



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2021; SP-10(5): 315-323
© 2021 TPI
www.thepharmajournal.com
Received: 02-03-2021
Accepted: 13-04-2021

Krunal C Kamani
Anand Agricultural University,
Anand, Gujarat, India

Assessment of the satisfaction level of take home ration (THR): Health promoting scheme among the Anganwadi children beneficiaries of Gujarat State

Krunal C Kamani

Abstract

Nutrition is fundamental to human health and development. Addressing malnutrition saves lives, reduces inequalities, and builds strong and resilient individuals, families, communities and, eventually, countries. The Take-Home Rations (THR) programme provides fortified rations for home use for children between 6 and 36 months, and pregnant and lactating women. Malnutrition numbers in the country have been steadily improving thanks to the programme, combined with other key interventions. The percentage of stunted children under 5 years of age has fallen from 48% in 2005 to 34.7% in 2019. However, a lot still needs to be achieved to meet the National Nutrition Mission's Vision 2022 targets, which aim to decrease under nutrition by 3 percent each year and cut anemia among children and women by a third, over the next two years. The current THR programme will help to quickly cope with the negative impact on nutrition during COVID-19. It has the right idea, good goals, adequate budget, and it targets the right section of society – with minor tweaking and strengthening it can help India achieve nutrition security for the most vulnerable and help them reach their full potential. Gujarat has been a pioneering state in the field of dairy development. There are various nutrition interventions in Gujarat focused on children, adolescent girls and expectant mothers. Some important schemes like Dudh Sanjeevani Yojana (DSY), Take Home Ration (THR), etc. is jointly implemented by Government of Gujarat and Dairy Cooperatives. It is aimed for improving the health of children in the state Government of Gujarat. The main objective of this scheme is to assess the satisfaction level of health promoting schemes Take Home Ration (THR) among the beneficiaries as well as arrest malnutrition among children. The present study was conducted on 750 Anganwadi beneficiaries/parents receiving Take Home Ration (THR). This research paper highlights the major Health promoting schemes jointly offered by Government of Gujarat to assess the satisfaction level of health promoting schemes Take Home Ration (THR) among the Anganwadi beneficiaries/parents of Gujarat State further this paper also highlights the challenges and some fruitful suggestions are also pointed to improve the schemes to get better result.

Keywords: Anganwadi worker, health, satisfaction level and take home ration contains (THR)

1. Introduction

For more than a century, schools have proved a popular setting for initiatives designed to promote health. This has happened for a numbers of reasons, both theoretical and practical. Policy makers in both health and education recognize the interdependence of health and learning; children need health to benefit fully from Anganwadi/ schooling and learning is important for the maintenance of the health. In countries where education is compulsory, Anganwadi/ schools provide direct access to the whole population of children, independent of their parents. Anganwadi/ schools can reach children at an early age, before they have embarked on health-damaging behaviours. Anganwadi/ schools thus provide an infrastructure for programme delivery, which is at least in part free to health promotion participants. Gujarat has been a pioneering state in the field of dairy development. Milk production and per capita availability of milk in India is 187.7 (Million Tonnes) and 394 (gms/day) in 2018-19. Gujarat has milk production of 14.493 (Million Tonnes) and Per Capita Availability of 626 (gms/day) in 2018-19 (Source NDDDB). There are various nutrition interventions in Gujarat focused on children, adolescent girls and expectant mothers. Some important schemes like Dudh Sanjeevani Yojana (DSY), Take Home Ration (THR), etc. is jointly implemented by Government of Gujarat and Dairy Cooperatives. It is aimed for improving the health of children in the state Government of Gujarat (Tribal Development Department). The main objective of this scheme is to assess the satisfaction level of health promoting schemes Take Home Ration (THR) among the beneficiaries/parents as well as arrest malnutrition among children.

Corresponding Author:
Krunal C Kamani
Anand Agricultural University,
Anand, Gujarat, India

Take Home Ration (THR), worth around Rs 6,000 crore. The Gujarat government has decided to rope in Amul to tackle. To tackle the problem of malnourishment among kids, adolescent girls and expectant mothers in the state. The Gujarat government has an agreement with the dairy cooperative to buy energy dense micro-nutrient fortified food. Balshakti has been specially prepared to improve the nutritional status of children in the age-group of 6 months to 3 years normal and severely underweight children and 3-6 years severely underweight children. Daily 125 grams of Balshakti to normal weight and 185 grams to severely underweight children of age 6 months to 3 years' children is given per beneficiary. 7 packets of 500 gm each of Balshakti meeting the 500 Kcal energy and 12-15 gram of protein is given to normal weight children and 10 packets meeting the 800 K. cal energy and 20-25 grams proteins are given to severely underweight children of age 6 months to 3 years. Whereas severely underweight children of age 3 to 6 years are given 4 such packets as Take Home Ration (THR), every month. In order to evaluate the effect of these schemes research was conducted on 750 Anganwadies beneficiaries/parents from 24 districts of Gujarat receiving Take Home Ration from various Dairy Milk Unions in Gujarat State. The Anganwadi Worker (AWW) is the community based voluntary frontline worker of the Integrated Child Development Services (ICDS) programme. This research paper highlights the major Health promoting schemes jointly offered by Government of Gujarat and major objective is to assess the satisfaction level of health promoting schemes Take Home Ration (THR) among the Anganwadi beneficiaries of Gujarat state further this paper also highlights the challenges and some fruitful suggestions are also pointed to improve the schemes to get better result.

