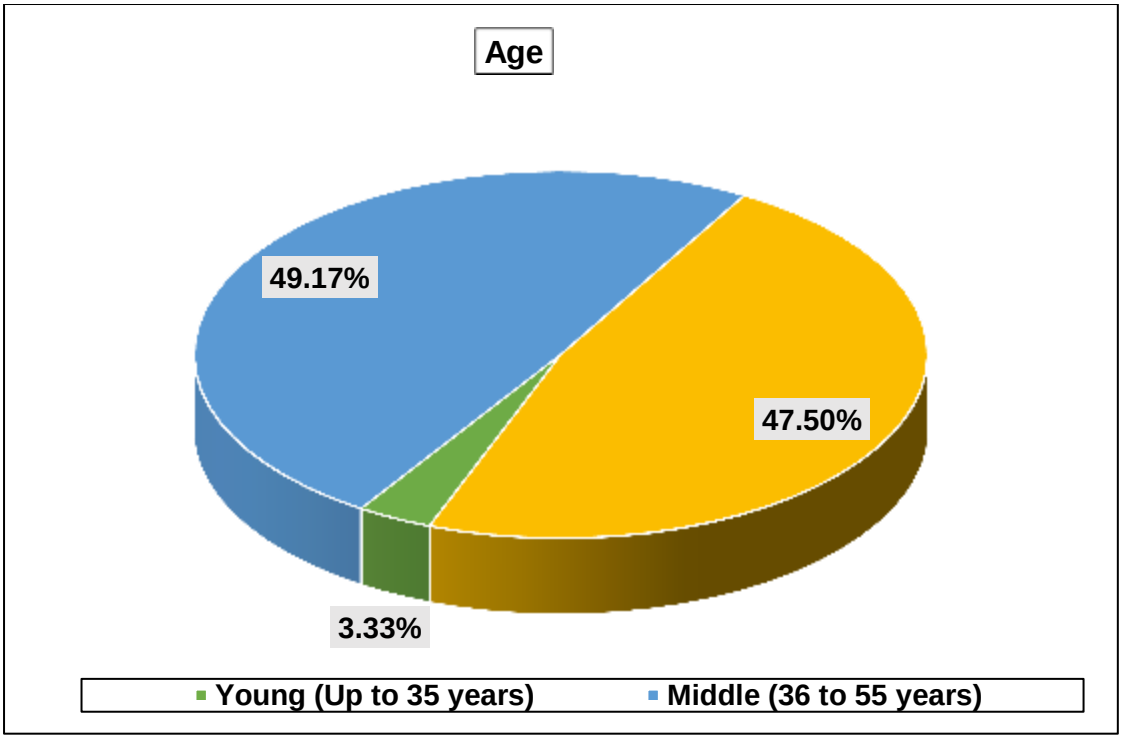

Fig 4.1: Distribution of the respondents according to their age

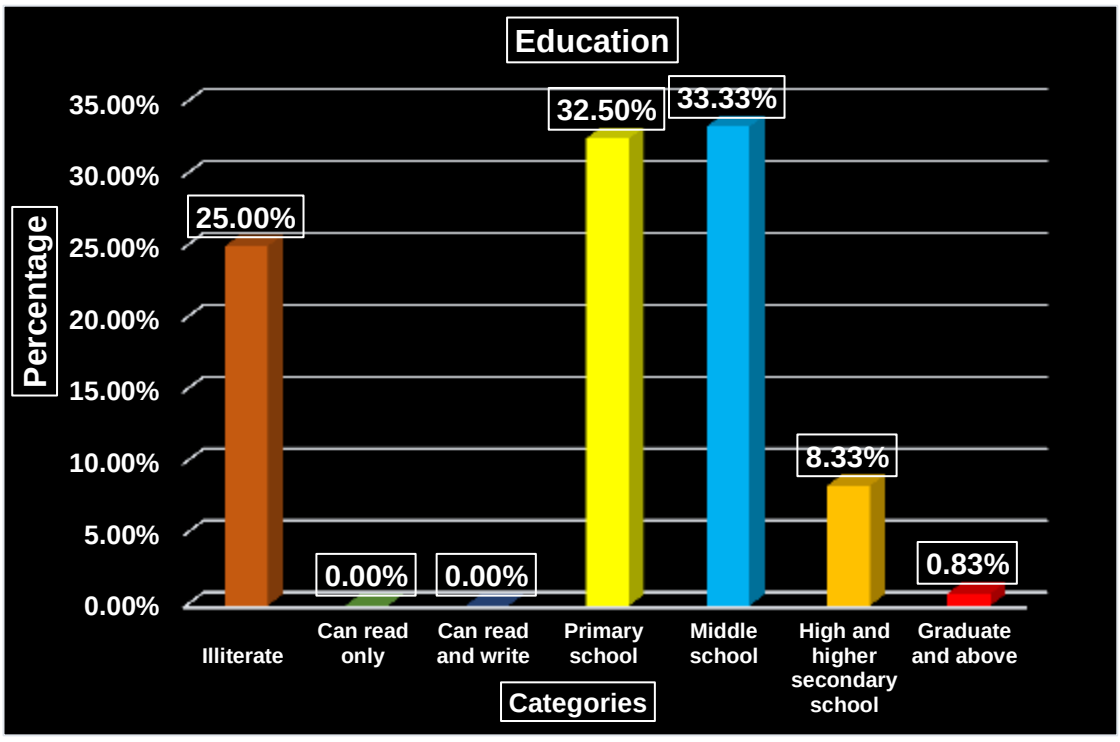

Fig 4.2: Distribution of the respondents according to their education

4.1.3 Family type:

Table 4.3: Distribution of the respondents according to their family type

S. No.	Categories	Frequency	Percentage (%)
1.	Nuclear family	46	38.33
2.	Joint family	74	61.67
	Total	**120**	**100.00**

It is revealed from the table 4.3 that majority of the respondents (61.67%) were from joint family while 38.33 per cent of the respondents were from nuclear family.

Thus, it may be concluded that maximum respondents (61.67%) belonged to joint family.

4.1.4 Family size

Table 4.4: Distribution of the respondents according to their family size

S. No.	Categories	Frequency	Percentage (%)
1.	Small (up to 5 member)	20	16.67
2.	Medium (6 to 8 member)	72	60.00
3.	Large (above 8 member)	28	23.33
	Total	**120**	**100.00**

The information presented in table 4.4 explained that majority of the respondents (60.00%) belonged to medium size family followed by large (23.33%) and small size (16.67%) respectively.

Thus, it can be concluded that majority of the respondents (60.00%) had medium family size.

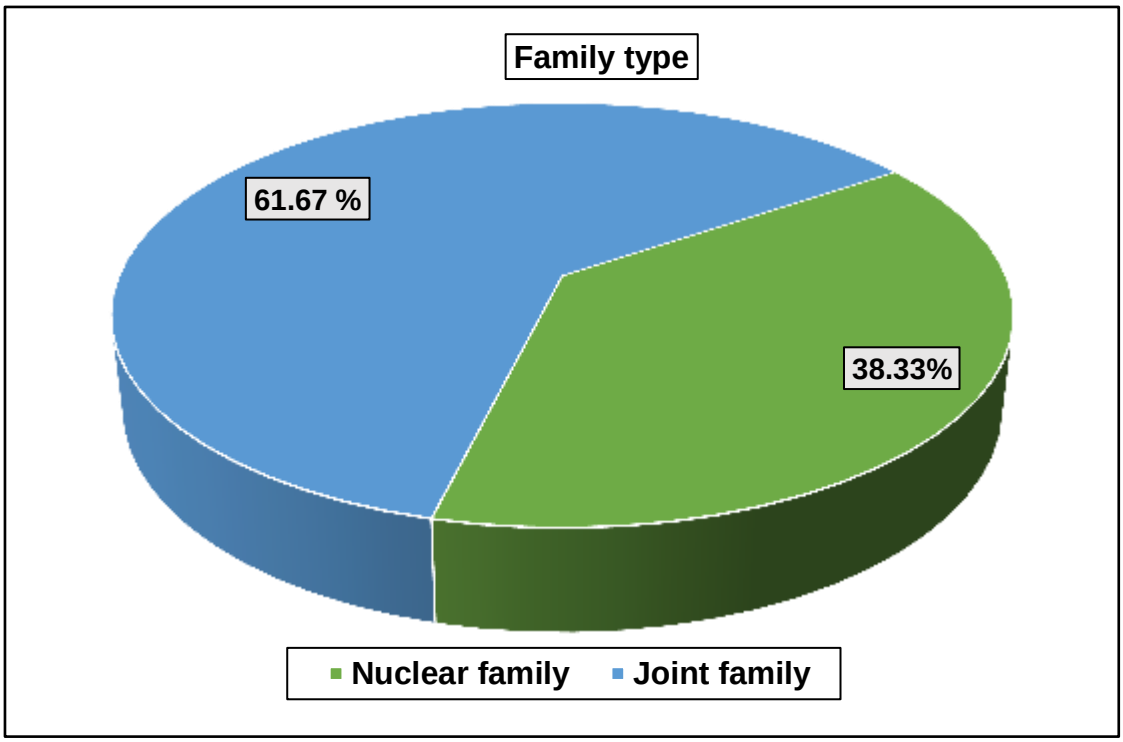

Fig 4.3: Distribution of the respondents according to their family type

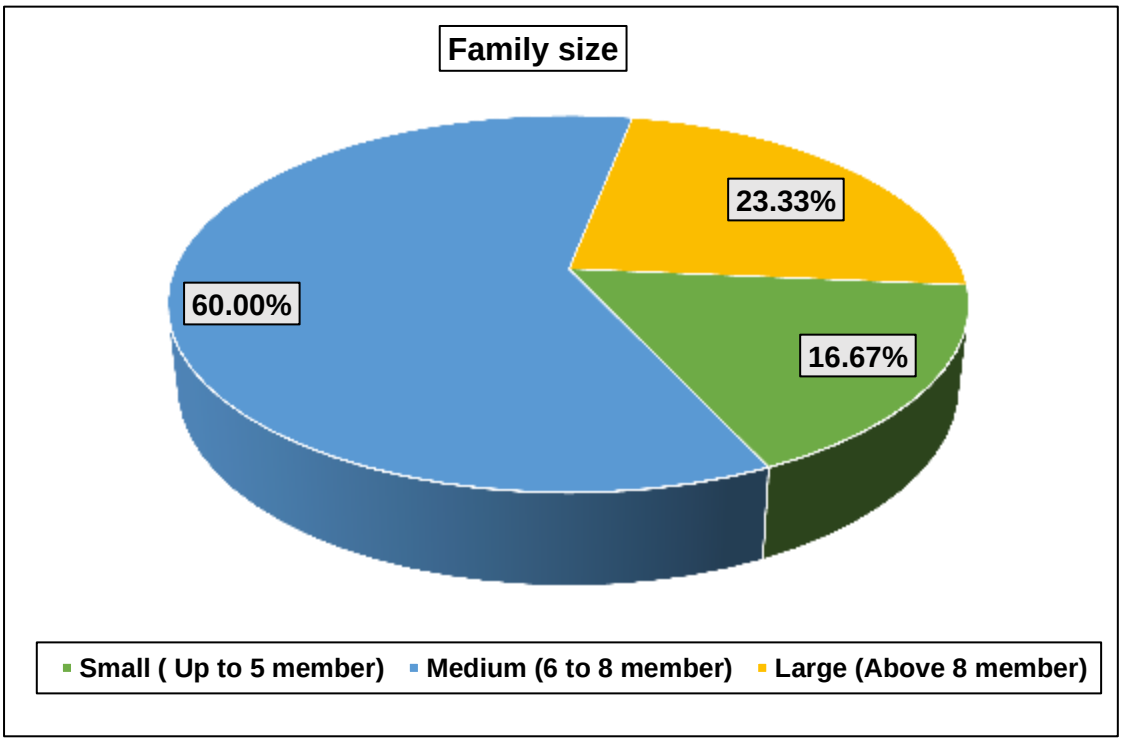

Fig 4.4: Distribution of the respondents according to their family size

4.1.5 Land holding

Table 4.5: Distribution of the respondents according to their size of land holding

S. No.	Categories	Frequency	Percentage (%)
1.	Marginal (Up to 1 ha)	60	50.00
2.	Small (1.01 – 2 ha)	41	34.17
3.	Medium (2.01 – 4 ha)	13	10.83
4.	Large (Above 4 ha)	6	5.00
	Total	**120**	**100.00**

Table 4.5 reveals that out of 120 respondents, 50.00 per cent of the respondents had marginal land holding, 34.17 per cent had small, 10.83 per cent had medium and remaining 5.00 per cent had large land holding.

Hence, it can be concluded that higher percentage (50.00%) of respondents belonged to marginal land holding size.

4.1.6 Annual income

Table 4.6: Distribution of the respondents according to their size of land holding

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to Rs. 90,000/-)	105	87.50
2.	Medium (Rs. 90,001/- to Rs 1,60,000/-)	11	9.17
3.	High (Above Rs. 1,60,000 /-)	4	3.33
	Total	**120**	**100.00**

The data of table 4.6 indicate that out of 120 respondents 87.50 per cent belonged to low annual income group, 9.17 per cent belonged to medium and remaining 3.33 per cent belonged to high annual income group.

It is evident from the above table that the maximum respondents (87.50%) were having low annual income group.

