

Usefulness of Video-assisted Education Programme Concerning Awareness on Management of Selected Nutritional Deficiency Disorders Among Mothers of Adolescent Girls at Selected Rural Areas of Kolar Taluk

Malathi K.V.^{1*}, Sumana Yesu Priya²

Abstract

Background: With an estimated 190 million adolescents, 22% of whom are girls, India has one of the fastest increasing youth populations in the world. Adolescence, as defined by the World Health Organization, is the period between the ages of 10 and 19, which provides a window of opportunity for improving nutritional status and reversing unhealthy eating habits. A growth spurt, or a time when growth is incredibly rapid, is what defines adolescence. Adolescent nourishment is crucial intended for maintaining the physical growth of the body and inhibiting forthcoming well-being issues since physical changes throughout this period alter the body's nutritive needs; however, way of life fluctuations may disturb practices and food choices. All parents should pay close attention to their teen's dietary requirements. Adolescence is a time of growth and development, and thus great care must be taken to preserve and advance well-being. **Objective:** To assess the knowledge on management of nutritional deficiency disorders and to appraise the value of audio-visual aided coaching programme on management of nutritional deficiency disorders among mothers of adolescent girls. **Method and Materials:** A pre-test–post-test design with one group was used in the evaluation. by using convenient sampling technique – 50 mothers of adolescent girls were selected from selected two villages (Kothamagala and Ajjappanahalli) of Kolar taluk. Designed familiarity inquiry form was used for data collection. **Results:** The results show that teenage females had mean pre-test knowledge scores of 13.70 with SD ± 4.10 on how to handle nutritional deficiency problems. While adolescent girls' mean post-test knowledge scores on the treatment of nutritional deficiency illnesses were 16.39 with SD ± 5.42 , which shows an enhancement of 66.2%. Finally, the revision established that videotape supported training programme was successful in increasing awareness on management of nutritional deficiency disorders.

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INTRODUCTION

There are 1.2 billion people in the globe who are between the ages of 10 and 19 years; of those, India has the most youths (243 million), followed by China (207 million), the United States (44 million), Indonesia and Pakistan (each with 41 million) [1, 2].

Significant physical, psychological, and social changes occur throughout the adolescent period, which serve as a crucial transitional stage between childhood and maturity [3]. According to growth and development throughout the teenage stage,

puberty is one of the milestones that is distinguished by the growth spurt, a period of very rapid growth that affects dietary needs, eating routines, and food preferences. Therefore, in order to prevent future health issues, it is crucial to support teenage nutrition [4].

Any nutritional deficiencies that occur during this phase of life may have an impact on both the health of the individual and their progeny. For instance, failure to consume a sufficient diet at this time may cause delayed puberty onset and delayed or retarded physical growth. Adolescents' fast bodily changes have a direct impact on their nutritional requirements. Infancy and the first year of life both experience growth spurts that raise the need for energy and nutrients. The relationship between nutritional status and physical growth makes optimum nutrition necessary for realising one's maximum growth potential [5].

Nutrition among adolescent girls is very important because undernutrition in adolescents usually goes unreported by the young people's own families. The nutritional demands of pregnancy and nursing that girls may face later in life should be anticipated throughout adolescence [6]. It is also a well-known truth that children born to short, skinny moms have a higher likelihood of being stunted and underweight as adults.

Adolescent girls have superior nutritional health than adolescent boys in terms of weight for age and body mass index, according to research conducted over the past 5 years [6]. However, after 13 to 14 years of age, there was a slow increase that resulted in values that were below Indian Council of Medical Research (ICMR) norms. On growth and nutrition, socioeconomic and demographic factors still matter. The National Health and Medical Research Council of Australia provides up-to-date quantitative estimates of nutrient intake, including calories, protein, calcium, and iron, to be used for planning and evaluating diets for healthy persons [7].

MATERIAL AND METHODS

The research used a quasi-experimental one group pre-test and post-test design with one group. The SDUCON (Sri Devaraj Urs College of Nursing) ethical committee provided the ethical clearance. A structured knowledge assessment, a video-assisted teaching programme, and content on the management of nutritional insufficiency illnesses were created based on the study's objectives before being translated into Kannada. Research and subject specialists were consulted to ensure the authenticity of the tool's and lesson plan's content. The study was conducted in a few chosen villages, including Ajjappanahalli and Kothamagala in Kolar taluk. After receiving written concerns from the mothers of adolescent girls, it was then conveyed to them what the study's issue statement and goals were. Then, using a practical sampling technique, 50 mothers of teenage girls who satisfied the inclusion criteria were chosen from two communities. A standardized knowledge questionnaire was then used to measure knowledge. On the same day, a video education course on managing nutritional deficiency illnesses was conducted for around 45 minutes using a liquid crystal display screen and blackboard. Using the same technique, a post-test was administered following a 30-day teaching programme. From 12 January 2019 until 20 January 2019, data were gathered. Next, descriptive and inferential statistics were used to analyse the data that were obtained.

RESULTS

Based on the purposes of the training, findings are presented as follows.

Distribution of the Study Participants Based on their Sociodemographic Characteristics

The sociodemographic data of study participants show that bulk (52%) of them remained in the age group of 46 to 55 years, 98% of mothers studied up to 10th standard, 76% mothers were home makers and 82% of families had monthly income < INR15000. A total of 90% families belonged to nuclear family, and 30.75% of mothers received information on nutritional deficiency disorders from mass media (Table 1).

Table 1. Sociodemographic characteristics.