2. Objectives

- To evaluate the operational aspects of the above schemes
- To assess the satisfaction level of health promoting schemes Take Home Ration (THR) among the beneficiaries/parents
- To identify challenges faced by respondents / stakeholders

3. Materials and Methods

A Community based cross sectional study was done between December 2020 to February 2021 in urban and rural areas of Gujarat state. Research was conducted on 750 Anganwadi children beneficiaries/parents who receiving THR from various Dairy Milk Unions in Gujarat State. Multistage sampling technique was followed for selection of district, talukas, villages and Anganwadi beneficiaries/parents. Gujarat state has 33 districts and out of these 24 district was randomly selected for this study. All 750 Anganwadi beneficiaries/parents were divided in 24 District of Gujarat state. So, all 750 Anganwadi beneficiaries/parents were included in the study. Verbal consent of each Anganwadi beneficiaries/parents was taken before the interview, and nature and purpose of study were explained to them. Data collection was carried out by preformed, pre-structured, and pretested online Google form questionnaire by interview method. Data were compiled, tabulated and analysed to get proper answers for objectives of the study. The statistical tools used were frequency and percentage and rank.

4. Data collection and Analysis

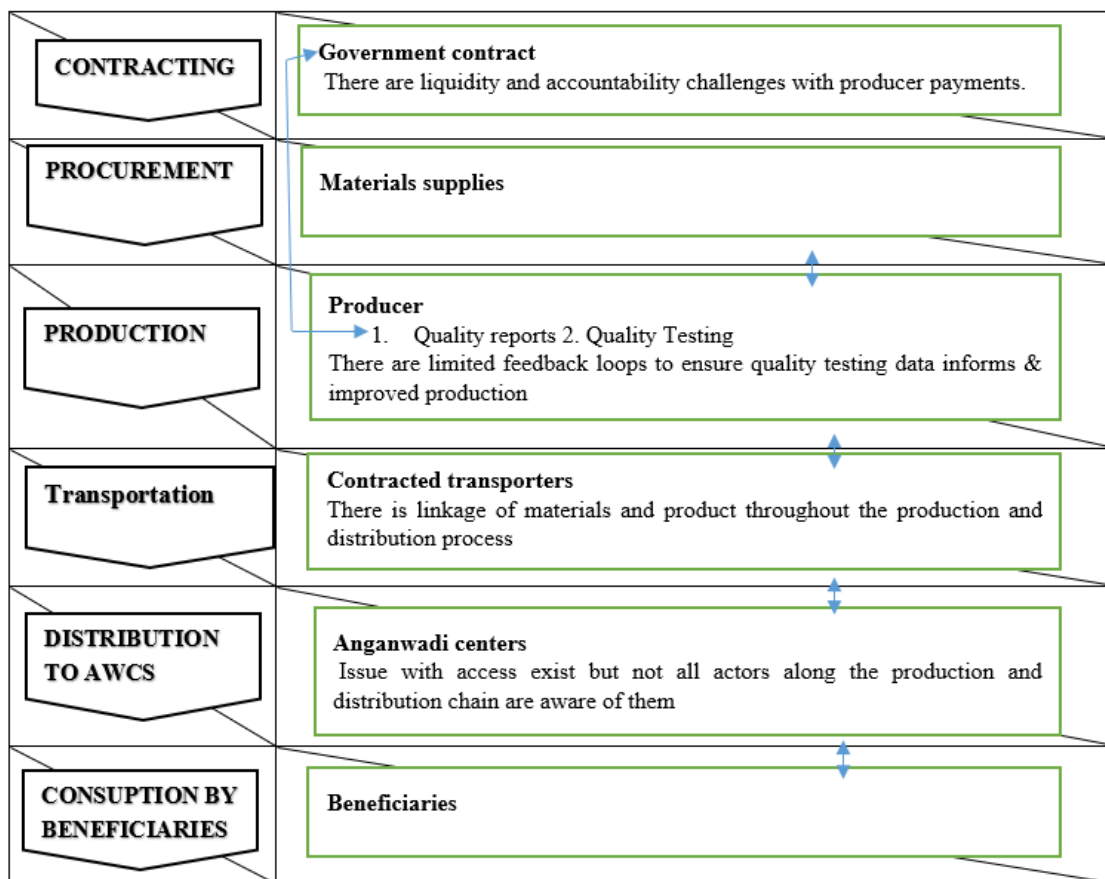
Table 1: Selection of districts and beneficiaries

