J. Indian Dietetic Association Volume 41, No.2, pp. 34-40, 2018

COMMUNITY ENGAGEMENT STRATEGY: ASSESSING ITS FEASIBILITY IN DELIVERING KEY NUTRITION INTERVENTIONS FOR ADOLESCENT GIRLS OF URBAN SLUM OF VADODARA

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BACKGROUND: The nutritional status of adolescent girls, the 'future mothers' contributes significantly to the nutritional status of the community.Community mobilization and awareness can play an important role in delivering key nutrition interventions to improve nutritional status of adolescents.

OBJECTIVES: To study the Feasibility of Orienting Mahila Arogya Samiti members (MAS) as a part of community engagement strategy for delivering key nutrition interventions for adolescent girls.

METHODS:After obtaining necessary permission,250 unmarried adolescent girls aged 15-19 years and 46 MahilaArogy Samiti members (MAS) were enrolled in the study from one UHC area.3 days training was imparted to MAS members for delivering key nutritioninterventions.250 girls weredistributed among 46 MAS members for counselling purpose. MAS members were supposed to have 2 contact/ week for the girls allocated to them for 3 months duration.

RESULTS:It was revealed that 91%, 87% and 61% of the MAS members counselled the girls (irrespective of total number session/month) for the 3 months respectively. It was observed that 25% of girls were not counselled at all. 38% of the girls had 8-15 frequency of contact point by MAS members.

CONCLUSION: This study is one of the very few studies examining feasibilities of community engagement strategy involving MAS members in urban slum area in delivery keynutrition/health messages to unmarried adolescent girls (15-19 years).**Findings suggest that** it may offer a potential solution if further efforts by the authorities like regular orientation, supportive supervision and recognition of the functionaries with incentives are considered.

Keywords: -Adolescents, community engagement strategy, counselling.

BACKGROUND: Adolescents experience intense physical, psychological, emotional and economic changes as they make the transition from childhood to adulthood. It may be said that adolescents are a nutritionally vulnerable group for a number of specific reasons,including their high requirements for growth, their eating patterns and lifestyles,their risk-takingbehaviours and their susceptibility to environmental influences. (1)

The nutritional status of adolescent girls, the 'future mothers' contributes significantly to the nutritional status of the community. Community mobilization and awareness can play an important role in generating demand for maternal health services, as well as improving access to the services.

Intergenerational cycle of under nutrition

Poor nutrition starts before birth, and generally continues into adolescent and adult life and can span generations. The intergenerational cycle of undernutrition ensures that an undernourished and anaemic mother gives birth to a low birth weight baby, more susceptible to infection and more likely to experience growth failure, who goes on to become an undernourished and anaemic child, experiencing cumulative growth and development deficits, which are largely irreversible. And then the cycle is perpetuated, with undernourished and anaemic adolescent girls and women. (2)

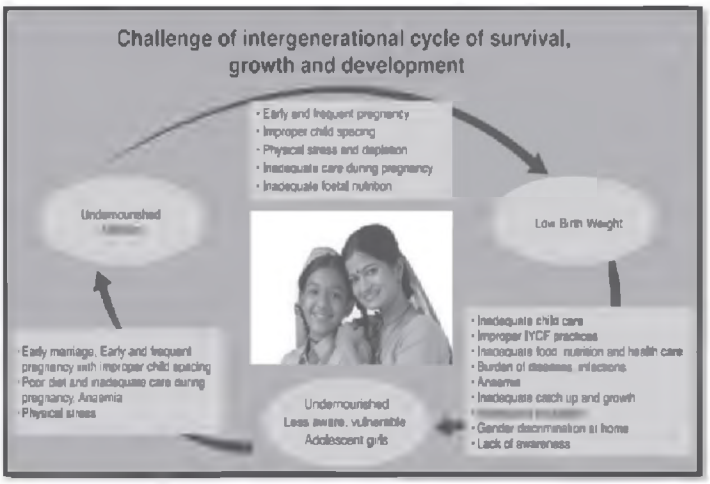
Intergenerational cycle or survival, growth and development also reinforce adolescence as an important valuable group. (Fig. 1)

Community engagement refers to the process by which community benefit organizations and individuals build ongoing, permanent relationships for the purpose of applying a collective vision for the benefit of a community.

