

An investigation was conducted to ascertain the dietary habits and knowledge of pregnant women at Kamla Nehru Hospital Shimla (Himachal Pradesh) in order to create an educational paper.

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ABSTRACT

The American Pregnancy Association states that dieting during pregnancy can be quite challenging. Women gain around 10 to 12 kg during this period because they eat a greater variety of healthful meals. You should consume high-fiber meals like whole grains, beans, lentils, and water when you are pregnant. The purpose of the study was to determine the dietary habits and level of nutrition knowledge of first trimester (1–12 week) pregnant women. Techniques: The study was conducted in February and March 2019 at the O.P.D. Kamla Nehru Hospital in Shimla, Himachal Pradesh, using an experimental poll. A purposive sample of 400 first-time pregnant women, ranging in age from 1 to 12 weeks, was selected. Pamphlets with information were sent to Twenty-seven percent didn't know enough, and eleven percent knew enough. It was discovered that various sociodemographic characteristics were substantially correlated with the pregnant woman's

knowledge score about her sources of dietary information (0.031*). There was no other significant correlation found between this measure and any other sociodemographic variables. The study's findings indicate that primigravida women are underinformed about their health and what to do during the first 12 weeks of pregnancy. This indicates that in order to prevent more issues throughout pregnancy, women's perceptions need to shift as soon as feasible.

Keywords—*Knowledge and Informational Booklet for Women Who Are Expecting*

1. BACKGROUND OF THE STUDY

2. Because your body requires so many more resources during pregnancy, you gain around 10 to 12 kg. You should consume high-fiber meals like whole grains, beans, meats, and water when you are pregnant. Rekha Sharma (2004) Pregnant women's tissues are used to extract nutrients if their dietary supply is insufficient to fulfill their demands and those of the unborn

child. The mother's additional vulnerability increases the possibility of serious issues that might endanger her life. Additionally, it increases the likelihood that the newborn will be underweight and that he won't be able to feed himself effectively at first. 1. To survive, humans must eat, and what they consume has an impact on

15–49 age group was 44.7% in rural areas and 37.5% in urban areas in 2013–14. The most recent study found that 50.2% of pregnant women who were anaemic did so because of that. Every year, more than 8 million infants are born with major birth defects globally (WHO) 3.

3. NEED FOR THE STUDY

4. The global rate of maternal mortality decreased by 44% between 1990 and 2015. In developing nations, there were 280 maternal deaths for every 100,000 live births in 2015. As per Himachal Pradesh Anaemia prevalence in the

5. CONCEPTUAL FRAMEWORK

This model is given by Rosenstock's (1974) and Becker's and Maiman's (1975) Health Belief Model. The model was made to predict what the individual may or may not use preventive measures.

