SOCIAL MARKETING AND AWARENESS ABOUT ROUTINE IMMUNIZATION AMONG THE PARENTS OF CHILDREN UNDER 5 YEARS COMING TO A PRIVATE HOSPITAL IN KHYBER PAKHTUNKHWA

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Abstract

Introduction: Social marketing is a key strategy to influence the health seeking behavior of human beings on a large scale. Although social marking approach is applied to address a variety of social concerns, it also has a vital role in the health promotion and disease prevention.

Objectives:
1. To elaborate the source of social marketing for the promotion of routine immunization among children under-5 years.
2. To assess the determinants of social marketing in term of promotion of routine immunization.

Material & Methods: The survey was conducted in the Department of Pediatrics of the Rehman Medical Institute (RMI) Peshawar KPK over a period of two months. Self-administered questionnaire-based survey was used to address the objectives. The questionnaire catered to the four Ps (Promotion, Personnel, Partnership, and Proof) that are the basic themes of social marketing applicable for promotion of immunization. Parents of children under-5 years of age were included as subjects. Data were analyzed by using SPSS version 15.0.

Results: A total of 63 parents were surveyed during two months of data collection period. About 54% of them were unaware about National immunization days. However 84% had got information about immunization, where 63% had got information from print media and perceived that the information was sufficient to convince them.

Conclusion: Social marketing is an effective tool in ensuring health seeking behavior especially in immunization of under-5 year children; however health promotion activities by vaccinators, others health care professionals and governmental and non-governmental organization linked with low immunization are lacking in the region.

Key Words: Immunization; Child, Preschool; Social Marketing; School Health Promotion; Awareness.

INTRODUCTION

Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of vaccine, which stimulates the body own immune system to protect the person against subsequent infection or disease (1). It is the only tool to be used for the prevention and elimination of life threatening infectious diseases. According to W.H.O., through immunization we can prevent 2 million deaths per year. It is one of the most cost effective health services, with its mission attainment of “A world in which all people at risk are protected against Vaccine-preventable disease” accessible to all its target population regardless of geographical boundaries (2, 3).

When the expanded program of immunization (EPI) was launched in 1974, about 5% of children in the world were immunized. According to WHO these infectious diseases are responsible for 25% of deaths among 10 million deaths per year of children under-5 years in the world. However by the passage of time in 1990, 80% of children were fully immunized against six target diseases: diphtheria, tetanus, pertussis,
Poliomyelitis, measles and tuberculosis; and approximately 3.2 million deaths were prevented through promotion of routine immunization (3).

About 7.5 million deaths were prevented between 1999 and 2005 due to accelerated immunization programs. About 102 million children under one year were vaccinated against diphtheria, pertussis and tetanus in the world in 2006 and unvaccinated children were reduced from 28.1 to 26.3 million in 2005 (4). When it was known that vaccination plays an important role in prevention of diseases, the 58th resolution of WHO welcomed the global immunization vision and strategy 2006-2015 for strengthening national immunization program (4). WHO has established different strategies with inculcation of social marketing to improve routine immunization globally and some of these are: the district planning and monitoring approach introduced by WHO ready gained acceptance in the nations as a “reaching every district” strategy, through which vaccination coverage has improved. Strategy of child health day led by UNICEF also helped to promote routine immunization. To improve the immunization coverage, the vaccination week has played a crucial role in some developed and developing countries (4).

Global immunization is now launched all over the world. The six target diseases are extremely preventable if immunization is readily available. The availability of vaccines varies from country to country because of lacking logistics; facilities and health care are not guaranteed to every individual especially in the rural areas (5, 6). The gap of vaccination found in the remote areas is due to lack of roads or transport, lack of knowledge, lack of awareness of the social services near to them and sometimes lack of vaccines and health infrastructure due to civil conflict (5, 7).