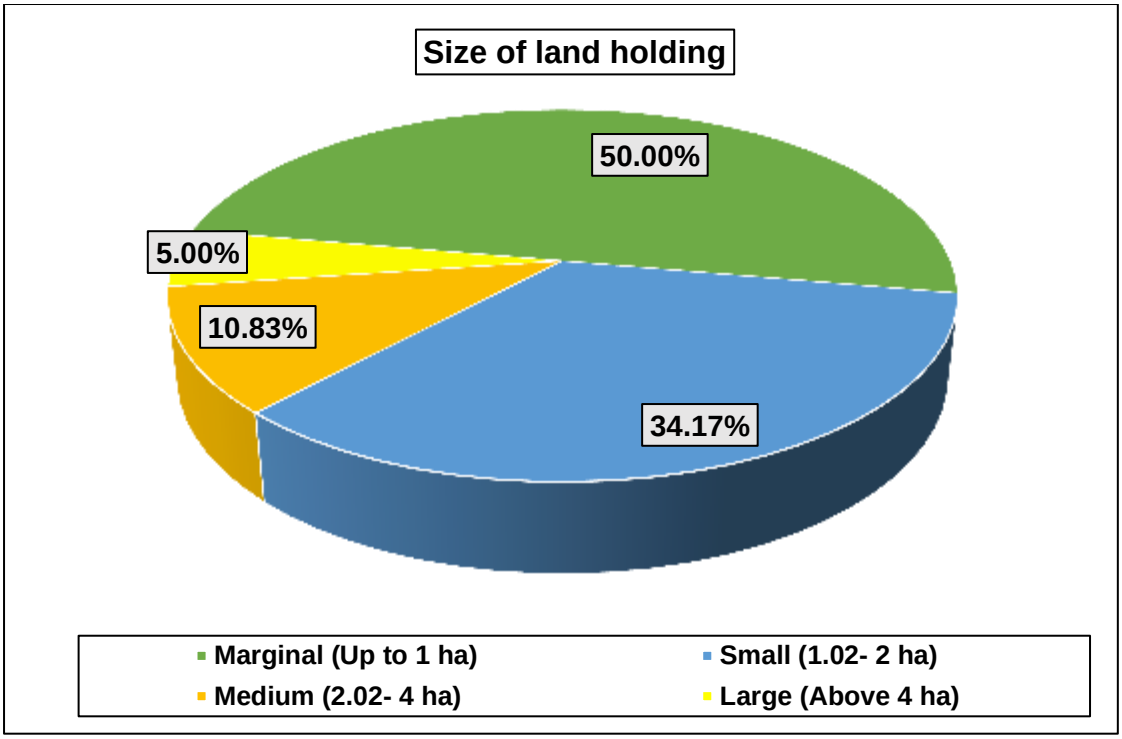

Fig 4.5: Distribution of the respondents according to their land holding

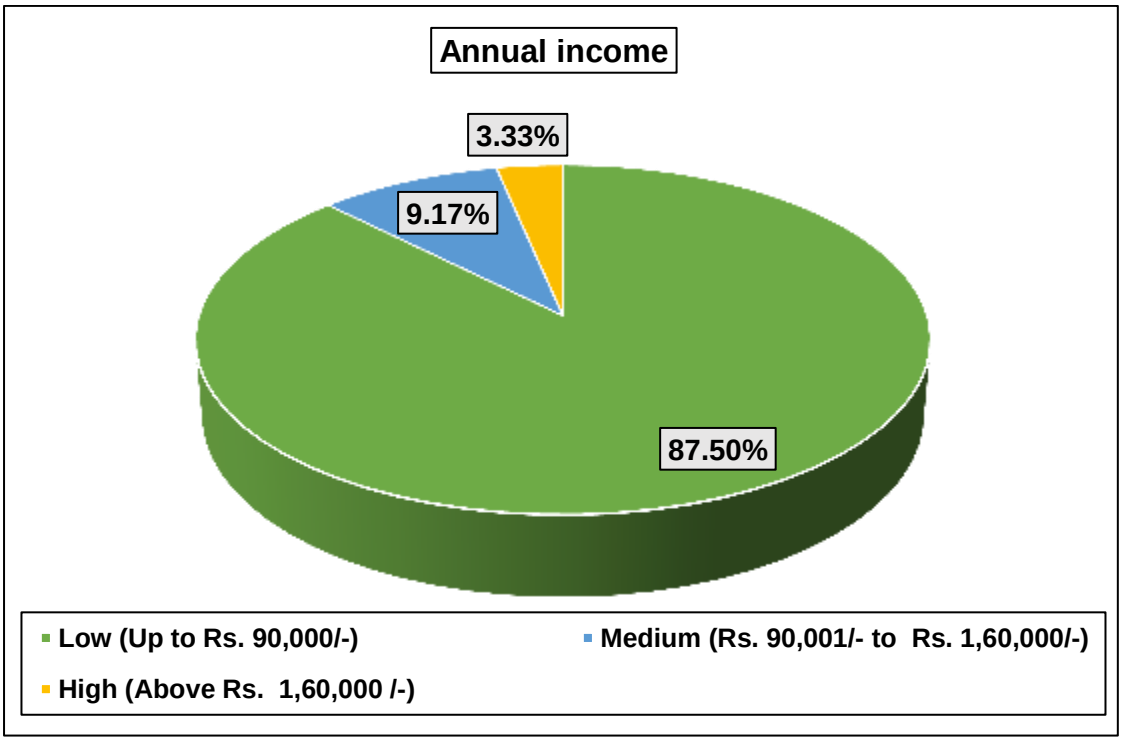

Fig 4.6: Distribution of the respondents according to their annual income

4.1.7 Cosmopoliteness

Table 4.7: Distribution of the respondents according to their Cosmopoliteness

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 1)	0	0.00
2.	Medium (2 to 3)	66	55.00
3.	High (above 4)	54	45.00
	Total	**120**	**100.00**

The data of table 4.7 indicated that out of 120 respondents, 55.00 per cent belonged to medium cosmopoliteness group, 45.00 per cent belonged to high and remaining 0.00 per cent belonged to low cosmopoliteness group.

It can be concluded that maximum respondents (55.00%) had medium level of cosmopoliteness.

4.1.8 Expenditure pattern

Table 4.8: Distribution of the respondents according to their Expenditure pattern

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to Rs. 62,000/-)	104	86.67
2.	Medium (Rs. 62,001/- to Rs. 1,06,000/-)	13	10.83
3.	High (Above Rs. 1,06,000/-)	3	2.50
	Total	**120**	**100.00**

The data of table 4.8 indicated that out of 120 respondents 86.67 per cent belonged to low expenditure pattern group,10.83 per cent belonged to medium and remaining 2.50 per cent belonged to high expenditure pattern group.

It is evident from the above table that the maximum respondents (86.67%) were fall in low expenditure pattern group.

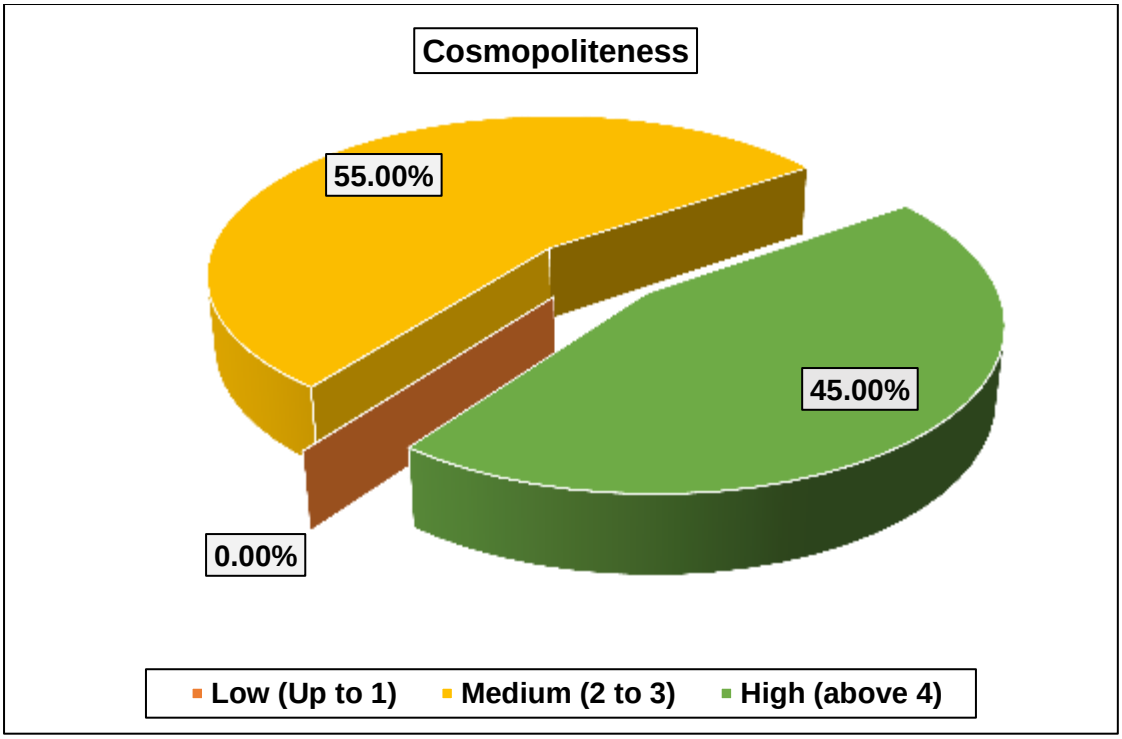

Fig 4.7: Distribution of the respondents according to their cosmopoliteness

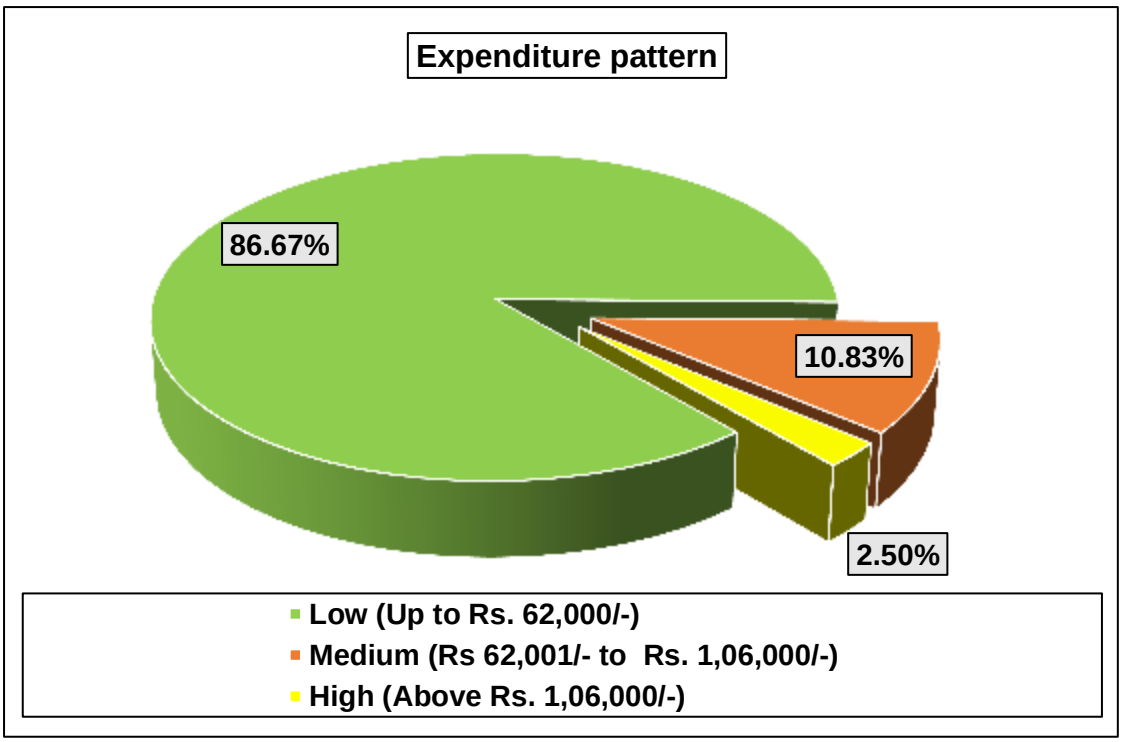

Fig 4.8: Distribution of the respondents according to their expenditure pattern

4.1.9 Social participation

Table 4.9: Distribution of the respondents according to their Social participation

S. No.	Categories	Frequency	Percentage (%)
1	Member of one organization	61	50.83
2	Member of more than one organization	47	39.17
3	Office Holders	12	10.00
4	Distinctive features	0	0.00
	Total	**120**	**100.00**

The data given in table 4.9 indicated that majority of the respondents (50.83%) belonged to member of one organization group, followed by respondents who had member of more than one organization (39.17%) and office holders (10.00%) and remaining (0.00%) respondents belonged to distinctive features group.

It can be concluded that majority of the respondents (50.83%) had member of one organization group.

4.1.10 Extension participation

Table 4.10: Distribution of the respondents according to their extension participation.

S. No.	Activities	Awareness				Participation(N=120)					
		Yes		No		Regular		Occasional		Never	
		f	P (%)	f	P (%)	f	P (%)	f	P (%)	f	P (%)
1	Mahila Mandal	120	100.00	-	-	90	75.00	29	24.17	1	0.83
2	Anganwadi meeting	120	100.00	-	-	12	10.00	95	79.17	13	10.83
3	Health camp	120	100.00	-	-	47	39.16	71	59.17	2	1.67

The results from the table 4.10 indicated that 100.00 per cent of respondent equally aware about Mahila Mandal, Anganwadi meeting and Health camp activities. In case of Mahila Mandal majority of the respondents (75.00%) participated regular, followed by (24.17%) were occasionally whereas 0.83 per cent respondents were never participated in Mahila Mandal. In case of Anganwadi meeting majority of the respondents (79.17%) participated occasionally, followed by (10.83%) were never whereas 10.00 per cent respondents were regular participated in Anganwadi meeting. With regards to health camp majority of the respondents (59.17%) were participated occasionally, followed by (39.16%) and (1.67%) were participated in Health camp regularly and never respectively.

Table 4.10: Distribution of the respondents according to their level of extension participation

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 2)	13	10.83
2.	Medium (3 to 4)	61	50.83
3.	High (Above 4)	46	38.34
	Total	**120**	**100.00**

Table 4.10 shows that majority of the respondents (50.83%) had medium level of extension participation group followed by high (38.34%) and low level (10.83%) of extension participation group.

Thus, it may be concluded that higher percentage (50.83%) of respondents belonged to medium extension participation group.

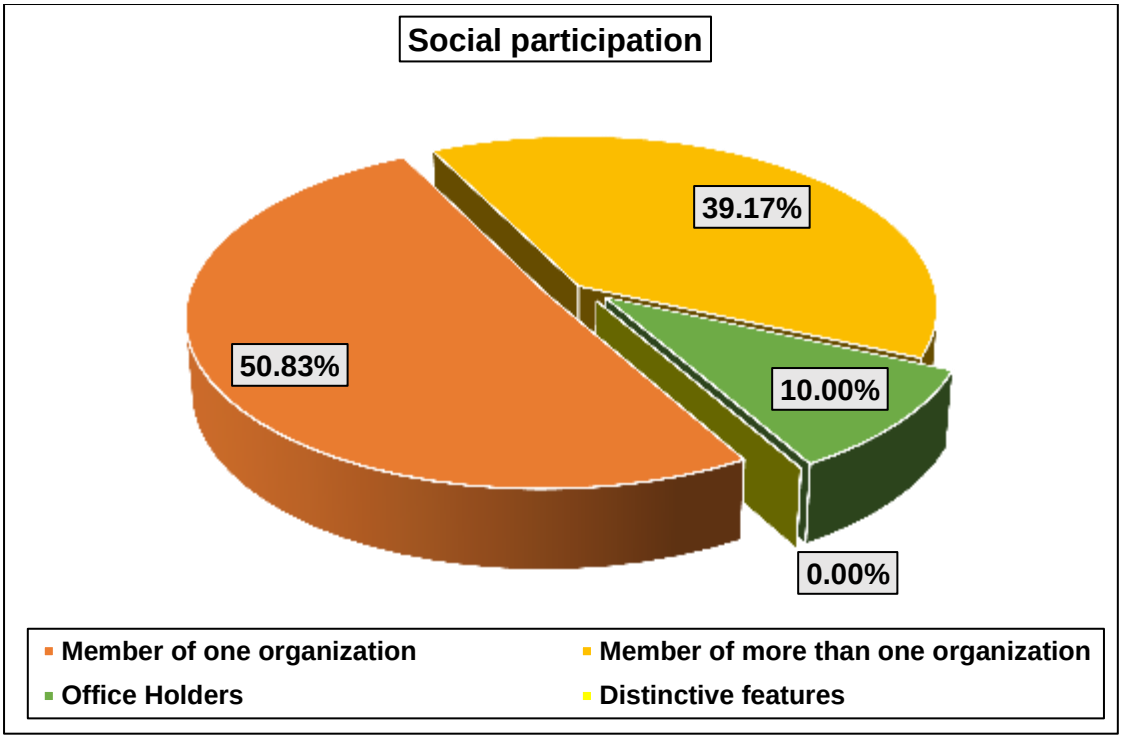

Fig 4.9: Distribution of the respondents according to their social participation

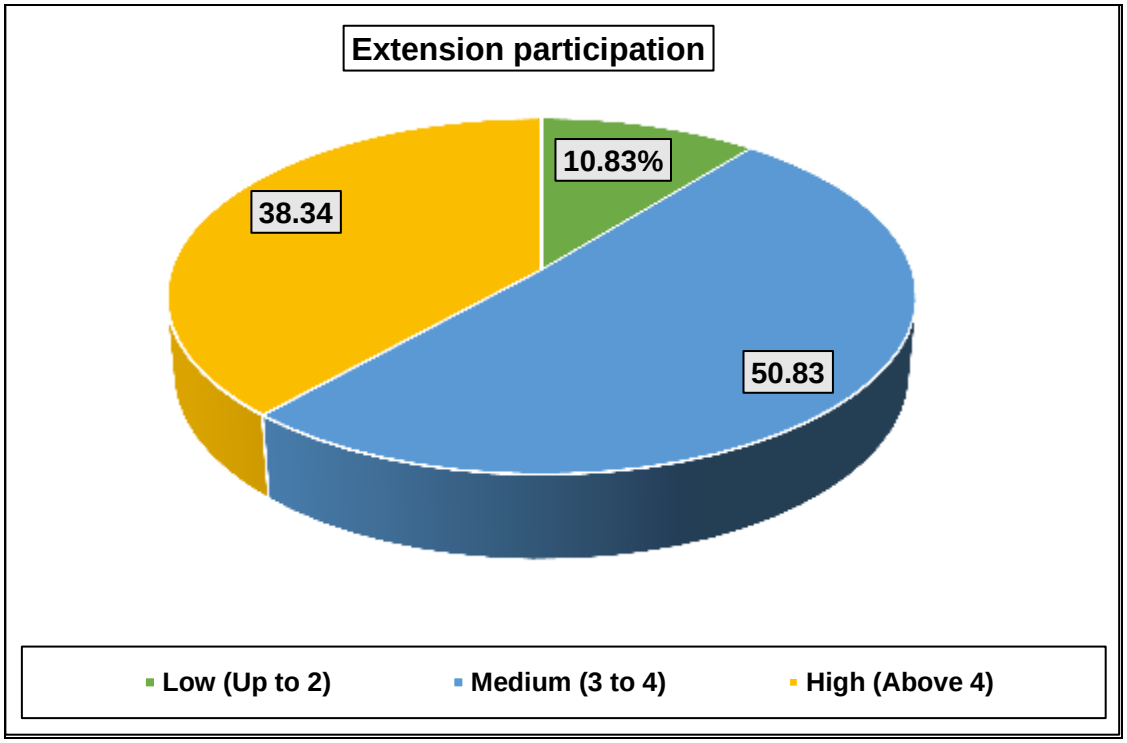

Fig 4.10: Distribution of the respondents according to their extension participation

4.1.11 Source of information

Table 4.11: Distribution of the respondents according to their Source of information.