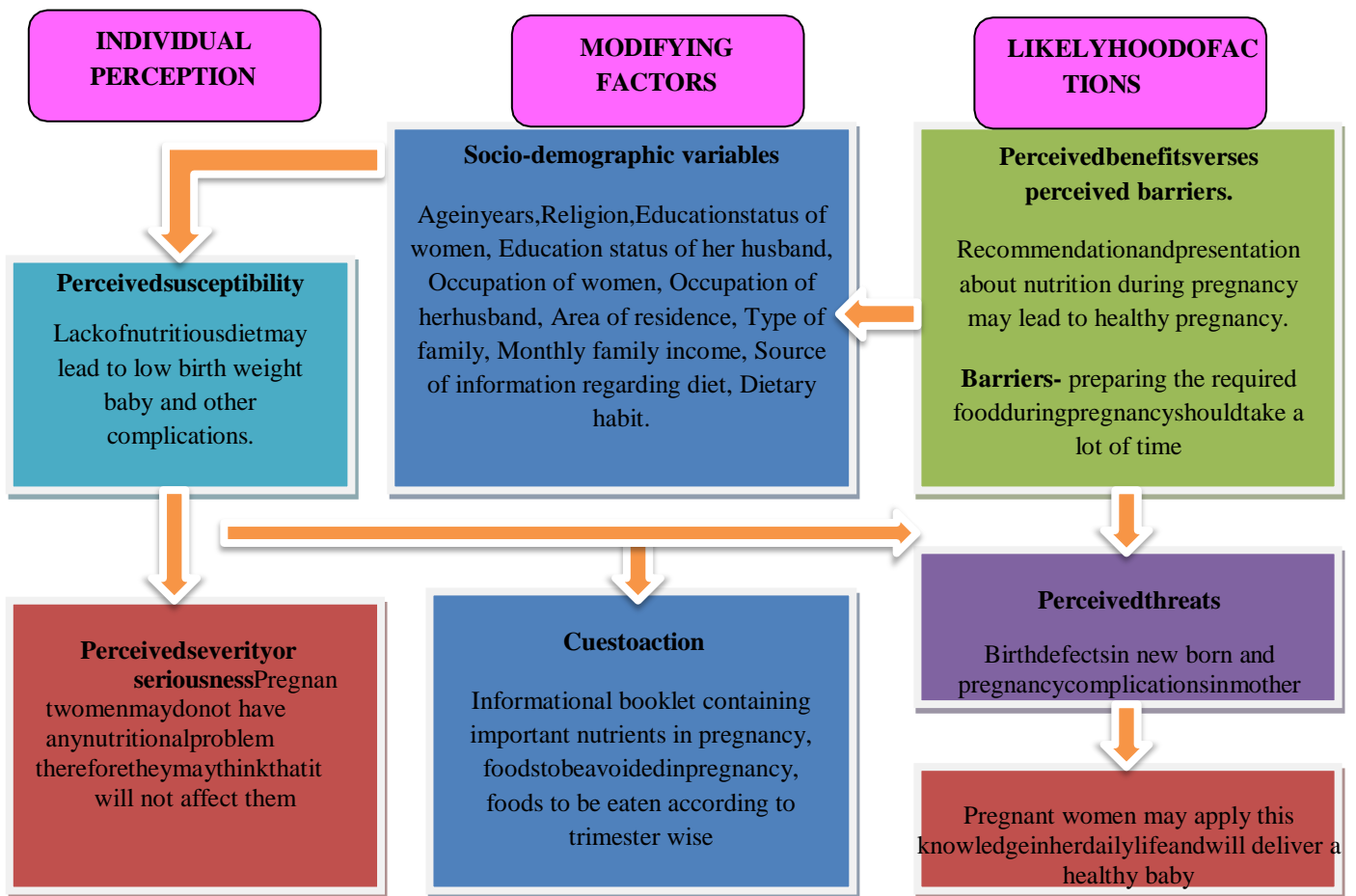


Fig. 1: Framework

6. REVIEW OF LITERATURE

This study looked at 350 women in Tamil Nadu, India, who were getting ready to give birth. The poll was made to find out what people knew, how they felt, and what they did about diet, pregnant problems, and danger signs. About 98% of women were very clear that nutrition is important during pregnancy, and 53% said that the amount of food should be raised. One of the main places where people learned about eating was from family (81%). Sixteen percent of people who had this sign had stomach pain, and twenty two percent had vaginal bleeding. About 77% of women thought they should have at least 6–10 visits before they gave birth. The study's conclusion was that health workers should pay more attention to nutritional values and talk to women before they get pregnant about the importance of good nutrition, the parts and sources of a healthy diet, and the effects of being too or too little fed. 4

A detailed study asked 96 expecting women to find out about nutrition. Most of them (34.4%) got their information from family, coworkers, and friends. Four fifths of pregnant women (45.8%) still have the wrong idea about how often to eat green veggies, and the main reason they don't eat them (61.4%) is because they are too cold. People ate processed foods because they were easy to find, and 90% of pregnant women said that the media made them eat processed foods. Two-thirds of expecting women gave the right answer because they were taking iron pills. The study discovered that there is no link between how well women can read and write and how much they know about nutrition. About six out of ten women (59.3%) who were asked had some knowledge of nutrition, but only one woman who was four months pregnant had a lot of knowledge. Sixteen percent of pregnant women didn't know much.5

7. METHODOLOGY

7.1 Sample size

400 primigravida women of 1st trimester.