Community engagement strategies to improve nutritional status of adolescent

The process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the wellbeing of those people. It is a powerful vehicle for bringing about environmental and behavioural changes that will improve the

Fig.1 Intergenerational cycle of undernutrition



Source: www.wcd.nic.in

Table: 1. Knowledge of ASHA and MAS representative about malnutrition among adolescence girls

PARTICULARS	ASHA		MAS representative	
	PRE (N=6) N, %	POST(N=6) N, %	PRE (N=20) N,%	POST (N=20)N,%
UNDERNUTRITION				
Heard about undernutrition				
Yes	06 (100)	06 (100)	09(45)	20 (100)
No	00 (0.0)	00 (0.0)	11 (55.0)	00 (0.0)
If yes, what undernutrition				
Correct	06 (100)	06 (100)	12 (60.0)	20 (100)
Partially Correct	00 (0.0)	00 (0.0)	03(15.0)	00(0.0)
DNK	00 (0.0)	00 (0.0)	05(25.0)	00(0.0)
Causes of undernutrition				
Correct	06 (100)	06 (100)	11 (55.0)	20 (100)
Partially Correct	00 (0.0)	00 (0.0)	03 (15.0)	00(0.0)
DNK	00 (0.0)	00 (0.0)	06 (30.0)	00(0.0)
Signs and symptoms of undernutrition				
Correct	06 (100)	06 (100)	14(70.0)	20(100)
DNK	00 (0.0)	00 (0.0)	06 (30.0)	00 (0.0)
Preventive measure to improve undernutrition				
correct	06 (100)	06 (100)	09(45.0)	20 (100)
Others	00 (0.0)	00 (0.0)	06 (30.0)	00 (0.0)
DNK	00 (0.0)	00 (0.0)	05(25.0)	00 (0.0)
OVERNUTRITION				
What is overweight				
Correct	06 (100)	06 (100)	16 (80.0)	20 (100)
DNK	00 (0.0)	00 (0.0)	04 (20.0)	00 (0.0)
Causes of overweight				
Correct	06 (100)	06 (100)	16 (80.0)	20 (100)
DNK	00 (0.0)	00 (0.0)	04 (20.0)	00 (0.0)
Preventive measures of overweight				
Correct	06 (100)	06 (100)	16 (80.0)	20 (100)
DNK	00 (0.0)	00 (0.0)	04(20.0)	00 (0.0)

*Values in Parenthesis indicates percentage

health of the community and its members. It often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices (CDC, 1997). Mahila Arogya samiti under NHM can serve as a facilitator for enhancing community participation.

Mahila Arogya Samiti (MAS)

MAS in one of the key interventions under National Health Mission aimed at promoting community participation in health at all levels,

Table: 1.2 No. of ASHA, MAS and MAS representatives to be trained

No. of ASHA	Total MAS	Total MAS members	MAS representative includes as master trainer	Trained members by the MSU team		MAS members to be trained	Total MAS members train by ASHA and MAS representative
				ASHA	MAS representatives		
1.	1	10	2	1	2	7	6
2.	2	20	4	1	1	15	2
3.	2	20	4	1	3	15	10
4.	2	20	3	1	3	15	11
5.	2	20	4	1	2	15	12
6.	1	10	2	1	2	7	5
Total	10	100	19	6	13	74	46

Table:1.3 Total number of Session conducted/ girls by MAS members

Number of sessions	N	%
24 sessions	00	00
16-23 session	6	2.4
8-15 session	95	38.0
<8 session	85	34.0
0/no counselling at all	64	25.6
Total	250	100.0

including planning, implementing and monitoring of health programmes. MAS is expected to take collective action on issues related to Health, Nutrition, Water, Sanitation and social determinants at the slum level. It is envisaged as being central to 'local collective action', which would gradually develop to the process of decentralized health planning.

OBJECTIVES: To study the Feasibility of Orienting Mahila Arogya Samiti members (MAS) as a part of community engagement strategy for delivering key nutrition interventions for adolescent girls.

