Research Article

Mobile Health - An Effective Nutrition Communication Tool

Sangna Raybardhan[1], Kalpana C.A.[2]

[1,2]*Department of Food Science and Nutrition, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, India.*

ABSTRACT

Information, education and communication approaches were used in this study to reach the target groups. Nutrition education was provided in the form of text messages integrated with mobile communication, an alternative choice of media already popular among college going girls instead of usual nutrition education practices. 284 college going girls were divided into cases and controls, with proportion of 1:1 ratio, from various institutions with English medium of instruction and using mobile phones were selected from Coimbatore city. A structured and reviewed questionnaire was used to collect background information and to assess the nutritional knowledge status of the target population. A total number of 28 messages were framed. The mHealth (mobile-health) messages were sent using broad band internet connection to the mobile numbers of 142 respondents using Microsoft Excel enabled plug-in for sending bulk SMS for a period of 14 days. The effect of mHealth on the nutritional knowledge of respondents was evaluated by administering a questionnaire. After imparting nutrition education by sending mHealth messages to their mobile phones, there was an increase in the general, therapeutic and adolescent and adult nutrition knowledge of the experimental group when compared to the control group and statistically significant at 1% level. Mobile phones provided a new communication channel for health promotion and community mobilization. mHealth as a nutrition communication tool effectively increased nutritional knowledge among college going girls. mHealth and development of user friendly mobile apps for nutrition communication is very useful in imparting nutrition messages.

Key Words: mHealth, Healthcare, Mobile technology and applications, Wireless technology, Community mobilization

INTRODUCTION

Health and nutritional status of the population are recognized as the prime indicator of development at national and international levels. Indian women in the age group of 15 – 45 years comprise the vulnerable section of the population due to growth spurt when food and nutrient needs are higher and related risk of child bearing ability. Though nutrition interventions have been made in India, significant improvement in nutritional status has not occurred especially in women and girls. Nutritional disorders like anaemia, poor weight gain in pregnancy and poor caring practices in girls are still common in all socio-economic groups.[1] Nutrition education's main goal is to make people aware of what constitutes a healthy diet and ways to improve their diets and their lifestyles.[2] Use of mass media has become even more sophisticated as a tool for nutrition education. Mass media has expanded beyond broadcast and print media to include the range of opportunities available on the Internet and through other technology like cellular phones.[3] Cell phones are the most popular mobile device used in mHealth interventions. Distinct advantages offered by cell phones over other mobile tools include their relatively low cost, wide spread use, and onboard processing power to record, store, organize, and broadcast information in real time.[4] Texting is the dominant mode of communication among teens.[5] With mobile technologies accessible to 95.5 percent of the world population, many believe that mHealth has the potential to transform the face of health service delivery across the globe by offering new means of when, where, how, and by whom health services are provided and accessed.[6] A systematic review of the literature on disease management and prevention services delivered through text messages found evidence to support text messaging as a tool for behaviour change in eight of nine studies with sufficient sample sizes.[7] In this study, the information, education and communication (IEC)

Corresponding Author:

Sangna Raybardhan, Department of Food Science and Nutrition, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, India; Email: fsn89srb@gmail.com

approaches were being used to reach the target groups where nutrition education platform has been produced in the form of text messages integrated with mobile communication. The idea was to provide an alternative choice of media which is already popular among college students to impart nutrition education instead of usual nutrition education practices.

With this in view the study was conducted with the following objective:

- To assess the socio-economic background, dietary pattern and health status of college going girls.
- To study their physical activity and lifestyle pattern.
- To develop content for mHealth messages.
- To impart nutritional knowledge to the college going girls using mHealth as a tool for nutrition education.
- To evaluate the impact of mHealth on the nutritional knowledge of college going girls