7.2 Methods of data collection

This self-structured interview schedule was used to collect the data from the subjects.

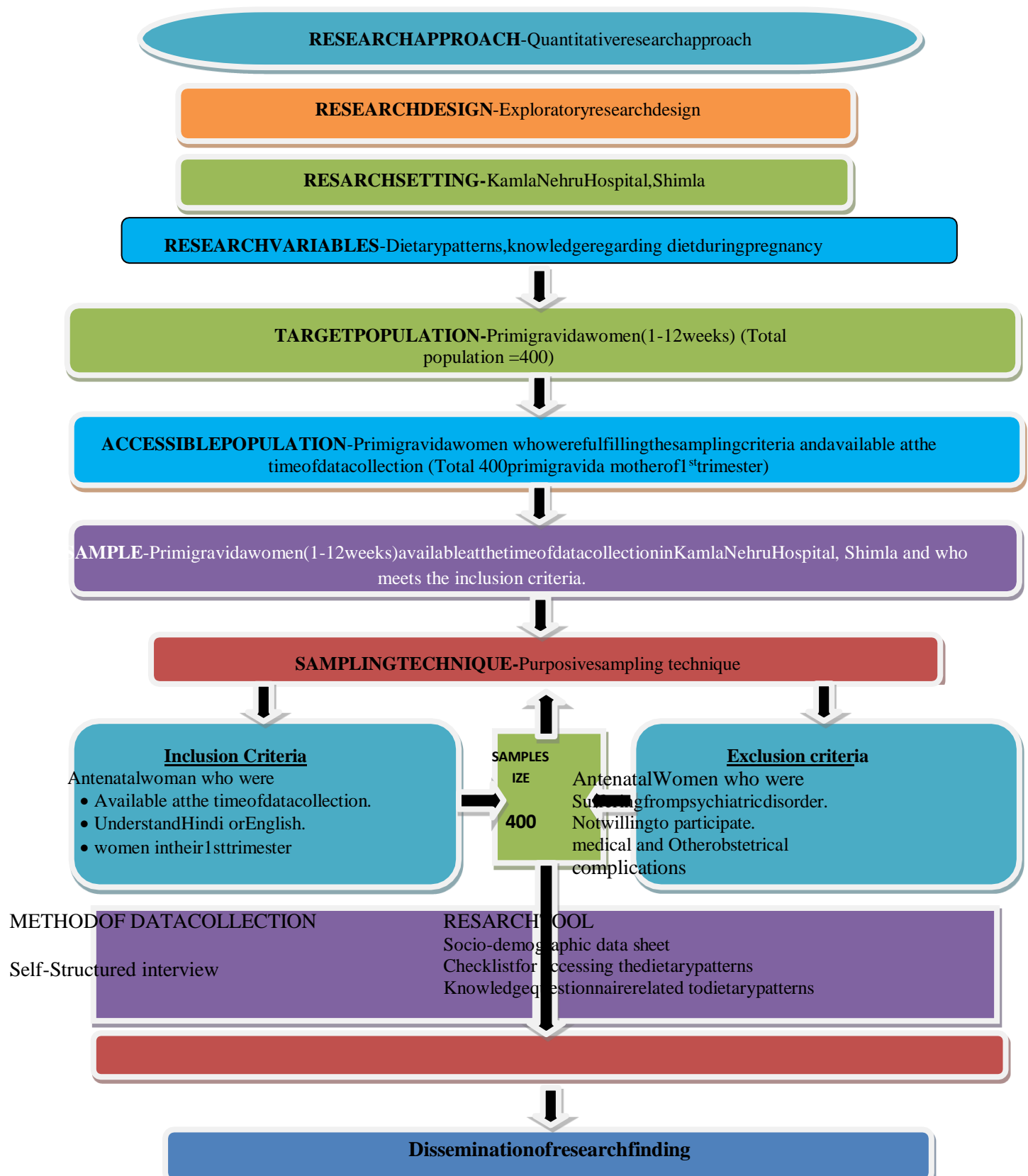


Fig. 2:Methodology

7.3 Toolfordatacollection

Self –Administeredquestionnaireconsistsof:

SectionA-itconsistsofSocio-demographic variables

SectionB-Itincludesachecklist forassessing thedietarypatterns

SectionC-The structuredknowledge questionnaire

8. CONTENTRELIABILITY

ThereliabilityofthetoolwascalculatedbyusingCronbach'salpha,andthereliabilityofthetoolis0.92hencethetoolwas reliable for the study.

9. CONTENTVALIDITY

The validity was validated by an expert’s opinion. The tool was given to 12 experts in the field of Obstetrics and Gynaecological Nursing, dietician, and Medicine department, after the valuable suggestions the tool was found to be complete in terms of clarityof language.

10. PILOTSTUDY

Studysetting:KamlaNehruHospital,Shimla

Study sample: Primigravida women of 1st trimester (1-12 weeks) were attending O.P.D in Kamla Nehru Hospital, Shimla at the time of data collection and who meets the inclusion criteria.

Sample size:38

Samplingtechnique:Purposivesamplingtechnique

After obtaining formal permission from the authorities the pilot study was conducted on the 2nd week of February on 38 samples by using Purposive sampling Technique. The Researcher gave self-introduction, explained the purpose of the study and written informed consent was obtained from the samples. The data was collected from the samples by using self- structured checklist and knowledge questionnaire.

