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Effectiveness of behaviour change communication on risk factors and consequences of obesity among housewife

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Abstract

The present study aims to determine the effectiveness of behaviour change communication on risk factors and consequences of obesity among housewife. A quantitative approach with pre experimental one group pretest posttest only research design was adopted for the present study. A total study 100 housewife's who met the inclusion criteria were recruited as study participants by using non-probability convenience sampling technique. A self-structured questionnaire was used to collect both the demographic variable and pretest level of knowledge on risk factors and consequences of obesity. On the same day, health talk was given on various aspects of risk factors and consequences of obesity. Followed by that, On 5th day posttest level of knowledge was assessed by giving the same self-structured questionnaire. The results of the study revealed that, there is a significant increase in the level of knowledge at the level of $p < 0.005$ after the health talk. Thus, the study proves that behaviour change communication was effective in improving the level of knowledge risk factors and consequences of obesity among house wife's.

Keywords: behaviour change communication, consequences obesity, risk factors

Introduction

Obesity is a major health problem and has drastic impact on physical health of population, which is caused due to low fat burn and high calories intake, that has been stored as end product of glucose metabolism, i.e. glycogen. One of the common non communicable disease and acts as an epidemic disease in both developed and developing countries ^[1]. Obesity is global health problem affecting 300 million people and its prevalence in recent years had crossed the peak threshold ^[2]. Obesity is a complex disease that has serious effect on social and psychological aspects, irrespective to age, obesity affects all the population and has ability to trigger other cardiovascular associated disease ^[3]. Obesity is a major health disease that has risk potency for hypertension, diabetes mellitus and cardiovascular disease ^[2]. Regardless of its cause, obesity has propagative effect on women's health, with higher risk for breast cancer and hypertension ^[4]. Moreover studies estimated that, disease such as overweight and obesity has increased mortality rate and also reduces the life expectancy among women ^[5]. The women in the middle age group has more vulnerable for obesity due to hormonal changes that has co associated impact on fat distribution ^[6]. Due to typical works of homemakers such as maintenance of home, dietary supply, child care, financial management ^[7]. Housewife often have less time for self-care and they lack to concentrate on their own health ^[8]. Women who works and involves in social work, probably has less time for food preparation and switch of instant foods fast foods and processed food, which are high in calorie and leads to other health issues along with obesity by regular intake ^[9]. Dietary intake with low physical activity led to social problem of obesity were sedentary life style changes is a one of the common problem for obesity ^[10]. Studies revealed that 10% increase in body weight, constantly fluctuates the serum plasma cholesterol and triglyceride level ^[11]. Behaviors change intervention was used for different strategies and this support the participant to changes their adapted form of behavior and helps self-management. Behaviour change was accompanied by planning, processing and reinforcing of specific intervention by frequent manner ^[12]. Thus, the present study aims to assess the demographic variable, assess the pretest and posttest level of knowledge on risk factors and consequences of obesity among housewife, to determine the effectiveness of behavior changes communication on risk

factors and consequences of obesity among housewife's and to find the association between post test level of knowledge on risk factors of obesity among house wife's with their selected demographic variables.

Methods and Materials

After obtaining an ethical clearance from the Institutional Ethical Committee (IEC) from Saveetha Institute of Medical and Technical Sciences (SIMATS) and a formal permission from the village head of Kondancheri village, the present study was conducted. A quantitative approach with pre experimental one group pre-test and post-test only research design was adopted for the present study. A total 100 house wife's who met the inclusion criteria were recruited as the study participants by using non probability convenience sampling technique. Inclusion criteria for the study participants were the housewife who are overweight (25.0 - 29.9) as per WHO classification, who are willing to participate in the study and who are not migrating during the time of study. Exclusion criteria for the study participants were the housewife with normal BMI (18.5- 24.9), who are non-co-operative and are not available during the time of the study. Purpose of the study was explained by the investigator to each of the study participants and a written informed consent was obtained from them. On Day-1, the demographic data and pre-test level of knowledge was gathered by administering a self-structured questionnaire followed by that, health talk was given regarding risk factors and consequences of obesity through behaviour

change communication. On Day-5, the post-test level of knowledge was assessed by using same structured questionnaire. The collected data were tabulated and analysed using descriptive and inferential statistics. The sample characteristics were described using frequency and percentage distribution, paired t-test was used to assess the effectiveness of behaviour change communication and chi-square test was used to associate the level of knowledge on risk factors of obesity among house wife's with their selected demographic variables.

Results and Discussion

Section A: Demographic characteristics

Among 100 study participants, most of the housewife 61 (61%) were aged between 20 - 30 years, 32 (32%) were non-illiterate, 58 (58%) were Hindu, 83 (83%) were non vegetarian, 31(31%) were with hereditary history of obesity and 35(35%) of the house wife's shows the co -morbidity of hyperthyroidism.