Immunization in developing countries is yet requiring more time to reach the target objectives. Pakistan is one of the developing countries where the routine immunization is not satisfactory to achieve the millennium goal 4 (to reduce the global under-five mortality rate by two third) (7). Despite enough donor investment Pakistan had only 58% coverage of polio in 2000. The child mortality rate in Pakistan is still high (total infant mortality rate 68.84/1000 live births) (8). National immunization days gain acceptance in the community. Opting for a health promotion strategy by lady health workers brought a measurable improvement in immunization coverage (7, 8). A remarkable improvement has been seen when vaccinators were given additional responsibilities like: attending 150-200 children per day, door marking, record keeping in tally sheets, locating and marking the missing children and family health education. However still there is shortcoming in immunization services which needs to be sorted out. These issues include limited mobility of vaccination team, unavailability of funds for rural areas, lack of recruitments or politically driven recruitments, lack of motivation among health providers, and lack of referring culture or giving less importance to refer a child for vaccination (6,9,10).

Social marketing and immunization

There are different definitions of Social Marketing; one of use for the purpose of explaining social marketing of immunization is that of Alan Andreasen: “Social marketing is the application of commercial marketing technology to the analysis, planning, execution and evaluation of programs design to influence the voluntary behavior of target audiences in order to improve their personal welfare and that of their society” (11).

Social marketing was first introduced in third world countries during 1960s and 1970s. It has lot of contributions in term of addressing the
problems of individuals and society and then through behavior change strategy it improved the well-being of both society and individual (12-15).

Social marketing in Pakistan has also played a significant role in improvement of some social issues, such as family planning, TB control, prevention of HIV/AIDS, nutrition, hygiene, water and sanitation, education and health especially maternal and child health (16,17). A special consideration was given for the improvement of routine immunization coverage in Pakistan (16).

The health seeking behavior in Pakistan is largely influenced by cultural beliefs; which in turn lead to self-care, home remedies and referring to the Traditional Healers (18, 19). Therefore to promote health service delivery and acceptance by the community, it is necessary to know the perception of consumers so as to design products (immunization) which can satisfy the consumer wants and needs; for example the children don’t get vaccinated when the parents don’t know the importance of vaccine for child health or the caregiver don’t know the value of immunization (20).

The commercial marketing experiences show that consumer behavior is sustained by improving product over time and expanding distribution systems (21). Thus addressing the consumer interest and need is very important for achieving prolonged product life cycle like immunization.

After the customer orientation the planner requires to know the consumer perception about the product, like immunization, product price and the competition’s benefits, cost, and other factors that influence consumer behavior (21,22). For example in case of immunization, long traveling, waiting of the healthcare team, inconvenient clinic hours, lack of time and finding the children to be available at home during national immunization days.

This study was focused to elaborate about four Ps (Promotion, Personnel, Partnership, and Proof) - the basic themes of social marketing approaches supportive for the promotion of routine immunization among children under-5 years age. Promotion refers to the activities like communication of message, channels and others means through which exchange of behavior take place. Personnel refer to those people who deliver the social marketing product / service (Immunization services in this study). Their commandments play an important role in promotion of routine immunization. A main intention was to evaluate their activities in line with the objectives of national immunization program. Similarly Partnership is a fundamental initiative in the social marketing of health; it indicates inter-sectoral collaboration for the betterment of the service. For example WHO and UNICEF are strong partners promoting immunization in Pakistan and other developing countries. Inter-sectoral collaboration for promotion of routine immunization in Peshawar, Khyber Pakhtunkhwa (KPK) was looked into. Finally study tended to appraise Proof, the basic activities going on at the first care facility level (FCFL) for routine immunization.

**Rationale of Study**
Social marketing is important for behavior change and a good strategy to prevent communicable disease. No study has been done to assess the social marketing with respect to promotion of immunization strategy in KPK.

**Aim of the study**
To prevent under-5 children from vaccine preventable disease through increase in social marketing approach in KPK.

**Objectives**
1. To elaborate the sources of social marketing for the promotion of routine immunization
among children under-5 years at Rehman Medical Institute (RMI) during 2011.

2. To assess the determinants of social marketing in term of promotion of routine immunization among children under-5 years coming to RMI during 2011.

MATERIAL & METHODS

It was a questionnaire based survey conducted in the Pediatrics department of RMI Peshawar during April and May 2011. RMI is located at the gateway of Khyber and caters a chunk of population from both KPK and Afghanistan. Data were collected using convenience sampling approach after approval from relevant authorities. All parents who had children under-5 and willing to take part in the study were included.