11. ETHICALCONSIDERATIONS

- (a) Theproposal waspresented infrontoftheInstitutionalresearchcommitteeand ethicalclearancewasobtained.
- (b) Writtenpermission wastakenfromthePrincipalofAkal Collegeofnursing andtheprincipal ofIGMC,Shimla.
- (c) Theresearcherexplainedtheresearchtothe participants.
- (d) Writteninformedconsent wasobtainedfrom eachparticipant.
- (e) Participantswere informed thatthey can withdrawfromthestudyatanypoint.
- (f) Theanonymityandconfidentialitywere protectedthroughoutthestudy.
- (g) Professionalnornswere maintained.

12. APLANFORDATAANALYSIS (DESCRIPTIVEANDINFERENTIAL)

The dataanalysis wasdoneaccordingtothe objectivesofthe study. Both descriptive andinferentialstatisticswere used.

12.1 DescriptiveAnalysis

- Frequencyand percentage isusedtoanalyzed thesocio-demographic profileofthe subjects
- MeanandStandardDeviation is usedtoanalyzed thedietarypatternsofantenatalwomen.

12.2 InferentialAnalysis

A chi-square test was used to find the association between the knowledge regarding dietary patterns with the selected socio-demographic variables.

13. ANALYSISOFtheMAINSTUDY

Data analysisand interpretation

Inthe currentstudydataanalysisisdone inthefollowing sections:

13.1 SECTION-A

Frequencyand PercentagedistributionofAntenatalwomen onthebasisofthesocio-demographic profile.