S. No.	Source of information	Source of Information (N=120)					
		Regular		Occasional		Never	
		f	P (%)	f	P (%)	f	P (%)
1	Neighbors	117	97.50	3	2.50	-	-
2	Friends	115	95.83	5	4.17	-	-
3	Relatives	120	100.00	-	-	-	-
4	Anganwadi worker	15	12.50	84	70.00	21	17.50
5	Asha Worker	15	12.50	97	80.83	8	6.67
6	Local doctors	120	100.00	-	-		-
7	Anganwadi Supervisor	15	12.50	30	25.00	75	62.50
8	News paper	-	-	74	61.67	46	38.33
9	Radio	41	34.17	71	59.16	8	6.67
10	Television	119	99.17	1	0.83	-	-
11	Magazines	15	12.50	64	53.33	41	34.17
12	Others	28	23.33	48	40.00	44	36.67

From table 4.11, it was clear that majority (97.50%) and little less than one fourth (2.50%) of the respondents consulted neighbors regularly and occasionally, respectively whereas in case of friends it was 95.83 per cent and 4.17 per cent of the respondents had consulted regularly and occasionally respectively. In case of relatives, majority (100.00%) of the respondents were consulted regularly respectively. With regard to Anganwadi worker, it was found that 12.50 per cent, 70.00 per cent and 17.50 per cent of the respondents were consulted regularly, occasionally and never, respectively. Whereas in case of Asha worker, it was 12.50 per cent, 80.83

per cent and 6.67 per cent of the respondents had consulted regularly, occasionally and never, respectively. In case of local doctors, majority (100.00%) of the respondents were consulted regularly respectively. With regard to Anganwadi supervisor, it was found that 12.50 per cent, 25.00 per cent and 62.50 per cent of the respondents were consulted regularly, occasionally and never, respectively. Whereas in case of newspaper, it was 61.67 per cent and 38.33 per cent of the respondents had consulted occasionally and never, respectively. In case of radio, it was 34.17 per cent, 59.16 per cent and 6.67 per cent of the respondents had consulted regularly, occasionally and never, respectively. With regard to television, it was found that 99.17 per cent, 0.83 per cent and of the respondents were consulted regularly and occasionally, respectively. Whereas in case of magazines, it was 12.50 per cent, 53.33 per cent and 34.17 per cent of the respondents had consulted regularly, occasionally and never, respectively. In case of others, it was 23.33 per cent, 40.00 per cent and 36.17 per cent of the respondents were consulted regularly, occasionally and never, respectively.

Table 4.11: Distribution of the respondents according to their level of Source of information

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 8)	2	1.66
2.	Medium (9 to16)	62	51.67
3.	High (Above 16)	56	46.67
	Total	**120**	**100.00**

It is observed from the table 4.11 that higher percentage of respondents (51.67%) were having medium use of source of information followed by high (46.67%) and low (1.67%) use of source of information.

Thus, it is clear from the above data that higher percentage (51.67 %) of respondents had medium information source of utilization.

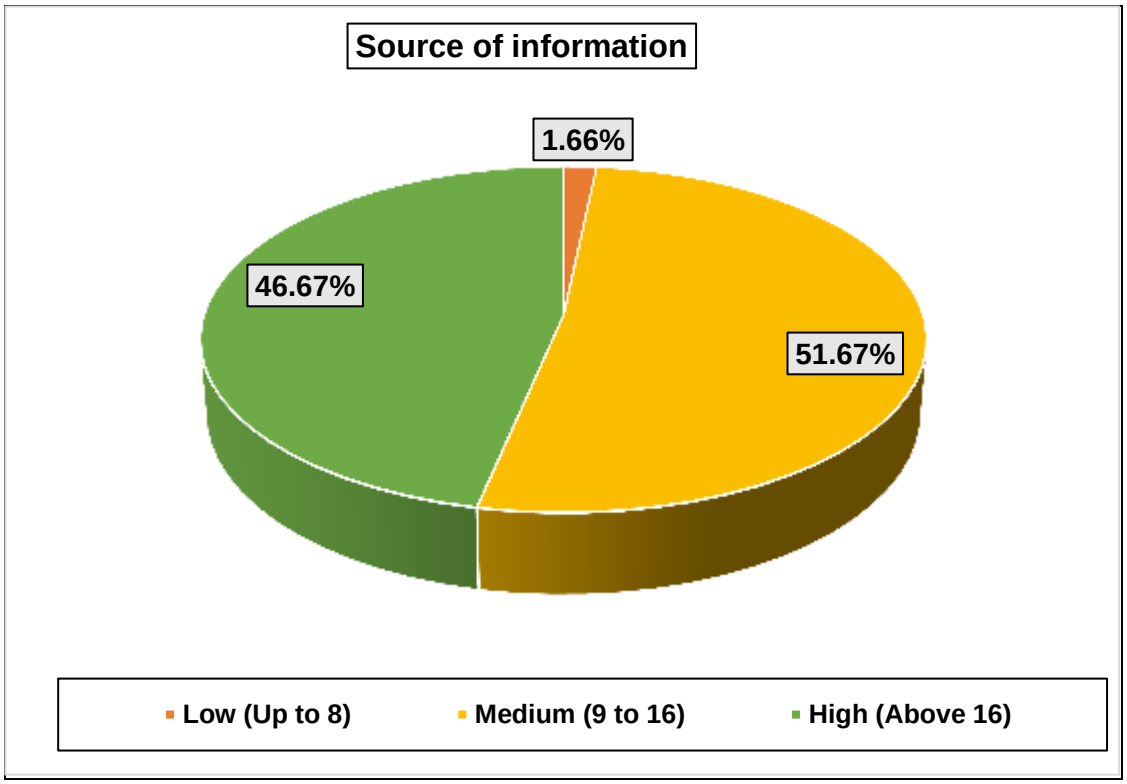

Fig 4.11: Distribution of the respondents according to their source of information

4.1.12 Knowledge of health and nutritional practices by tribal farm women

Table 4.12 (A): Distribution of the respondents according to their knowledge of health practices for children and tribal farm women-

S. No.	Statement	Knowledge level (n=120)					
		Complete		Partial		No	
		f	P (%)	f	P (%)	f	P (%)
1	Vaccination is must for good health of the child	23	19.17	97	80.83	-	-
2	Bathing the child daily, washing hands before holding and feeding the baby is necessary and good for health	120	100.00	-	-	-	-
3	Drinking enough pure water and boiled / sieved water helps to prevent many waterborne diseases.	97	80.83	23	19.17	-	-
4	Keeping nails clean and wash vegetables before cutting them is good for health.	120	100.00	-	-	-	-
5	Regular health check-up of baby every month in child health centre is needed.	18	15.00	73	60.83	29	24.17
6	To prevent diseases caused by mosquitoes and flies, cleanliness around the houses and proper drainage of dirty water should be made.	93	77.50	27	22.50	-	-
7	Information about health related diseases due to not taking precautions during menstruation is necessary	6	5.00	113	94.17	1	0.83

The data presented in table 4.12 (A) concluded that, amongst knowledge of health practices for children and tribal farm women. It is clear that 19.17 per cent respondents had complete knowledge and 80.83 per cent had partial knowledge about ‘vaccination which is must for good health of the child’.

Cent percent (100.00%) respondents had complete knowledge about ‘bathing the child daily, washing hands before holding and feeding the baby is necessary’. Majority (80.83%) of the respondents had complete knowledge and 19.17 per cent had partial knowledge regarding ‘drinking enough pure water and boiled / sieved water which helps to prevent many water borne diseases’.

Cent percent (100.00%) respondents had complete knowledge about ‘keeping nails clean and washing vegetables before cutting them is good for health’.

Regarding knowledge of ‘regular health check-up of baby every month in child health centre’, 15.00 per cent respondents had complete knowledge, 60.83 per cent had partial and 24.17 per cent of the respondents had no knowledge.

More than three forth of the respondents (77.50%) had complete knowledge and remaining 22.50 per cent had partial knowledge regarding ‘prevent diseases caused by mosquitoes and flies, cleanliness around the houses and proper drainage of dirty water should be made’.

Maximum *i.e.* 94.15 per cent respondents had partial knowledge, 5.00 per cent had complete knowledge and only 0.83 per cent respondents had no knowledge regarding ‘health related diseases due to not taking precautions during menstruation is necessary’.

Table 4.12 (B): Distribution of the respondents according to their knowledge of nutritional practices by tribal farm women.

S. No.	Statement	Knowledge level (n=120)					
		Complete		Partial		No	
		f	P (%)	f	P (%)	f	P (%)
a) Balanced diet							
1	Balanced diet is good for health	16	13.33	76	63.33	28	23.34
2	Consumption of milk and milk products are necessary for strong bones	37	30.83	83	69.17	-	-
3	Daily intake of dal, rice and vegetable is beneficial for growing children and adults.	102	85.00	18	15.00	-	-
4	Daily intake of fruits and including green leafy vegetables in the diet is beneficial for health	107	89.17	12	10.00	1	0.83
5	Children should have khichdi and pulses in their diet	52	43.33	68	56.67	-	-
b) Food Conservation and Nutrition Garden							
6	Proper information about kitchen garden / Bari	22	18.33	97	80.84	1	0.83
7	Kitchen Garden / Bari is the best way to utilize and grow organic fruits and vegetables using waste water and garbage.	5	4.16	113	94.17	2	1.67
8	Seasonal vegetables can be dried and used in off seasons	104	86.67	16	13.33	-	-
9	Pickles can be made by mixing seasonal fruits and vegetables and used round the year.	16	13.33	104	86.67	-	-

S. No.	Statement	Knowledge level (n=120)					
		Complete		Partial		No	
		f	P (%)	f	P (%)	f	P (%)
c) Preservation of nutrition during cooking							
10	Washing vegetables and fruits before consumption is good for health	97	80.83	23	19.17	-	-
11	Food should always be covered, cook on medium heat and overheating should be prevented.	29	24.17	91	75.83	-	-
12	Washing fruits and vegetables well before cutting retains the nutrients	55	45.83	32	26.67	**33**	27.50
13	Consumption of coarse flour is good for health	71	59.17	49	40.83	-	-
d) Nutritional deficiency diseases							
14	Nutritious diet helps in curing malnutrition and other diseases.	19	15.83	101	84.17	-	-
15	Eating green and yellow fruits and vegetables is good for eyesight and better health	68	56.67	52	43.33	-	-
16	To recover from anaemia, daily intake of jaggery and gram, munga (moringa), beet and carrot is beneficial.	45	37.50	73	60.83	2	1.67
17	Fruits, vegetables and milk should be consumed daily to overcome the deficiency of calcium and other nutrients.	22	18.33	72	60.00	26	21.67

Amongst nutritional practices, with regards to balance diet, 13.33 per cent, 63.33 per cent and 23.34 per cent of the respondents were having complete, partial and no knowledge about 'the balanced diet is good for health'.

Out of total respondents, 30.83 per cent had complete knowledge and 69.17 per cent had partial knowledge that 'consumption of milk and milk products are necessary for strong bones'.

Majority (85.00%) of the respondents had complete knowledge and remaining (15.00%) respondents had partial knowledge about 'daily intake of dal, rice and vegetable is beneficial for growing children and adults'.

The data indicated that 89.17 per cent, 10.00per cent and 0.83 per cent respondents were having complete, partial and no knowledge respectively regarding 'daily intake of fruits and including green leafy vegetables in the diet is beneficial for health'.

More than half (56.67%) of the respondents had partial knowledge whereas remaining (43.33%) had complete knowledge that 'children should have khichdi and pulses in their diet'.

With regards to food conservation and nutrition garden 18.33 per cent ,80.84 per cent and 0.83 per cent of the respondents were having complete, partial and no knowledge respectively regarding 'proper information about kitchen garden/bari'.

Kitchen garden/bari is the best way to grow organic fruits and vegetables using waste water and waste. Regarding this, majority i.e. 94.17 per cent respondents had partial knowledge, 4.16 per cent had complete and 1.67 per cent of had no knowledge.

Maximum respondents (86.67%) had complete knowledge and remaining respondents (13.33%) had partial knowledge about 'seasonal vegetables can be dried and used in off seasons'.

The results indicated that 13.33 per cent respondents had complete knowledge and majority i.e. 86.67 per cent had partial knowledge about

‘pickles can be made by mixing seasonal fruits and vegetables and used round the year’.

With regards to preservation of nutrition during cooking, 80.83 per cent and 19.17 per cent of the respondents were having complete and partial knowledge respectively, regarding ‘washing vegetables and fruits before consumption is good for health’.

It is clear from the table 4.12 (B) that 24.17 per cent and 75.83 per cent of the respondents were having complete and partial knowledge respectively about ‘food should always be covered, cook on medium heat and overheating should be prevented’.

Regarding ‘washing fruits and vegetables well before cutting retains the nutrients’, it was observed that 45.83 per cent of the respondents had complete knowledge followed by partial (26.67%) and no knowledge (27.50%).

About 59.17 per cent and 40.83 per cent of the respondents were having complete and partial knowledge about consumption of coarse flour is good for health, respectively.

With regards to nutritional deficiency diseases, majority of the respondents i.e. 84.17 per cent had partial knowledge and remaining 15.83 per cent were having complete knowledge about ‘nutritious diet which helps in curing malnutrition and other diseases’.

