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Effective Social Marketing Campaign Can Promote Family Medicine Clinics Utilization: An Intervention Trial

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Abstract

BACKGROUND: Although it is well established that family medicine/primary care is the backbone of a successful healthcare system, family medicine clinics (FMC) services are still underutilized. Social marketing can be used as an effective approach to increase people's awareness and change their attitude and behaviors related to primary care then promote service utilization.

AIM: The objective of this study is to detect the causes of underutilization of FMC services and to study the role of a social marketing campaign on increasing the utilization of these services.

METHODS: This is an experimental study where 1120 participants attending the primary health care center were interviewed pre- and post-campaign to assess the rates of FMC services utilization and the causes of underutilization. A 3 months social marketing campaign was held through internal and external marketing seminars then evaluating the campaign effect through service output indicators and comparing questionnaires' results pre- and post-campaign.

RESULTS: Underutilization of FMC services was caused mainly by the lake of knowledge about the presence of service (94.9%) and this decreased postcampaign to be (75.9%). The new patients attending the FMC increased from 61 to 2093, the frequency of weekly visits of the regular attenders increased by 32% and the number of new files opened post-campaign increased by 56%.

CONCLUSION AND RECOMMENDATION: Social marketing is a successful technique to increase the utilization of the services provided by FMC. According to the results, it is recommended to promote social marketing activities to increase awareness of the FMC services and improve its utilization.

Introduction

Primary health care (PHC)/Family medicine is the main part of the health care system worldwide serving as the first contact with the health care system and sharing the other disciplines to provide a comprehensive care including preventive and curative services for the whole family [1]. It is a broad specialty that provides an integrated instead of fragmented health care, putting the biopsychosocial approach a priority to treat the person not only the disease [2]. Unfortunately, the Egyptian health sector provides the medical service through the Ministry of health (MOH) hospitals, University hospitals, Health Insurance Organizations, and the private sector, limiting the use of the free public PHC sector to only routine services as the compulsory children vaccination [3]. This may be contributed to many reasons as the size of the health facility, the type of provided services, and the longer working hours giving the hospitals the upper hand to attract moreover health centers [4]. Although the MOH is operating 4,506 PHC facilities distributed all over the country [3] the quality of the public health services has been issued as a problem in most reviews of the Egyptian health care system due to lack of resources, low treatment standards, and rapid turnover of physicians causing underutilization where 65% of patients receive management with the private health care providers [5].

Until the stakeholders find strategies to improve the public health sector service quality, the awareness about the already available services at the PHC centers may be improved through social marketing as it moves beyond just informing, to influencing the behavior of individuals and the whole communities [6] unlike commercial marketing which seeks the benefit of the marketer [7]. Social marketing was previously applied in Egypt in the 80s and succeeded to increase the use of oral rehydration therapy and contraceptive methods, however, currently social campaigns decreased markedly [8].

The aim of this study is to assess the causes of underutilization of family medicine clinics (FMC) services and to assess the efficacy of a social marketing campaign in promoting the utilization of the FMC services at Hadek AlKobba Family health center (FHC).

Subjects and Methods

Study design

This is an experimental study (community trial) in the form of a social marketing campaign, through three phases, the first and third phases were pre and post-campaign to detect the rate of utilization of the FMC services and the causes of their underutilization. The second phase was a tailored social marketing campaign using the marketing mix which includes "8Ps" to formulate the content of the marketing campaign, demonstrated in Table 1 [9].

Table 1: The marketing mix "8Ps"

Product	Hadaek Al Kobba FMC services are accessible, affordable, acceptable, available on daily basis, and provide preventive and curative services for single and follow-up visits
Price	Hadaek Al Kobba FMC services save money, time, and effort as the consumer can obtain more than one service during a single visit
Promotion	The campaign will be promoted through printed promotional materials, face-to-face communication, and powerpoint presentations
Place	Hadek Al Kobba health center and the surrounding catchment area as the youth club
People	The first target audience are all the family members. The second target audiences include managers of schools and social clubs, and health care providers including doctors, nurses, and community out-reach workers
Positioning	The campaign should emphasize the benefits of FMC services over the alternative services
Partnership	Hadek AlKobba Health District could be a partner
Purse string	The promotional materials used in the campaign are self-funded

FMC: Family medicine clinics.

Study setting

This study was conducted at one of the FHCs in Cairo which is at Hadaek Al Kobba district. Hadaek Al Kobba is the biggest FHC in the district with the highest population flow. It is working since 1995, accredited in 2009 with an accreditation score 77.5%, and reaccredited according to data of Hadaek Al Kobba Health District in 2015. The center serves 1100235 citizens and 27000 families. The building consists of four levels. Hadaek Al Kobba Health District takes the third and fourth levels while Hadaek Al Kobba FHC takes the first and second levels, with 2 FMC.