Table1:FrequencyandPercentage distribution ofAntenatalwomenonthebasisofthesocio-demographic profile,N=400

Variables	Frequency(f)	Percentage (%)
Ageinyears		
19-24	75	18.8%
25-30	85	21.3%
31-35	145	36.3%

36-40	95	23.8%
Religion		
Hindu	392	98.0%
Muslim	5	1.3%
Sikh	2	0.5%
Christian	1	0.3%
Educationalstatusofwomen		
NoFormalEducation	63	15.8%
Primary	112	28.0%
Secondary	122	30.5%
Higher Education	80	20.0%
GraduateandPostGraduate	23	5.8%
Educational statusof husband		
NoFormalEducation	39	9.8%
Primary	99	24.8%

Secondary	128	32.0%
Higher Education	87	21.8%
GraduateandPostGraduate	47	11.8%

Variables	Frequency(f)	Percentage (%)
Occupationofwomen		
Government employee	39	9.8%
Privateemployee	119	29.8%
Housewife	210	52.5%
Self-employed	32	8.0%
Occupationofhusband		
Government employee	68	17.0%
Privateemployee	127	31.8%
Farmer	132	33.0%
Self-employed	73	18.3%
Areaofresidence		
Urban	157	39.3%
Rural	207	51.8%
SemiUrban	36	9.0%
Typeoffamily		
Nuclear	190	47.5%
Joint	210	52.5%
Extended	0	0
Monthlyfamilyincome(inrupees)		
Below5000	99	24.8%
5,000-10,000	174	43.5%
10,001-15,000	96	24.0%
15,001-20,000	21	5.3%
Morethan20,001	10	2.5%
Sourcesofinformationregarding diet		
TV, Radio	60	15.0%
Magazines, Newspapers	44	11.0%
Familymembers	92	23.0%
Friends, Relative	75	18.8%

Variables	Frequency(f)	Percentage (%)
Healthpersonnel	129	32.3%
Dietary habits		
Vegetarian	177	44.3%
Non-Vegetarian	185	46.3%
Eggetarian	38	9.5%

Findings related to dietary patterns

Table 2: findings of dietary patterns, N=400

S.NO	ITEMS	Yes%(f)
1.	Do you take a minimum of 3 meals a day?	100
2.	Do you take tea or coffee before breakfast?	57
3.	Do you take biscuits, bread or Rusk before breakfast?	68
4.	Do you add protein powder to your diet?	85
5.	Do you consume calcium-rich foods (milk, ghee, butter, yogurt, cheese) daily?	89
6.	Do you consume iron-rich foods like legumes, green leafy vegetables, citrus fruits, etc.?	85
7.	Do you consume whole grain carbohydrates like brown bread, oats, brown rice, etc.?	86
8.	Do you consume protein-rich foods like (meat, chicken, cheese, legumes, eggs, fish, milk, almonds) in your diet?	81
9.	Do you drink 8-10 glasses of water in a day?	96
10.	Do you consume iron-folic acid supplements daily?	58
11.	Do you consume calcium supplements daily?	81
12.	Do you get regular exposure of sun for at least for 10-15 minutes daily?	68
13.	Do you consume packed junk foods like momos, chowmin, Maggie, burger, French fries, etc?	57
14.	Do you consume tea or coffee during the daytime?	58
15.	Do you consume hard drinks like Pepsi, Fanta, Coca-Cola, Minda, etc?	58
16.	Do you consume sweetened foods like pastries, ice cream, candies, sweets, etc? Daily	68

17.	Do you take something between meals like (snacks like chips, chocolate, Namkeen, biscuits, pakoda, etc)?	65
18.	Do you take any special diet in your pregnancy?	57
19.	Do you eat more in your pregnancy than on a normal basis?	76
20.	Do you consume dry fruits like almonds, cashews, raisins, etc daily?	63
21.	Do you consume fresh fruits or fresh fruit juices daily?	51
22.	Do you consume with rice in a day?	57
23.	Do you add salad to your diet?	63
24.	Do you consume 2 meals or more with chapatti in a day?	85
25.	Do you consume 2 meals or more with paratha in a day?	36
26.	Do you consume 2 meals or more with bread, Rusk or biscuits in a day?	56
27.	Do you consume 2 meals or more with semi-solid foods like porridge, khichari in a day?	73
28.	Do you consume any substance which is not food (charcoal, chalk, uncooked rice, mud, etc)?	44