State	List of District	Dairy Cooperative	Total number of beneficiaries/ parents
Gujarat State	Ahmedabad	1. Kaira District Co-operative Milk Producers' Union Ltd – (AMUL Dairy).	750 beneficiaries/parents
	Anand		
	Chhotaudepur		
	Dahod		
	Kheda		
	Mahisagar		
	Vadodara		
	Prorbandar		
	Arvalli		
	Banaskantha		
	Sabarkantha		
	Mehsana		
	Patan		
	Kutch		
	Gir Somnath		
	Junagadh	3. Surat District Co-operative Milk Producers' Union Ltd.- (SUMUL DAIRY)	
	Jamnagar		
	Bharuch		
	Navasari		
	Amreli		
	Rajkot		
	Surendranagar		
	Surat		
	Tapi		
Total	24		750

Gujarat Cooperative Milk Marketing Federation (GCMMF), the cooperative body that manages the Amul brand name, has entered into a tripartite agreement with the Government of

Gujarat and the Kaira, Banas and Surat district unions for production and supply of THR products. The three unions have individual installed capacities of 200MT/day.

▪ **THR production and distribution chain**



▪ **THR Products**

Balshakti: - Balshakti has been specially prepared to improve the nutritional status of children in the age-group of 6 months to 3 years normal and severely underweight children and 3-6 years severely underweight children. Daily 125 grams of Balshakti to normal weight and 185 grams to severely underweight children of age 6 months to 3 years' children is given per beneficiary. 7 packets of 500 gm each of Balshakti meeting the 500 Kcal energy and 12-15 gram of protein is given to normal weight children and 10 packets meeting the 800 K. cal energy and 20-25 grams proteins are given to severely underweight children of age 6 months to 3 years. Whereas severely underweight children of age 3 to 6 years are given 4 such packets as Take Home Ration (THR), every month.

norms i.e. 600 calories and 18 to 20 grams of protein. Pregnant and Lactating women are provided 4 packets of Matrushakti each of 1 kg.



Matrushakti: - Matrushakti is provided to pregnant and lactating women as Take Home Ration meeting the nutritional



Purnashakti: - Purnashakti is provided to adolescent girls as Take Home Ration meeting the nutritional norms i.e. 600 calories and 18 to 20 grams of protein. Adolescent girls are provided 4 packets of Purnashakti each of 1 kg.



THR will have wheat, besan, soyabean flour, sugar, oil, rice, maize and added nutrients. Beneficiaries can make food items like sukhdhi, shiro, rab, laddu, thepla, muthiya, patra, bhakhari, cake, pudla and cutlet from the packed THR.

Table 2: Profile of the Beneficiaries (n=750)

A. Sr. No.	Category	Age			
		Female		Male	
		Frequency	Per cent	Frequency	Per cent
1	07 month to Up to 2 Years	80	10.67	51	06.80
2	2 to 3 Years	205	27.33	285	38.00
3	4 to 6 Years	61	08.13	68	09.07
B. Gender					
1	Gender	346	46.13	404	53.87
C Distribution of the beneficiaries Community					
1	ST	76	10.13	117	15.20
2	SC	23	03.07	14	01.87
3	SEBC	156	20.80	200	26.67
4	GENERAL	91	12.13	76	10.13
D Class/Standard					
1	Home	80	10.67	51	06.80
2	Play Group/Nursery	205	27.33	285	38.00
3	Preprimary Education	61	08.13	68	09.07
E Educational Qualification of Parents					
1	Illiterate	18	02.40	26	03.47
2	Primary education (1 st to 7 th Std.)	61	08.16	72	09.60
3	Secondary education (8 th to 10 th Std.)	172	22.93	216	28.80
4	Higher secondary education (11 th and 12 th Std.)	67	08.93	71	09.47
5	Graduation and above	28	03.73	19	02.53