The data indicated that 56.67 per cent and 43.33 per cent of the respondents were having complete and partial knowledge about ‘eating green and yellow fruits and vegetables is good for eyesight and better health’.

It is clear that 37.50 per cent respondents had complete knowledge, 60.83 per cent had partial knowledge and 1.67 per cent had no knowledge regarding ‘recovery from anaemia, daily intake of jaggery and gram, munga (moringa), beet and carrot is beneficial’.

Fruits, vegetables and milk should be consumed daily to overcome the deficiency of calcium and other nutrients, in this regard, 18.33 per cent

respondents had complete knowledge, whereas 60.00 per cent and 21.67 per cent had partial and no knowledge respectively.

Table 4.12 (A) Distribution of the respondents according to their level of knowledge of health practices by Tribal farm women

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 5)	0	00.00
2.	Medium (6 to 11)	92	76.67
3.	High (Above 11)	28	23.33
	Total	**120**	**100.00**

The data presented in table 4.12 (A) shows the distribution of respondents according to their knowledge of health practices by tribal farm women. It is observed that majority of respondents (76.67%) had medium knowledge followed by high (23.33%) & low (00.00%) knowledge of health practices respectively.

Thus, it may be concluded that majority of respondents (76.67%) belonged to medium knowledge of health practices.

Table 4.12 (B) Distribution of the respondents according to their level of knowledge of nutritional practices by tribal farm women

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 11)	0	00.00
2.	Medium (12 to 23)	74	61.67
3.	High (Above 23)	46	38.33
	Total	**120**	**100.00**

The data presented in table 4.12 (B) shows the distribution of respondents according to their knowledge of nutritional practices by tribal farm women. It is observed that majority of respondents (61.67%) had medium knowledge followed by high (38.33%) & low (00.00%) knowledge of nutritional practices respectively.

Thus, it may be concluded that majority of respondents (61.67%) had medium knowledge of nutritional practices.

Table 4.1.12 Distribution of the respondents according to their overall level of knowledge of health and nutritional practices by tribal farm women

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 16)	0	0.00
2.	Medium (17 to 32)	39	32.50
3.	High (Above 32)	81	67.50
	Total	**120**	**100.00**

The data presented in table 4.1.12 shows the distribution of respondents according to their overall knowledge of health and nutritional practices by tribal farm women. It is observed that majority of respondents (67.50%) had high followed by medium (32.50%) and low (00.00%) knowledge of health and nutritional practices respectively.

Thus, it may be concluded that majority of the respondents (67.50%) belonged to high knowledge of health and nutritional practices.

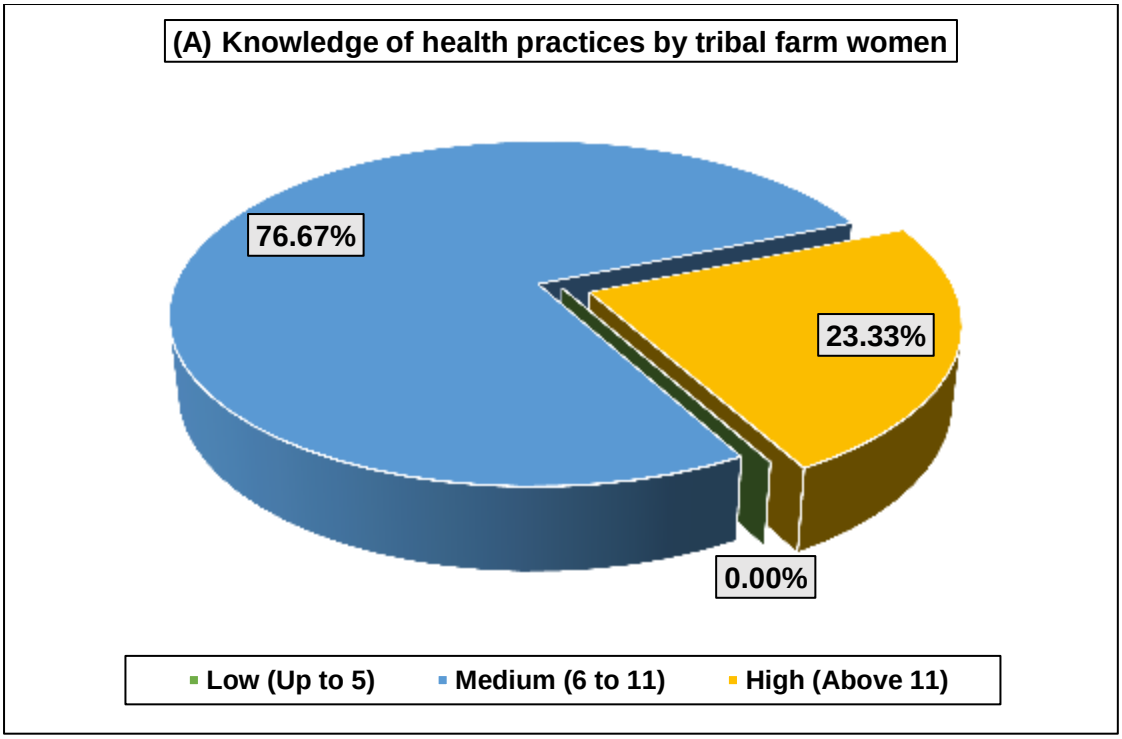

Fig 4.12 (A): Distribution of the respondents according to their knowledge of health practices by tribal farm women

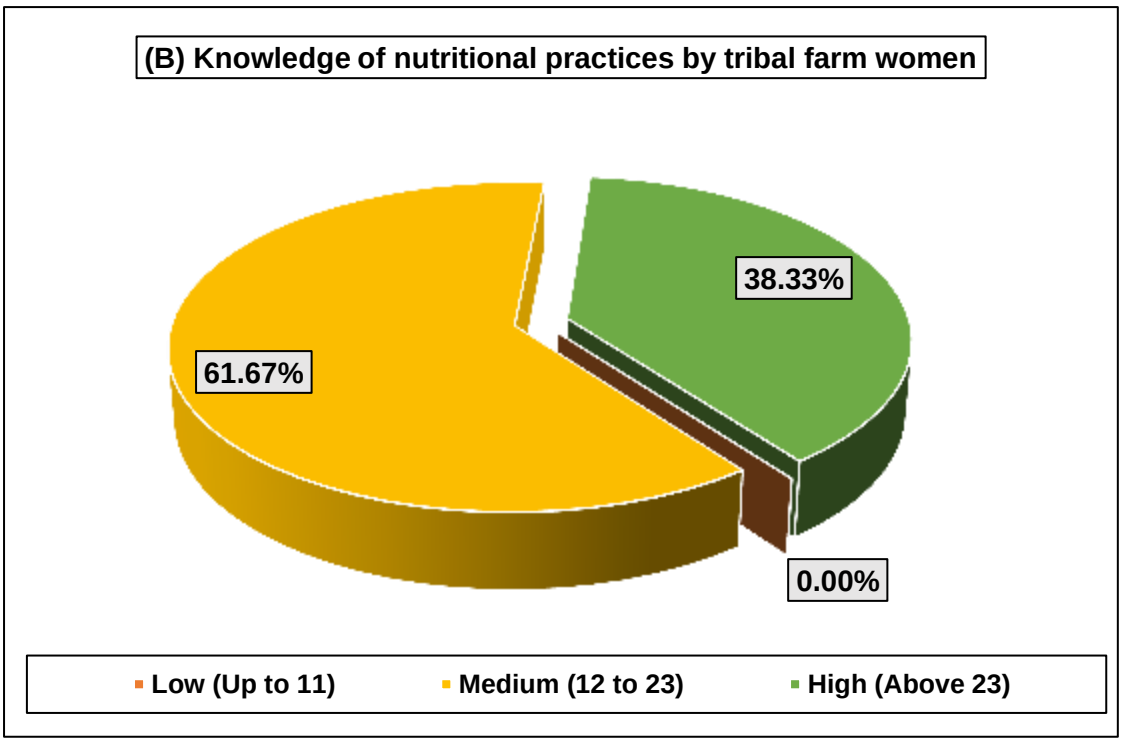

Fig 4.12 (B): Distribution of the respondents according to their knowledge of nutritional practices by tribal farm women

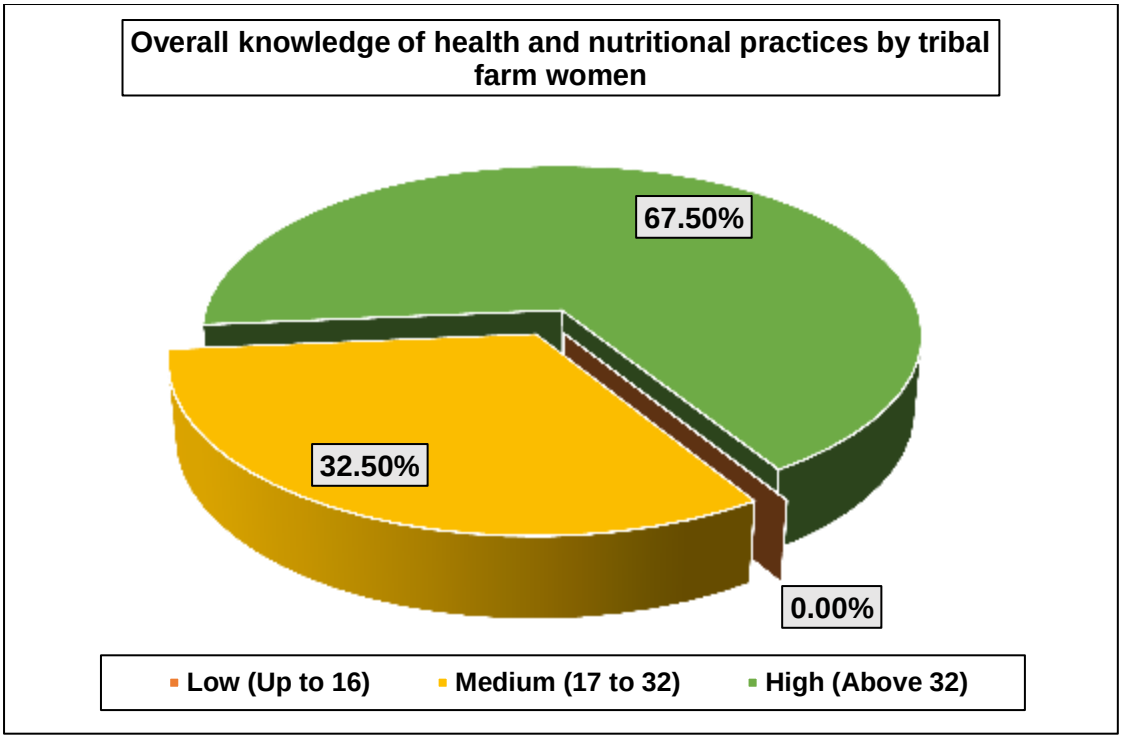

Fig 4.12: Distribution of the respondents according to their overall knowledge of health and nutritional practices by tribal farm women

4.2 Adoption of health and nutritional practices by tribal farm women

4.13 (A) Distribution of the respondents according to their adoption of health practices by tribal farm women:

S. No.	Statement	Adoption level (n=120)					
		Complete		Partial		No	
		f	P (%)	f	P (%)	f	P (%)
1	Vaccination of child	34	28.33	54	45.00	32	26.67
2	Regular health check-up of child every month in the child health centre	2	1.67	76	63.33	42	35.00
3	Proper arrangements to drain dirty water and clean the surroundings of your house	120	100.00	-	-	-	-
4	Taking boiled/filtered water for drinking	120	100.00	-	-	-	-
5	Washing vegetables before cutting them	-	-	79	65.83	41	34.17
6	Washing hands before holding and feeding the baby.	-	-	51	42.50	69	57.50
7	Consulting doctors for health related diseases due to not taking precautions during menstruation	-	-	110	91.67	10	8.33

The data presented in table 4.13 (A) showed adoption of health practices by tribal farm women. It was found that 28.33 per cent respondents had complete adoption, 45.00 per cent had partial adoption and 26.67 per cent of the respondents had no adoption about vaccination of child.

Maximum i.e. 63.33 per cent tribal farm women had partial adoption regarding regular health check-up of child every month in the child health centre, whereas 35 per cent had no adoption and 1.67 per cent had complete adoption of the same practice.

All (100.00%) the respondents were having complete, adoption about ‘proper arrangements to drain dirty water and clean the surroundings of your house’.

Cent percent *i.e*. 100.00 per cent respondents were having complete adoption about 'taking boiled / filtered water for drinking'.

Majority of the tribal farm women (65.83%) had partial adoption whereas remaining (34.17%) had no-adoption about 'washing the vegetables before cutting them'.

More than half of the respondents (57.50%) had no adoption whereas 42.50 per cent had partial adoption about 'washing hands before holding and feeding the baby'.

Majority (91.67%) of the tribal farmwomen had partial adoption about 'consulting doctors for health related diseases due to not taking precautions during menstruation', only 8.33 per cent had no adoption.

4.13 (B) Distribution of the respondents according to their Adoption of nutritional practices by Tribal farm women:

S. No.	Statement	Adoption level (n=120)					
		Complete		Partial		No	
		f	P (%)	f	P (%)	f	P (%)
a) Balanced diet -							
1	Consuming balanced diet	-	-	120	100.00	-	-
2	Consumption of green leafy vegetables and fruits	119	99.17	1	0.83	-	-
3	Consumption of milk and milk products	8	6.67	81	67.5	31	25.83
4	Consumption of sprouted pulse/dal	2	1.67	64	53.33	54	45.00
5	Consumption of khichdi and dal by children in their diet	-	-	65	54.17	55	45.83
b) Food Conservation and Nutrition Garden							
6	Established kitchen garden on a small patch	92	76.67	28	23.33	-	-
7	Growing seasonal fruits and vegetables in the kitchen garden	19	15.83	101	84.17	-	-
8	Value addition of seasonal vegetables by drying for use in off season	34	28.33	86	71.67	-	-
9	Use of seasonal fruits and vegetables to make pickles for consuming round the year	1	0.83	119	99.17	-	-

S. No.	Statement	Adoption level (n=120)					
		Complete		Partial		No	
		f	P (%)	f	P (%)	f	P (%)
c) Preservation of nutrition during cooking -							
10	Washing the raw material/ vegetables before cooking them	119	99.17	1	0.83	-	-
11	Always cover the utensils during cooking food and cook on medium heat.	1	0.83	119	99.17	-	-
12	Washing fruits and vegetables before cutting	119	99.17	1	0.83	-	-
13	Consuming coarse flour	95	79.17	19	15.83	6	5.00
d) Nutritional deficiency diseases							
14	Eating nutritious food as curative measure for malnutrition and other diseases	2	1.66	98	81.67	20	16.67
15	Using green and yellow fruits and vegetables to improve eye sight.	11	9.17	107	89.17	2	1.66
16	Eating jaggery and gram, munga (Moringa), beetroot, green leafy vegetables, tomatoes and carrots to recover from anaemia	13	10.83	76	63.34	31	25.83
17	Consumption of fruits, vegetables and milk daily to overcome the deficiency of calcium and other nutrients	2	1.67	47	39.16	71	59.17

The data presented in table 4.13 (B), concluded adoption of nutritional practices by tribal farmwomen. With regards to balance diet, all the respondents (100.00%) had partial adoption about consuming balanced diet.

Majority (99.17%) of the respondents had complete adoption and very few (0.83%) had partial adoption of the practice ‘consumption of green leafy vegetables and fruits’

More than half of the respondents (67.50%) had partially adopted ‘consumption of milk and milk products’ whereas 25.83 per cent and 6.97 per cent had no adoption and complete adoption of the practice respectively.