Data collection

The questionnaire was divided into six parts, the first part consist of demographic data, while the second part consist of queries about awareness of parents regarding routine immunization. Rest of questionnaire catered to four Ps (Promotion, Personnel, Partnership, and Proof) of social marketing applicable for promotion of immunization. For Promotion, parents were enquired about different ways and channels for the promotion of product (promotion of immunization) like family education, guidelines for immunization, advertisement etc. For Personnel, the parents were asked whether vaccinators or LHV's visited their homes on a regular basis for vaccination, were easily available and carried out health education practices in the areas. For Partnership, parents were asked whether there were any other organizations in the region which promoted routine immunization. For Proof, parents were asked about the functioning of national immunization program and health promotion activities of health professionals in national immunization program.

Data Analysis

Data were analyzed using Statistical Package for Social Science (SPSS) version 15.0. Analysis included calculations for frequencies, percentages, means and standard deviation. Cross tabulation (Chi square test) was applied for different categorical data like education status, income and occupation, keeping p ≤ 0.05.

RESULTS

A total of 63 patients (65% male and 35% female) were surveyed during two months of data collection period. For 63% of parents, the education level was Matriculation; 38% were in government and private service while 62% had their own business (See table 1).

Table 1: Demographic profile of the parents (n=63)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65%</td>
</tr>
<tr>
<td>Female</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Parent’s Education level</strong></td>
<td></td>
</tr>
<tr>
<td>Under Matric</td>
<td>37%</td>
</tr>
<tr>
<td>Matric &amp; above</td>
<td>63%</td>
</tr>
<tr>
<td><strong>Parent’s Occupation</strong></td>
<td></td>
</tr>
<tr>
<td>Government &amp; private employee</td>
<td>38%</td>
</tr>
<tr>
<td>Self-employee</td>
<td>62%</td>
</tr>
</tbody>
</table>
More than half (54%) of the participants were not aware about National immunization days. But still 90% of parents believed that immunization is very important for health of their children because it prevents diseases. Ninety eight percent of parents reported that their child had got vaccinated but still 29% are not completely vaccinated (figure 1).

**Figure 1: Awareness and practice of immunization by parents (n=63)**

**Promotion:** According to the study, majority of the participants (84%) had received information about immunization. The main source of information regarding the social marketing of immunization was print media (33, 63%). Majority of the participants (38, 60%) responded that they got the public health message about immunization 1-2 times per month, whereas only 22(22%) reported that they came across the message more than 3 times/month. A vast majority of participants (48, 76%) thought that the information was sufficient to convince parents to immunize their children.

<table>
<thead>
<tr>
<th>Theme 1: Promotion</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have received Health Education message from any sources?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>53 (84%)</td>
</tr>
<tr>
<td>No</td>
<td>10 (16%)</td>
</tr>
<tr>
<td>2. Source of information</td>
<td></td>
</tr>
<tr>
<td>Print Media</td>
<td>33 (63%)</td>
</tr>
<tr>
<td>E-Media</td>
<td>20 (37%)</td>
</tr>
<tr>
<td>3. No of times/month you get information about immunization</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>11 (17%)</td>
</tr>
<tr>
<td>1-2 times/month</td>
<td>38 (60%)</td>
</tr>
<tr>
<td>&gt;3 times/month</td>
<td>22 (22%)</td>
</tr>
<tr>
<td>4. Do you think the information was sufficient to convince parents</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>48 (76%)</td>
</tr>
<tr>
<td>No</td>
<td>15 (24%)</td>
</tr>
</tbody>
</table>

**Personnel and Partnership:** Majority of participant (95%) reported that the LHV/vaccinators regularly visited their villages during the national immunization days but 65
(60%) participants said that the vaccinators never educated them about immunization and vaccination. Similarly 51(81%) reported that no NGO had ventured into vaccination and immunization in their area.

**Figure 2: Parents’ perception of role of personnel and partnership (n=63).**

**Proof:** Although not emphasizing on social mobilization aspect of immunization, however 53(84%) participants were mobilized either by a doctor, nurse or paramedical staff. Most (51, 81%) believe that religious leaders could play an important role in motivating the people for vaccination of their children. Similarly 43 (68%) reported that they got information from media as well. Most of the participant knew the importance of vaccination and immunization; 58 (98%) of them educated and mobilized others to immunize their children against vaccine preventable diseases.

