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Original Article

Assessing the Effectiveness of Informational Video Clips on Iranian Immigrants' Attitudes Toward and Intention to Use the BC HealthGuide Program in the Greater Vancouver Area

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Abstract

Background: Consumer-directed health information resources hold great potential for improving public health and easing the demand on health systems. Their value, however, depends largely on the ability of their intended users to access and use them effectively. Little is known about whether British Columbia's ethnocultural communities are using the British Columbia (BC) Ministry of Health's BC HealthGuide (BCHG) program, and if so, when and for what purposes they use the services, as well as level of satisfaction with and users' perceptions of the resources. This study investigated attitudes toward and perceptions of the BCHG program, as well as use patterns and satisfaction levels, within the Iranian community of the Greater Vancouver Area (GVA) -- among BC's largest and fastest-growing Middle Eastern immigrant communities -- and explored a model for introducing the BCHG program to ethnic communities in the GVA and BC.

Methods: In a 2-stage quasi-experimental design, with a combination of quantitative and qualitative research methods, data obtained from structured telephone surveys, in-person interviews, and focus groups involving a randomly selected sample of the target population were analyzed before and after intervention with audiovisual health information: a series of culturally relevant informative video clips developed by direct participation of the

community and aired on local television channels in the fall of 2004.

Key Findings: There was low awareness and low utilization of the BCHG program among participants at the beginning of this study. Furthermore, many participants in the initial stage of this study cautioned that self-care resources in general are unsuited to Iranian culture, due to widespread distrust of health advice received via telephone or the Internet, and due to the strong value placed on health advice received directly from a professional medical doctor. Nonetheless, attitudes, perceptions, and self-reported utilization rates of the BCHG program improved substantially among the participants of this study following the screening of culturally appropriate, targeted promotional videos. Participants almost unanimously reported that watching the videos had encouraged them to use the BCHG program, and that they intended to promote the resources to others. In addition, the majority of participants who had accessed at least one of the BCHG program resources reported being satisfied with the services that they had received, and improved utilization rates were maintained at the follow-up focus group stage. At the same time, participants cautioned that gaining the confidence of the wider Iranian community in BC and increasing service utilization will require considerable time and effort. In particular, they suggested using a variety of media and communication channels, carefully selecting the health messengers, and targeting messages to specific community subgroups.

Conclusions: The findings of this study strongly suggest that Iranians living in the GVA are open to alternatives to routine healthcare services, including the use of preventive and self-care resources. However, awareness levels and utilization rates of the BCHG program among the GVA's Iranian immigrant population have until now been low. The noticeable and sustained improvement to attitudes, perceptions, and self-reported utilization rates of the BCHG program among Iranian participants in this study after watching culturally appropriate promotional videos indicates the potential to modify cultural beliefs in regard to the delivery of preventive health information if the relevant messages are delivered appropriately. By carefully considering the demographic and cultural characteristics of the various ethnic communities living in BC, and by targeting promotional activities and services directly to these individual communities, the BCHG program could improve awareness and utilization rates within these communities.

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Background

In recent years, significant emphasis has been placed on the availability of consumer health information and self-care resources.[1-4] Increasingly, health departments in Canada and other developed countries are implementing government-sponsored health and self-care information programs delivered directly to the public via telephone, the Internet, and other innovative approaches.[5-7] One assumption is that these approaches can improve self-awareness of the diseases and healthy behaviors, help the public to prevent injuries and infections, and monitor and/or manage symptoms from home,[2,5,8] thereby reducing unnecessary use of facility-based medical care.[9,10] However, in order for these resources to be effective, individual consumers require a minimum level of health literacy and knowledge of the healthcare system's language,[5,11] that is, being able to access, understand, evaluate, and communicate the available information.[3,12] Internet health resources, in particular, require a specific skill set, such as basic reading and writing skills in the language in which the information is available, a working knowledge of computers, a basic understanding of science, and an appreciation of the social context that mediates how online health information is produced, transmitted, and received[4,7,12] -- the skills now widely referred to as "eHealth literacy." [3,12] Therefore, although consumer-directed health information resources hold great potential for improving public health and easing demand on health systems,[8,12] their value depends largely on the ability of their intended users to access and use them effectively.[3,6]

