



Popularization of Science in Exercise, Nutrition and Lifestyle: A Successful Example of Science Communication in Iran

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Abstract

Background: Today, more than ever before we need to encourage people for behavior change toward healthy behaviors and active lifestyle. Using the power of branding, we launched a health campaign to send out health messages to the population.

Objectives: The aim of this report was to present data from a new experience in science communication of health concerns for adults.

Methods: The “health and life” campaign covered different areas of physical, psychological, social and environmental health issues to promote an active lifestyle. Generally, in monthly sessions, we presented 45 - minute talks by health experts on a specific health topic (e.g., smoking, healthy diet) and people with an interesting experience related to the topic were given a time to talk about their story. Participants and lecturer’s information were gathered between January 2013 and July 2017 by on-site registration.

Results: Until July 2017, a total of 54 events have been held with a total number of 41566 audiences. Preliminary results indicated that 86-92% of participants have reported a high level of satisfaction about the quality of health talk program.

Conclusions: Through this paper, we presented a new health campaign (health and life campaign) that uses social marketing strategies to promote healthy lifestyle among a wide range of population.

Keywords: Physical Activity, Sedentary Lifestyle, Health Promotion

1. Background

From the most significant topics in publicizing knowledge, health issues have attracted the most attention in the last decade (1). Since the 1990’s, sedentary lifestyle, unsafe foods, and non - communicable diseases have raised the alarm on the health risks for a wide range of populations (2-4). Several governmental and nongovernmental actions were then started to stop the decline or restore the normal health in communities (5, 6). Authorities were trying to deliver the health messages through several channels of communication including press, TV, workshops and seminars (7). In fact, there are some preferences rather than other common sources for popularization of knowledge such as the internet that could in recent years be known as “the main source of information for learning about specific scientific issues” (8). However, searching information in the internet could bring about two initial problems such as receiving data from non - scientific origins as well the possibility of readers being unreceptive to information (2, 9). There are other solutions that may be more beneficial and effective than internet (8). In the recent years, health

talks have been initialized in order to improve health (10). Without a doubt the scientific and professional talks have given the general population the information desired to live healthier (11). As an instance, Technology, Entertainment, Design (TED) talks are examples which present many medical ideas in a professional and respectful way which would help people to live a happier and more vigorous life (6, 12). The background of these talks is that individuals need novel social health programs to be healthier (3, 13). In such interactive health talks, health leaders discuss about the origin of the problem, why health is at risk of serious deterioration and how we can bring different services, people and healthcare providers together to better meet the health needs of communities (1). Finally, health talks aim to improve individual and community health outcomes (14, 15).

1.1. Health and Life Campaign

The complexity of health concerns and social relations are the most important challenges faced in health education (16, 17). Health campaigns are new methods to inform

the general population about health issues (18). However, there are few studies on the actual process and outcomes of the programs and several questions remain with no answers: How has it been designed, developed, and delivered or adapted by the population? Which formal and informal learning processes can be more helpful? Does the content of the training programs achieve the initial objectives of policy makers and planners? What are the challenges or new venues in such programs? What is the potential influence of health promotion programs in new populations (11, 12, 19-21)?

It seemed that the answer to these questions requires analyzing the point of view of researchers, lecturers and beneficiaries of the health programs (18). Thus, for the first time of its kind in Iran, a campaign has presented monthly talks on health care and health promotion entitled "Health and Life Campaign" (HLC) since 2013. Therein academicians and health experts were invited to these serial campaigns. In this report, we sought to address the questions on how the HLC program was conducted by policy makers and health experts and also adopted by the audience.

2. Methods

From January 2013, the HLC targeted the health communication programs to cover different areas of physical, psychological, social and environmental health. During the campaign, several medical services such as the measurement of blood pressure, blood sugar, weight, height, visual and hearing examination, oral and dental health consultation, nutrition counseling and psychological counseling were provided for the attendants. Specifically, participants and lecturer's information were gathered between January 2013 and July 2017 by on-site registration.

Data for each of the presenters and talks were then gathered and combined with information regarding the audience. The presenters were coded for gender and academic status. Academic status was coded as either "academic" or "non - academic". An academic status was defined as a presenter who had gained a doctoral degree or medical degree from an academic institution. The distinction between academics and experts in other sectors was informed by previous studies which showed high levels of public trust in university researchers relative to their private and governmental counterparts.