Study subjects

All the adults attending the FMC were approached to share in the study. The excluded participants were those with critical illness, <18 years old and not living at Hadaek Al Kobba district. The study participants during the pre and post-campaign period were chosen through random sampling technique. The sample size was calculated by comparing the mean percent of FMC service utilization before and after the campaign. It was done using paired t-test for matched samples. α-error level was fixed at 0.05 and the power was 80%. Using previous results, the mean ± SD of percent of FMC service utilization before the intervention was reported to be 2.6 ± 1, while after intervention it was 6 ± 0.26 making a difference of 3.4%. Accordingly, the minimum sample size was 272 FMC attendees for pre-and post-campaign. The resulted sample was doubled to avoid the error of cluster sampling. So, the final sample size was 544 for each group to reach the study objectives. Calculations were done using PS Power and Sample Size Calculations Software, version 3.0.11 for Microsoft Windows [10].

Data collection tools

- A structured anonymous questionnaire [11] was used to obtain the data from the clinic's non/partial attendees who never came to the FMC or coming irregularly (once every 3 months) to find the causes of underutilization of clinics services. The questionnaire was closed-ended, precoded, and prepared in the Arabic Language to make sure that it is understandable by the participants. It was proved to be reliable through Alpha Cronbach test with value 0.73
- Services output indicators from the documented service statistics for percent utilization of outpatient clinic belonging to Hadek AlKobba FHC - after securing official permissions - before, during, and after the campaign. Statistics included patient flow and filing were used.

Study fieldwork

Along 9 months from January 2016 to September 2016 as follows:

- The first phase from January 2016 to March 2016 and included reviewing Hadek AlKobba FHC health records to calculate the service output indicators before the campaign and filling the questionnaire
- The second phase was implementing the social marketing campaign from April 2016 to June 2016, during which seminars were held as internal seminar once weekly at the FHC for the attendees and the workers in the center and external seminars twice monthly in the major gathering areas at Hadaek Al Kobba district as the youth club, three surrounding schools, and the public transportation parking. The total number of seminars internal and external was 12 and 6, respectively. The social marketing was done through the dissemination of promotional materials including posters, fliers, brochures, mugs, and t-shirts as well as face-to-face communication and powerpoint presentations. The key message that was delivered during the campaign was highlighting the services provided by the FMC at Hadaek Al Kobba FHC

- The third phase was testing the efficacy of the social marketing campaign from July 2016 to September 2016 and included calculating the services output indicators and filling the same questionnaire used before the campaign.

Data analysis

All questionnaires were revised for completeness and logical consistency. Data were statistically described in terms of mean ± standard deviation (SD), or frequencies and percentages. Comparison of numerical variables between the study groups was done using Student t-test. $p < 0.05$ was considered statistically significant. All statistical calculations were done using computer program the statistical package of social science software program, SPSS release 22 for Microsoft Windows.

Ethical consideration

The study protocol was approved by the Family medicine department, Faculty of medicine Cairo University council in September 2014 and approved by the Research Committee of the faculty in October 2014 as well as the Ethical Committee in the MOH in November 2014. An informed verbal consent was also obtained from every participant before filling the questionnaires. They were reassured about the strict confidentiality of any obtained information and that the results would be used only for research purposes.

Results

Table 2 shows the socio-demographic data of the studied groups (n = 1120). The study included 558 participants during the pre-campaign period, 98 of them were partial/nonusers. About 562 participants were included during the post-campaign period 112 of them were partial/nonusers. Most of the participants were females, illiterate, and non-workers. There was statistical significance in the education of the regular attenders and in the age and occupation of the partial/nonuser group.

Table 2: The sociodemographic characteristics of the study groups (n = 1120)

Variables	Regular attenders				p-value	Partial/non users				p- value
	Pre (n = 460)	%	Post (n = 450)	value%		Pre (n = 98)	%	Post (n = 112)	%	
Gender										
Male	77	16.7	88	19.6	0.27	13	13.2	17	15.2	0.512
Female	383	83.3	362	80.4		85	86.7	95	84.8	
Age										
18–39	215	46.7	201	44.7	0.162	64	65.4	48	42.9	0.001*
40–59	175	38	159	35.3		30	30.5	62	55.3	
60–>80	70	15.3	90	20		4	4.1	2	1.8	
Mean ± SD	42.9 ± 14.3		44.9 ± 15.5		0.043*	39.7 ± 10.7		37.8 ± 10.7		0.2007
Education										
High	20	4.3	28	6.2	0.012*	13	13.3	8	7.1	0.118
Intermediate	124	27	86	19.1		33	33.7	30	26.8	
Illiterate	316	68.7	336	74.7		52	53	74	66.1	
Occupation										
Work	47	10.2	48	10.7	0.82	10	10.2	23	20.5	0.017*
Non worker	396	86.1	382	84.9		80	81.6	87	77.7	
Student	17	3.7	20	4.4		8	8.3	2	1.8	

(Figure 1) displays the most important causes of underutilization of services provided by family medicine clinics among non/partial users (pre-and post-campaign) where the most common cause was ignoring about the presence of service 94.9% which decreased post-campaign to be 75.9%.

