

CLASS – XII

SUBJECT: HOME SCIENCE

PRACTICAL ASSIGNMENT

Date : 30/06/2020

UNIT II

Exp .2 : Development and preparation of supplementary foods for nutrition programme.

Objectives : Goal of Supplementary feeding programme is curing undernutrition or to prevent undernutrition

Programme design for supplying supplementary foods :

While preparing supplementary feeding programmes focus should be given on providing such kind of food which should contain micronutrients that are obtained from the locally available ingredients in the form of pre-cooked or ready to mix food. It needs to be nutritionally adequate in terms of proteins. Programmes can be delivered in the community through ICDS or it can be delivered directly through homes or to SOS children village. It can also be supplied to preschool or day care centres, or providing to street children. Successful programme implementation lies on the strategies like supervising the child, it should be palatable to the child, acceptable to the family etc. 5 key mechanisms are identified as successful tools for making the programme success :

- 1) The supplement matches the child' needs
- 2) To ensure that the child receive supplement as well as regular usual diet
- 3) The caregiver is capable
- 4) The caregiver is receptive and responsive
- 5) Programme staff are capable of maintaining the supply chain

Supplementary nutrition is designed to bridge the gap between the Recommended Dietary Allowance (FDA) and the Average Daily Intake (ADI).

Supplementary Nutrition Programme is provided to children below 6 yrs of age, pregnant and nursing mothers and adolescent girls of low income group to improve health and nutritional status. The scheme is implemented through the network of Anganwadi workers under the ICDS and urban areas through the NGO's in the entire seven districts headquarter of the state with 300 feeding days in a year.

The **provision of supplementary** nutrition under **ICDS** Scheme prescribed for various categories of beneficiaries is as follows:

- (i) Children in the age group of 6 months to 3 years: **Food supplement** of 500 calories of energy and 12-15 gms of Protein per child per day as Take Home Ration (THR) in the form of Micronutrient Fortified Food and/or energy-dense food marked as 'ICDS Food Supplement'
- (ii) Children in the age group of 3-6 years: Food supplement of 500 calories of energy and 12-15 gms of Protein per child per day. Since a child of this age group is not capable of consuming of meal of 500 calories in one sitting, the guidelines prescribed provision of morning snack in the form of milk/banana/seasonal fruits/Micronutrient Fortified Food etc. and a Hot Cooked Meal.
- (iii) Severely underweight children: Food supplement of 800 calories of energy and 20-25 gms of Protein per child per day in the form of Micronutrient fortified and/or energy dense food as Take Home Ration.
- (iv) Pregnant Women and Lactating Mothers: Food supplement of 600 calories of energy and 18-20 gms of Protein per day in the form of Micronutrient Fortified Food and/or energy dense food as Take Home Ration.

Development of low cost supplementary foods from locally available foods

Methods of cooking employed were those used commonly by low and middle income families. Cereal-pulse combinations along with some sesame seed and groundnuts were used to enhance the protein quality. The ratio used was such that the preparation did not deviate much from the accepted tastes of the population. Fresh green vegetables were also used.

NUTRITIOUS RECIPES OF SUPPLEMENTARY FOOD

INSTANT FOOD MIXES

Instant Infant Food from staple cereals and pulses. Instant food mixes by roasting and powdering. The proportion of cereal and pulse can range from 2:1 to 3:1. Roasted groundnuts or gingerly seeds could also be added in the proportion 4:1 or 5:1. These mixes can be kept for more than one month in air tight containers and used whenever required. It is convenient and of much help to families where cooking is done once or twice a day only. Such instant foods help enable adequate feeding of infants.

1. WHEAT MIX

Ingredients : Wheat flour (Whole) 100 g. Bengal gram (Roasted & de-husked) 30 g. Groundnut (Roasted) 20 g.

Method of preparation : 1. Roast wheat flour.