Apart from monthly talks, HLC has provided printed notes and also web and social media advertisements. In fact, in every monthly session, we focused on a specific health topic such as physical exercise, diabetes, cancer, or depression and 2 - 3 experts in the field would present their promotion talk on those specific topics with different

point of views (e.g., medical, psychological or social view toward cancer). During each session, we allowed people with an interesting experience related to the topic to talk about their story. Furthermore, several videos, reports and brochures focused on a specific health issue were provided by the campaign. In fact, the HLC was a chance for group meetings (i.e., experts, people and other stakeholders) to discuss and share the ideas about a health related topic. Furthermore, in every session, we released a motivational statement about the health topic of that day such as "Walk Tehran!", "Say no to Doping" or "A non - smoking day". We also offered valuable insight to the context of health and other social activities such as a "football for health" program (see Box 1).

Box 1. An Example for Health and Football

Description
Data show that professional football clubs can involve not only in sports activities but also in promoting health issues in societies. Football could be considered as a medium to extend communication on the Public Health issues. In developing societies football has a positive impact on the participation level of people in social activities. The health and football as potential partners have been frequently addressed by international football and health authorities. FIFA has recently reemphasized on social responsibilities of football among developing countries. In that vein, HLC offered valuable insight into the context of football for health based on existing literature and the experiences within the football industry in Iran. HLC hope to develop and support the strategies devoted to football for health in the course of assessments, cooperations, and interventions, to take advantage of football for promoting health in society.

There are several extracurricular activities that have been included in the occasions; such as live performances by local music bands and theater groups. In addition, special guests were invited to the campaign including art and sport celebrities. It is notable that these celebrities have been invited to become ambassadors for generalizing health issues (e.g., ambassador for HIV, Diabetes, etc.).

Finally, we used text messages, social media and the mobile-based networks (Viber, WhatsApp and Telegram) to advertise the campaigns. Campaign talks, events, and related videos have been also uploaded to a website as www.salamatvazendegi.com.

3. Results

From the 163 unique individual presenters of the 219 talk examined in this study, 134 (82.2 %) were academics (i.e., professor, lecturer, and research scientists), 46 (28.2%) were distinguished/named experts in the field and 47 (28.8 %) were female (Table 1). Almost 91.8 % of the presenters (N = 147) were from a Tehran - based institution reflecting the health campaign's origins and location in Tehran. However, in recent two years a few health campaigns were con-

ducted in other cities joint to the central team. The main topic for each session has been provided (Table 2).

Until July 2017, a total of 54 sessions have been held with a total number of 41566 audiences. We asked a single question from participants as “to what extent you were satisfied with the HLC program today?”. Preliminary assessments on quality of programs and audience feedback indicated that 86-92 % of participants have reported a high level of satisfaction about the quality of health talk program. Interestingly, parallel with the program talks, a few medical services were provided for the audience. Data indicated that 10752 participants have received the medical services across all programs.

Although the majority of presenters of HLC talks were male, the majority of attendants of HLC talks were female. Furthermore, by evaluating the campaign’s website, the majority of people commented on the videos presented by academics compared to the videos presented by others. Results indicated that visitors of the website have increased from 2680 to 4284 individual users from 2013 to 2017 (Table 2).

Further results showed that participants informed other people face to face and most of the new attending people had been advised by an individual who participated in a previous program. Web promotion, press news and SMS systems are the other routs of promotion for these campaigns. As Table 1 shows, through 2013 to 2017 press and health related authorities have increasingly supported the campaign by attending in sessions, funding and sponsoring.

4. Discussion

Health campaigns would be successful in spreading health messages to different sectors of the general population, if those develop the professional and effective communication strategies. As the current study showed, HLC is useful in health science communication and also able to place a wide range of individuals and health experts into a large communicative group (2). In HLC, several strategies are used to promote health education. For example, sharing ideas and life - experiences by people plays an important role in health education by HLC. Furthermore, the use of realistic role models can lead to a consistent behavior change (21-23). In HLC, we used scientific and public videos to expand the education during campaign programs. Indeed, by using evidence - based methods on health communication, we set new strategies to aid the health professionals and researches in promoting public health (21-25).

