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APPENDICES

APPENDIX I

PREVALENCE OF MICRONUTRIENT DEFICIENCIES AMONG SELF HELP GROUP WOMEN AND THE IMPACT OF INTERVENTIONS

A. SOCIO-ECONOMIC BACKGROUND

1. Name of the Respondent :
2. Address :
3. Age (in years) :
 - a. less than 20
 - b. 21-30
 - c. 31-40
 - d. 41-50
 - e. Above 50
4. Education :
 - a. Illiterate
 - b. Read and Write
 - c. Primary level
 - d. High School
 - e. Higher Secondary
 - f. College
 - g. Diploma
 - h. Professional
5. Marital Status :
 - a. Married
 - b. Unmarried
 - c. Divorced
 - d. Widow
6. Occupation :
7. Type of Family : Joint/Nuclear
8. Religion : Hindu/Christian/Muslim
9. Community : Forward/Backward/Scheduled Caste/Scheduled tribe/others
10. Type of diet : Vegetarian/Non-vegetarian/Ova vegetarian
11. Total Monthly income :
 - a. up to 3000
 - b. Rs.3301 – 7300
 - c. Rs.7301 - 14500
 - d. Rs.14500 and above

B. DETAILS REGARDING THE PARTICIPATING SELF HELP GROUP

15. Length of membership : 2 years/3 years/4 years/5 years/above 5 years
16. Reasons for Joining SHG
- | | |
|------------------|---------------------------|
| a. To avail loan | b. To get SHG Employment |
| c. To Save Money | d. To Fulfill basic needs |
| e. Other reasons | |
17. How many members in your group?
18. How much amount paid by you as subscription every month?
19. Do you get loan from SHG
- Yes No
20. Amount of loan availed by you through SHGs
- | | |
|--------------------------|--------------------------|
| a. less than Rs. 5000/- | b. Rs. 5000 – 10,000 |
| c. Rs. 10,000 – 15,000/- | d. Rs. 15,000 – 20,000/- |
| e. Above Rs. 20,000/- | |
21. Loan Amount spent for the purpose of
- | | | |
|---------------------|-----------------------|-------------------------|
| a. Food | b. Clothing | c. Children's Education |
| d. Medical expenses | e. Repaying old debts | |
| f. Rent payment | g. Family functions | |
| h. Asset Creation | i. Meet Calamities | |
| j. Any others | | |

C. FOOD HABITS AND DIETARY PRACTICES

22. Type of Diet : Vegetarian/Non vegetarian/Ova vegetarian
23. Number of meals consumed per day:
24. Is menu planning done in advance?
- Yes/No
- If yes give reasons

25. On what basis do you select the foods?
 a. Nutrients b. Availability of food c. Economy
 d. All

26. Do you skip meals

Yes/No

If yes specify whether it is ? Why? Give reasons

- a. Breakfast b. Lunch c. Dinner

27. Are you possessing any of the following?

- a. Kitchen garden b. Poultry c. Dairy

If yes

S. No	Production/month Number/volume	Use of produce		
		Family use	Gift	Sale

28. Foods given for special groups:

Groups	Foods added	Reasons	Foods avoided	Reasons
Infants				
Weaning infants				
Pre-schoolers				
Adolescents				
Pregnant mothers				
Lactating mothers				
Old age				

29. In feeding whom do you consider the most important person in the family?

Order of preference	individual	Reasons

30. Do you buy any commercial food

Yes/No

If yes - specify

31. How often do you take the following food items

Food Item	Monthly	Weekly	Daily	Occassionally
tea/coffee				
milk				
health drinks				
Fruits and Vegetables				
Green Leafy Vegetables				
Non vegetarian foods				

32. What type of salt do you use for cooking?

a. Iodized salt

b. Non Iodized salt

33. How often do you eat outside?

a. Daily

b. Weekly once

c. Weekly twice

d. Once in a fortnight

e. Once in a month

f. Not at all

34. What type of food you commonly consume outside?

35. How frequently the following Micronutrient rich foods are consumed?

Food items	Daily	Weekly	Fortnightly	Monthly
Vitamin A Rich foods Mango Papaya Green Leafy Vegetables Pumpkin Egg Carrot Liver Sweet potatoes Apricot Yellow and orange Melons				
Vitamin B rich foods Brown rice Fish Nuts Peas Guava Banana GLV Soya bean				
Vitamin C rich foods Orange Guava Amla Lime				
Vitamin D rich foods Mushroom Egg				
Vitamin E rich foods Mango Guava Peach Papaya Pomegranate Potato Nuts Egg Rice bran Whole cereals				