N=400

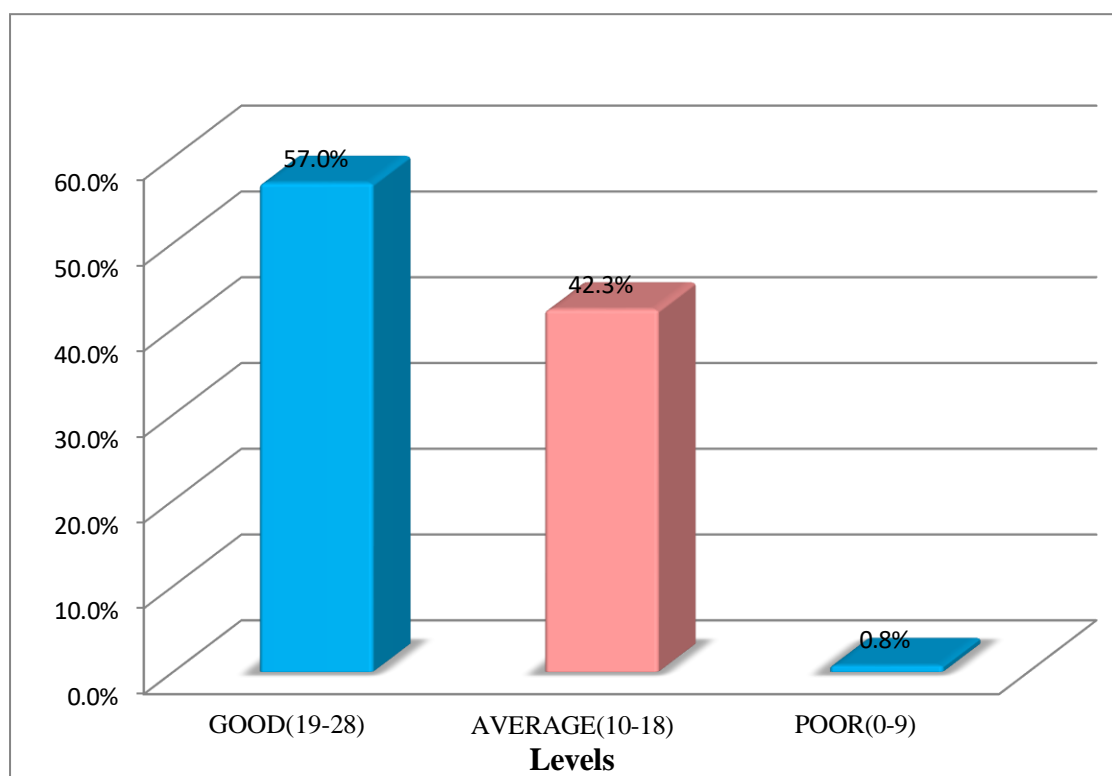


Fig.3:Level of dietary patterns among primigravida women during pregnancy.

Table3:Criteria measure of checklist score

CategoryScore	Frequency	Percentage
Good(19-28)	228	57.0%
Average(10-18)	169	42.3%
Poor(0-9)	3	0.7%
MaximumScore=28Minimum Score=0		

The level of the subject of dietary patterns was classified as a good, average and poor level of dietary patterns. Out of 400 study subjects (57%) of the study, subjects have good dietary patterns, (42.3%) has average dietary patterns and the remaining (0.7%) has a poor dietary pattern.

13.3 Section–C

Table4:Level of knowledge regarding dietary patterns during pregnancy among antenatal women, N=400

Criteria measure of knowledge score		
CategoryScore	Frequency	Percentage
Adequate(19-28)	47	11.8%
Moderate(10-18)	245	61.3%
Inadequate(0-9)	108	27.0%
MaximumScore=28		

The levels of knowledge scores were classified as Adequate (19-28), moderate (10-18) and inadequate (0-9) level of knowledge scores. The maximum of (61.3%) antenatal women had Moderate knowledge, (11.7%) had adequate knowledge and (27%) had inadequate knowledge regarding diet during the Antenatal period.