It was found that only 1.67 per cent respondents had complete adoption, 53.33 per cent had partial adoption and 45.00 per cent of the respondents had no adoption regarding ‘consumption of sprouted pulse/dal’.

It was observed that 54.17 per cent respondents had partial adoption and remaining (45.83%) respondents had no adoption about ‘consumption of khichdi and dal by children in their diet’.

With regards to food conservation and nutrition garden, majority (76.67%) of the respondents had complete adoption and established kitchen garden on a small patch whereas remaining (23.33%) had partial adoption of the practice.

Majority of the respondents (84.17%) had partial adoption and remaining (15.83%) had complete adoption about growing seasonal fruits and vegetables in the kitchen garden,

Maximum tribal women (71.67%) had partial adoption and remaining (28.33%) had complete adoption about ‘value addition of seasonal vegetables by drying for use in off seasons’.

Regarding ‘use of seasonal fruits and vegetables to make pickles for consuming round the year’ it was found that 0.83 per cent and 97.17 per cent of the respondents had complete and partial adoption, respectively.

With regards to preservation of nutrition during cooking majority (99.17%) of the respondents had complete adoption and very few (0.83%) respondents were having complete and partial adoption about washing the raw material/ vegetables before cooking them,

Maximum respondents (99.17%) partially adopted the practice in which they always cover utensils during cooking food and cook on medium heat, whereas very few respondents (0.83%) had complete adoption regarding the same.

Higher percentage (99.17%) of the respondents had completely adopted the practice of ‘washing fruits and vegetables before cutting’ and only 0.83 per cent of the respondents had partially adopted the practice.

More than three forth of the respondents (79.17%) had completely adopted the practice of 'consuming coarse flour' followed by partial (15.83%) and no adoption (5.00%) respectively.

With regards to nutritional deficiency diseases, it was found that 1.66 per cent, 81.67 per cent and 16.67 per cent of the respondents had complete, partial and no adoption respectively regarding 'eating nutritious food as curative measure for malnutrition and other diseases'.

Majority (89.17%) of the tribal farm women partially adopted the practice of 'using green and yellow fruits and vegetables to improve eye sight', whereas 9.17 per cent had completely adopted and 1.66 per cent not adopted the practice.

It is inferred that 10.83 per cent respondents had complete adoption, 63.34 per cent had partial adoption and 25.83 per cent no adoption regarding 'eating jaggery and gram, munga (moringa), beetroot, green leafy vegetables, tomatoes and carrots to recover from anaemia'.

Regarding the practice of 'consumption fruits, vegetables and milk daily to overcome the deficiency of calcium and other nutrients', it was found that only 1.67 per cent had complete adoption, 39.16 per cent had partial adoption and 59.17 per cent of the respondents had no adoption.

4.13 (A) Distribution of the respondents according to their level of adoption of health practices by tribal farm women

S. No.	Categories	Frequency	Percentage
1.	Low (Up to 5)	57	47.50
2.	Medium (6 to 11)	63	52.50
3.	High (Above 11)	0	0.00
	Total	**120**	**100.00**

The data presented in table 4.13 (A) shows the distribution of respondents according to their adoption of health practices by tribal farm women. It is observed that majority of respondents (52.50%) had medium followed by low (47.50%) and high (0.00%) adoption of health practices respectively.

Thus, it may be concluded that higher percentage (52.50%) of respondents belonged to medium adoption of health practices.

4.13 (B) Distribution of the respondents according to their level of adoption of nutritional practices by tribal farm women

S. No.	Categories	Frequency	Percentage (%)
1.	Low (Up to 11)	0	0.00
2.	Medium (12 to 23)	108	90.00
3.	High (Above 23)	12	10.00
	Total	**120**	**100.00**

The data presented in table 4.13 (B) shows the distribution of respondents according to theiradoption of nutritional practices by tribal farm women. It is observed that majority of respondent (90.00%) had medium followed by high (10.00%) & low (00.00%) adoption of nutritional practices respectively.

Thus, it may be concluded that higher percentage (90.00%) of respondents belonged to medium adoption of nutritional practices.

Table 4.13: Distribution of the respondents according to their overall level of adoption of health and nutritional practices by tribal farm women

S. No.	Categories	Frequency	Percentage
1.	Low (Up to16)	0	0.00
2.	Medium (17 to 32)	112	93.33
3.	High (Above 32)	8	6.67
	Total	**120**	**100.00**

The data presented in table 4.13 shows the distribution of respondents according to their knowledge of health practices by tribal farm women. It is observed that majority of respondents (93.33%) had medium practices followed by high (6.67%) & low (0.00%) adoption of health and nutritional practices respectively.

Thus it may be concluded that most of the respondents (93.33%) had medium adoption of health and nutritional practices.

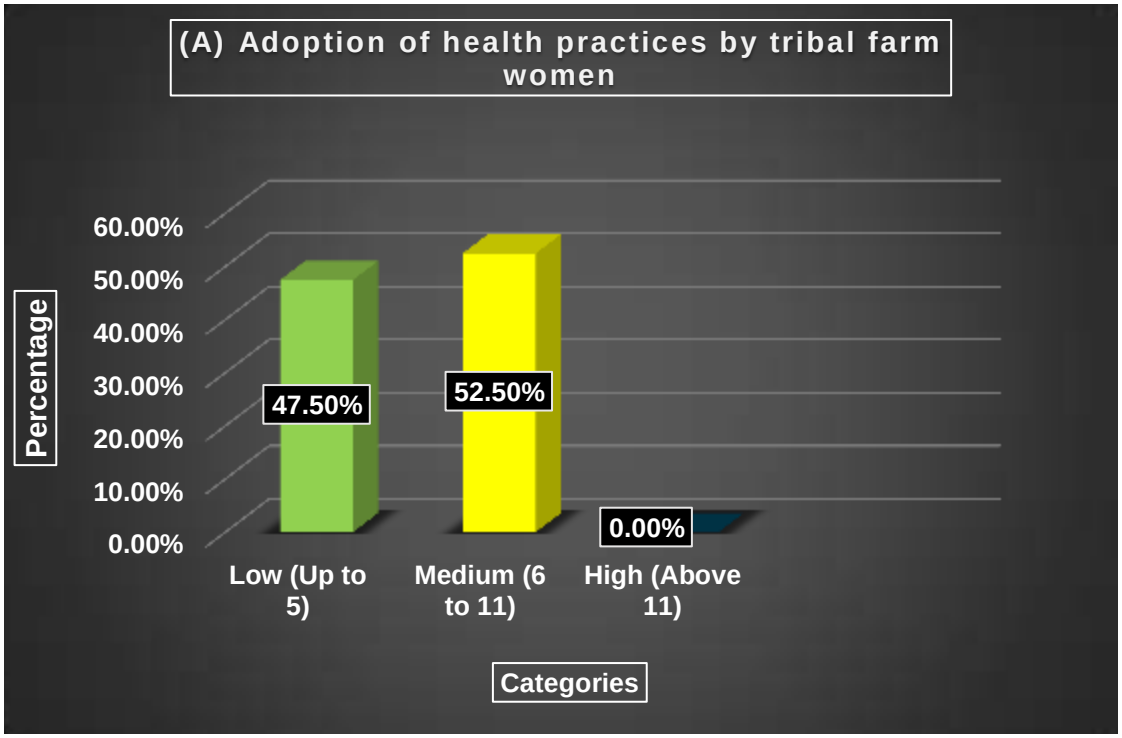

Fig 4.13 (A): Distribution of the respondents according to their adoption of health practices by tribal farm women

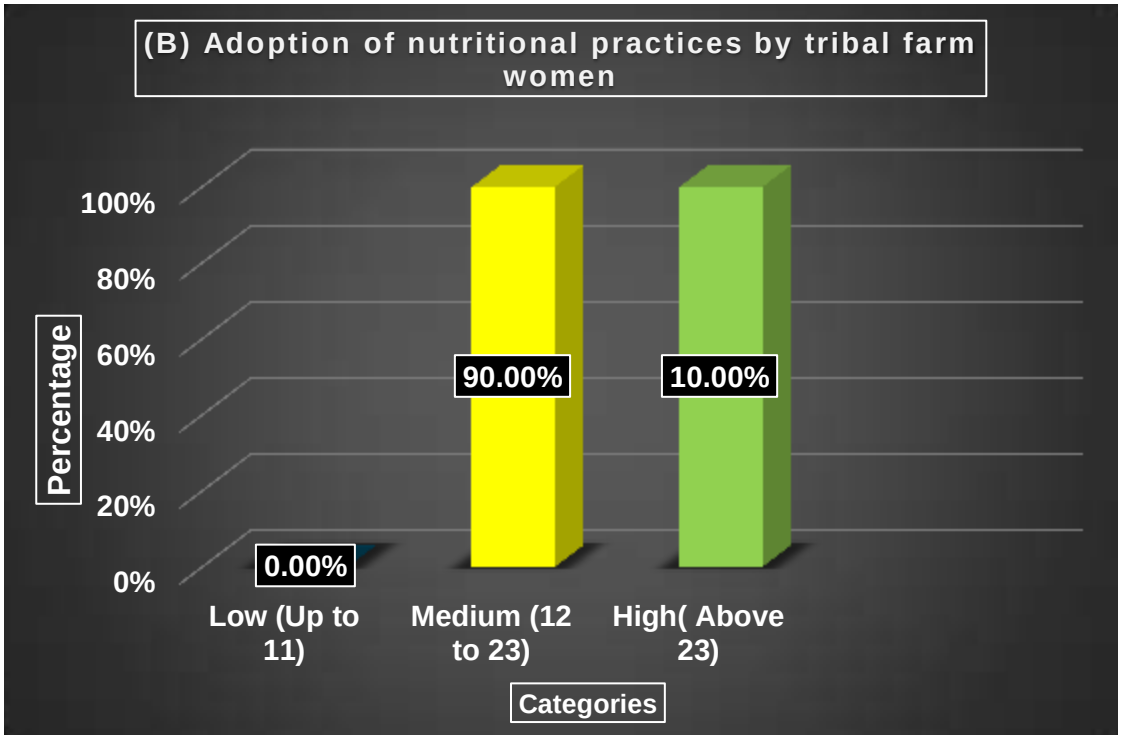

Fig 4.13 (B): Distribution of the respondents according to their adoption of nutritional practices by tribal farm women

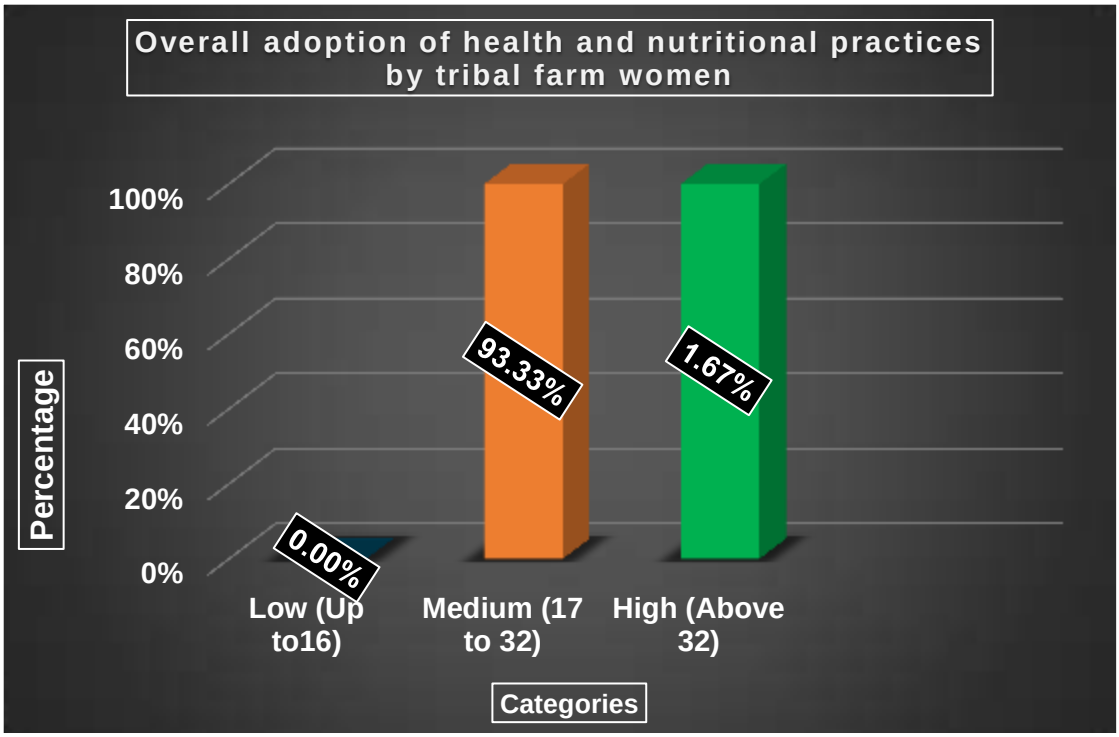

Fig 4.13: Distribution of the respondents according to their overall adoption of health and nutritional practices by tribal farm women

4.3 Relationship between profile characteristic of tribal farm women with their adoption of health and nutritional practices

The adoption of health and nutritional practices by tribal farm women is often affected by the age, education, family type, family size, land holding, annual income, cosmopoliteness, expenditure pattern, social participation, extension participation, source of information and knowledge of health and nutritional practices of the farming community. Therefore, an attempt has been made with the help of this study to explore the relationship between independent and dependent variables and the adoption practices of tribal farm women towards health and nutritional practices in order to make adoption more effective and useful to them.

The zero order correlation method was adopted to assess the relationship between the adoption of health and nutritional practices by tribal farm women and independent variables viz., age, education, family type, family size, land holding, annual income, cosmopoliteness, expenditure pattern, social participation, extension participation, source of information and knowledge of health and nutritional practices. The results are being presented here through the table 4.14.

Table 4.14: Relationship between profile characteristic of tribal farm women with their adoption of health and nutritional practices

S. No.	Variables	Correlation coefficient (r)
1	Age	-0.214*
2	Education	0.677**
3	Family type	-0.077^{NS}
4	Family size	-0.011^{NS}
5	Land holding	0.206*
6	Annual income	0.228*
7	Cosmopoliteness	0.221*
8	Expenditure pattern	0.069^{NS}
9	Social participation	0.527**
10	Extension participation	0.626**
11	Source of information	0.251**
12	Knowledge of health and nutritional practices	0.748**

**** = Significant at 1 per cent level of significance**
*** = Significant at 5 per cent level of significance**
NS = indicates for non- significant

The value of coefficient of correlation furnished in table 4.14 clearly shows that adoption of health and nutritional practices by tribal farm women was positively and significantly associated at 1 per cent level of significance with their education, social participation, extension participation, source of information and knowledge of health and nutrition practices.

Similarly, the adoption of health and nutritional practices by tribal farm women was positively and significantly associated at 5 per cent level of significance with their land holding, annual income and cosmopoliteness.

It can, therefore, be generalized that higher the education, land holding, annual income cosmopoliteness, social participation, extension participation, source of information and knowledge of health and nutrition practices of tribal farm women higher would be their adoption of health and nutritional practices. Secondly, the annual income plays an important role in adoption, purchasing the nutritional diet and also made respondents to know the new things regarding health and nutritional practices.

Further, coefficient of correlation indicated that the variable expenditure pattern had positive and non- significant relationship with the adoption of health and nutritional practices by tribal farm women while variables family types and family size had negative and non- significant relationship and age had negatively significant relationship with the adoption of health and nutritional practices by tribal farm women. It means that these variables did not have a significant role on the adoption of health and nutritional practices by tribal farm women.