2. Remove the skin of groundnut.

3. Make powder of roasted Bengal grams and groundnut. Mix with Wheat flour thoroughly. 4. Store in a dry airtight container.

Nutritive Value Per 100 gms : Calories 377 Protein 16 .1 g. Iron 5 .54 mg. Carotene 41 .93 µg

2.WHEAT FOOD MIX

Ingredients : Wheat 100 g. Roasted Bengal gram Dal 30 g. Groundnut 20 g. Sugar 50 g.

Method of preparation : 1. Clean and roast wheat and groundnut separately (Remove the outer skin of groundnut). 2. Grind roasted bengal gram dal and roasted groundnut and wheat separately to a fine powder. 3. Mix all the ingredients thoroughly and add powdered sugar. 4. Fill in dry air tight container and store.

Nutritive Value Per 100 gms : Calories 386 Protein 11 .64 g. Iron 3 .75 mg.
Carotene 51 .5 µg.

3.WHEAT & GREEN GRAM MIX

Ingredients : Whole wheat 25 g. Whole moong (green gram) 10 g.

Method of preparation : 1. Clean whole wheat & whole green gram properly.

2. Roast wheat & green gram separately in hot sand.

3. Grind these individually, and mix together.

4. Fill the prepared instant food mix in a dry and air tight bottle.

Nutritive value per 100 gms : Calories 343 Protein 15 .3 g. Iron 5 .3 mg. Carotene 72 .59 µg

4. WHEAT SOYA MIX

Ingredients :

Whole wheat 80 g.

Whole Soyabean 20 g.

Method of preparation :

1. Clean whole wheat & soyabean separately.

2. Roast wheat and soyabean in hot sand.

3. Grind these separately and mix together.

4. Store the prepared instant food in an air-tight container.

Nutritive value per 100 gms :

Calories 363

Protein 18 .1 g.

Iron 6 .3 mg.

Carotene 136 µg.

5. BROKEN WHEAT (DALIA) MIX

Ingredients :

Broken Wheat 40 g.

Green gram dal 20 g.

Groundnut 10 g.

Sugar 30 g.

Method of preparation :

1. Roast broken wheat, green gram dal and groundnuts separately.
2. Powder these roasted ingredients separately.
3. Add powdered sugar and mix all the dry ingredients.
4. Store in dry and airtight container.

Nutritive value per 100 gms :

Calories 385

Protein 12 .24 g.

Iron 3 .21 mg.

Carotene 35 .6 µg

6. CHIDWA MIX

Ingredients :

Chidwa (Rice Flakes) 100 g.

Bengal gram 30 g.

(Roasted & de-husked)

Ground nut 20 g.

(Roasted)

Method of preparation :

1. Roast Chidwa and grind.
2. Grind roasted Groundnut (without skin) & Bengal gram separately.
3. Mix all thoroughly. Store in dry airtight container.

Nutritive value per 100 gms :

Calories 381

Protein 12 .39 g.

Iron 15 .63 mg.

Carotene 22 .6 µg.

7. RICE SOYA MIX

Ingredients :

Rice 30 g.

Soyabean 20 g.

Sugar 50 g.

Method of preparation :

1. Roast rice and Soyabean separately.
2. Grind rice and Soyabean and mix together.
3. Add powdered sugar and store in an air tight bottle.

Nutritive value per 100 gms :

Calories 390

Protein 11 g.

Iron 2 .29 mg.

Carotene 85 µg.

8. RAGI GREEN GRAM MIX

Ingredients :

Ragi 65 g.

Green Gram Dal 30 g.

Groundnut 15 g.

Method of preparation :

1. Roast ragi, green gram dal and Groundnuts separately.

2. Powder these roasted ingredients separately.

3. Mix thoroughly.

4. Store in dry airtight container.

Nutritive value per 100 gms :

Calories 366

Protein 14 .56 g.

Iron 3 .8 mg.

Carotene 38 .18 µg.

9. PUFFED RICE FOOD MIX

Ingredients :

Puffed rice 100 g.