N=400

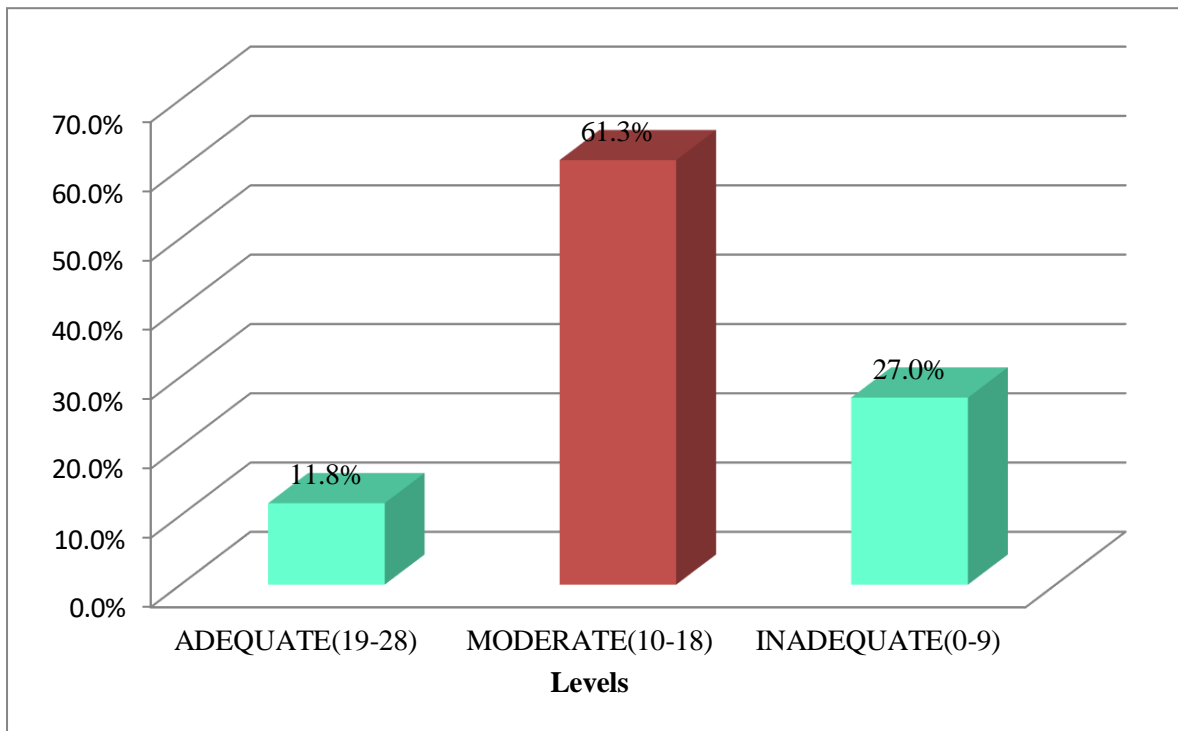


Fig.4:LevelofKnowledge amongAntenatalWomenregardingdietduring pregnancy

13.4 Section-D

AssociationbetweentheKnowledgeScoresof antenatalwomenwith theirsocio Demographic Variables.