The British Columbia (BC) Ministry of Health provides a comprehensive health information program, the BC HealthGuide (BCHG) Program, which was introduced in the province in April 2001.[12,13] The program consists of 4 components[12]: A handbook (BC HealthGuide handbook), a toll-free telephone service (BC NurseLine), a health information Web site (BC HealthGuide OnLine), and fact sheets (BC HealthFiles). The BCHG handbook, a self-care reference guide, provides basic, medically reviewed guidelines on how to recognize and cope with over 190 common

health concerns.[14] The BC NurseLine is a toll-free, 24-hour, 7 days a week service, staffed by specially trained registered nurses who provide confidential health information and advice.[13] Between 5:00 pm and 9:00 am, a BC NurseLine pharmacist is also available. BCHG OnLine is a comprehensive Internet Web site with widespread, medically reviewed health information, and BC HealthFiles are a series of 1-page, easy-to-understand fact sheets covering a wide range of public and environmental health and safety issues.[12] BCHG Program health information is updated routinely.

This comprehensive health information program is designed to benefit the health of BC's population as a whole by improving consumer access to timely and accurate health information and advice,[13,14] expanding consumer knowledge on managing personal health risks and conditions,[12] alleviating pressure on emergency and physician services due to improper use, and reducing costs due to inappropriate use of the healthcare system.[12-14] However, little is known about whether BC's ethnocultural communities are using the services provided, when and for what purposes they are being used, and levels of satisfaction with and users' perceptions of the services. Having learned that utilization of the BCHG program was lower than desired among certain populations, we undertook a collaborative research and intervention process aimed at increasing awareness and utilization of the services. The goal of this study was to determine whether culturally sensitive videos could be used effectively to increase utilization of the BCHG program among the Iranian population of the Greater Vancouver Area (GVA, including Burnaby, Coquitlam, North Vancouver, Surrey, Richmond, Vancouver, and West Vancouver). This community is the province's largest Middle Eastern immigrant group, a fast-growing, new immigrant community, which has doubled in size since the late 1980s.[15] This study also sought to develop a model for video production that combines participatory design and social marketing with production practices that can be used for communicating health information.[16,17] Furthermore, we wanted to develop a method of evaluation for this type of intervention. In this article, we provide an overview of the project and suggest that the model outlined here may be effectively transferred to other ethnocultural populations with success.

The intention of this project was to increase the use of a health service (BCHG program) within a specific population (GVA's Iranian community) through the creation and airing of culturally sensitive videos. The study also aimed to compare and contrast different communication models (direct vs indirect messages) and modes of delivery (facilitated group sessions vs at-home viewing) that could serve as a model for introducing BCHG program resources to other ethnic communities in the GVA and BC. We hoped to develop more general and transferable design guidelines for producing media that promotes health services among culturally specific groups. The design guidelines developed are part of an iterative process intended to inform future health service promotions targeted to cultural minority groups beyond the one specified in this project.

Methods

Video Production

The culturally sensitive nature of this project required an extensive pre-production stage, involving:

1. Initial demographic research into the target community;
2. Analysis of geographic concentrations, such as location and distribution of the community;
3. Assessment and analysis of the cultural composition of the community, including family size, living conditions, and socioeconomic status;
4. Focus groups and in-person interviews with members of the target community to gain insight into issues, such as who they trust to receive medical information from and where they get their health information from;
5. Working with an expert advisory panel consisting of members of the target community who are professionals in related fields (such as health, culture, and television production);
6. Script writing and development workshops with members of the target community to provide cultural grounding; and
7. Final consultation with members of the target community to review scripts and storyboards for cultural accuracy and credibility.

Findings from the pre-production focus groups and interviews suggested that a majority of the Iranian community in the GVA believe "word of mouth" to be the most effective way for them to learn about the BCHG services, a method identified as an effective approach in ethnocultural communities.[18] The target community also appears to rate the advantages and disadvantages of engaging in a health-related activity that is based on the experience of others and from the advice received from highly trusted, well-educated individuals, such as Farsi-speaking doctors. Given the importance of trust in communication strategies, the identification of trusted individuals for the delivery of health information provided the basis for the development of the videos produced in this study.