A. Occupation of Parents					
1	Agriculture	157	20.93	222	29.60
2	Animal husbandry	15	02.00	16	02.13
3	Agriculture+ Animal husbandry	59	07.87	47	06.27
4	Agriculture+ Service	56	07.47	52	06.93
5	Business	36	04.80	47	06.27
6	Service	20	02.67	12	01.60
7	Other	03	00.40	08	01.07
B Annual Income of Parents					
1	up to ₹ 50000	36	04.80	46	06.13
2	₹ 50001 to ₹ 100000	169	22.53	234	31.20
3	₹ 100001 to ₹ 150000	106	14.13	99	13.20
4	₹ 150001 to ₹ 200000	30	04.00	23	03.07
5	Above ₹ 200000	05	00.67	02	00.27
C Family type					
1	Nuclear	118	15.73	192	25.60
2	Joint	228	30.40	212	28.27
C Nature of Accommodation/shelter					
1	Kachha House	23	03.07	39	05.20
2	Pakka House	323	43.07	365	48.67
D. How long they have been living in village					
1	Less than 5 Years	07	00.93	05	00.67
2	5 to 10 Years	19	02.53	18	02.40
3	10 to 15 Years	58	07.73	27	03.60
4	Above 15 Years	262	34.93	354	47.20
F How long they have been taking benefit of this scheme					
1	3 Months to 6 Years	346	46.13	404	53.87
G How much quantity of THR provided					
1	7 Packets	284	37.87	336	44.80
2	4 Packets	62	08.27	68	09.07
H Purchase price of THR packet					
	Free	346	46.13	404	53.87

Table 3: Distribution of the beneficiaries according their Knowledge about THR contains. (n=750)

Sr. No.	THR contains	Known		Unknown	
		Female	Male	Female	Male
1	Wheat	323 (43.07)	371 (49.47)	23 (03.07)	33 (04.40)
2	Besan	270 (36.00)	348 (46.40)	76 (10.13)	56 (07.47)
3	Soya been flour	274 (36.53)	333 (44.40)	72 (09.60)	71 (09.47)
4	Sugar	294 (39.20)	342 (45.60)	52 (06.93)	62 (08.27)
5	Oil	268 (35.73)	337 (44.93)	78 (10.40)	67 (08.93)
6	Rice	279 (37.20)	333 (44.40)	67 (08.93)	71 (09.47)
7	Maize	250 (33.33)	312 (41.60)	96 (12.80)	92 (12.27)
8	Added Nutrients	275 (36.67)	339 (45.20)	71 (09.47)	65 (08.67)

Table 4: Distribution of the beneficiaries according their satisfied level of THR Food (n=750)

Sr. No.	Category	Female		Male	
		Frequency	Per cent	Frequency	Per cent
A	Taste				
1	Highly Dissatisfied	9	01.20	5	00.67
2	Dissatisfied	40	05.33	13	01.73
3	Neutral	103	13.73	102	13.60
4	Satisfied	84	11.20	118	15.73
5	Highly satisfied	110	14.67	166	22.13
B	Fragrance				
1	Highly Dissatisfied	07	00.93	06	00.80
2	Dissatisfied	43	05.73	27	03.60
3	Neutral	110	14.67	102	13.60
4	Satisfied	69	09.20	80	10.67
5	Highly satisfied	117	15.60	189	25.20
C	Colour & Appearance				
1	Highly Dissatisfied	03	00.40	03	00.40
2	Dissatisfied	36	04.80	21	02.80
3	Neutral	112	14.93	100	13.33
4	Satisfied	86	11.47	102	13.60
5	Highly satisfied	109	14.53	178	23.73
D	Packaging				
1	Highly Dissatisfied	2	0.27	1	0.13
2	Dissatisfied	53	7.07	23	3.07
3	Neutral	95	12.67	105	14.00
4	Satisfied	68	9.07	92	12.27
5	Highly satisfied	28	17.07	183	24.40
E	Quantity				
1	Highly Dissatisfied	10	01.33	01	0.13
2	Dissatisfied	47	06.27	38	5.07
3	Neutral	108	14.40	91	12.13
4	Satisfied	55	07.33	85	11.33
5	Highly satisfied	126	16.80	189	25.20
F	Timing of Distribution				
1	Highly Dissatisfied	07	00.93	05	00.67
2	Dissatisfied	60	08.00	31	04.13
3	Neutral	76	10.13	96	12.80
4	Satisfied	77	10.27	95	12.67
5	Highly satisfied	126	16.80	177	23.60
G	Frequency				
1	Highly Dissatisfied	02	00.27	04	00.53
2	Dissatisfied	66	08.80	40	05.33
3	Neutral	81	10.80	98	13.07
4	Satisfied	79	10.53	87	11.60
5	Highly satisfied	118	15.73	175	23.33