Table5:Association betweentheKnowledgeScoresofantenatal womenwiththeirsocio DemographicVariables,N=400

S.NO.	Demographicvariables	Frequency			Association with knowledgescore		
		Adequate	Moderate	Inadequate	Chitest	Df	Pvalue
1.	Ageinyears						
	19-24	8	45	22	3.62	6	0.72
	25-30	11	49	25			
	31-35	13	94	38			
	36-40	15	57	23			
2.	Religion						
	Hindu	45	242	105	9.94	6	0.12
	Muslim	2	2	1			
	Sikh	0	0	2			
	Christian	0	1	0			
3.	Educationalstatusofwomen						
	NoFormalEducation	11	31	21	13.87	8	0.08
	Primary	13	61	38			
	Secondary	11	88	23			
	Higher Education	9	52	19			
	Graduate andpostgraduate	3	13	7			
4.	Educational statusof husband						
	NoFormalEducation	5	26	8	5.06	8	0.75
	Primary	15	59	25			
	Secondary	13	79	36			
	Higher Education	8	50	29			
	GraduateandPostGraduate	6	31	10			
5.	Occupationofwomen						
	Governmentemployee	9	21	9	9.32	6	0.15
	Privateemployee	9	2	38			
	Housewife	27	30	53			
	Self-employed	2	2	8			
6.	Occupationofhusband						

	Government employee	4	8	16	.99	6	0.32
	Private employee	3	5	39			
	Farmer	18	2	32			
	Self-employed	12	0	21			

	Area of residence						
	Urban	20	3	44	.87	4	0.75
	Rural	21	30	56			
	Semi-Urban	6	22	8			
8.	Type of family						
	Nuclear	25	18	47	1.34	2	0.51
	Joint	22	27	61			
	Extended	-	-	-			
9.	Monthly family income (in rupees)						
	Below 5000	12	62	25	5.025	8	0.755
	5,000-10,000	17	0	47			
	10,001-15,000	14	3	29			
	15,001-20,000	3	5	3			
	More than 20,001	1	5	4			
10.	Sources of information regarding diet						
	TV, Radio	9	42	9	16.95	8	0.03
	Magazines, Newspapers	6	24	14			
	Family members	12	65	15			
	Friends, Relative	9	40	26			
	Health personnel	11	74	44			
11.	Dietary habits						
	Vegetarian	16	110	51	3.32	4	0.50
	None Vegetarian	24	113	48			
	Eggetarian	7	22	9			
*significance at $p < 0.05$							

Table No 3 Depicts that the knowledge scores of dietary patterns among study subjects with their selected socio-demographic variables were calculated by using chi-square. The result revealed that antenatal women's Sources of information regarding diet (0.031*) was found significant with other socio-demographic variables. No other significant association was found with other socio-demographic variables.

14. MAJOR FINDINGS OF THE STUDY

15. • The study's main conclusions were as follows: of the 400 participants, 57% had good dietary patterns, 42.3 % had average dietary patterns, and 0.7% had poor dietary patterns based on their responses to the study's 28 closed-ended questions regarding dietary patterns during pregnancy.

• Of the 400 participants, 61.3 percent of expectant women had moderate awareness, 11.7 percent had good knowledge, and 27% had poor understanding about food during the prenatal period.

• There is no significant correlation between the level of scores and demographic variables like age, religion, type of family, women's education status, occupation, family income per month (in rupees), and area of residence, with the exception of one variable source of diet-related information. Compared to the table, the computed chi-square values were lower.

17. [1] Ghosh-Jerath et al. conducted a research in which they examined the nutritional status, dietary habits, and prenatal care utilization of pregnant and postpartum women living in urban slums in Delhi, India. The study was cross-sectional and exploratory. Reproductive Health had 12:20 in 2015.

[2][2] Potter, P. Perry, AG. Foundations of Nursing, Stylus, Mosby, 2009, pp. 1282–1291, Third Edition Version 3 (updated) ISBN10:0729542467

[3]

[4] A nutrition reference book. Sri Lanka is home to UNICEF, the Ministry of Health, the Ministry of Women's Affairs, and the Ministry of Policy Planning and Implementation.

[5] Fifth: Fowlers, Eileen R. The American Journal of Mother and Child Nursing is this publication. Assessment of food consumption and nutritional data, 2002, 5, 27: 171–177.

[6][6] Anderson CT Journal Search 2003.

16. REFERENCES