Roasted chana 30 g.

Roasted groundnuts 20 g.

Sugar 50 g.

Method of preparation :

1. Powder puffed rice after slightly roasting it.

2. Powder roasted chana and groundnut separately.

3. Mix all the ingredients and add powdered sugar.

4. Store in dry bottle.

Nutritive value per 100 gms :

Calories 374

Protein 9 .8 g.

Iron 5 .1 mg.

Carotene 17 µg.

10. MAIZE MIX

Ingredients :

Roasted Maize Powder 50 g.

Roasted Moong Powder 20 g.

Roasted Til Powder (gingelly seed) 10 g.

Sugar (Powdered) 20 g.

Method of preparation :

1. Mix all the ingredients thoroughly.

2. Add powdered sugar and store in dry and air tight container.

Nutritive value per 100 gms :

Calories 377

Protein 12 .28 g.

Iron 2 .87 mg.

Carotene 61 µg.

FRESH PREPARATIONS

1. SUJI HALWA

Ingredients :

Suji (Roasted) 200 g.

Groundnut (Roasted) 40 g.

Jaggery 100 g.

Oil 10 ml.

Water 800 ml.

Method of preparation :

1. Grind groundnuts coarsely after removal of skin.
2. Heat oil in a pan add suji and fry till light brown.
3. Add groundnuts to suji and mix well.
4. Add jaggery and water to the above and cook till it leaves sides.

Nutritive values per 100 gms :

Calories 408

Protein 9 .05 g.

Iron 2 .02 mg.

2. DALIA KHICHERI

Ingredients :

Dalia 100 g.

Masurdal 30 g.

Moongdal 20 g.

Potato 50 g.

Pumpkin 50 g.

Amaranth (tender) 50 g.

Onion 10 g.

Oil 10 ml.

Salt & Haldi to taste

Water sufficient to cook

Method of preparation :

1. Wash and peel the vegetables and cut into pieces (medium size).
2. Wash green leafy vegetables thoroughly and chop.

3. Wash dalia and dal.
4. Heat oil in a pan and add chopped onion and vegetables.
5. Fry for sometime.
6. Add dalia and dal, mix thoroughly.
7. Add salt, haldi powder and warm water and cook till dalia and vegetables become soft.

Nutritive values per 100 gms :

Calories 220

Protein 8 g.

Iron 3 .19 mg.

2. VEGETABLE CHEELA

Ingredients :

Wheat flour 100 g.

Besan 50 g.

Tomatoes 100 g.

Spinach 100 g.

Coriander leaves 50 g.

Onion 100 g.

Oil 50 g.

Green chilies 2 nos.

Spices-salt, Red chilly As per taste

Powder, Turmeric powder, etc.

Method of preparation :

1. Wash and chop all vegetables.
2. Mix wheat flour and besan. Add all chopped vegetables. Add spices and prepare a batter of pouring consistency.
3. Heat tawa and grease it with a little oil. Place a laddleful mixture on tawa (iron plate) and spread evenly.
4. Apply oil from the sides and cook on both sides till golden brown.

Nutritive values per 100 gms :

Calories 186

Protein 4 .41 g.

Iron 5 .32 mg.

Carotene 1896

4. RAVA PAYASAM

Ingredients :

Rava 30 g.

Jaggery 20 g.

Green gram dhal 25 g.

Carrot 20 g.

Milk 150 ml.

Method of preparation :

1. Cook rava & green gram dhal till soft.
2. Cook carrot separately using the milk & mix with

cooked dhal & rava.

3. Add jaggery & boil till it dissolves completely.

4. Remove from fire, cool & serve.

Nutritive value per 100 gms :

Calories 173

Protein 6 .0 g.

Iron 2 .14 mg.

Carotene 200 µg.

5. SUJI KHICHERI (RAVA)

Ingredients :

Wheat Rava (Suji) 100 g.

Green Gram dal 25 g.

Fat/oil 10 g.