Sr. No.	Category	Female		Male	
		Frequency	Per cent	Frequency	Per cent
A	Quality				
1	Highly Dissatisfied	03	00.40	04	00.53
2	Dissatisfied	52	06.93	31	04.13
3	Neutral	88	11.73	89	11.87
4	Satisfied	87	11.60	97	12.93
5	Highly satisfied	116	15.47	183	24.40
B	Satisfied with place (classroom / playground / office)				
1	Highly Dissatisfied	02	00.27	03	00.40
2	Dissatisfied	53	07.07	38	05.07
3	Neutral	93	12.40	86	11.47
4	Satisfied	71	09.47	91	12.13
5	Highly satisfied	127	16.93	186	24.80

Table 5: Challenges / Problems faced by the beneficiaries/ parents regarding THR (n=750)

Sr. No.	Statements	Frequency	Per cent	Rank
1	Many children did not prefer flavor of food	181	24.13	3
2	Migration is main issue in rural area	192	25.60	2
3	Lack of help from community	120	16.00	5
4	Irregular supply by local distributors	75	10.00	7

5	Lack of sufficient storage facilities	105	14.00	6
6	Inadequate supervision	45	6.00	9
7	Poor management in some rural area	266	35.47	1
8	Monotonous food habit of children	150	20.00	4
9	No problem	72	09.60	8

Table 6: Suggestions regarding Take Home Ration (THR) Yojana (n=750)

Sr. No.	Statements	Frequency	Per cent	Rank
1	Prefer flavor food for children	185	24.67	2
2	Quality of supplementary nutrient to be improve	93	12.40	7
3	To develop basic infrastructure facilities at AWC	135	18.00	5
4	Improved access to THR product in rural areas	160	21.33	3
5	To create Awareness about the scheme	88	11.73	8
6	Regular supervision and training.	103	13.73	6
7	Keeping the THR off the ground and away from walls to avoid water damage	47	06.27	10
8	AWCs need to be made child friendly.	750	100.00	1
9	Communities have also requested for more supplements to be added to the scheme	152	20.27	4
10	No suggestion	76	10.13	9

5. Result and Discussion

The results presented in Table 2 depicted profile of THR beneficiaries

A. Profile of the Beneficiaries

a. Age

Majority (65.33 per cent) of the beneficiaries were found in the 2 to 3 years and was, followed by 17.47 per cent 07 month to up to 2 year age group and rest 17.20 per cent of beneficiaries in 4 to 6 years group. It is inferred that majority of the beneficiaries, belonged to 2 to 3 years age group.

b. Gender

More than half (53.57 per cent) of the beneficiaries were found in male category and was, followed by 46.13 per cent of the beneficiaries were found in female category.

c. Community

Slightly more than two fifth (47.47 per cent) of beneficiaries belonged to SEBC community, while 25.33 and 22.26 per cent of the beneficiaries were from schedule tribes and other general caste, respectively. Only 04.94 per cent of them was from SC category.

d. Class/standard

Majority (65.33 per cent) of the beneficiaries belongs to play/nursery group and was, followed by 17.47 per cent of them belongs to preprimary education group. Only 17.20 per cent of them yet not started any educational activity.

e. Educational Qualification of the Parents

Slightly more than half (51.73 per cent) of the beneficiaries parents had secondary level education, and was, followed by 18.40, 17.76 and 06.26 per cent of them had secondary, primary, and graduation and above level of education respectively. Only 05.87 per cent of beneficiaries' parents had illiterate.

f. Occupation of Parents

Slightly more than half (50.53 per cent) of the beneficiaries parents were engaged in only agriculture, followed by 14.40, 14.14 and 11.07 per cent of the beneficiaries parents engaged in agriculture+ service, agriculture + animal husbandry respectively. Rest of them 04.27, 04.13 and 1.47 engaged in service, animal husbandry and other labor work.

g. Annual income of Parents

Slightly more than half (53.73 per cent) of the beneficiaries parents had annual income ranging from ₹ 50001 to ₹ 100000, followed by 27.33, 10.93 and 07.07 per cent with ₹ 100001 to ₹ 150000, up to ₹ 50001, ₹ 150000 to ₹ 200000 annual income, respectively. Only 00.94 per cent of beneficiary's parents had above ₹ 200000 annual income.

h. Family type

More than half (58.67 per cent) of beneficiaries belonged to nuclear type of family and rest 41.33 per cent of beneficiaries had joint type of family.

i. Nature of Accommodation/shelter

Majority (91.74 per cent) of beneficiaries had pakka house and rest 08.27 per cent of beneficiaries had kachha house.

j. Living in village

Majority (82.13 per cent) of the beneficiaries living above 15 years in same village, followed by 11.33 and 04.93 per cent of the beneficiaries living 10 to 15 years and 5 to 10 year respectively. Only 01.60 per cent of them lining less than 5 years.

k. Taking benefits of the schemes

Majority (100.00 per cent) of the beneficiaries had taking benefits of scheme 7 month to 6 year.

l. How much quantity

Majority (82.67 per cent) of the beneficiaries had received 7 packet of THR followed by them 17.34 per cent of the beneficiaries received 4 packets of THR.

m. Purchase price of THR packet

Majority (100.00 per cent) of the beneficiaries had received THR packets free of cost.