<p><u>Foods rich in</u> <u>Macrominerals</u> Calcium Milk and products GLV Egg Iron Rice flakes Ragi Leafy vegetables Sundakai dry Drumstick Bittergourd Roots and tubers Jaggery Dates Syrup Magnesium Rice, wheat Nuts Soy bean Phosphorus Rice bran Pumpkin Cheese Potassium Dates Banana Pomegranates Apple Kidney beans Tomato Sodium Fish Cheese Pickled foods <u>Foods rich in Trace</u> <u>minerals</u> Liver Poultry Fish Whole grains Soy bean Pine apple Brown rice Corn oil</p>				
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APPENDIX II
SCHEDULE FOR CLINICAL EXAMINATION

Name of the women :
 Age :
 Height(cm) :
 Weight(kg) :
 BMI :
 Waist circumference(cm) :
 Hip circumference (cm) :
 WHR :
 Prevalence of Clinical Signs

Clinical signs	Yes/No	Duration of problems (days)
Healthy and free from diseases		
Hair		
Brittle		
Lusterless		
Discoloured		
Ocular manifestations		
Conjunctival xerosis		
Dim vision		
Bitot's spot		
Teeth		
Fluorosis		
Chalky		
Mottled and discoloured enamel		
Gums		
Bleeding gums		
Tongue		
Paleness of tongue		

Skin		
Rashes		
Roughness		
Allergy		
Boils		
Face		
Pale		
Dryness		
Nails		
Brittle nails		
White spots on nails		
Thyroid gland		
Thyroid enlargement		
Subcutaneous tissue		
General oedema		
Joint pain		
Muscle pain		
Internal system		
Gastrointestinal		
Improper digestion		
Ulcer		
Worm infestation		
Nervous system		
Sleep disturbances		
Mental confusion		
Calf tenderness		
Restlessness		

Signature of medical practioner

Signature of interviewer

APPENDIX III

DETAILS REGARDING THE VARIOUS HEALTH PROBLEMS OF SHG WOMEN

1. Have you ever been to a hospital as a patient?
Yes/No
If yes, what kind of problem you had?
2. Do you take any kind of medicine regularly?
Yes/No
If YES, what kind? and for what disease?
3. Do you or your children have any of the following Health problems?

Health problems	Yes	No	Person affected	Relationship to the subject
Eye problem				
Reduced cognitive performance				
Birth defects				
Neurological impairment				
Decreased resistance to				
Infection				
Retarded growth				
Recurrent infection				
Depression				
Heart disease				

4. Did you give immunization to your children at correct time?
Yes/No
If no, Resaons
5. Are your children regular to school?
Yes/No
If No, reasons

6. Do you or your children exercise regularly?

Yes/No

If yes, who is regular in exercise and type of exercise

7. Do you go for master health check up?

a. Yes b. No

If yes, How often

If No, Reasons

8. Is your menstrual cycle regular?

9. Do you avoid any food during menstruation

Yes/No

If yes List the food and reasons

10. Do you undergone any surgery?

Yes/No

If yes mention the name of the surgery

APPENDIX IV

**QUESTIONNAIRE ON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING
MICRONUTRIENT DEFICIENCY**

Knowledge and Attitude assessment

Tick the correct answer

1. What is the purpose of nutrients in our body?
 - a. Growth
 - b. energy giving
 - c. protect from deficiency diseases
 - d. others
2. Which of the following foods needed for giving energy to our body?
 - a. Cereals
 - b. Roots and Tubers
 - c. Both cereals and Roots and tubers
 - d. GLV
3. Body building foods are
 - a. Protein rich foods
 - b. Milk and Milk products
 - c. Non vegetarian foods
 - d. All the above
4. Which of the following foods protect our body from various deficiency diseases?
 - a. Green and yellow vegetables
 - b. Fruits
 - c. Both a) and b)
 - d. Rice
5. What is micronutrients?
 - a. Nutrients that protect our body
 - b. Nutrients that give Energy
 - c. Nutrients helps in Body building
 - d. Both a and c
6. Micronutrient deficiencies results from
 - a. Inadequate dietary intake
 - b. poor absorption of nutrients
 - c. excessive losses
 - d. all the above
7. Which of the following food is rich in micronutrients?
 - a. Green Leafy Vegetables
 - b. Rice
 - c. Milk and milk products
 - d. Jowar
8. What are the effects of micronutrient deficiency
 - a. Vision problem
 - b. Anaemia
 - c. Thyroid enlargement
 - d. All the above