4.4. Problem faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them:

The problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them for effective adoption practices are presented in this section.

4.4.1 Problem faced by the tribal farm women to adopt health and nutritional practices

Table 4.15 Distribution of respondent according to problems faced by them

(N=120)

S. No.	Problems	Frequency	Percentage (%)	Rank
1	Educational and awareness programme for health and nutrition related activities usually not organized in the right way.	119	99.17	II
2	Educational programme conducted for health and nutrition related activities in the village are not described in pictorial form.	101	84.17	V
3	Lack of knowledge about establishment of kitchen garden	18	15.00	VII
4	Fruits and vegetables are expensive so unaffordability of fruits and vegetable	118	98.33	III
5	Existence of socio- cultural issues	96	80.00	VI
6	Do not talk openly about health and nutrition related activities in women meeting.	107	89.17	IV
7	Most women feel shy and hesitant to talk to experts about health related activities	120	100.00	I

The problems analysis was reported based on the opinion survey of the sample tribal farm women. Thus, the generalizations of result are the feedback through tribal farm women adopting health and nutritional practices in study area. The above table 4.15 revealed that major problems as perceived by the tribal farm women were as per the frequency level of problem confronted by them. Among several problems, the highest percentage of respondents (100.00 %) opined that most women felt shy and hesitant to talk to experts about health related activities and ranked first, followed by educational and awareness programme for health and nutrition related activities usually not organized in the right way (99.17%) ranked second respectively.

The next problem was perceived by respondents regarding fruits and vegetables are expensive so unaffordability of fruits and vegetables (98.33%) ranked third, do not talk openly about health and nutrition related activities in women meeting (89.17%) ranked fourth, educational programme conducted for health and nutrition related activities in the village are not described in pictorial form (84.17%) ranked fifth respectively.

The least problem was perceived by respondents regarding the existence of socio-cultural issues (80.00%) ranked sixth and lack of knowledge about establishment of kitchen garden (15.00%) was ranked seventh.

4.4.2 Suggestions for reducing the problems faced by tribal farm women in adopting health and nutrition practices

Table 4.16 Distribution of respondents according to suggestions offered

(N=120)

S. No.	Suggestions	Frequency	Percentage (%)	Rank
1	More educational and awareness programme should be organized for health and nutritional aspects	115	95.83	VI
2	Audio- visual aids should be used for educational programme	117	97.50	IV
3	Training should be given to the tribal farm women on kitchen garden to meet out nutritional requirements	116	96.67	V
4	Safe disposal of non- degraded and health hazardous products from the village	88	73.33	VII
5	There should be proper arrangement of the hospital at the nearest distance in the village	120	100.00	I
6	Facilities of transport such as bus and auto should be available	119	99.67	II
7	To provide health and nutritional information to women, once a month there should be a meeting of women of the village with a women supervisor and Anganwadi worker.	118	98.33	III

Suggestion offered by the respondents for making effective adoption practices are shown in table 4.16. Majority of the respondents (100.00%) opined that there should be proper arrangement of the hospital at the nearest distance in the village.

The other suggestions offered were respondents opined that facilities of transport such as bus and auto should be available (99.67%) was ranked second, followed by respondents opined that to provide health and nutritional information to women, once a month there should be a meeting of women of village with a women supervisor and Anganwadi worker (98.33%) ranked third respectively.

The next suggestions offered by respondents regarding respondents opined that audio- visual aids should be used for educational programme (97.50%) ranked fourth, respondents opined that training should be given to the tribal farm women on kitchen garden to meet out nutritional requirements (96.67%) ranked fifth respectively.

The least suggestions offered by respondents regarding respondents opined that more educational and awareness programme should be organized for health and nutritional aspects (95.83%) ranked sixth and respondents opined that safe disposal of non- degraded and health hazardous products from the village (73.33%) ranked seventh respectively.

Chapter- V
DISCUSSION

DISCUSSION

The findings of the present study, along with discussion are presented here for drawing out generalization under the following sub-heads:

5.1 Profile characteristic of the tribal farm women.

5.2 Adoption level of tribal farm women regarding health and nutritional practices.

5.3 Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices.

5.4 Problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them.

5.1 Profile characteristic of the tribal farm women

Age

The result of the present study showed that the higher percentage of respondents (49.17%) belonged to middle age group (36 to 55 years). This finding is supported by Warkade (2010), Singh *et al.* (2016), Shukla *et al.* (2013), John and Barker (2015), Gujar (2017), Soni *et al.* (2017), Soni *et al.* (2018), Humtsoe & Soundari (2019) and Patil and Sankangoudar (2019).

Education

In case of level of education higher percentage of respondents (32.50%) were found to be middle school level of education. This might due to lack of educational institutions during the past time in the village, family financial condition, early marriage and lack of family support. This finding is supported by Warkade (2010), Gujar (2017), Dave (2019) and Santhi and Kalirajan (2019).

Family type

The study revealed that majority of the respondents (61.67%) were lived in joint family. Similar finding were reported by, Warkade (2010), Hagone and Basunathe (2015), Singh (2015), Soni *et al.* (2018) and Patil and Sankangoudar (2019).

Family size

The result of the study showed that majority of the respondents (60.00%) had medium size families. This finding is supported by, Jethi and Chandra (2013), Hagone and Basunathe (2015) and Datir (2017).

Land holding

The result of the present study showed that the higher percentage of respondents (50.00%) had marginal size of land holding. The important reason behind that maximum no. of land register to men not women. Similar findings were reported by, Gujar (2017), Shamna *et al*. (2018) and Soni *et al.* (2018).

Annual income

The study further revealed that majority of the respondents (87.50%) had low annual income. This may be due to unavailability of different occupational and poor socio-economic status. This finding is supported by, Dhoke (2013), Soni *et al.* (2013), Patel *et al.* (2016), Datir (2017) and Gujar (2017).

Cosmopoliteness

In case of cosmopoliteness the study revealed that majority of respondents (55.00%) had medium cosmopoliteness. Similar findings were reported by, Jahan (2014), Shukla *et al.* (2013), Singh (2015), Aurangozeb (2019) and Patil and Sankangoudar (2019).

Expenditure pattern

The result of the study showed that majority of the respondents (86.67%) had low expenditure pattern. This may be due to low income resources. This finding is supported by, Tandekar (2014), Datir (2017) and Gujar (2017).

Social participation

The majority of the respondents (50.83%) had member of only one organization social participation. Similar findings were reported by, Gulkari *et al.* (2014), Chandravadia *et al.* (2018) and Patil and Sankangoudar (2019).

Extension participation

The result of the study showed that majority of the respondents (50.83%) had medium extension participation level. This might be due to lack awareness and lack of interest of tribal farm women. This finding is supported by, Singh (2015), Datir (2017), Gujar (2017), Poshiya *et al.* (2018), Soni *et al.* (2018) and Poshiya *et al.* (2019).

Source of information

In case of use source of information, higher percentage of respondents (51.67%) had medium use of information source. Similar findings were reported by, Bhange (2013), Shukla *et al.* (2013) and Datir (2017).

Knowledge of health and nutritional practices

The study further revealed that majority of the respondents (67.50%) had high knowledge of health and nutritional practices. This finding is in line with the finding of Chauhan (2012), Shukla *et al.* (2013), Datir (2017), Soni *et al.* (2018) and Poshiya *et al.* (2019).

5.2 Adoption level of tribal farm women regarding health and nutritional practices

The result indicated that majority of the respondents (93.33%) had medium level of adoption of health and nutritional practices. The main reason for this may be they do not think that it is necessary for their health condition, their medium information source and their low family income. This result is in conformity with the research findings of Sharma *et al.* (2013), Datir (2017), Dave (2019) and Patil and Sankangoudar (2019).

5.3 Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices

The relationship between profile characteristic of respondents like age, education, family type, family size, land holding, annual income, cosmopoliteness, expenditure pattern, social participation ,extension participation, source of information and knowledge of health and nutritional practices with overall adoption of health and nutritional practices was worked out, which showed that family type and family size were negative and non-

significantly and expenditure pattern was positively and non- significantly while age were negatively and significantly related to overall adoption of health and nutritional practices, whereas education, land holding, annual income, cosmopoliteness, social participation, extension participation, source of information and knowledge of health and nutritional practices were found to be positively and significantly related to overall adoption of health and nutritional practices.

Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices

Age of the respondents had shown negative and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Bhange (2013), Sharma *et al*. (2013), Aurangozeb (2019) and Samantaray *et al*. (2020) are in line with the study.

Education level of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Bhange (2013), Sharma *et al*. (2013), Datir (2017), Aurangozeb (2019) and Samantaray *et al*. (2020) are in line with the study.

Family type of the respondents had shown negative and non-significant relationship with adoption of health and nutritional practices. This leads to the acceptance of null hypothesis. The work of Dhoke (2018) and Malabasari and Hiremath (2016) are in line with the study.

Family size of the respondents had shown negative and non-significant relationship with adoption of health and nutritional practices. This leads to the acceptance of null hypothesis. The work of Malabasari and Hiremath (2016) and Datir (2017) are in line with the study.

Size of land holding of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Bhange (2013), Datir (2017) and Samantaray *et al*. (2020) are in line with the study.

Annual income of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to

rejection of null hypothesis. The work of Bhange (2013) and Soni *et al*. (2018) are in line with the study.

Cosmopoliteness of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Aurangozeb (2019) is in line with the study.

Expenditure pattern had shown positively and non- significantly relationship with adoption of health and nutritional practices. This leads to the acceptence of null hypothesis. The work of Datir (2017) is in line with the study.

Social participation of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Bhange (2013), Sharma *et al*. (2013), Datir (2017) and Samantaray *et al*. (2020) are in line with the study.

Extension participation of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Datir (2017) is in line with the study.

Source of information of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Bhange (2013), Datir (2017) and Soni *et al*. (2018) are in line with the study.

Knowledge of health and nutritional practices of the respondents had shown positive and significant relationship with adoption of health and nutritional practices. This leads to rejection of null hypothesis. The work of Bhange (2013), Gade *et al*. (2012), Ghosh *et al*. (2016), Prajapati *et al*. (2016) and Soni *et al*. (2018) are in line with the study.

5.4 Problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them

Problems faced by the tribal farm women

Highest percentage of the respondents(100.00%) reported that most women feel shy and hesitant to talk to experts about health related activities, followed by educational and awareness programme for health and nutrition related activities usually not organized in the right way (99.17%), fruits and vegetables are expensive so unaffordability of fruits and vegetables (98.33%), do not talk openly about health and nutrition related activities in women meeting (89.17%), educational programme conducted for health and nutrition related activities in the village are not described in pictorial form (84.17%), existence of socio- cultural issues (80.00%) and tribal farm women do not know how to use the kitchen garden properly (15.00%).

The finding are in line with the study of Deshpande and Raut (2011), Pallavi (2013), Datir (2017), Shamna *et al*. (2018), Aurangozeb (2019) and Dhayal and Mehta (2020).

Suggestions given by the tribal farm women

Majority of the respondents (100.00%) opined that there should be proper arrangement of the hospital at the nearest distance in the village.

The other suggestions offered were (99.67%) respondents opined that facilities of transport such as bus and auto should be available, followed by (98.33%) respondents opined that to provide health and nutritional information to women, once a month there should be a meeting of women of village with a women supervisor and Anganwadi worker, (97.50%) respondents opined that audio- visual aids should be used for educational programme, ((96.67%) respondents opined that training should be given to the tribal farm women on kitchen garden to meet out nutritional requirements, (95.83%) respondents opined that more educational and awareness programs should be organized for health and nutritional aspects, (73.33%) respondents opined that safe disposal of non- degraded and health hazardous products from the village.

The findings are in line with the study of Deshpande and Raut (2011), Bhange (2013) and Datir (2017).

Chapter- VI

SUMMARY, CONCLUSION AND SUGGESTIONS FOR FURTHER WORK

SUMMARY, CONCLUSION AND SUGGESTIONS FOR FURTHER WORK

6.1 Summary

Indian women more especially the tribal farm women play multifarious socio-economic roles inside as well as outside the home such as child care, collection of fodders and fuels, cooking, fetching water, attends farm activities, animal husbandry and extending helping hand in rural artisanship and handicrafts. Therefore, consumption of energy by the farm women needs to maintain good health but majority of tribal farm women have lack of knowledge about health & nutrition and also they don't take care of themselves. Therefore, it is very much important for these farm women to properly educate about health and nutrition then only they can change the status of family and help in progress of the community.

In a country like India, women face serious health problems due to socio-economic, environmental conditions, nutrition and gender discrimination. Diet and health are synonymous with the well- being of an individual. A majority of rural and tribal women suffer from anemia which leads to low birth weight among babies and increases susceptibility to other diseases. Tribal women diets are generally grossly deficient in calcium, vitamin A, vitamin C, riboflavin and animal protein. Women being vulnerable section, the impact on their health are much higher. Health and Nutritional status of tribal population clearly Indicates that, the goal of Health for all cannot be fully achieved unless due attention is paid to the vulnerable sections of the society i.e., tribals and especially tribal women. Therefore it is very much important to properly educate them about health and nutrition subsequently only they can change the status of family and help in progress of the community.

Keeping the above aspects in view, the study entitled, **"Adoption of health and nutritional practices by the tribal farm women"** was undertaken with the following objectives:

1. To study the profile characteristic of the tribal farm women.
2. To know the adoption level of tribal farm women regarding health and nutritional practices.
3. To find out the relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices.
4. To enlist the problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them.

For attaining the objectives, the present investigation was carried out in Birsa block of Balaghat district (M.P.). The district comprises of 10 blocks, *viz.* Balaghat, Baihar, Birsa, Paraswada, Katangi, Waraseoni, Lalbarra, Khairlanji, Lanji and Kirnapur. Out of which **Birsa block** was selected purposively because as per the land record sources maximum number of tribal farm women are present in the block**.** From each selected village, 10 per cent respondents were selected by proportionate random sampling technique. Thus a sample of 120 tribal farm women was prepared from ten villages of Birsa block. The data will be collected with the help of pre-structured interview schedule. Both qualitative and quantitative types of data were collected. The qualitative data were converted into quantitative form by giving suitable scores. The collected data were quantified, classified, tabulated and presented on the basis of frequencies and percentages. In order to ascertain relation between independent and dependent variables, the correlation coefficient was worked out.

6.2 CONCLUSION:

The conclusion of the present study are presented here on the basis of objective:

6.2.1 Profile characteristics of tribal farm women

i. Majority of the respondents (49.17%) belonged to middle age group (36-55 years).
ii. In case of education, most of the respondents (32.50%) had studied up to middle school level.

iii. It was found that maximum number of the respondents (61.67%) belonged to joint families.

iv. The study indicated that relatively higher proportion (60.00%) of the respondents had medium families i.e. five to eight members in their families.

v. Majority of the respondents (50.00%) were marginal land holding farm women.

vi. Huge number of respondents (87.50%) were having low annual income.

vii. Majority of the respondents (55.00%) had medium cosmopoliteness.

viii. Most of the respondents (86.67%) had low expenditure pattern.

ix. Majority of the respondents (50.83%) belonged to member of one organization (social participation).

x. Higher percentage of respondents (50.83%) medium extension participation.

xi. Majority of the respondents (51.67%) had medium source of information.

xii. Most of the respondents (67.50%) had high knowledge of health and nutritional practices.

6.2.2 Adoption level of tribal farm women regarding health and nutritional

I. Majority of the respondents (52.50%) had medium adoption level of health practices.

II. Higher numbers of the respondents (90.00%) had medium adoption level of nutritional practices.

III. Most of the respondents (93.33%) had medium overall adoption level of health and nutritional practices followed by high (6.67%) and low (0.00%) overall adoption level of health and nutritional practices respectively.