1	<i>Age</i>		
	25–35 years	05	10
	36–45 years	19	38
	46–55 years	20	52
2	<i>Type of family</i>		
	Nuclear	45	90
	Joint	05	10
3	<i>Education of mother</i>		
	<SSLC	49	98
	>SSLC	01	02
4	<i>Occupation of mother</i>		
	Home maker	38	76
	Working women	12	24
5	<i>Family income</i>		
	<15000	41	76
	>15000	09	24

Pre-assessment of Knowledge on Management of Nutritional Deficiency Disorders

The overall pre-test knowledge scores of study participants reveals that the majority (47; 94%) of them having inadequate knowledge on management of nutritional deficiency disorders, and only 3 (6%) study participants have adequate knowledge whereas 16 (32%) have moderately adequate level of knowledge on management of nutritional deficiency disorders (Table 2).

The aspect wise pre-test mean knowledge scores regarding general knowledge on nutritional deficiency disorders is 1.51 with standard deviation (SD) 1.08. knowledge on iron deficiency disorders pre-test mean score is 3.73 with SD 1.53, whereas knowledge on calcium deficiency disorders pre-test mean score is 3.14 with SD 1.70. The overall mean pre-test knowledge score is 8.39 with SD 2.76.

Table 2. Knowledge score on management of nutritional deficiency disorders.

S.N.	Knowledge score	Pre-test		Post-test	
		<i>Frequency</i>	<i>%</i>	<i>Frequency</i>	<i>%</i>
1	Inadequate below (50%)	47	94	16	32
2	Moderately adequate (50–75%)	03	6	31	62
3	Adequate (>75%)	-	-	03	06
	Total	50	100	50	100

Efficacy of Video-Assisted Training Programme Scheduled Information Relating to Management of Nutritional Deficiency Disorders

The complete pre-test despicable knowledge scores stood at 8.39 with SD 2.76 and the post-test mean knowledge scores was 13.71 with SD 4.14. The obtained paired “t” test value was 6.53 which shows statistical significance at $p < 0.05\%$.

The aspect wise pre-test mean knowledge scores regarding general knowledge on nutritional deficiency disorders is 1.51 with SD 1.08 whereas post-test mean knowledge scores is 2.51 with SD 0.96. The obtained paired “t” test value was 5.17. Knowledge on iron deficiency disorders pre-test mean score is 3.73 with SD 1.53, whereas post-test mean knowledge scores is 5.49 with SD 2.15. The obtained

paired “t” test value was 4.55. Knowledge on calcium deficiency disorders pre-test mean score is 3.14 with SD 1.70. whereas post-test mean knowledge scores is 5.71 with SD 2.11. The obtained paired “t” test value was 5.90. which shows statistical significance at $p < 0.05\%$ (Table 3).

Table 3. Pre-test mean knowledge score.

S. N.	Variables	Pre-test		Post-test		t-value	P value	Inference
		Mean	SD	Mean	SD			
1.	Knowledge scores on management of nutritional deficiency disorders	1.51	1.08	2.51	0.96	5.17	.000	SS
2.	Knowledge regarding iron deficiency anemia	3.73	1.53	5.49	2.15	4.55	.000	SS
3.	Knowledge regarding iron deficiency calcium	3.14	1.70	5.71	2.11	5.90	.000	SS

DISCUSSION

In order to determine the success of a planned education programme about facts on management of nutritional deficiency disorders among mothers of adolescent girls, a study was undertaken because the majority population of young teen-agers in India suffer from micronutrient and macronutrient illnesses, such as nutritional anaemia and menstrual irregularities, which might affect their ability to live normal adolescent and young adult lives [8].

Pre-assessment of Knowledge on Management of Nutritional Deficiency Disorders

The results showed that the overall pre-test knowledge scores of majority (47; 95%) of study participants have inadequate knowledge on management of nutritional deficiency disorders, and only 3 (6%) of study participants have adequate knowledge whereas 16 (32%) having moderately adequate level of knowledge on management of nutritional deficiency disorders. This was backed up by a descriptive study on mothers' understanding of nutritional deficiency problems in children, which was conducted by Rajan et al.[8]. A total of 200 mothers were chosen from the rural maternity and child welfare centre of the KMC Manipal Udupi district using the simple random sample technique. Data collection involved the use of structured knowledge questioners. According to the study's findings, most of the participants (130; 65%) had average awareness about nutritional deficiency illnesses, whereas 60 (30%) had low knowledge and the remaining 10 (5%) had strong knowledge.

EFFICACY OF VIDEO-ASSISTED EDUCATION PROGRAMME CONCERNEING AWARENESS ON MANAGEMENT OF NUTRITIONAL DEFICIENCY DISORDERS

The average knowledge score before the test was 8.39, and the average knowledge score after the test was 13.71. The obtained paired “t” test value was 6.53, which shows statistical significance at $p < 0.05\%$.

This finding was supported by that of Deepti et al. [9]. Results reveals that popular 58% of juvenile youngsters had no knowledge, 40% had adequate knowledge and 2% had satisfactory knowledge (in pre-test) earlier administration of lessons programme whereas 15% had moderate knowledge, 85% had reported adequate knowledge after administration of video-assisted programme. This demonstrates that the video training method was successful in imparting knowledge [9, 10].

The study concluded that there is need for appropriate intervention to empower the nutritional health of adolescent girls. This shows that despite a number of health programmes conducted by governments of Karnataka and India, there is something lagging behind. Hence a lot of research studies need to be conducted in this area.

CONCLUSION

The study came to the conclusion that a video-assisted education programme was beneficial in enhancing the understanding of mothers of adolescent girls on how to handle nutritional deficiency

problems. Thus, it is suggested there is a need to conduct longitudinal learning to know the value of video-assisted learning programme on management of nutritional deficiency disorders.

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