B. Knowledge about THR contains.

The results presented in Table 3 depicted item wise analysis of knowledge level of beneficiaries about THR contains.

Majority of the (92.54 per cent) beneficiaries had knowledge about wheat contain in THR packet among them 07.47 don't know, 84.80 per cent of beneficiaries had knowledge about sugar contain in THR packet among them 15.28 per cent don't know, 82.60 per cent of beneficiaries had knowledge about besan contain in THR packet among them 17.60 per

cent don't know, 81.87 per cent of beneficiaries had knowledge about added nutrients contain in THR packet among them 18.13 per cent don't know, 81.60 per cent of beneficiaries had knowledge about rice contain in THR packet among them 18.40 per cent don't know, 80.93 per cent of beneficiaries had knowledge about soyabean flour contain in THR packet among them 19.07 per cent don't know, 80.66 per cent of beneficiaries had knowledge about oil contain flour in THR packet among them 19.33 per cent don't know and 74.93 per cent of beneficiaries had knowledge about maize flour contain in THR packet among them 30.07 per cent don't know.

C. Satisfaction level

The data presented in Table 4 depicted item wise analysis of satisfaction level of beneficiaries about THR food.

a. Taste

More than one third (36.80 per cent) of the beneficiaries had high level of satisfaction, while 27.33 and 26.93 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 07.06 and 01.87 per cent of them dissatisfied and highly dissatisfied.

b. Fragrance

Slightly more than two fifth (40.80 per cent) of the beneficiaries had high level of satisfaction, while 28.27 and 19.87 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 09.33 and 01.73 per cent of them dissatisfied and highly dissatisfied.

c. Colour/appearance

Slightly less than two fifth (38.26 per cent) of the beneficiaries had high level of satisfaction, while 28.26 and 25.07 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 07.60 and 00.80 per cent of them dissatisfied and highly dissatisfied.

d. Packaging

Slightly more than two fifth (41.47 per cent) of the beneficiaries had high level of satisfaction, while 26.67 and 21.34 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 10.14 and 00.40 per cent of them dissatisfied and highly dissatisfied.

e. Quantity

More than two fifth (42.00 per cent) of the beneficiaries had high level of satisfaction, while 26.53 and 18.66 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 11.34 and 01.46 per cent of them dissatisfied and highly dissatisfied.

f. Timing of distribution

Slightly more than two fifth (40.40 per cent) of the beneficiaries had high level of satisfaction, while 22.94 and 22.93 per cent of the beneficiaries had satisfied and neutral level of satisfaction, respectively. Only 12.13 and 01.60 per cent of them dissatisfied and highly dissatisfied.

g. Frequency

Slightly less than two fifth (39.06 per cent) of the beneficiaries had high level of satisfaction, while 23.87 and 22.13 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 14.13 and 00.80 per

cent of them dissatisfied and highly dissatisfied.

h. Quality

Slightly less than two fifth (39.87 per cent) of the beneficiaries had high level of satisfaction, while 24.53 and 23.60 per cent of the beneficiaries had satisfied and neutral level of satisfaction, respectively. Only 11.06 and 00.93 per cent of them dissatisfied and highly dissatisfied.

i. Satisfied with place (classroom/playground/office)

Slightly more than two fifth (41.73 per cent) of the beneficiaries had high level of satisfaction, while 23.87 and 21.60 per cent of the beneficiaries had neutral and satisfied level of satisfaction, respectively. Only 12.14 and 00.67 per cent of them dissatisfied and highly dissatisfied.

D. Challenge /problems faced by the beneficiaries/ parents regarding THR

There might be many challenges/problems on the path of beneficiaries/parents regarding THR. If such constraints are identifies, corrective measures can be taken up. With this in view, the beneficiaries/parents were requested to express their challenges/problems regarding THR. Frequency, percentage and rank for each challenges/problems were calculated. The data in this regard are presented in Table 5.

As seen from the Table 5 the major important challenges/problems faced by the beneficiaries/parents regarding THR were: Poor management in some rural area (35.47 per cent), migration is main issue in rural area (25.60 per cent), many children did not prefer flavor of food (24.13 per cent), monotonous food habit of children (20.00 per cent), lack of help from community (16.00 per cent), lack of sufficient storage facilities (14.00 per cent), irregular supply by local distributors (10.00 per cent), no problem (09.60 per cent), inadequate supervision (06.00 per cent).