Thus it can be concluded that majority of the respondents (93.33%) had medium overall adoption level of health and nutritional practices.

6.2.3 Relationship of profile characteristic of tribal farm women with their adoption of health and nutritional practices

i. Age of the respondents had shown negative and significant relationship with adoption of health and nutritional practices.
ii. Education level of the respondents had shown positively and significant relationship with adoption of health and nutritional practices.
iii. Family type of the respondents had shown negative and non-significant relationship with adoption of health and nutritional practices.
iv. Family size of the respondents had shown negative and non-significant relationship with adoption of health and nutritional practices.
v. Size of land holding of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.
vi. Annual income of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.
vii. Cosmopoliteness of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.
viii. Expenditure pattern of the respondents had shown positively and non-significantly relationship with adoption of health and nutritional practices.
ix. Social participation of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.
x. Extension participation of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.
xi. Source of information of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.
xii. Knowledge of health and nutritional practices of the respondents had shown positive and significant relationship with adoption of health and nutritional practices.

6.2.4 Problems faced by the tribal farm women to adopt health and nutritional practices and suggestions to overcome them

Problems faced by the tribal farm women

Majority of the respondents reported that most women feel shy and hesitant to talk to experts about health related activities, followed by educational and awareness programs for health and nutrition related activities usually not organized in the right way, fruits and vegetables are expensive so unaffordability of fruits and vegetables, do not talk openly about health and nutrition related activities in women meeting, educational programs conducted for health and nutrition related activities in the village are not described in pictorial form, existence of socio- cultural issues and lack of knowledge about establishment of kitchen garden.

Suggestions offered by them

Majority of the respondents suggested that there should be proper arrangement of the hospital at the nearest distance in the village.

The other suggestions offered were the respondents opined that facilities of transport such as bus and auto should be available, followed by tribal farm women opined that to provide health and nutritional information to women, once a month there should be a meeting of women of village with a women Supervisor and Anganwadi worker, respondents opined that audio-visual aids should be used for educational programs, respondents opined that tribal farm women should be trained to adopt nutrient rich kitchen garden, respondents opined that more educational programs should be organized for health and nutritional practices, respondents opined that Health hazardous products should be disposed of safely in the village.

6.3 Suggestions for further work

Many researches are available on the adoption of health and nutritional practices by tribal farm women but it seems that there is lack of adoption among tribal farm women; hence its adoption is medium.

Hence there are suggestions for research work on some aspects like:

1. The present study was conducted in only one block and ten villages of Balaghat district only. Therefore, this study needs to be repeated in other area with different respondents.
2. The study was confined to the respondent of one year. Thus the study should be repeated in next 2 on 3 years continuously to determine the adoption of health and nutritional practices by tribal farm women.
3. The problems may be studied in detail and in depth to understand the problem.
4. The study must be conducted with the reverse objective to the adoption of health and nutritional practices by tribal farm women.

Finding of this study would be the feedback response about health and nutritional practices by tribal farm women.

Chapter-VII

BIBLIOGRAPHY

BIBLIOGRAPHY

Afrin SM, Afrad SI, Hoque MZ and Bhattacharjee D. 2016. Knowledge of Farm Women on Nutritional Value of Farm Products in Bangladesh. Indian Research Journal of Extension Education 16(2):25-30.

Agrawal S. 2013. Diadvantageous situation of tribal women and children of Orissa, India: a special reference to their health and nutritional status. Journal of Community Nutrition & Health 2(1): 3-14.

Aurangozeb MK. 2019. Adoption of integrated homestead farming technologies by the rural women of RDRS. Asian Journal of Agricultural Extension, Economics & Sociology 32(1): 1-12.

Bhange SB. 2013. Adoption of integrated pest management (IPM) technology in brinjal. M.Sc. (Ag.) Thesis (Unpublished), MPKV, Rahuri.

Chandravadia K, Bariya M and Kumbhani S. 2018. Socio-economic profile of Tribal Farm women and its relationship towards involvement in Agriculture Practices in Chhotaudepur District of Gujarat State. Journal of Krishi Vigyan, 7(special): 139-143.

Chauhan NM. 2012. Impact and constraints faced by tribal farm women in kitchen gardening. Rajasthan journal of extension education 20: 87-91.

Datir PR. 2017. Knowledge and adoption of health and nutritional practices by tribal women. M.Sc. (Ag.) Thesis (Unpublished), Dr. PDKV, Akola.

Dave PH. 2019. Awareness regarding healthy food practices amongst farm women of Khedbrahma taluka. Hindu 117:184-189.

Deshpande SK, Raut VD and Raut DD. 2011. Involvement of farm women in agriculture extension programme. Green Farming 2(5): 629-630.

Dhayal BL and Mehta BM. 2020. Constraints Perceived by Tribal Farm Women in Acquiring Training on Animal Husbandry Practices in Chhota Udepur District of Gujarat. Journal of Krishi Vigyan 8(2): 45-48.

Dhoke SP. 2013. Knowledge and adoption of health and nutritional practices by farm women. M.Sc. Thesis, PDKV, Akola.88p.

Dhoke SP, Shambharkar YB, Nair RG and Dhulgand VG. 2018. Knowledge of Farm Women Regarding Health and Nutritional Practices. International Journal of Current Microbiology and Applied Sciences 7(1): 1488-1492.

Gade Y, Borate H, and Patel A. 2012. Adoption of clean milk production practices by dairy farm women. Journal Agriculture Update 25(2): 166-168.

Garnaik D, Devadarshini C and Jena D. 2019. Nutritional status of tribal women of Kandhamal district, Odisha. The Pharma Innovation Journal8(11): 105-107.

Geetha S and Parameshwari S. 2019. Nutritional status of anaemic tribal adult women in Yercaud hill, Tamil Nadu. International Journal of Physiology, Nutrition and Physical Education 4(1): 1243-1247.

Gogoi P. 2017. Capacity building of rural women in homestead garden for sustainable horticultural development. Ph.D. (Ag.) Thesis (Unpublished), AAU, Jorhat.

Gujar MM. 2017. Assessment of stress management by farmers in Amravati district of Vidarbha region. M.Sc. (Ag.) Thesis (Unpublished), Dr. PDKV, Akola.

Gulkari KD, Gangireddy N, Phodiyil OV and Gade Y. 2014. Profile analysis of dairy farm women in adoption of scientific practices. International Journal of Agricultural Extension, 2(3): 159-163.

Hagone V and Basunathe VK. 2015. Decision making pattern of tribal women in dairy enterprise in Melghat Region of Amravati district. Indian Research Journal of Extension Education 15(4):10-15.

Humtsoe MY and Soundari MH. 2019. Maternal health care practices of lotha naga tribal women in India. PEOPLE: International Journal of Social Sciences 5(1):738-755.

Jahan N. 2014. Participation of rural women in homestead vegetable cultivation of Nabinagar upazila under Brahmanbaria district. M.Sc. (Ag.) Thesis (Unpublished), SAU, Dhaka Bangladesh.

Jethi R and Chandra N. 2013. Nutritional status of farm women in hills of Uttarakhand. Indian Research Journal of Extension Education 13(3): 92-97.

John R and Barker N. 2015. Analysis of a women participation in farm activities and rural management with reference to Allahabad, UP. Trends, Challenges & Innovations in Management-Volume II: 197-200.

Kumari M, Srivastava AK and Sinha N. 2016. Extent of knowledge of farm women on nutrition. Indian research journal of Extension Education 10(1): 65-68.

Malabasari RT and Hiremath U. 2016. Capacity building of rural women through trainings. International Journal of Home Science Extension and Communication Management 3(1): 8-14.

Nandapurkar GG. 1981. A study of the entrepreneurial behaviour of small farmers. Meteropolin Book, New Delhi.

Nayak M and Sreegiri S. 2016. A study on nutritional status of tribal women in Visakhapatnam district, Andhra Pradesh, India. International Journal of Community Medicine and Public Health 3(8): 2049-2053.

Patel GJ, Patel DP and Ramjiyani DB. 2016. Knowledge of nutritional practices among the tribal women. Gujarat Journal of Extension Education *27*(1): 24-26.

Patil S and Sankangoudar S. 2019. Knowledge and Adoption level of Homes science technologies by farm women. Journal of Pharmacognosy and Phytochemistry 8(1):1497-1500.

Pawar PS. 2013. Role performance of tribal women in agriculture. M.Sc. (Ag.) Thesis (Unpublished), Dr. PDKV, Akola.

Poshiya VK, Khodifad PB and Tiwari MV. 2018. Tribal farm women status of human nutrition in Narmada district. Gujarat Journal of Extension Education 29(2): 187-189.

Poshiya VK, Pandya RD and Khodifad PB. 2019. Impact of training programme on knowledge regarding value addition by tribal farm women. Gujarat Journal of Extension Education 30(1):18-00.

Prajapati JV, Patel JB and Bhatt PM. 2016. Extent of Adoption of Low-cost Technologies of Animal Husbandry by Tribal Dairy Farmwomen. Indian Research Journal of Extension Education 15(4): 47-50.

Sachdev N, Patil A, Sawant S, Gawde A, Barve S and Dhawal P. 2020. Knowledge and Attitude of Tribal Women towards Child Nutrition in Nashera District, Maharashtra, India. Indian Journal of Nutrition and Dietetics 57(2): 185-196.

Samantaray SK, Devadarshini C, Patro A, Panda PK, Giri B and Chaudhary AK. 2020. A Comparative Analysis on Knowledge and Adoption Level of Farmwomen Regarding Fruit and Vegetable Preservation Technologies: A Micro Study by KVK, Ganjam-I. Current Journal of Applied Science and Technology 39(17): 57-63.

Santhi S. and Kalirajan V. 2019. Study the Profile Characteristics of Farm Women with Reference to Decision Making Behaviour. Asian Journal of Agricultural Extension, Economics & Sociology 29(1): 1-5.

Shamna A, Biswas P, Jha SK, Sarkar S and Kumar S.2018. Tribal Farm Women's Participation in Agriculture and Factors Influencing It: Evidence from West Bengal, India. Journal of Agricultural Science and Technology 20(5): 911-922.

Sharma P, Singh GP and Jha SK. 2013. Impact of training programme on knowledge and adoption of preservation technologies among farm women: a comparative study. Indian Research Journal of Extension Education 13(1):96-100.

Shrinivasa BM, Philip RR, Krishnapali VK, Suraj A and Sreelakshmi PR. 2014. Prevalence of anemia among tribal women of reproductive age-group in Wayanad district of Kerala. International Journal of Health & Allied Sciences 3(2): 120-124.

Shukla P. 2013. A Study on Knowledge Level and Training Needs of Anganwadi Workers in Relation to Health and Nutritional Aspect in Rewa District. M.Sc. (Ag.) Thesis (Unpublished), JNKVV, Jabalpur.

Singh K. 2015. A study on involvement of farm women in agricultural activities in Gwalior district of Madhya Pradesh. Ph.D. (Ag.) Thesis (Unpublished), RVSKVV, Gwalior.

Singh P, Jat HL and Sharma SK. 2016. Association of socio-economic attributes with adoption of cluster bean technologies. Indian Research Journal of Extension Education 11(2): 36-41.

Soni AN, Verma PD and Soni DN. 2017. Impact of training on knowledge of tribal farm women regarding health and nutrition of mother and child. Gujarat Journal of Extension Education 28(2): 261-264.

Soni AN, Verma PD and Soni DN. 2018. Adoption of fruits and vegetable preservation technology by tribal farm women of Tapi district. Gujarat journal Extension Education 29(1): 9-15.

Soni DN, Kamaliya KB, Pastagia JJ and Verma PD. 2013. Evaluation of knowledge on nutritional facts of tribal women. Gujarat Journal of Extension Education 24: 58-61.

Supe SV. 2007. Measurement techniques in social sciences. Agrotech Publishing Academy 25 (3&4): 105-109.

Tandekar S. 2014. Assesment of stress management by farmers in western Vidharbha. M.Sc. (Ag.) Thesis (Unpublished), Dr. PDKV, Akola.

Warkade P. 2010. A Study on role of tribal farm women in decision making towards agricultural operations in Bichhia block of Mandla district (MP). M.Sc. (Ag.) Thesis (Unpublished), JNKVV, Jabalpur.

APPENDICES

जवाहरलाल नेहरू कृषि विश्व विद्यालय, जबलपुर

कृषि विस्तार शिक्षा विभाग कृषि महाविद्यालय, जबलपुर (म.प्र.)

साक्षात्कार अनुसूची

मार्गदर्शक का नाम

डॉ. (श्रीमति) सीमा नबेरिया

सहायक प्राध्यापक

कृषि विस्तार शिक्षा विभाग

कृषि महाविद्यालय जबलपुर (म.प्र.)

शोधकर्ता का नाम

वर्षा मरकाम

एम. एस. सी. कृषि (अंतिम वर्ष)

कृषि विस्तार शिक्षा विभाग

कृषि महाविद्यालय जबलपुर (म.प्र.)

शोध अवधि- 2019-2020

शोध का विषय- **"आदिवासी कृषक महिलाओं द्वारा स्वास्थ्य और पोषण सम्बन्धी क्रियाओं का अंगीकरण "**

खण्ड- "अ"

आदिवासी कृषक महिलाओं की सामान्य जानकारी

महिला कृषक का नाम:- .....

गाँव का नाम:- ..... विकासखंड :-.....

जिला:-.....

1. आयु:- आपकी उम्र कितनी है ..... वर्ष में|

2. शिक्षा:-

स .क्र .	**शिक्षा का स्तर**	
1	अशिक्षित	
2	केवल पढ सकते हैं	
3	पढ भी सकते हैं और लिख भी सकते हैं	
4	प्राथमिक स्कूल	
5	माध्यमिक स्कूल	
6	उच्च एवं उच्चतर माध्यमिक स्कूल	
7	स्नातक	

3. परिवार का प्रकार:-

स .क्र .	**परिवार का प्रकार**	
1	एकल परिवार	
2	संयुक्त परिवार	

4. परिवार का आकार:-

स .क्र .	सदस्य	संख्या
1	पुरुष	
2	महिला	
3	बच्चे	
4	कुल	

5. भूमि का रकवा (एकड़ में):-

1) सिंचित भूमि ..... एकड़

2) असिंचित भूमि ..... एकड़

3) कुल भूमि .....एकड़

6. वार्षिक आय (रु में):- आपकी वार्षिक आय कितनी है .....रूपये में |

7. सर्वदेशियता:- निम्नलिखित कथन सर्वदेशियता से सम्बन्धित है|

कृपया अपनी प्रतिक्रिया दें |

1) क्या आप स्वास्थ्य सम्बन्धी किसी उद्देश्य से किसी बड़े नगर /शहरों में रह चुके हैं? हां/ न

यदि हाँ तो ,विवरण बताइये .....

2) पिछले तीन महीनो के दौरान आपने कितनी बार स्वास्थ्य सम्बन्धी क्रियाओं के लिए निम्नलिखित स्थानों का दौरा किया है? हां/ न

यदि हाँ तो, विवरण दें:.....

स.क्र.	स्थान	कितने बार भ्रमण किया	भ्रमण का उद्देश्य
1	गाँव		
2	जिला		
3	महानगर		

3) क्या आपने पिछले अवधि में विषय विशेषज्ञों का दौरा किया है? हां/ न

यदि हां, तो कृपया निम्नलिखित जानकारी बताये-

स.क्र.	विषय विशेषज्ञ	कितने बार भ्रमण किया	भ्रमण का उद्देश्य
1	जिला अस्पताल		
2	स्वास्थ्य शिविर		
3	आंगनवाड़ी संगोष्ठी		

4) क्या आप अपने गाँव के बाहर किसी संगठन के सदस्य है? हां/ न

यदि हां, तो कृपया बताये .....