Section B: Assessing the pretest and posttest level of knowledge on risk factors of obesity among house wife's

Level of knowledge on risk factors of obesity among house wife's in pretest revealed that 67 (67%) had inadequate knowledge, 23 (23%) had moderate knowledge and 10 (10%) had adequate knowledge regarding risk factors of obesity whereas in the posttest 45 (45%) of the housewife had moderate knowledge and 55 (55%) had adequate knowledge. (Table 1 and figure 1)

Table 1: Frequency and Percentage Distribution of Pretest and Post Test Level of Knowledge on Risk Factors of Obesity among House wife's N=100

Level Of Knowledge Related To Risk Factors of Obesity Among House wife's	Pre Test		Post Test	
	Frequency (Nos)	Percentage (%)	Frequency (Nos)	Percentage (%)
Inadequate	67	67.0	0	-
Moderate	23	23.0	45	45.0
Adequate	10	10.0	55	55.0

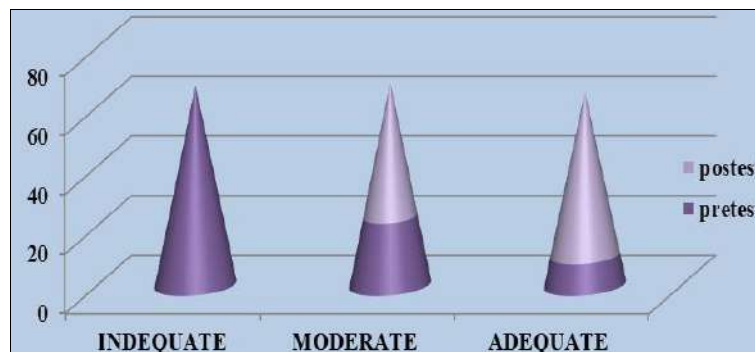


Fig 1: Pre and posttest level of knowledge on risk factors of obesity among House Wife's

Section C: Assessing the pretest and posttest level of knowledge on consequences of obesity among house wife's

Table 2: Frequency and percentage distribution of pretest and posttest level of knowledge on consequences of obesity among House wife's N= 100

Level of knowledge related to consequences of obesity	Pre Test		Post Test	
	Frequency (Nos)	Percentage (%)	Frequency (Nos)	Percentage (%)
Inadequate	23	23.0	2	2.0
Moderate	26	26.0	46	46.0
Adequate	51	51.0	52	52.0

The level of knowledge on consequences of obesity among housewife in pretest revealed that 23 (23%) had inadequate knowledge, 26 (26%) had moderate knowledge and rest 51 (51%) had adequate knowledge whereas in posttest about 2

(2%) had inadequate knowledge, 46 (46%) had moderate knowledge and remaining 52 (52%) had adequate knowledge (Table 2, Figure: 2 and Figure: 3)

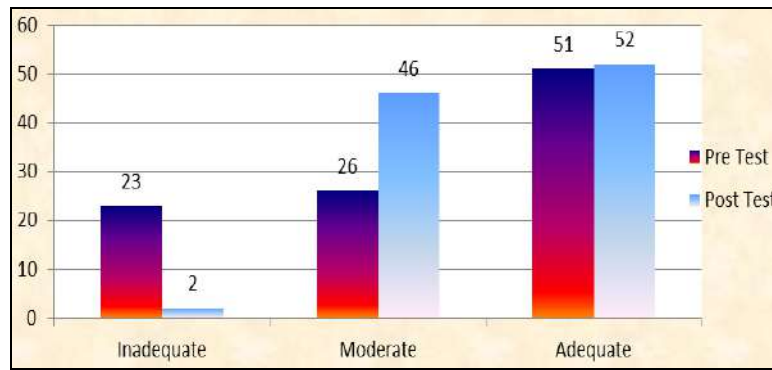


Fig 2: Pretest & pos test level of knowledge on consequences of obesity among House Wive’s

Section C: Assess the effectiveness of behaviour change communication on risk factors and consequences of obesity among the house wive’s

The mean pre-test level of knowledge on both risk factors and consequences of obesity score was 7.4, standard

deviation was 4.97 and the mean post-test level of knowledge score was 19.4, standard deviation was 2.8. The mean difference was 12. The obtained ‘t’ value is 18.9. It was significant at $p < 0.05$ level. (Table 3)

Table 3: Assessment on the effectiveness of behaviour change communication on risk factors and consequences of obesity among the house wive’s N=100

Level of knowledge on risk factors and consequences of obesity	Mean	Standard Deviation	Mean Difference	T- Value
Pre test	7.4	4.97	2	18.9*
Post test	19.4	2.88		

Section D: Association between the posttest levels of knowledge on risk factors of obesity with their selected demographic variables

The co morbidity of hyperthyroidism had shown significant

association with posttest level of knowledge on risk factors of obesity and other demographic variables had not shown significant association with the level of knowledge regarding risk factors of obesity.

Table 4: Association between the posttest level of knowledge on risk factors of obesity with their selected demographic variables N=100

Variables	Inadequate		Moderate		Adequate		Chi square Test
	Frequency (Nos)	Percentage (%)	Frequency (Nos)	Percentage (%)	Frequency (Nos)	Percentage (%)	
Co-morbidity							
Hypertension	15	15.0	12	12.0	8	8.0	X ² =8.971 d. f=3 p=0.030 S*
Polycystic ovarian disease	2	2.0	6	6.0	12	12.0	
Diabetic mellitus	2	2.0	2	2.0	12	12.0	
Hyper thyroidism	6	6.0	15	15.0	10	10.0	

The present study findings is supported by karthick RC *et al.*, (2018) [13] was conducted a study on Evaluation of obesity and its risk factors among rural adults in Tamil Nadu, India. This study was done to evaluate the prevalence and risk factors of obesity in a rural population of Tamil Nadu. Result shows that sibling obesity and presence of thyroid disorders were significantly associated with the risk of overweight and obesity [13].

Conclusion

Thus the findings of present study revealed that, the behaviour change communication on risk factors and consequences of obesity was effective in improving the level of knowledge among house wive's as it is evident from the pre and post-test level of knowledge scores.

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Conflict of interest: Authors declare no conflict of interest.

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