METHODOLOGY

A total of 284 girls between the age group of 18 – 21 years from various institutions of Coimbatore city with English medium of instruction and using mobile phones were selected as samples. The sample was divided into cases and controls, with the proportion of 1:1 ratio. In this study mHealth was selected as tool for imparting nutrition education. Thus, a total of 142 respondents were included in the cases and the same number of controls was taken. The samples for the study was selected by non-random sampling method called convenience sampling. Convenience sampling is the cheapest and simplest and does not require a list of population. Hence, the investigator selected samples with the inclusion criteria as college going girls of 18 – 21 years, girls using mobile phones, able to understand, read and write in English and exclusion criteria as girls less than 18 yrs and more than 21 yrs, not using mobile phones, unable to understand, read and write in English. A well structured close ended questionnaire was formulated and the details on socio-economic status, lifestyle pattern, physical activity pattern and knowledge on nutrition were collected from them. The section for assessing nutrition knowledge status consisted of 25 questions on general, therapeutic and, adolescent and adult nutrition. Each question had four options and respondents were instructed to choose appropriate answer by tick mark. Data was collected in two phases namely pre-awareness and post awareness phase by administering questionnaire personally to the individual respondent by the investigator herself. Framed the content of mHealth messages and imparted nutritional knowledge to the selected respondents of the experimental group by sending mHealth messages to their mobile phones. Nutrition education was imparted to 142 girls using Microsoft Excel enabled plug-in for sending bulk Short Messaging System (SMS) for a period of 14 days. The basic package of 5000 SMS credits were purchased from Outsourced Market-

ing, New Delhi. The nutrition education was imparted using the basic mobile phone service of SMS. Each day two text messages were sent, consisting of 160 characters including special characters and spaces. Strictly adhering to the Telecommunication Regulatory Authority of India (TRAI) Regulations, one message between 6:00 – 6:15 PM and the other one between 8:30 – 8:45 PM were sent, keeping in mind the time preference of the respondents as well. The impact of mHealth on the nutritional knowledge of respondents was evaluated by administering questionnaire pertaining to nutrition education. Each question answered correctly was attributed as 1 point. Wrong answers did not receive any score. The total score of the respondents varied from 1 to 25. The collected data were consolidated, tabulated and analyzed statistically using the software SPSS of version 16.0 to assess the effectiveness of mHealth and impact of nutrition education on the selected respondents.

RESULTS

Socio-economic status - Among 284 selected samples, 12.7 per cent belonged to the age group of 18 years; 18 per cent were 19 years, 27.8 per cent were 20 years and 41.5 per cent were 21 years. About 70 per cent stayed in hostels, 37 per cent resided in their homes, 0.4 per cent was paying guests and 1.8 per cent lived in rented houses. It was evident that 2.1 per cent of the respondents belonged to low income group, 15.5 per cent belonged to low middle income group, 26.8 per cent of them belonged to middle income group and 55.6 per cent of them were from high income group.

Health status - Majority (90.8%) were not allergic towards any type of food and the remaining 9.2 per cent were allergic towards a specific kind of food; About 2.8 per cent of them suffered from anaemia, 0.4 per cent was affected by diabetes, 2.5 per cent were hypertensive, 8.0 per cent were suffering from obesity, 6.0 per cent were affected by overweight and the remaining 80.3 per cent were not affected by any kind of diseases. Approximately 87 per cent were not having menstrual problems and the remaining 13 per cent were having menstrual problems with 7 girls having problems related to reproductive health in spite of having regular periods. Only 78.4 per cent of the respondents consulted doctors regarding menstrual problems, and the remaining 21.6 per cent did not consult doctors.

mHealth - Among 142 selected cases, 100 per cent received two text messages daily for a period of 14 days in their mobile phones and 63.4 per cent shared messages while 36.6 per cent did not share the messages. The messages were shared via mobile was 53.3 per cent and messages shared personally was 46.7 per cent. Messages shared by the recipients to less than 5 persons were 77.8 per cent and between 5 to 10 persons were 22.2 per cent. All the respondents understood

the meaning of the messages. About 2.8 per cent received messages only at the time between 6 – 6:15 pm, 2.8 per cent received between 8:30 – 8:45 pm, and the remaining 94.4 per cent received at both timings. All the respondents are willing to receive similar kind of mHealth messages in future also. Topic suggested for sending further messages was 2.8 per cent for anaemia, 2.1 per cent wished information on anticancer diet, anticancer foods (2.8 %), antioxidants (4.9 %), arthritis reduction diet (2.1%), balanced diet (7.7 %), cholesterol reduction diet (2.8 %), diet during menstruation (2.1 %), disease prevention (2.8 %), diet for gout (2.1 %), healthy diet (7 %), healthy foods (12.8 %), metabolic syndrome (1.4 %), PCOS (11.9 %), pregnancy (2.8 %), reproductive health (2.8 %), diet for weight gain (7 %), weight loss diet (16.1 %), yoga (7.7%), and no suggestion was 2.8 per cent. Preference to receive messages once a week was 2.8 per cent, thrice a week preferred by 2.8 per cent, 17.6 per cent preferred to receive messages for 10 days, 19.7 per cent preferred 14 days, 14.1 per cent preferred 15 days, 2.8 per cent preferred 20 days, 34.5 per cent preferred 30 days and 5.6 per cent preferred 60 days for receiving messages. Also 85.2 per cent