Green leafy vegetables (spinach) 25 g.

Salt to taste

Method of preparation :

1. Heat oil add 300 ml. of water and boil.

2. Add washed dal and cook.

3. Add roasted wheat rava and salt, when the dal is half cooked and continue cooking.

4. Wash and chop green leafy vegetables and mix with the above mixture and cook for another few minutes, till the khicheri is ready.

Nutritive value per 100 gms :

Calories 328

Protein 12 .5 g.

Iron 3 .30 mg.

Carotene 344 µ

6. CHIDWA PULAO

Ingredients :

Chidwa (Rice flakes) 200 g.

Ground nut 20 g.

Sprouted Moong 25 g.

Green Leafy Vegetables 50 g.

Onion 20 g.

Oil 10 ml.

Salt to taste

Method of preparation :

1. Wash and soak chidwa, Roast groundnut remove the skin and grind coarsely.

2. Wash and cut green leafy vegetables and onion,

3. Heat oil in a pan, add onion and green leafy vegetables, sprouted moong, and fry for sometime.

4. Add soaked chuda groundnut and salt cook till done.

Nutritive value per 100 gms :

Calories 286

Protein 5 .6 g.
Iron 12 .0 mg.
Carotene 2416 µg

7. RAGI HALWA

Ingredients :

Ragi flour 35 g.
Jaggery 20 g.
Groundnut 25 g.
Ripe Papaya 15 g.
Water 50 ml.

Method of preparation :

1. Roast groundnuts, remove red skin and grind to a fine powder.
2. Roast ragi flour.
3. Prepare Jaggery syrup using 50 ml water.
4. Add roasted groundnut flour & ragi flour.
5. Cook along with mashed ripe papaya.
6. Cool and serve.

Nutritive value per 100 gms :

Calories 384
Protein 10 g.
Iron 2 .32 mg.
Carotene 2470 µg

8. PEAS GHOUGHNI

Ingredients :

Dry Peas 100 g.
Potato 100 g.
Onion 25 g.
Oil 10 g.
Coriander leaves 2 g.
Turmeric powder & salt to taste

Method of preparation :

1. Soak peas overnight in warm water.
2. Boil peas and potatoes.
3. Chop onion and boiled potatoes into pieces.
4. Heat oil in a pan, add chopped onion, and fry for sometime.
5. Add boiled peas, potatoes and chopped coriander leaves.
6. Add salt and turmeric powder, cook for few minutes.

Nutritive value per 100 gms :

Calories 218
Protein 9 .19 g.
Iron 3 .26 mg.
Carotene 85 .53 µg.

9. POHA KHAMAN

Ingredients :

Poha (Rice flakes) 100 g.

Milk 100 ml.

Lemon juice 10 ml.

Sugar 10 g.

Salt & turmeric powder as per taste

Method of preparation :

1. Wash rice flakes with water.
2. Add salt, sugar and turmeric powder.
3. Heat milk in pan. Boil and mix rice flakes mixture.
4. Remove from fire, add lemon juice mix well.
5. Spread it on greased plate or tray.
6. Cut it into equal pieces.

Nutritive value per 100 gms :

Calories 251

Protein 5.4 g.

Iron 9.5 mg.

Carotene 22.4 µg.

10. GREEN GRAM RICE PORRIDGE

Ingredients :

Green gram dal 30 g.

Rice 30 g.

Water 200 ml.

Milk 50 ml.

Jaggery 20 g.

Method of preparation :

1. Wash & cook rice and dal together till soft, mash well and add milk, jaggery and stir thoroughly.
2. Simmer till jaggery dissolves and serve.

Nutritive value per 100 gms :

Calories 273

Protein 9.4 g.

Iron 4.32 mg

Carotene 24 µg

REVIEW: Systematic review showed significant positive effect on weight and height and also in haemoglobin levels. It also showed improvement in psychomotor development and cognitive development.

Note : Write as it is in the file