To address the strengths through these programs, scholars found a way in which they could present their work. The fact is that academics featured on HLC have a

positive point of view through passing on the scientific information to the general public with high satisfaction level (4). The unexpected high participation of people in addition to positive feedback on quality of campaigns suggests that science popularization has been successfully developed by HLC talks.

Even though HLC did not plan to promote the work of scientists within the academic community, it could make positive outlook on health communication in Iran. Previous research on popularization of science disputes that the mass media cultivates negative ideas about the science and technology while the general population are generally vulnerable towards the media’s influence (11).

However, the HLC experience indicated a high level of acceptance toward academic lecturers and people frequently followed the issues raised by those experts. A good explanation could be that academic presenters are less controversial than non - academics; therefore they are less likely to create negative popularity metrics. On the other hand, academic lecturers showed their motivation to engage in such a communicative environment possibly because of immediate positive affirmation received from the audience (26).

Finally, one can debate that HLC could expand its purposes beyond the attendants by using media particularly internet based social networks. In line with previous studies indicating that people are very interested in searching scientific information on the internet, we could extend HLC to an internet campaign. In fact, HLC is also a shared environment between academicians and journalists, as scholarly communication ecosystem. HLC are still trying to extend this communication ecosystem in both quantitative and qualitative aspects.

4.1. Limitations

However, HLC may face a few complications that bother human health communication. Evidence in scholarly activities has shown the fact that the complex and diverse terminology in scientific data reduce the enthusiasm of many non - specialists (and even specialists) to the talks. Furthermore, self - promotion by certain scientists is a major concern in cases where they are trying to acquire unwarranted reputation.

4.2. Future Directions

Future studies could also search to recognize how health talks and HLC presentations in particular (and on-line videos in general) contribute to the public’s perception of science. There is a consensus that the media often produce sentimentalism in scientific era instead of telling the truth. Thus, given the dramatic increase in media outreach particularly in developing countries, we need to re

Table 1. Descriptive Data from HLC through 2013 - 2017

Parameters	2013	2014	2015	2016	Up to 2017 July
Sessions per year	10	11	11	13	9
Sessions in Tehran	10	11	11	11	6
Sessions in other cities	0	0	0	2	3
The average number of population that participated in each session	250	768	968	920	890
Total number of participants per year (N = 41566)	2500	8448	10648	11960	8010
Mean age of participants	44	46	43	44	45
Educational level of participants	55 % of high school, 28% of under Diploma and upper Diploma, 12% BA and MA, 5% of (PhD)	50 % of high school, 33% of under Diploma and upper Diploma, 12% BA and MA, 5% of (PhD)	50 % of high school, 25% of under Diploma and upper Diploma, 20% BA and MA, 5% of (PhD)	50 % of high school, 25% of under Diploma and upper Diploma, 20% BA and MA, 5% of (PhD)	52% of high school, 25% of under Diploma and upper Diploma, 18% BA and MA, 5% of (PhD)
Positive feedback rate on quality of campaign (%)	86	90	92	86	88

Table 2. Information on Topics and Media Coverage from HLC through 2013 - 2017

Parameters	2013	2014	2015	2016	Up to 2017 July
Topics	Healthy nutrition, Men's health, Obesity, Anti - doping, Sports supplements, Stress management in life, Hypertension, Fatty liver, Sleep health, Salt and health	Low back pain, Obesity, Osteoporosis, Women's health, Children's health, Anxiety, Social health, Spiritual health, Health of middle ages, Elderly health, Acupuncture	Stress and anxiety, Knee osteoarthritis, Health concerns in cyberspace, obesity, elderly health, addiction, emotional management, healthy nutrition, Elderly health, Organ donation, Diabetes	Self - confidence, Familiarity with Cancer, Men's health, Pulmonary disease, Multiple sclerosis, Spiritual health, Hepatitis, Parenting, Women's health, Diabetes, Traditional medicine, AIDS, Obesity	Men's health, Diabetes, effective communication, Obesity, Cancer prevention, Happiness and exercise, Social health, Low back pain, Spiritual health
Website visit count per year	-	2680	3057	3740	4284
Health messages transferred through social networks (Viber, WhatsApp Telegram) by campaign members	No access	542	14980	21381	24439
Media and media attending or covering campaign	0	10	18	19	21

- evaluate the ways of communication between scientists and lay people particularly the ways people will acquire the scientific information and apply it to their lifestyle modifications.

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