9. Green Leafy vegetables are the major contributors of
 - a. Vitamins
 - b. minerals
 - c. both vitamins and Minerals
 - d. Carbohydrates
10. What is the purpose of including greens in our diet?
 - a. Rich in protein
 - b. Rich in fiber
 - c. Rich in fat
 - d. Rich in water
11. What do you mean by anaemia?
 - a. Low haemoglobin levels in blood
 - b. Low haemoglobin levels and low oxygen in blood
 - c. Both a and b
 - d. Low protein levels in blood
12. Anaemia affects people due to
 - a. Iron deficiency
 - b. protein deficiency
 - c. Carbohydrate deficiency
 - d. Fat deficiency
13. Who are vulnerable to anaemia?
 - a. women
 - b. men
 - c. children
 - d. old age people
14. What are the causes of anaemia?
 - a. low intake of foods rich in iron
 - b. Hookworm infestation
 - c. Malaria
 - d. All the above
15. What are the signs and symptoms of anaemia?
 - a. Pale tongue, eyes and nails
 - b. tiredness
 - c. Loss of appetite
 - d. All the above
16. Deficiency of iron lowers
 - a. Work performance
 - b. weight
 - c. height
 - d. appetite
17. What are the symptoms of iron deficiency?
 - a. General weakness
 - b. pallor of skin
 - c. white patches in the faces
 - d. all the above
18. Which of the following foods may increase the iron content in our body?
 - a. GLV
 - b. Rice
 - c. Nuts
 - d. Pulses
19. What are the main nutritional causes of iron deficiency?
 - a. Too little iron in diet
 - b. poor absorption
 - c. inhibitory factors
 - d. all the above

20. What is the normal haemoglobin levels in a healthy adult?
a. 7-10mg/dl b. 10-11mg/dl
c. 12-14mg/dl d. 9-10mg/dl
21. Araikeerai leaves are good source of which nutrient?
a. iron b. Calcium
c. Iodine d. Protein
22. Jaggery is a good source of
a. Iron b. Calcium
c. Protein d. Fat
23. Which of the following nutrient is rich in ragi?
a. Calcium b. Iron
c. Fibre d. Protein
24. What is the normal requirement of iron to an adult woman?
a. 30mg/dl b. 38mg/dl c. 12mg/dl d. 18mg/dl
25. Night blindness is due to
a. Vitamin A b. Vitamin D c. Iron d. Calcium
26. Vitamin A promotes
a. Good vision b. reproduction
c. healthy skin d. all the above
27. What are the reasons for vitamin A deficiency?
a. not breast fed baby b. Carbohydrate and Protein deficiency
c. Inadequate intake of green and yellow vegetables
d. All the above
28. What are the symptoms of vitamin A deficiency
a. Night blindness b. Conjunctival xerosis
c. Bitot's spot d. All the above
29. Who will affect by vitamin A deficiency?
a. 6 months to 5 year children b. Nutrient deficient children
c. Both a and b d. Old age people
30. What are the foods rich in Vitamin A?
a. GLV b. Fruits c. Other vegetables d. All the above

31. How will you prevent vitamin A deficiency?
 - a. Proper immunization
 - b. Breast feeding
 - c. adequate intake of green and yellow vegetables
 - d. All the above
32. Which nutrient is needed for strong bone and teeth?
 - a. Calcium
 - b. Iron
 - c. Iodine
 - d. Protein
33. Who will affect by calcium deficiency?
 - a. Women
 - b. Men
 - c. Both women and men
 - d. Children
34. What are the signs and symptoms of calcium deficiency?
 - a. Continuous knee/joint pain
 - b. Reduced vision
 - c. Palpitation
 - d. Giddiness
35. What happened when calcium is deficient in our diet?
 - a. Heart attack
 - b. Blood pressure
 - c. Bone weakness
 - d. Diabetes
36. What is the normal requirement of calcium for a healthy adult woman?
 - a. 300mg
 - b. 500mg
 - c. 400mg
 - d. 600mg
37. The nutrient necessary for the prevention of osteoporosis is
 - a. Calcium
 - b. iron
 - c. vitamin K
 - d. carobohydrates
38. Name the foods to be include in excess to prevent osteoporosis and bone loss
 - a. Ragi
 - b. GLV
 - c. Both
 - d. papaya
39. What are the symptoms of osteoporosis in women?
 - a. Joint pain
 - b. swelling
 - c. weak bones
 - d. All the above
40. Which of the following foods are the good source of calcium?
 - a. Wheat
 - b. Rice
 - c. Ragi
 - d. GLV