E. Suggestions regarding Take Home Ration (THR) Yojana

An attempt was also made to ascertain suggestions from the beneficiaries/parents to overcome various challenges/problems faced by them in Take Home Ration (THR) Yojana. The beneficiaries/parents requested to offer their valuable suggestions against difficulties faced by them in Take Home Ration (THR) Yojana. The suggestions given by the beneficiaries/parents were collected, summarized and presented in Table 6.

The major suggestions as endorsed by the beneficiaries/parents to overcome their constraints in Take Home Ration (THR) Yojana were: AWCs need to be made child friendly (100.00 per cent), prefer flavor food for children (24.67 per cent), improved access to THR product in rural areas (21.33 per cent), communities have also requested for more supplements to be added to the scheme (20.27 per cent), to develop basic infrastructure facilities at AWC (18.00 per cent), regular supervision and training (13.73 per cent), quality of supplementary nutrient to be improve (12.40 per cent), to create Awareness about the scheme (11.73 per cent), no suggestion (10.13 per cent) and keeping the THR off the ground and away from walls to avoid water damage (06.27 per cent)

6. Conclusion

▪ Profile

It can be concluded that majority (65.33 per cent) of

beneficiaries found 2 to 3 years, 53.57 per cent beneficiaries found in male category, 47.27 per cent of beneficiaries belongs to SEBC community, 65.33 per cent of the beneficiaries belongs to play/nursery group, 51.73 per cent of the beneficiaries parents had secondary level of education, 50.53 percent of the beneficiaries parents were engaged in only agriculture, 53.73 of the beneficiaries parents had annual income ranging from ₹ 50001 to ₹ 100000, 58.67 per cent of the beneficiaries belongs to nuclear type of family, 91.74 per cent of beneficiaries had pakka house, 82.13 per cent of the beneficiaries living above 15 years in a same village, 100 per cent of beneficiaries had taking benefit of the scheme 7 month to 6 year, 82.67 per cent of the beneficiaries had received 7 packets of THR and 100 per cent of the beneficiaries had received THR packed free of the cost.

▪ Knowledge

Majority of the (92.54 per cent) beneficiaries had knowledge about wheat contain in THR packet, 84.80 percent of beneficiaries had knowledge about sugar contain in THR packet, 82.60 percent of beneficiaries had knowledge about besan contain in THR packet, 81.87 percent of beneficiaries had knowledge about added nutrients contain in THR packet, 81.60 per cent of beneficiaries had knowledge about rice contain in THR packet, 80.93 per cent of beneficiaries had knowledge about soyabean flour contain in THR packet, 80.66 per cent of beneficiaries had knowledge about oil contain flour in THR packet and 74.93 per cent of beneficiaries had knowledge about maize flour contain in THR packet.

▪ Satisfaction level

Majority (63.73 per cent) of the beneficiaries had satisfied with taste of THR, 60.67 per cent of the beneficiaries had satisfied with fragrance, 63.33 per cent of the beneficiaries had satisfied with color/appearance, 62.81 per cent of the beneficiaries had satisfied with packaging, 60.66 per cent of the beneficiaries had satisfied with quantity, 63.34 per cent of the beneficiaries had satisfied with timing of distribution, 61.19 per cent of the beneficiaries had satisfied with frequency, 64.40 per cent of the beneficiaries had satisfied with quality and 63.33 per cent of the beneficiaries had satisfied with place.

▪ Challenge/problems

Major important challenges/problems faced by the beneficiaries/parents regarding THR were: Poor management in some rural area (35.47 per cent), migration is main issue in rural area (25.60 per cent) and many children did not prefer flavor of food (24.13 per cent).

▪ Suggestions

The major suggestions as endorsed by the beneficiaries/parents to overcome their constraints in Take Home Ration (THR) Yojana were: AWCs need to be made child friendly (100.00 per cent), prefer flavor food for children (24.67 per cent) and improved access to THR product in rural areas (21.33 per cent).

Application of research

The findings of the study will be greatly helpful to academicians and policy makers in understanding the effectiveness of Take Home Ration Yojana and challenges/problems faced by Anganwadi

beneficiaries/parents of Gujarat state. This research paper highlights the major Health promoting schemes jointly offered by Government of Gujarat on improving health and satisfaction level (THR food) of children in Anganwadi of Gujarat State further this paper also highlights the challenges and some fruitful suggestions are also pointed to improve the schemes to get better result.