preferred to receive messages at the same given time while 7.1 per cent preferred in the morning and 7.7 per cent preferred at the evening. Majority (95.1 %) opined that message size was sufficient and 4.9 per cent felt that message size was not sufficient. Nearly one-third (31%) preferred to receive increased number of messages while 69 per cent did not wish to receive increased number of messages. Local language was preferred by 33.8 per cent to receive the messages and 66.2 per cent did not wish to receive messages in local languages and 49.3 per cent preferred to receive messages with images and 50.7 per cent preferred to receive messages without images.

After imparting nutrition education by sending mHealth messages to their mobile phones, there was an increase in the knowledge on general nutrition, therapeutic nutrition, adolescent and adult nutrition of the experimental group when compared to the control group, except question number 9 on better way of cooking method, which college going girls were already aware about. The findings are statistically significant at 1% level.

Table 1: Change in Scores of Knowledge on General Nutrition

Question	Experimental Group						Control Group					
	Pre - Awareness			Post – Awareness			Pre - Awareness			Post – Awareness		
	N	%	M ± SD	N	%	M ± SD	N	%	M ± SD	N	%	M ± SD
1.A healthy diet is	60	42.3	0.42 ± 0.496	115	81	0.81 0.394	47	33.1	0.33 ± 0.472	49	34.5	0.35 ± 0.477
2.Deficiency of Essential fatty acids adversely affects	28	19.7	0.20 ± 0.399	131	92.3	0.15 ± 0.356	21	14.8	0.19 ± 0.394	27	19	0.19 ± 0.394
3.Calcium is involved in which of the following	50	35.2	0.35 ± 0.479	129	90.8	0.91 ± 0.289	44	31	0.31 ± 0.464	52	36.6	0.37 ± 0.483
4.Deficiency of calcium causes	83	58.5	0.58 ± 0.495	138	97.2	0.97 ± 0.166	72	50.7	0.51 ± 0.502	71	50	0.50 ± 0.502
5.Name the richest source of vitamin C	94	66.2	0.66 ± 0.475	138	97.2	0.97 ± 0.166	86	60.6	0.61 ± 0.490	89	62.7	0.63 ± 0.485
6.Hormone required to reduce the blood sugar level	95	66.9	0.67 ± 0.472	132	93	0.93 ± 0.257	87	61.3	0.61 ± 0.489	90	63.4	0.63 ± 0.483
7.Which vitamin helps in calcium absorption	52	36.6	0.37± 0.483	127	89.4	0.89 ± 0.308	33	23.2	0.23 ± 0.424	52	36.6	0.37 ± 0.483
8.Which of the following is not a good source of Vitamin-A	68	47.9	0.48 ± 0.501	132	93	0.93 ± 0.257	69	48.6	0.49 ± 0.502	84	59.2	0.59 ± 0.493
9.According to you, which of the following cooking method is better than frying	142	100	1	142	100	1	142	100	1	142	100	1

Table 1: *(Continued)*

10.Which of the following is not a rich source of antioxidants	31	21.8	0.22 ± 0.415	124	87.3	0.87 ± 0.334	18	12.7	0.13 ± 0.334	30	21.1	0.21 ± 0.410
11.Which protein is considered as complete protein	38	26.8	0.27 ± 0.448	133	93.7	0.94 ± 0.245	39	27.5	0.27 ± 0.448	53	37.3	0.37 ± 0.485
12.Drinking cola beverages increases the chance of	69	48.6	0.49 ± 0.502	114	80.3	0.80 ± 0.399	47	33.1	0.33 ± 0.472	49	34.5	0.35 ± 0.477

Table 2: One-Sample t Test for Experimental and Control Group on General Nutrition Knowledge