METHODS: After obtaining necessary permission from Vadodara Mahanagar Seva Sadan. 250 unmarried adolescent girls aged 15-19 years and 46 MahilaArogy Samiti members (MAS)were enrolled in the study from one UHC. To identify the training needs of ASHAs and MAS members their profile and knowledge on nutrition and health aspects including to optimization of weight gain was elicited. Based on the knowledge gaps, training cum monitoring module to orient community workers was developed, counselling cards to sensitize adolescent girls by community workers was also developed.

To build their capacities on various aspects of health and nutrition. 3 days orientation training program for ASHAs and MAS representatives was conducted at Sawad UHC. 19 master trainers were trained by research students and research supervisor. For further training of all the remaining MAS members (27), 2 days training was given by master trainers in their respective areas. In all total46 MAS members trained for counselling purposefor effective delivery of key messages on nutrition. Month

Table:1.4 Impact of counselling by MAS Members on knowledge about undernutrition in adolescent girls

PARTICULARS	Nocounselling at all (N=49)	Total < 8 counselling sessions (N=85)	Total 8-15 counselling Sessions (N=95)	Total 6-23 counselling sessions (N=6)
Heard about undernutrition				
Yes	41 (83.7)	83 (97.6)	95 (100.0)	6 (100.0)
No	8 (16.3)	02 (2.4)	00 (0.0)	00 (0.0)
	't' value 2.830			
If yes, what is undernutrition				
Correct answer	36 (73.5)	77 (90.6)	95 (100.0)	06 (100.0)
Partially correct answer	10 (20.4)	07 (8.2)	00 (0.0)	00 (0.0)
DNK	03 (6.1)	01 (1.2)	00 (0.0)	00 (0.0)
	't' value 1.52			
Causes of undernutrition				
Correct answer	39 (79.6)	79 (92.9)	95 (100.0)	6 (100.0)
Partially correct answer	00 (0.0)	00 (0.0)	00 (0.0)	00 (0.0)
DNK	10 (20.4)	06 (7.1)	00 (0.0)	00 (0.0)
	't' value 2.88			
Signs and symptoms of undernutrition				
Correct answer	37 (75.5)	77 (90.6)	95 (100.0)	6 (100.0)
Partially correct answer	04 (8.2)	06 (7.1)	00 (0.0)	00 (0.0)
DNK	08 (16.3)	02 (2.4)	00 (0.0)	00 (0.0)
	't' value 1.43			
Preventive measure to improve undernutrition				
Home diet	18 (36.7)	22 (25.9)	19 (20.0)	00 (0.0)
Increase food intake	00 (0.0)	08 (9.4)	07 (7.4)	00 (0.0)
Nutritious food	24 (49.0)	47 (55.2)	52 (54.6)	6 (100.0)
Timely immunization	01 (2.0)	04 (4.7)	11 (11.6)	00 (0.0)
Consuming supplementary nutrition food of AWC	00 (0.0)	02 (2.4)	05 (5.3)	00 (0.0)
Any other	00 (0.0)	02 (2.4)	01 (1.1)	00 (0.0)
DNK	06 (12.2)	00 (0.0)	00 (0.0)	00 (0.0)

*Values in Parenthesis indicates percentage p<0.05 significant

wise action plan for MAS members was prepared for delivering key messages to adolescent girls. Each MAS member was allocated 5-6 adolescent girls for counselling from December 2017 to February 2018. Twice in a week counselling session was planned and explain them. Total 8 sessions were planned per month for AGs of the respective MAS member.

To assess the feasibility of community engagement strategy supportive supervision of MAS members during their counselling session with adolescent girls in the community was done by research student and ASHAs. Impact of community engagement strategy was assessed by post data collection regarding knowledge about malnutrition and basic aspects of food and nutrition on adolescent girls.

Table:1.5 Impact of counselling on knowledge about overnutrition by adolescent girls

PARTICULARS	No counselling at all(N=49)	Total < 8 counselling sessions (N=85)	Total 8-15 Counselling Sessions(N=95)	Total 6-23 counselling sessions (N=6)
What is overweight				
Correct answer	35 (71.4)	83 (97.6)	95 (100.0)	05 (83.3)
DNK	14 (28.6)	02 (2.4)	00 (0.0)	01 (16.7)
	't' value – 3.72			
Causes of overweight				
Correct answer	46 (93.9)	83 (97.6)	95 (100.0)	06 (100.0)
DNK	03 (6.1)	02 (2.4)	00 (0.0)	00 (0.0)
	't' value -1.42			
Preventive measures of overweight				
Correct answer	46 (93.9)	82 (96.5)	95 (100.0)	06 (100.0)
DNK	03 (6.1)	03 (3.5)	00 (0.0)	00 (0.0)
	't' value -1.26			