41. Drumstick leaves are good source of which nutrient?
 - a. Calcium
 - b. Carbohydrate
 - c. Protein
 - d. Fat
42. The vitamin which is needed for retaining calcium in our body is
 - a. Vitamin A
 - b. Vitamin C
 - c. Vitamin D
 - d. Vitamin K
43. How will you prevent osteoporosis/
 - a. balanced diet
 - b. regular exercise
 - c. Food supplements
 - d. All the above
44. What are the effects of iodine deficiency?
 - a. Goitre
 - b. Stunted appearance
 - c. Mental retardation
 - d. All the above
45. How will we get iodine to our body?
 - a. Iodised salt
 - b. Iodized water
 - c. Iodine injection
 - d. All the above
46. Why iodine is important?
 - a. Body and brain development
 - b. Physical impairment
 - c. Both a and b
 - d. Vision problem
47. What is the normal requirement of iodine?
 - a. 150mcg
 - b. 100mcg
 - c. 250mcg
 - d. 180mcg
48. How will you prevent iodine deficiency?
 - a. use of iodized salt
 - b. intake of fish and dry fish
 - c. Both a and b
 - d. intake of pulses
49. Swelling of neck caused by
 - a. an enlarged thyroid gland
 - b. Iodine deficiency
 - c. Both a and b
 - d. Allergy
50. Which of the following nutrient is essential for the production of thyroid hormone
 - a. Iodine
 - b. copper
 - c. calcium
 - d. iron