It was decided that the best way to provide word of mouth from community members' experiences was through the creation of short dramas that recreate specific experiences.[19] The scenarios for the short clips were developed with the intention of presenting actors as members of the target community engaged in resolving health-related problems[16,17] with the BC HealthGuide services. Development of the scripts for numerous clips was done in consultation with the expert advisory panel, and 4 scenarios were chosen on the basis of their appropriateness to the use of the BCHG Program.

In order to include representation from trusted medical professionals, and to provide an evaluative comparison to the clips, a documentary script was also developed. The documentary script was designed to provide health information (specifically about the BC NurseLine) directly from an Iranian physician in an interview setting. Other community members and medical professionals were also interviewed, either in Farsi or with Farsi translation.

The actual production stage of this process required the recruitment of community members who in effect played themselves in short videos that were developed in the pre-production stage. The participatory aspect of this stage was interesting because not only did the community members find it engaging and empowering to be involved in a television production, but they were able to make comments and suggestions throughout the production process aimed at making it more accurate and credible.[16, 20-22] For example, community members suggested

the inclusion of culturally specific household items in the background of the shot, as well as changes to the script to make the dialogue more appropriate to the context. The actors and locations were all situated within the target community to make the videos more realistic and to incorporate implicit cultural references in order to improve reception of the videos by the target community.

The final videos were all produced in Farsi. They included one 13-minute documentary, which provided direct health information and included interviews with health professionals and members of the community explaining health issues and the use of the BC HealthGuide and NurseLine, and 4 short (less than 2 minutes each) videos clips, which were dramatizations targeted toward specific age and sex groups that had been identified in the pre-production stage as being the groups most likely to require the BCHG services. The short videos were based on health issues common to the target population.

During the postproduction stage, it was essential to have constant consultation from Iranian health experts. This was necessary to ensure that both the language and health information were accurate, consistent, and appropriate throughout the editing and titling process.[17] Draft edits of the productions were reviewed and commented on by community members before final cuts were made. Finally, the videos were reviewed by all sponsors of the project. The developed videos were aired on local Iranian TV channels (City TV, Channel 8, and the Shaw Multicultural channel) between October and December 2004 (prior to the data collection phase of this study). Each of the short videos was shown 12 times, for a total of 48 viewings, and the documentary was shown 6 times.

Sampling

A 2-stage quasi-experimental study design, which used a combination of quantitative (structured telephone questionnaire) and qualitative (initial and follow-up focus groups) research methods, was then employed among a randomly selected sample of the target population.[23] The study sample was recruited with the Iranian yellow pages and residential telephone books in 7 major district areas of the GVA (Burnaby, Vancouver, North Vancouver, West Vancouver, Richmond, Surrey, and Coquitlam). Eligibility for participation in the study was based on 2 criteria: (1) being an

Iranian adult over 19 years of age (either someone who was born in Iran or people who were born in Canada with 1 or more Iranian parents immigrated to Canada) and (2) being a resident of the GVA during the airing period of the video clips.

Data Collection

Telephone Surveys. In the initial quantitative phase, a randomly selected sample of 800 eligible residents of the GVA's Iranian community participated in a structured telephone interview. They were selected from the GVA's Iranian language telephone books. The survey was developed on the basis of information gathered from the pre-production focus groups and interviews as well as a panel discussion involving scientists and health professionals, held within the GVA Iranian community. The survey was pilot-tested with a group of 10 Iranian families and was refined with feedback from these sessions. The final survey was administered in Farsi over the telephone. Participants in the telephone survey were asked whether they had seen the BCHG videos already aired on local television channels, and if so, which ones. They were also asked general demographic questions, how they access health information, and specific questions in regard to the BCHG services and their use. All participants in the survey were asked whether they would like to be involved in one of the postintervention focus group sessions planned for the spring of 2005.