Name of Group	Question nos.	Pre-Awareness Test Value = 0						Post-Awareness Test Value = 0					
		t	df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower	Upper	t	df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower	Upper
Experimental	Q 1	10.157	141	0	0.423	0.34	0.5	24.506	141	0	0.81	0.74	0.88
Control	Q 1	8.352	141	0	0.331	0.25	0.41	8.619	141	0	0.345	0.27	0.42
Control	Q 2	4.947	141	0	0.148	0.09	0.21	5.754	141	0	0.19	0.12	0.26
Experimental	Q 3	8.754	141	0	0.352	0.27	0.43	37.405	141	0	0.908	0.86	0.96
Control	Q 3	7.957	141	0	0.31	0.23	0.39	9.026	141	0	0.366	0.29	0.45
Experimental	Q 4	14.084	141	0	0.585	0.5	0.67	69.746	141	0	0.972	0.94	1
Control	Q 4	12.043	141	0	0.507	0.42	0.59	11.874	141	0	0.5	0.42	0.58
Experimental	Q 5	16.617	141	0	0.662	0.58	0.74	69.746	141	0	0.972	0.94	1
Control	Q 5	14.715	141	0	0.606	0.52	0.69	15.387	141	0	0.627	0.55	0.71
Experimental	Q 6	16.882	141	0	0.669	0.59	0.75	43.142	141	0	0.93	0.89	0.97
Control	Q 6	14.934	141	0	0.613	0.53	0.69	15.622	141	0	0.634	0.55	0.71
Experimental	Q 7	9.026	141	0	0.366	0.29	0.45	34.551	141	0	0.894	0.84	0.95
Control	Q 7	6.534	141	0	0.232	0.16	0.3	9.026	141	0	0.366	0.29	0.45
Experimental	Q 8	11.383	141	0	0.479	0.4	0.56	43.142	141	0	0.93	0.89	0.97
Control	Q 8	11.544	141	0	0.486	0.4	0.57	14.29	141	0	0.592	0.51	0.67
Experimental	Q 10	6.275	141	0	0.218	0.15	0.29	31.166	141	0	0.873	0.82	0.93
Control	Q 10	4.524	141	0	0.127	0.07	0.18	6.146	141	0	0.211	0.14	0.28
Experimental	Q 11	7.178	141	0	0.268	0.19	0.34	45.647	141	0	0.937	0.9	0.98
Control	Q 11	7.307	141	0	0.275	0.2	0.35	9.163	141	0	0.373	0.29	0.45
Experimental	Q 12	11.544	141	0	0.486	0.4	0.57	23.96	141	0	0.803	0.74	0.87
Control	Q 12	9.163	141	0	0.373	0.29	0.45	9.441	141	0	0.387	0.31	0.47

*df denotes degrees of freedom for the test, df = (n-1)

Table 3: Change in Scores of Knowledge on Therapeutic Nutrition

Question	Experimental Group						Control Group					
	Pre - Awareness			Post – Awareness			Pre - Awareness			Post – Awareness		
	N	%	M ± SD	N	%	M ± SD	N	%	M ± SD	N	%	M ± SD
13.Individual with overweight/obesity should avoid which of the following food	90	63.4	0.63 ± 0.041	137	96.5	0.96 ± 0.016	93	65.5	0.65 ± 0.040	99	69.7	0.70 ± 0.039
14. Which of the following food does not have cholesterol lowering effect?	51	35.9	0.36 ± 0.040	123	86.6	0.87 ± 0.029	51	35.9	0.36 ± 0.040	57	40.1	0.40 ± 0.041
15.Skipping breakfast in the morning helps you to	43	30.3	0.30 ± 0.039	123	86.6	0.87 ± 0.029	31	21.8	0.22 ± 0.35	49	34.5	0.35 ± 0.040
16.Intake of tomato reduces the risk of	36	25.4	0.25 ± 0.037	121	85.2	0.85 ± 0.030	36	25.4	0.25 ± 0.37	49	34.5	0.35 ± 0.040
17.Which nutrient helps in iron absorption	30	21.1	0.21 ± 0.034	107	75.4	0.75 ± 0.036	25	17.6	0.18 ± 0.32	42	29.6	0.30 ± 0.038
18.High calorie diet is desirable in the condition of	21	14.8	0.15 ± 0.030	106	74.6	0.75 ± 0.037	16	11.3	0.11 ± 0.27	42	29.6	0.30 ± 0.038
19.Low calorie diet should be given to an individual suffering from	44	31	0.31 ± 0.039	100	70.4	0.70 ± 0.038	41	28.9	0.29 ± 0.038	54	38	0.38 ± 0.041
20. Which of the following is a low calorie food	82	57.7	0.59 ± 0.043	117	82.4	0.82 ± 0.032	72	50.7	0.51 ± 0.042	76	54.9	0.55 ± 0.042
21.Which of the following food is high in calorie	49	34.5	0.35 ± 0.040	121	85.2	0.85 ± 0.030	44	31	0.31 ± 0.039	59	41.5	0.42 ± 0.042
22.What type of food a diabetic person should have	52	36.6	0.37 ± 0.041	96	67.6	0.68 ± 0.039	56	39.4	0.39 ± 0.041	69	48.6	0.49 ± 0.042