*Values in Parenthesis indicates percentage p<0.05 significant

Table: 1.6Months wise frequency of counselling with adolescents by MAS members

Frequency of counsel	No. of MAS members		
	Dec 2017 (N%)	Jan 2018 (N%)	Feb 2018 (N%
At least one's session /month	00 (0.0)	10 (21.7)	11 (23.9)
2-5 session / month	38 (82.6)	30 (65.2)	17 (36.9)
6-8 session / month	04 (8.6)	00 (0.0)	00 (0.0)
No session at all	04 (8.6)	06 (13.0)	18 (39.1)
Total	46	46	46

*Values in Parenthesis indicates percentage

RESULTS : All the ASHA had good knowledge regarding malnutrition but the knowledge of MAS representatives was not satisfactory at baseline but after orientation it was increased. Knowledge of ASHAs about MAS was satisfactory but that of representatives was poor which improved after training. All the ASHAs had good knowledge regarding malnutrition but the knowledge of MAS representatives was not satisfactory at baseline. Based on the knowledge gaps regarding malnutrition and anemia training module and counselling cards were developed to facilitate them to sensitize adolescent girls about the same. (Table 1.0) It was also found that out of total 100 MAS members only 46 members (46%) were functional and willing to work as change agents for adolescent girls for delivering key messages. Counselling of the girls as per the plan was not followed for all the 3 months. 25% of girls were not counselled at all. Not a single girl got all the 24 sessions in 3 months period. **(Table1.2 and 1.3)**Correct knowledge about term undernutrition, its causes, signs and symptoms were increased in 90% of the girls as compared to 64% at baseline. Correct knowledge on preventive measure for undernutrition also improved from 39% to 57%. It was observed that girls who got > 8 sessions of counselling, showed improvement in their knowledge level for malnutrition and basic aspects of foods and nutrition. Correct

explanation of overweight, its causes and preventive measures improved after total of >8 sessions by MAS members.**(Table1.4 and 1.5)**Girls who were counselled for >8 sessions. It was revealed that 91%, 87% and 61% of the MAS members counselled the girls (irrespective of total number session/month) for the month of Dec, Jan, and Feb respectively.(Table 1.6)

DISCUSSION

Adolescent girls are the mothers of tomorrow and no edifice can be built on a foundation which is so weak. Adolescent girls form an important vulnerable and neglected sector of the Indian population. Guidance, counselling and imparting nutrition education can improve the dietary behaviour, which may further lead to promote sustainable development among adolescent girls.

In present study, community engagement strategy by involving MAS members to delivering interventions to optimize weight gain in unmarried adolescent girl aged(15-19years) through community engagement in selected zone of urban Vadodarawas assessed. It was found that MAS member who were self-motivated did the sensitization of AGs. Feedback from MAS members about how to make this strategy sustainable was also obtained. The major feedback was that they should be given formaltraining by authorities, some recognition and performance-based incentives to make it functional.With the line of our study similar study by Sethi et. al. (2017) examine thefeasibility of engaging women collectives in delivering a package of women's nutrition messages/services as a funded stakeholder in three tribal-dominated districts of Odisha, Jharkhand and Chhattisgarh States, she concludes that Women SHGs (with tier 2 and tier 3) can become direct grantees for strengthening coverage of women's nutrition interventions in these tribal districts/ pockets.(3)

CONCLUSION

This study is one of the very few studies examining feasibilities of community engagement strategy involving MAS members in urban slum area in delivery keynutrition/health messages to unmarried adolescent girls (15-19 years).**Findings suggest that** it may offer a potential solution if further efforts by the authorities like regular orientation, supportive supervision and recognition of the functionaries with incentives are considered.

ACKNOWLEDGEMENT

We gratefully acknowledge Dr. Devesh Patel – Chief Health Officer, Vadodara Mahanagar Seva Sadan and his team for granting permission and also financial support by health branch of VMSS.

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