Focus Groups. In the qualitative phase, 98 randomly selected volunteers from the telephone interview stage were asked to participate in 7 focus group sessions held in the spring of 2005. Participants were allocated to particular focus groups according to which, if any, of the video clips they had reported viewing at home. Between 10 and 15 participants who had seen the videos at home were randomly selected to form the first 3 focus groups (groups A, B, and C), which were considered the "control groups." A further 50 participants who had not seen any of the videos were randomly selected to form group D or the "experimental group." Group D was randomly divided into 4 subgroups:

- * Subgroup D1: All videos are watched and discussed during the focus group;

- * Subgroup D2: Only the documentary is watched and discussed during the focus group;

* Subgroup D3: Only the short videos are watched and discussed during the focus group; and

* Subgroup D4: Discussion without watching any of the videos during the focus group.

Findings from the telephone survey were used to develop the core discussion questions for the 7 focus group sessions. In addition, 2 follow-up focus group sessions were held in November 2005 with 33 randomly selected participants from the initial focus group sample. Ethics clearance for the study was given by the University of Victoria (Victoria, British Columbia) and Simon Fraser University (Burnaby, British Columbia) Ethics committees.

Key Findings

Of the 800 people randomly selected for the telephone interview, 590 agreed to participate (response rate, 74%). The majority of these respondents was women, between the ages of 35 and 64; who had at least an undergraduate or college education; and were in good or better health.

Overall, 36% of the respondents had previously seen either the BCHG short video clips or the documentary at home. However, only 67% of the total sample of respondents actually watched any Farsi language television programming, meaning that just over half (54%) of those who watched Farsi TV had seen the Farsi language BCHG videos.

Initial findings from this telephone survey highlighted poor awareness levels and low utilization rates of the BCHG program among participants prior to viewing the videos. Although the BC Handbook was mailed to all households in BC prior to the videos (in April 2001), for many participants (67%) watching the Farsi videos was the first time that they had received any information about the BCHG program, and almost all participants reported that watching the videos had encouraged them to use the program (98%) and that they intended to promote the services to others (87%). In addition, the majority of participants who had accessed at least one of the BCHG program components reported being satisfied with the services that they had received (88%). Furthermore, the majority of participants in the follow-up focus groups, held 1 year after the

airing of the promotional videos, self-reported continued utilization of, and overall satisfaction with, the BCHG resources (59%). According to statistics provided by the BC Ministry of Health,[12] the number of callers to the BC NurseLine who request Farsi translation increased significantly around the time of the airing of the videos (between October and December 2004) as well as a moderate increase in September 2004, just after the videos had been produced.

Participants almost universally indicated that they perceive healthcare professionals, particularly medical doctors, to be the most credible messengers of health information. This credibility was enhanced further if the doctors were well known in the community. In fact, title and prestige were the most important factors identified by participants in determining the credibility of a health messenger. It was suggested that the appearance and context of the health messenger were important to their credibility as well. Comments were made by participants that the doctor in the documentary should be wearing a white coat and be situated in a clinic or hospital. The language used by the doctor in the documentary should be more straightforward and without technical terms or medical jargon to be more accepted by a wider audience.

The overall opinion of participants was that self-care resources in general might be unsuited to Iranian culture, and that this divergence had thus far prevented many Iranians from using the BCHG program adequately. For example, Iranian culture does not traditionally place a strong emphasis on preventive healthcare, and many Iranians (particularly older generations) tend to seek out health advice only when they perceive that they have a serious condition, or that it is an emergency.[24] A common perception held by participants was that health advice received from nurses or translators, over the telephone or from the Internet, is not as trustworthy as that received face to face from a doctor. In addition, the focus group discussions highlighted a number of initial misconceptions held by participants about the BCHG program, including confusion over how the program is intended to coordinate with other health services, such as doctors' visits and emergency services, as well as concerns about the quality of care offered.

The majority of participants indicated that they believed that the wider GVA Iranian community could be encouraged to embrace

preventive healthcare services in general, and specifically the BCHG program, provided that promotion of the program was targeted directly to their community, was culturally appropriate, and sustained. The overall response of participants to the videos aired in this study was positive, and most participants believed that the videos had the potential to be effective in their community. During the focus group discussions, however, a number of recommendations were made for improvement of the videos and promotion of the BCHG program in general.