5) क्या आपने पिछले वर्ष के दौरान अपने गाँव के बाहर किसी स्वास्थ्य शिविर का दौरा किया है? हां/ न

8. व्यय पैटर्न:-

स .क्र.	निजी	पिछले वर्ष	धनराशि(रु)
1	खाना		
2	आवास प्रबन्धन		
3	शिक्षा		
4	कपड़ों		
5	स्वास्थ्य		
6	लाइटिंग		
7	यात्रा		
8	कृषि कार्य		
9	अन्य		
10	कुल		

9. सामाजिक भागीदारी:-

स.क्र.	श्रेणी/पद	
1	एक संगठन का सदस्य	
2	एक से अधिक संगठन का सदस्य	
3	दफ्तर वाले	
4	विशिष्ट सुविधाए	

10. प्रसार भागीदारी:-

स .क्र.	नाम	जागरूकता		भागीदारी		
		हां	न	हमेशा	कभी-कभी	कभी नहीं
1	महिला मण्डल					
2	आंगनबाड़ी संगोष्ठी					
3	स्वास्थ्य शिविर					

11. सूचना प्राप्त करने का स्रोत:-

जनजातीय महिलाओ द्वारा स्वास्थ्य और पोषण सम्बन्धी क्रियाओं की जानकारी निम्नलिखित सूचना स्रोतों से लिया जाता है |

स. क्र.	स्रोत व माध्यम का नाम	हमेशा	कभी-कभी	कभी नहीं
1	पड़ोसी			
2	मित्र			
3	रिश्तेदार			
4	आंगनबाड़ी कार्यकर्ता			
5	आशा कार्यकर्ता			
6	स्थानीय चिकित्सक			
7	आंगनबाड़ी सुपरवाइजर			

स. क्र.	स्रोत व माध्यम का नाम	हमेशा	कभी-कभी	कभी नहीं
8	समाचार पत्रिका			
9	रेडियो			
10	टेलीविज़न			
11	पत्रिका			
12	अन्य			

12. स्वास्थ्य और पोषण सम्बन्धी क्रियाओं के बारे में ज्ञान :-

A) बच्चों और महिलाओं हेतु स्वास्थ्य क्रियाओं का ज्ञान:-

स.क्र .	कथन	ज्ञान का स्तर		
		पूर्णत:	आंशिक	कुछ भी नही
1	क्या आप टीकाकरण के बारे में जानते हैं |			
2	क्या आप जानते है, प्रतिदिन बच्चे को नहलाना , बच्चे को पकड़ने और खिलाने से पूर्व हाथ धोना चाहिए |			
3	क्या आप जानते है, कि पीने के लिए पर्याप्त शुध्द जल एवं उबले /छने पानी पीने से कई जल जनित रोगों से बचाव होता है |			
4	क्या आप जानते है, कि नाख़ून साफ़ करना तथा सब्जियों को काटने से पहले उन्हें धोना स्वास्थ्य के लिए अच्छा होता है |			
5	क्या आपको ज्ञात है कि शिशु स्वास्थ्य केंद्र में हर महीने बच्चे के नियमित स्वास्थ्य के लिए स्वास्थ्य परीक्षण की जरूरत होती है			
6	क्या आप जानते है कि मच्छरों एवं मक्खियों के द्वारा होने वाली बीमारियों को रोकने के लिए घरों के आसपास की साफ़ - सफाई करना एवं गंदे पानी के निकास की समुचित व्यवस्था करना चाहिए |			
7	क्या आप मासिक धर्म में सावधानी न बरतने से होने वाले स्वास्थ्य सम्बन्धी बीमारियों के बारे में जानते हो |			

B) आदिवासी महिलाओं द्वारा पोषण सम्बन्धी क्रियाओं का ज्ञान :-

स.क्र .	कथन	ज्ञान का स्तर		
		पूर्णत:	आंशिक	कुछ भी नही
a)	**संतुलित आहार –**			
1	क्या आप संतुलित आहार के बारे में जानते हो ?			
2	क्या आप जानते हो कि मजबूत हड्डियों के लिए दूध और दूध से बनी चीजों का सेवन करना चाहिए |			
3	क्या आप जानते है बढते बच्चों एवं बड़ों के लिए दाल , चावल और सब्जी का रोजाना सेवन फायदेमंद होता है|			
4	क्या आप जानते है कि फलों का रोजाना सेवन एवं हरे पत्तेदार सब्जियों को आहार में शामिल करना स्वास्थ्य के लिए लाभदायक होता है |			
5	क्या आप जानते है कि बच्चों को आहार में खिचड़ी तथा दाल का सेवन करवाना चाहिए |			
b)	**खाद्य संरक्षण और पोषण उद्यान** –			
6	क्या आप किचन गार्डन /बाड़ी के बारे में जानते हो |			
7	क्या आप जानते हो कि किचन गार्डन /बाड़ी अपशिष्ट जल और कचरे का उपयोग कर जैविक फलों एवं सब्जियों को उगाने का सबसे बेहतरीन तरीका है |			
8	क्या आप जानते हो कि मौसमी सब्जियों को सुखाकर उन्हें अन्य मौसम में भी उपयोग किया जा सकता है |			
9	क्या आप जानते हो कि मौसमी फलों एवं सब्जियों के मिश्रण से आचार बनाया जा सकता है |			
c)	**खाना पकाने के दौरान पोषण का संरक्षण** –			
10	क्या आप जानते हो कि सभी खाद्य सामग्रियों को पकाने से पूर्व अच्छी तरह से धोना चाहिए |			
11	क्या आप जानते हो कि भोजन को हमेशा ढक कर , मध्यम आंच में एवं आवश्यकता से अधिक नही पकाना चाहिए |			
12	क्या आपको पता है कि काटने से पूर्व फलों एवं सब्जियों को अच्छी तरह से धोना पोषक तत्वों को बरकरार रखता है |			
13	क्या आप जानते होकि आटे को छानने के बाद उपयोग करना स्वास्थ्य के लिए अच्छा होता है |			
d)	**पोषण की कमी से होने वाली बीमारियाँ** –			
14	क्या आप जानते हो कि पौष्टिक आहार (जैसे - दूध , दही ,फल ,हरी सब्जियां , कंद -मूल एवं मांस -मछलियां आदि) कुपोषण तथा अन्य बीमारियों से ठीक होने मदद करता है |			
15	क्या आप जानते हो कि हरे और पीले फलों और सब्जियों का सेवन नेत्र दृष्टि और बेहतर स्वास्थ्य के लिए अच्छा होता है |			
16	क्या आप जानते हो कि एनीमिया रोग से ठीक होने के लिए गुड और चना, मुनगा(सहचर) , चुकन्दर और गाजर का रोजाना सेवन फायदेमंद होता है |			
17	क्या आप जानते हो कि कैल्सियम एवं अन्य तत्वों की कमी को दूर करने लिए फलों ,सब्जियों एवं दूध का रोजाना सेवन करना चाहिए |			

खण्ड-"ब"

"आदिवासी कृषक महिलाओं द्वारा स्वास्थ्य और पोषण सम्बन्धी क्रियाओं को अंगीकृत करना"

A) आदिवासी कृषक महिलाओं द्वारा स्वास्थ्य सम्बन्धी क्रियाओं को अंगीकृत करना- आदिवासी कृषक महिलाओं द्वारा स्वास्थ्य /बाल स्वास्थ्य को बनाये करने के लिए स्वास्थ्य क्रियाओं का अंगीकरण –

स. क्र .	कथन	अंगीकरण का स्तर		
		पूर्णत:	आंशिक	कुछ भी नही
1	क्या आप बच्चों का टीकाकरण करवाते है |			
2	क्या आप शिशु स्वास्थ्य केंद्र में हर महीने शिशुओं के स्वास्थ्य की जांच करवाते हो |			
3	क्या आप गंदे पानी के निकास की तथा अपने घर के आसपास के साफ़ सफाई की समुचित व्यवस्था करते हो |			
4	क्या आप उबले / छने जल का पीने में उपयोग करते हो |			
5	क्या आप सब्जियों को काटने से पहले उन्हें धोते हो |			
6	क्या आप बच्चे को पकड़ने और खिलाने से पूर्व हाथ धोते हो |			
7	क्या आप मासिक धर्म में सावधानी न बरतने से होने वाली स्वास्थ्य सम्बन्धी बीमारियों के बारे में चिकित्सक से सलाह लेते हो |			

B) **आदिवासी कृषक महिलाओं द्वारा पोषण सम्बन्धी क्रियाओं को अंगीकृत करना-**

स. क्र.	कथन	अंगीकरण का स्तर		
		पूर्णत:	आंशिक	कुछ भी नही
a)	**संतुलित आहार –**			
1	क्या आप संतुलित आहार करते हो |			
2	क्या आप अपने परिवार वालों को हरी पत्तेदार सब्जियां एवं फलों का सेवन करवाते हो |			
3	क्या आप दूध एवं दूध से बनी चीजों का सेवन करते हो |			
4	क्या आप अंकुरित दाल का सेवन करते हो |			
5	क्या आप बच्चों को आहार मे खिचड़ी एवं दाल का सेवन करवाते हो |			
b)	**खाद्य संरक्षण और पोषण उद्यान –**			
6	क्या आप किचन गार्डन /बाड़ी करते हो |			

7	आप किचन गार्डन (बाड़ी) में कौन- कौन से मौसमी फलों एवं सब्जियों को उगाना पसंद करते हो? **सब्जियां एवं फल-**						
	टमाटर		पपीता				
	भट्टा(बैगन)		आम				
	सेम		अमरुद				
	लौकी		नीबू				
	आलू		केला				
	अरहर		मिर्च				
	ग्वारफली		धना				
	पालक		मुनगा (सहचर)				
8	क्या आप मौसमी सब्जियों को सुखाकर उनका उपयोग अन्य मौसम में करते हो | जैसे – भट्टा ,टमाटर ,सेम आदि |						
9	क्या आप मौसमी फलों एवं सब्जियों का उपयोग आचार बनाने में करते हो |						
c)	**खाना पकाने के दौरान पोषण का संरक्षण** –						
10	क्या आप खाद्य सामाग्रियों को पकाने से पूर्व धोते हो |						
11	क्या आप भोजन हमेशा ढक कर एवं मध्यम आंच पर पकाते हो |						
12	क्या आप काटने से पूर्व फलों एवं सब्जियों को धोते हो |						
13	क्या आप आटे को छानने के बाद उपयोग करते हो |						
d)	**पोषण की कमी से होने वाली बीमारियाँ** –						
14	क्या आप पौष्टिक आहार (जैसे - दूध , दही ,फल ,हरी सब्जियां , कंद - मूल एवं मांस-मछलियां आदि) सेवन कुपोषण तथा अन्य बीमारियों से ठीक होने सेवन करते हो |						
15	क्या आप हरे और पीले फलों और सब्जियों का सेवन नेत्र दृष्टि को बेहतर करने के लिए करते हो |						
16	क्या आप एनीमिया रोग से ठीक होने के लिए गुड और चना, मुनगा (सहचर) , चुकन्दर ,हरी पत्तेदार सब्जियों ,टमाटर और गाजर का सेवन करते हो |						
17	क्या आप कैल्सियम एवं अन्य तत्वों की कमी को दूर करने लिए फल ,सब्जियों एवं दूध का रोजाना सेवन करते हो |						

खण्ड –"स "

A) **आदिवासी कृषक महिलाओं द्वारा स्वास्थ्य और पोषण सम्बन्धी क्रियाओं को अंगीकृत करने में आने वाली परेशानियाँ**

स. क्र.	अंगीकृत करने में आने वाली परेशानियाँ	परेशानियों का स्तर	
		हां	न
1	गावों में स्वास्थ्य और पोषण सम्बन्धी क्रियाओं के लिए शैक्षणिक एवं जागरूकता कार्यक्रम को सही तरीके से आयोजित नहीं किया जाता है |		
2	गावों में स्वास्थ्य और पोषण सम्बन्धी क्रियाओं के लिए जो शैक्षणिक कार्यक्रम आयोजित किये जाते है उन्हें चित्रात्मक रूप में वर्णित नहीं किया जाता है |		
3	आदिवासी कृषक महिलाओं को किचन गार्डन (बाड़ी) का सही तरीके से उपयोग करना नही आता है |		
4	फलों एव सब्जियों का महंगा होना|		
5	पुरानी सामाजिक संस्कृतियों का होना |		
6	महिला संघोष्ठी में स्वास्थ्य एवं पोषण सम्बन्धी क्रियाओं के बारे में खुलकर बात न करना |		
7	अधिकांश महिलाओं में स्वास्थ्य सम्बन्धी क्रियाओं के बारे में जानकारों से बात करने में शर्म,हीजक एवं संकोच का होना |		

B) आदिवासी कृषक महिलाओं द्वारा स्वास्थ्य और पोषण सम्बन्धी क्रियाओं को अंगीकृत करने में आने वाली परेशानियों को कम करने हेतु सुझाव -

स. क्र.	अंगीकृत करने में आने वाली परेशानियों को कम हेतु सुझाव	सुझाव का स्तर	
		हां	न
1	स्वास्थ्य और पोषण सम्बन्धी क्रियाओं के लिए अधिक शैक्षणिक एवं जागरूकता कार्यक्रम आयोजित किया जाना चाहिए |		
2	शैक्षणिक कार्यक्रम के लिए दृश्य- श्रव्य साधनों का उपयोग किया जाना चाहिए |		
3	आदिवासी कृषक महिलाओं को पोषक तत्वों से भरपूर किचन गार्डन (बाड़ी) अपनाने के लिए प्रशिक्षण देना चाहिए |		
4	गावों से स्वास्थ्य सम्बन्धी खतरनाक उत्पादों का सुरक्षित निपटारा किया जाना चाहिए |		
5	गावों के निकटतम दुरी पर अस्पतालों की समुचित व्यवस्था होना चाहिए |		
6	परिवहन के साधनों जैसे बस एवं ऑटो की सुविधाएँ उपलब्ध होना चाहिए |		
7	महिलाओं को स्वास्थ्य और पोषण सम्बन्धी जानकारी देने के माह में एक बार महिला सुपरवाइजर एवं आंगनवाडी कार्यकर्ता के साथ गाँव की महिलाओं की संगोष्ठी होनी चाहिए |		

CURRICULUM VITAE

CURRICULUM VITAE

Name of the author- Varsha Markam

Place- Balaghat (M.P.)

Date of Birth- 15 Nov, 1996

The author of this thesis Varsha Markam, D/o Shri Chetan Singh Markam and Smt. Janki Markam was born on 15 Nov, 1996 at Balaghat (M.P.). She has joined Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, and successfully completed the degree of M.Sc. (Ag.) during the year 2019-20 with 7.33 OGPA.

She has got the following degrees,

S. No.	Degrees granted	Year of Passing	University/ Board	Percentage (%)
1	M.Sc. (Ag.)	2020	JNKVV, Jabalpur	73.30%
2	B.Sc. (Ag.)	2018	JNKVV, Jabalpur	71.10%
3	12^{th}	2013	M.P. Board Bhopal (M.P.)	83.40%
4	10^{th}	2011	M.P. Board Bhopal (M.P.)	85.34%

She has following scientific interests-

For the partial fulfillment of the master's degree programme she was allotted a research problem **"Adoption of health and nutritional practices by tribal farm women"** which was successfully conducted by her and being submitted in the form of the thesis.