Research Category:

Survey and Descriptive Study

Abbreviations:

AWCs: Anganwadi Center

AWW: Anganwadi Workers

DSY: Dudh Sanjeevani Yojana

GCMMF: Gujarat Cooperative Milk Marketing Federation

ICDS: Integrated Child Development Services

ICSSR: Indian Council of Social Science Research

IMPRESS scheme: Impactful Policy Research in Social Science

MHRD: Ministry of Human Resource Development

NDDDB: National Dairy Development Board's

THR: Take Home Ration

7. Acknowledgement / Funding:

The author sincerely acknowledge the support of Indian Council of Social Science Research (ICSSR), Ministry of Human Resource Development (MHRD) Impactful Policy Research in Social Science (IMPRESS scheme) - Government of India, Anand Agricultural University - Anand, SMC College of Dairy Science, Dairy Business Management Department and Dr. Karansinh Parmar (Research Assistant), Mr Siddharth Gor (Filed Investigator) for data collection and analysis and the support of all the respondents in this study.

**Principal Investigator or Research Guide or Chairperson of research: one name

University:

Research project name or number: [If any], PhD Thesis, MSc Thesis, or Project, Research station trials, Frontline Demonstration, Clinical case study, Research station study

Author Contributions

Author statement

All authors read, reviewed, agreed and approved the final manuscript. Note-All authors agreed that- Written informed consent was obtained from all participants prior to publish / enrolment.

Study area / Sample Collection: Gujarat state

Cultivar / Variety / Breed name: NA

Conflict of Interest: None declared: NA

Ethical approval: NA

This article does not contain any studies with human participants or animals performed by any of the authors.

Ethical Committee Approval Number:

Ethical Committee Approval Number: Institutional Animal Ethics Committee (IAEC) -if the project involves field trails/experiments/exchange of specimens, human & animal materials etc.

Author agree to submit ethical clearance certificate from the concerned ethical committee, Institutional Animal Ethics Committee (IAEC) or institutional biosafety committee, if the project involves field trails/experiments/exchange of specimens, human & animal materials etc.

8. References

1. Amul, 45th Annual General Body Meeting on 28th May 2019. Internet: <https://www.amul.com/m/45th-annual-general-body-meeting-on-28th-may-2019> (accessed 21 January 2020).
2. Yagnik B. reported, under the 'Take Home Ration' district dairies in cooperation with the milk marketing federation will provide nutritive foods to more than 42-lakh children of 53029 ananganwadies, pregnant-mothers and foster mothers and young girls in Gujarat 2017
3. Kamani KC. 'Effect of Health promoting schemes jointly offered by Government of Gujarat on improving the attendance and reducing dropout rate of children in Anganwadi of Gujarat State' *International Journal of Educational Science and Research (IJESR)* ISSN (P): 2249-6947; ISSN (E): 2249-8052 2021;11(2):13-24.
4. Kapail Dave, Parera. reported, The Gujarat Government has decided to rope in Amul to tackle the problem of malnourishment among kids, adolescent girls and expectant mothers in the state 2018,
5. Madhvi Sally. Amul turnover grows 13% to Rs. 33,150 crore in 2018-19. Economic Times. Internet: <https://economictimes.indiatimes.com/industry/cons-products/food/amul-turnover-grows-13-to-rs-33150-crore-in-2018-19/articleshow/68674269.cms?from=mdr> (accessed 21 January 2020)
6. Ministry of Health and Family Welfare (MoHFW), Government of India, UNICEF and Population Council. 2019. Comprehensive National Nutrition Survey (CNNS)
7. Talati N. Take home ration in ICDS programmes: opportunities for integration with health system for improved utilisation via mamta card and e-mamta 2016.
8. National Report. New Delhi. Amul, About Us. n.d. Internet: <https://www.amul.com/m/about-us> (accessed 21 January 2020).
9. Baliga S, Walvekar. reported a study on knowledge of anganwadi workers about integrated child development services at three urban health centers 2017.
10. State, GCMMF, dairies jointly to provide nutritive foods to anganwadies children and women. Internet: <https://cmogujarat.gov.in/en/state-gcmmf-dairies-jointly-provide-nutritive-foods-anganwadies-children-women/> (accessed 21 January 2020)
11. Supplementary Nutrition Rules The Gazette of India. Part III—Maintenance of Standard and Quality of Meal, Their Enforcement and Monitoring 2017.
12. <https://doah.gujarat.gov.in/dairy-development.htm>
13. https://gh.bmj.com/content/bmjgh/1/Suppl_1/A7.full.pdf
https://niti.gov.in/writereaddata/files/document_publication/Nutrition_Strategy_Booklet.pdf
14. <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1593581>
15. <https://www.brookings.edu/blog/future-development/2018/10/01/howindia-can-improve-its-take-home-rationsprogram-to-boost-childand-maternal-nutrition/> (accessed 8 April 2020)
16. <https://www.icds-wcd.nic.in>
17. <https://www.ncbi.nlm.nih.gov/pubmed/30940984>
18. <https://www.nddb.coop/information/stats/milkprodindia>