Table 4: One-Sample t Test for Experimental and Control Group on Therapeutic Nutrition Knowledge

Name of Group		Pre-Awareness						Post-Awareness					
		Test Value = 0						Test Value = 0					
	Question nos.	t	df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		t	df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper					Lower	Upper
Experimental	Q 13	15.622	141	0	0.634	0.55	0.71	62.156	141	0	0.965	0.93	1
Control	Q 13	16.359	141	0	0.655	0.58	0.73	18.017	141	0	0.697	0.62	0.77
Experimental	Q 14	8.889	141	0	0.359	0.28	0.44	30.212	141	0	0.866	0.81	0.92
Control	Q 14	8.889	141	0	0.359	0.28	0.44	9.724	141	0	0.401	0.32	0.48

Experimental	Q 15	7.826	141	0	0.303	0.23	0.38	30.212	141	0	0.866	0.81	0.92
Control	Q 15	6.275	141	0	0.218	0.15	0.29	8.619	141	0	0.345	0.27	0.42
Experimental	Q 16	6.92	141	0	0.254	0.18	0.33	28.503	141	0	0.852	0.79	0.91
Control	Q 16	6.92	141	0	0.254	0.18	0.33	8.619	141	0	0.345	0.27	0.42
Experimental	Q 17	6.146	141	0	0.211	0.14	0.28	20.762	141	0	0.754	0.68	0.83
Control	Q 17	5.489	141	0	0.176	0.11	0.24	7.695	141	0	0.296	0.22	0.37
Experimental	Q 18	4.947	141	0	0.148	0.09	0.21	20.376	141	0	0.746	0.67	0.82
Control	Q 18	4.231	141	0	0.113	0.06	0.17	7.695	141	0	0.296	0.22	0.37
Experimental	Q 19	7.957	141	0	0.31	0.23	0.39	18.323	141	0	0.704	0.63	0.78
Control	Q 19	7.566	141	0	0.289	0.21	0.36	9.302	141	0	0.38	0.3	0.46
Experimental	Q 20	13.891	141	0	0.592	0.51	0.68	25.688	141	0	0.824	0.76	0.89
Control	Q 20	12.043	141	0	0.507	0.42	0.59	13.109	141	0	0.549	0.47	0.63
Experimental	Q 21	8.619	141	0	0.345	0.27	0.42	28.503	141	0	0.852	0.79	0.91
Control	Q 21	7.957	141	0	0.31	0.23	0.39	10.011	141	0	0.415	0.33	0.5
Experimental	Q 22	9.026	141	0	0.366	0.29	0.45	17.154	141	0	0.676	0.6	0.75
Control	Q 22	9.582	141	0	0.394	0.31	0.48	11.544	141	0	0.486	0.4	0.57

*df denotes degrees of freedom for the test, df = (n-1)

Table 5: Change in Scores of Knowledge on Adolescent and Adult Nutrition

Question	Experimental Group						Control Group					
	Pre - Awareness			Post – Awareness			Pre - Awareness			Post – Awareness		
	N	%	M ± SD	N	%	M ± SD	N	%	M ± SD	N	%	M ± SD
23.Anorexia nervosa is an eating disorder which occurs in the age group of	56	39.4	0.39 ± 0.041	130	91.5	0.92 ± 0.023	36	44.4	0.25 ± 0.037	23	16.2	0.44 ± 0.042
24.Which of the following is not a symptom of anorexia nervosa	23	16.2	0.16 ± 0.031	94	66.2	0.66 ± 0.040	30	21.1	0.21 ± 0.034	43	30.3	0.21 ± 0.039
25.Which of the symptom is not a pre-menstrual syndrome	33	23.2	0.23 ± 0.036	99	69.7	0.70 ± 0.039	29	20.4	0.20 ± 0.034	49	34.5	0.20 ± 0.040