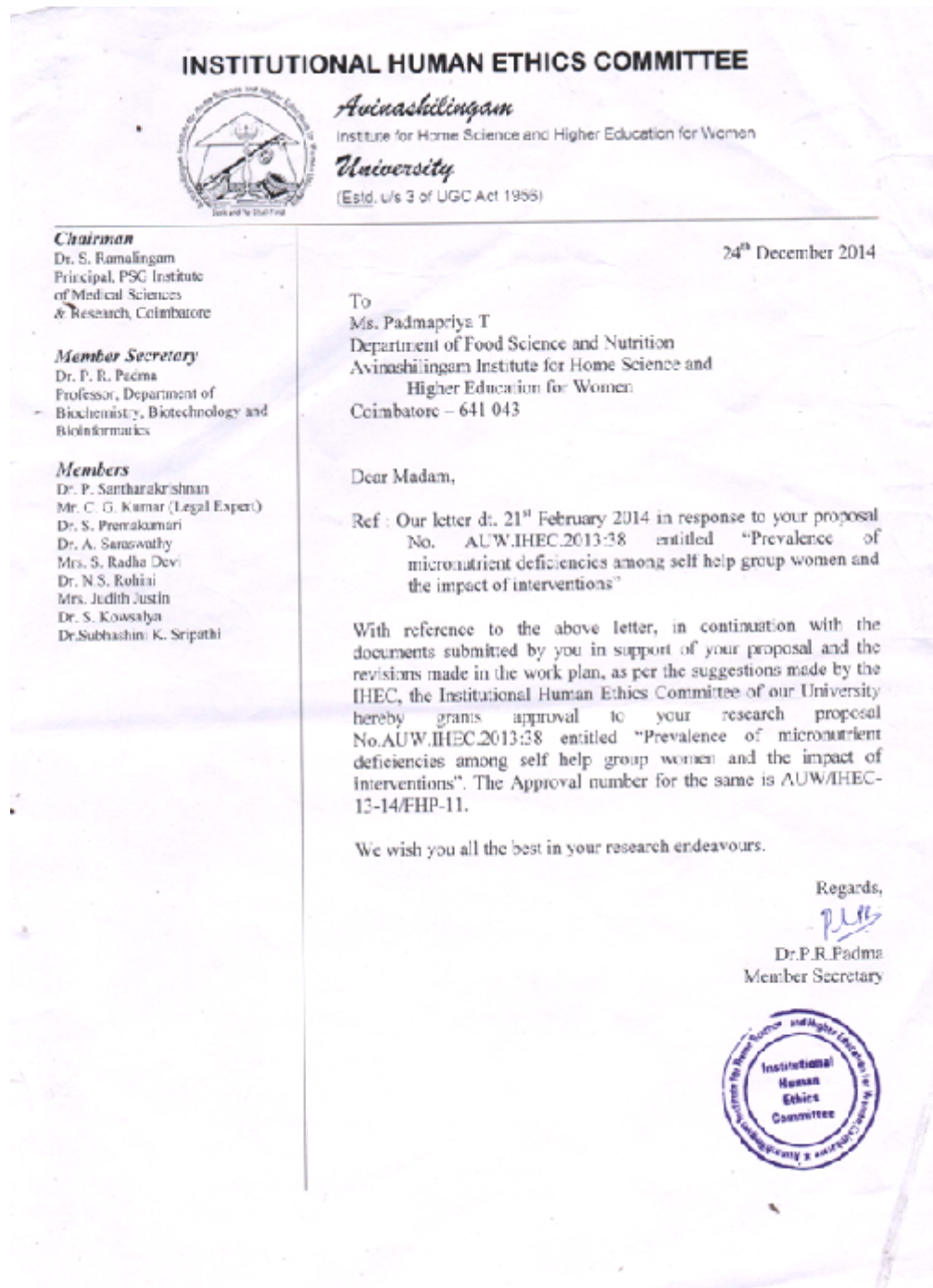
Practices assessment

Tick the correct answer

1. Do you have kitchen garden?
a. Yes b. No
2. Did you include greens in your diet?
a. Yes b. No
3. Do you wash vegetables before cutting?
a. Yes b. No
4. Are you breast fed your baby?
a. Yes b. No
5. Is micronutrient deficiency a serious problem to worry?
a. Yes b. No
6. Vitamins and minerals are essential for regulation of biological processes in our body
a. Yes b. No
7. Micronutrient deficiency leads to poor general growth, mental retardation, learning disabilities and reduced work capacity
a. Yes b. No
8. Green Leafy vegetables are rich source iron, vitamin A, calcium and other micronutrients
a. Yes b. No
9. Diet which contain high amount of GLV will help to prevent anaemia
a. Yes b. No
10. The requirement of iron for women is high than men
a. Yes b. No
11. Iron deficiency will not affect the women
a. Yes b. No
12. The primary cause of iron deficiency are poor intake of iron, menstruation and excessive blood loss
a. Yes b. No

13. Vitamin A is essential for the normal functioning of our eyes
 - a. Yes
 - b. No
14. Green leafy vegetables are the rich source of Vitamin A
 - a. Yes
 - b. No
15. Calcium is important for the strong bone and teeth
 - a. Yes
 - b. No
16. Ragi and GLV provides the adequate calcium needed to our body
 - a. Yes
 - b. No
17. The salt we consume should be iodized
 - a. Yes
 - b. No
18. Goitre is an enlargement of neck
 - a. Yes
 - b. No
19. How much of milk is taken by you/day
20. Do you avoid any foods during menstruation
 - a. Yes
 - b. No
21. Do you wash your hands before food?
 - a. Yes
 - b. No
22. Do you take any deworming tablets
 - a. Yes
 - b. No
23. Do you usually eat fresh fruits or drink juice made from them?
 - a. Yes
 - b. No
24. Do you drink coffee or tea?
 - a. Yes
 - b. No
25. Do you do any physical exercises?
 - a. Yes
 - b. No

APPENDIX V



APPENDIX VI



APPENDIX VII



APPENDIX VIII

PUBLICATIONS

- Padmapriya, T., & Lakshmi, U.K. (2015). Effectiveness of Nutrition and Health Education among Self Help Group Women, International Journal of Current Research, ISSN 0975- 833 X.
- Lakshmi , U.K., Padmapriya, T. (2013). Nutrition and Health Perspectives of Self-Help Group Women”, Women in Society, ISBN 978-93-313-1803-9, APH Publishing Corporation, New Delhi, 271-277.