Figure 2 shows the common causes of service dissatisfaction provided by the family medicine clinics pre-and post-campaign among non/partial users where the commonest cause was lack of lab investigations and other equipment.

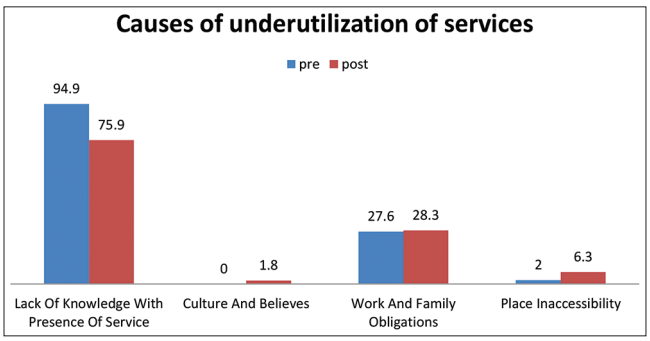

Figure 1: Causes of underutilization of services provided by family medicine clinics among nonuser or partial users (pre and post campaign)

Figure 3 shows that the flow number of the regular attenders of the family medicine clinics from the clinics service records of the 3 months after campaign had lower level than before campaign and September showed re-elevation of the flow while for the new patients attending the family medicine clinics, the records show increase from 61 pre-campaign to 2093 post-campaign.

Figure 4 shows that the number of files opened from the service records, the 3 months after campaign showed an improvement where the follow-up visits increased by 32% and new files opened increased by 56%.

Table 3 shows that only new patients were significantly increased over time, it was the most

Table 3: Time trend analysis over 6 months in year 2016

Patient and files variables	Number Change per month	Standardized Coefficients	p-value
Number of regular attenders	–0.004	–0.529	0.281
Number of New commers	0.007*	0.851*	0.031*
Number of New files	1.226	0.769	0.074
Number of Follow Up files	0.089	0.311	0.549

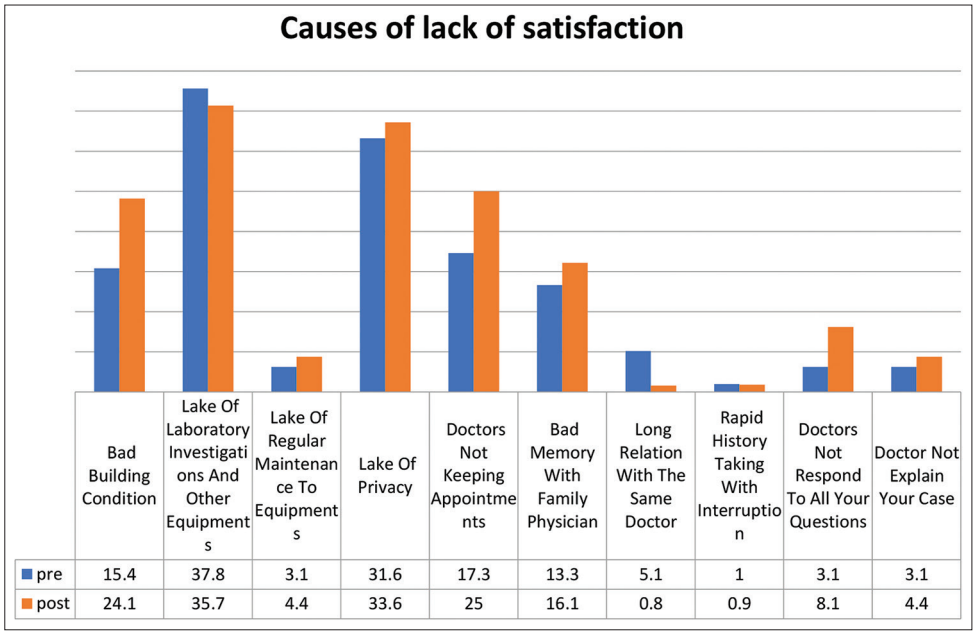

Figure 2: Causes of lack of satisfaction provided by family medicine clinics among nonuser or partial users (pre and post campaign)