**Table 3: Parents’ responses for proof of the immunization program (n=63).**

<table>
<thead>
<tr>
<th>Theme 4: Proof</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Health professional stress on importance of immunization</em></td>
<td>53 (84%)</td>
<td>10 (16%)</td>
</tr>
<tr>
<td>2. <em>Religious leaders play a role in the promotion of immunization</em></td>
<td>51 (81%)</td>
<td>12 (19%)</td>
</tr>
<tr>
<td>3. <em>Media takes adequate steps in promoting of immunization</em></td>
<td>43 (68%)</td>
<td>20 (32%)</td>
</tr>
<tr>
<td>4. <em>Do you educate others?</em></td>
<td>58 (98%)</td>
<td>05 (08%)</td>
</tr>
</tbody>
</table>

**DISCUSSION**

The 21st century is characterized by a strong, free and vibrant media (social, electronic and print), which has made the world a global village. The importance of media is a fact that no one can deny; social marketing is a scientific process by which programs are created that affect and modify human behavior on a large
The purpose of the research was to identify and analyze the role of media in affecting the attitude of people towards the phenomenon of immunization.

Through the research it became evident that a vast majority of parents had thought of immunization as useful and had their children immunized, but interestingly they were not aware of the national immunization days. This was in high contrast to a research by the Department of Community Medicine, Faculty of Medicine, University of Papua New Guinea, Boroko [1] where only 13% believed immunizations could prevent disease. The media has however failed to give proper projection and due importance to the national immunization days, though majority (40/63, 63.5%) of people had an educational background of matric and above.

Most parents agreed that the information provided to them was enough to convince them to immunize their children; a research carried out by the Epidemiology and Surveillance Division, Centers for Disease Control and Prevention, Atlanta, Georgia, USA [2] reinforced this point, where they also had the majority of people satisfied with the role of media. The main source of information of the parents was E-Media. Only a small amount of parents had not completed the immunization of the children. As the aforementioned people were satisfied with the role of media, so lack of information was not an issue with incomplete vaccination

Research by health professionals of University of Ilorin, Kwara State, Nigeria & University of Lagos, Lagos, Lagos State, Nigeria, [3] in rural Nigeria point out majority of parents who had not completed vaccination of their children, objected, or were concerned about immunization safety, long distance walking and long waiting time at health facilities as the most common reasons for incomplete vaccination/immunization. In the present study, people were regularly visited at their homes by the LHV's, but majority of parents reported that the LHV's were not giving any healthcare message or educating the parents about vaccination. This information is potentially breaking new ground because the importance of LHV's cannot be denied, and their message has its own importance, but a reason could be the lack of LHV's or overburdened LHV's.

Interestingly a minority of people reported that any NGO or other private organization had ever carried out vaccination in their area; the only work which was done was being done by the government through its institutions. This revelation is also very important because it really gives us a hint about eradication of polio from the population of Afghanistan and Pakistan, by involving the private sector and the NGOs. The role of healthcare professionals was also lauded by the parents where they reported that most of the health care professionals had stressed on the importance of vaccination. Another interesting finding was that majority of people reported that the clergy through their medium of communication, if they want, could positively attract people towards immunization and increase the number of parents that immunize their children by many folds, a fact that should be expected regarding the conservative nature of our society. Here we also have a link that could possibly lead us towards a greater turnout for vaccination and immunization, but it might not attract the clergy because they might deem it not to be in their jurisdiction. A positive aspect was that most parents were really convinced about the positive outcomes of vaccination and most of the parents had tried to convince someone in their family and friends to vaccinate and immunize; this also could be used by health professionals in a positive way where they could convince their patients to such an extent where
they would be able to convince others and educate others on the usefulness of immunization.

Conclusion

While the social marketing program of immunization in Peshawar and related areas seems satisfactory, the findings may not reflect the ground realities in more remote rural settings, where more extensive marketing strategies employing local talent pools effectively may be needed to ensure universal vaccination coverage.

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