Table 6: One-Sample t Test for Experimental and Control Group on Adolescent and Adult Nutrition Knowledge

Name of Group	Pre-Awareness						Post-Awareness					
		Test Value = 0						Test Value = 0				
	Question nos.	t	df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		t	df*	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
						Lower	Upper					Lower	Upper
Experimental	Q23	9.582	141	0	0.394	0.31	0.48	39.08	141	0	0.92	0.87	0.96
Control	Q23	6.92	141	0	0.254	0.18	0.33	10.6	141	0	0.44	0.36	0.53

Experimental	Q24	5.22	141	0	0.162	0.1	0.22	16.62	141	0	0.66	0.58	0.74
Control	Q24	6.146	141	0	0.211	0.14	0.28	7.826	141	0	0.3	0.23	0.38
Experimental	Q25	6.534	141	0	0.232	0.16	0.3	18.02	141	0	0.7	0.62	0.77
Control	Q25	6.015	141	0	0.204	0.14	0.27	8.619	141	0	0.35	0.27	0.42

*df denotes degrees of freedom for the test, df = (n-1)

DISCUSSION

Adolescents require the knowledge and support to develop a healthy lifelong relationship with food.[8] Nearly 50 per cent of adolescent girls aged 15–19 in India are underweight, with a body mass index of less than 18.5, and more than one quarter are underweight in 10 other countries. Such under-nutrition renders adolescents vulnerable to disease and early death and has lifelong health consequences.[9] The onset of over three fourths of eating disorders (76%) occurs between the ages of eleven and twenty.[10] In a study conducted among adolescents in Pune, reported prevalence of anaemia in 51% of girls which was statistically highly significant compared to boys (13%).[11] Overall, information and communication technologies have a potentially major role to play in health information systems. Technology in healthcare can improve access for geographically isolated communities; aid in data sharing; provide visual tools linking population and environmental information with disease outbreaks; and is an electronic means for data capture, storage, interpretation and management.[12] mHealth (mobile-health) is the use of mobile and wireless technologies to support the achievement of health objectives. mHealth can be utilized for a wide variety of purposes, including health promotion and disease prevention, health care delivery, training and supervision, electronic payments, and information systems.[13] One of the most promising aspects of mHealth is its potential for enhancing the smart integration of health services and the continuity of care across provider, place, and time by making information available at the right place and at the right time. Vast majority of mHealth interventions are currently implemented in either pilot programs or at limited scale, a growing number of mHealth systems are reaching significant scale and/or being adopted by national governments, including ministries of health (MOH) in countries like Rwanda, South Africa, Uganda, Ghana, Kenya, Tanzania, Malawi, Bangladesh and India.[14] Cole-Lewis and Kershaw (2010) found evidence to support text messaging as a tool for changing behaviour or improving clinical care outcomes in eight of the nine sufficiently powered studies they reviewed. The authors noted that these changes were found across different ages, ethnicities, and nationalities. Health promotion campaigns using mHealth technologies most frequently make use of text messaging technology to send information on pertinent health issues to target populations.[15] Health-related functions of text messaging interventions can include health behaviour reminders, prompts to schedule or confirm an appointment, notification of a laboratory result or health status report, requests for data, encouragement to engage in positive behaviours, or information and resources to improve self-efficacy. The goal of these interventions is to promote efficiencies in care management practices and, ultimately, improve individual and population health outcomes.[16] Overall, recent research on the use of text messages related to sexual health suggests that text messaging offers promise for reaching teens about health information, referrals, and testing reminders.[17]

CONCLUSION

Information, education and communication approaches were used in this study to reach the target groups. An intervention of mHealth as tool was used for imparting nutrition education by sending messages on general, therapeutic and, adolescent and adult nutrition to their mobile phones, an alternative choice of media already popular among college going girls instead of usual nutrition education practices. After imparting nutrition education, there was an increase in the general, therapeutic and, adolescent and adult nutrition knowledge of the experimental group when compared to the control group and statistically significant at 1% level. Mobile phones provided a new communication channel for health promotion and community mobilization. mHealth as a nutrition communication tool effectively increased nutritional knowledge among college going girls. mHealth and development of user friendly mobile apps for nutrition communication is very useful in imparting nutrition messages .

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