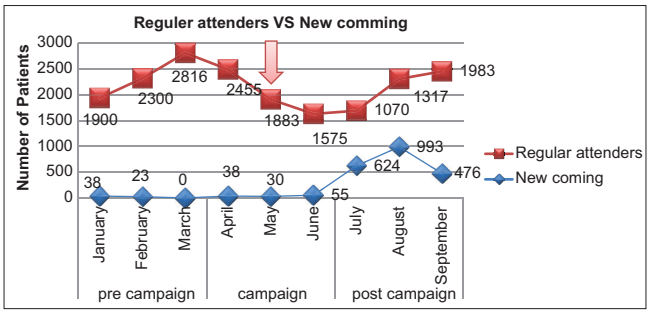

Figure 3: The number of patients attending family medicine clinics at Hadaek Al Kobba family health center

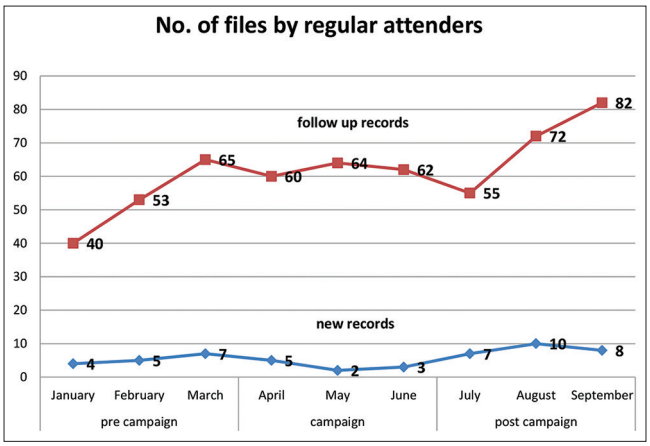

Figure 4: The number of the new and follow up files opened for the attender of the family medicine clinics before, during and after campaign

important one of them because it was standardized coefficient and it was more than all of them. Approximately there was one patient increased every month because some months were lower in number and others were fixed.

Discussion

Although it is well established that Family physicians/general practitioners have been the basis of providing PHC services in many developed and developing countries, in Egypt, the situation is still different mostly due to the negative attitude towards the family physicians as well as the PHC centers as unqualified and unreliable [12]. Social marketing can be used as an effective approach to increase people's awareness and change their attitude and behaviors related to the prevention and control of diseases and hence increasing utilization about specific specialties such as family medicine [6].

Social marketers conduct formative process, and evaluative research to discover barriers to behavioral change and develop approaches that address them [13]. This study is conducted to assess the efficacy of social marketing campaigns in increasing the utilization rate of FMC services at Hadek Alkoba FHC.

The study revealed that the most important cause of underutilization was lake of knowledge about the presence of the service (94.9%) so part of the campaign success was increasing the awareness of the served community with the presence of the FMC services in the center, this is unlike (El-Seifi *et al*., 2009) who found that lack of satisfaction among household non-users of FHC units in Sharkia Governorate was mainly due to shortage or absence of advanced drugs causing them to buy from the more expensive private pharmacies [14].

The study revealed that the most causes of service dissatisfaction provided by FMC were related to

infrastructure and doctors' performance which are out of control of researcher and the commonest cause was lack of laboratory investigations and other equipment (37.8%) and here came the role of HadeK Al Kobba Health District which was a partner in the campaign through solving some of these problems such as improvement of the building and doctors' performance (like not keeping appointments) and following the regular maintenance of the center equipment's through all the period of implementation of the campaign. Unlike Alhashem *et al*. 2011 who concluded that the majority (87%) of patient's dissatisfaction was related to lack of enough time for communication between physician and patient [15].

The social marketing campaign was able to increase the flow number of the new patients attending FMC, the number of new family files opened and the frequency of weekly visits of regular attenders post-campaign than its number pre-campaign this is similar to Ghobashi *et al*., 2013 who concluded that service output indicators after social marketing campaign had improved and become more than before the campaign [11].

The study revealed that social marketing campaign can improve service utilization of FMC, This result got in agreement with many other studies that revealed that social marketing had been successful to improve the use of a variety of products, including birth control pills, oral rehydration salts, breastfeeding, and the consumption of multivitamin and mineral supplements [16].

Limitations of the study

- The small number of available working family physicians affected service performance and the client did not find beneficiaries desired services after campaign as they were told
- During the campaign period, there were Ramadan and many official vacations which affect the flow rate for people attending the center
- More service output indicators should be used to evaluate the services provided by the FHC clinic services.

Conclusion

Social marketing is an effective intervention to promote the utilization of the services provided by FMC by increasing the flow rate of the new attenders to the FHC and subsequently the frequency of visits to the FMC and the utilization of the follow-up records.

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