Although most participants believed that young people would be the easiest age group to educate (being more adaptable and less likely to be settled into habits), it was also pointed out that educating only young people, without including their parents and grandparents, would have the potential to create conflict within households. Thus, it was believed that promotional messages and media channels should target all age groups, varying according to the interests and needs of each group. For example, participants recommended the Internet, English-language television channels, school and university settings, and youth volunteers as channels for promoting the program among young people. For older age groups, Farsi language newspapers and magazines, local Farsi TV channels, community gatherings, and well-known, respected volunteers from the community were seen as being more appropriate promotional channels.

Participant reactions to the 2 different communication models (direct/ documentary and indirect/drama) appeared to be affected greatly by personal preferences, with relatively equal numbers preferring each of the 2 types. In general, it seemed that the direct model (documentary) was considered to be both more informative and more professional, and thus improved the credibility of the BCHG program in many participants' views. The indirect (drama/role-play) model, on the other hand, was generally thought to be very well suited to Iranian cultural practices and norms, and thus made the services more appealing and approachable to many participants. Therefore, it seems that using a combination of the 2 communication models would be most effective in promoting the BCHG program.

The focus group sessions were very popular among participants, and the general opinion was that facilitated group sessions were

more effective environments for learning about the BCHG program. Viewers in the group sessions reported enjoying fewer distractions while watching the videos than they would have had at home, and appreciated the opportunity for discussion of the topics and issues raised. At the same time, the convenience of watching videos at home, and being able to discuss the issues raised with their families, appealed to a number of participants. Thus, it would seem prudent to use a combination of facilitated group sessions and mass media[22] in promoting the BCHG program in order to ensure wide dissemination of the messages, as well as to provide concerned and motivated citizens with an opportunity to raise questions and discuss relevant issues.

Discussion and Conclusions

Although the BCHG program is a promising service, awareness levels and utilization rates among the GVA's Iranian immigrant population have, until now, been low. There was some awareness of the BCHG program among members of this community prior to the airing of the videos; however, calls to the NurseLine requesting Farsi translation were very low prior to airing of the videos. Calls to the NurseLine requesting Farsi translation jumped in volume significantly around the time when the videos were aired (October–December 2004), suggesting that culturally appropriate videos can be used to get health messages out to culturally specific communities.[18] Additionally, there was an increase in the use of the Farsi translation service just prior to the video's being aired (September 2004). This change may point to the importance of the participatory video production process itself[19]; the Iranian community members who helped to create the videos may have spread word of the service to friends and family. This interpersonal communication function illustrates the importance of a participatory approach in both process and product for raising awareness of health issues within the community.[18,21] The findings of this study strongly suggest that Iranians living in the GVA are open to alternatives to routine healthcare services, including the use of online preventive and self-care resources, such as the BCHG services.

Referring back to the definition of health literacy,[20] the first fundamental component of an individual being health-literate is to be able to access appropriate health information.[6] In addition, considering that cultural beliefs and practices,[25,26] as well as

sex,[25] are acknowledged to significantly influence health and literacy,[27] the BCHG program should consider the demographic and cultural characteristics of the various ethnic communities living in British Columbia in aiming to provide accessible consumer health information.[10,18] Furthermore, promotional activities and services that are targeted directly to different communities' needs, priorities, and challenges[22,26] would have the potential to greatly improve the BCHG program's use and value among BC's population at large, including ethnocultural communities.

In this study, easy access to information was provided via culturally appropriate (Farsi language, balance of sex and age, community members as actors, use of relevant topics, and recognition of common cultural traditions) video clips introducing a government-sponsored consumer health information program. The noticeable and sustained improvement in attitudes, perceptions, and self-reported utilization rates of the BCHG program among participants in this study following the viewing of culturally appropriate promotional videos highlights the potential to modify cultural beliefs in regard to preventive healthcare, provided the relevant messages are delivered appropriately.

We suggest that culturally relevant and targeted audiovisual media, involving the participation of target population members in all aspects of production, and focusing not only on the experience but also considering the outcome, can be an effective means of providing accessible and understandable health information for specific ethnocultural communities.

Future studies have the potential to show the long-term impact of this type of intervention on behavioral and cultural modification, and can be designed to determine with what frequency targeted message must be repeated in order to sustain increased rates of utilization. In addition, future studies could explore whether or not repeating of the same messages over time leads to sustained increases in utilization rates, or whether "fresh" messages are required in order to sustain increased use amongst particular communities over time.

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