Everything with a Pinch of Salt

What knowledge have adult Barbadians gained from recent salt reduction messages and what impact have the messages had on their dietary choices?

Lisa M. Bayley

Faculty of Medical Sciences, University of the West Indies, Cave Hill Campus, Barbados

Email: lisabbarbados@gmail.com

ABSTRACT

Objective: The goal of this study was to ascertain if adult Barbadians 25-55 years, could identify and understood the messages contained in Phase One of the 'Battling the Hidden Enemy" Salt Reduction Campaign, and if they impacted dietary choices, particularly salt consumption.

Design and Methods: Purposeful sampling was used to recruit 22 Barbadians from a public and a private clinic to participate in focus groups. Recorded group sessions were analysed using inductive and deductive reasoning and data was classified and organised according to key themes, concepts and emergent categories using framework analysis, aided by the software programme, Atlas.ti.

Results: Participants could identify and understood the PSA's messages but did not report an increase in skills and self-efficacy in selecting low salt food options as they were still unable to read labels and make better food choices. Mainly female participants stated an inability to limit their salt intake and pointed to barriers to changing their behaviours as a result of heavily advertised, low-cost foods high in salt, addiction to tasty (salty) foods, inadequate labeling and a lack of nutritional information in food establishments.

Conclusions: The reach of the campaign may not have been as wide as necessary and education alone was ineffective in reducing the perceived salt consumption levels of focus group members, who judged the PSAs as educational but not effective. A multi-pronged approach should be used and include a targeted, consistent campaign, supported by interventions that change the food environment in ways that encourage population-wide behaviour change.

BACKGROUND

This qualitative study explored what knowledge Barbadians aged 25-55 years old gained from Phase One of the salt reduction campaign, "Battling the Hidden Enemy", sponsored by the Healthy Caribbean Coalition, in collaboration with the National Commission for Chronic Non-Communicable Diseases, Barbados. The campaign ran from June 2010 to January 2012 and addressed the high intake of dietary salt; low levels of knowledge about sources of salt and recommended salt levels; lack of skills; low self-efficacy in selecting low salt food options; and, the lack of a supportive environment for low salt options. The first phase focussed on increasing knowledge about the relationship between salt and hypertension, addressing myths associated with salt and promoting daily recommended levels of dietary salt. (1)

It targeted a primary audience of men and women, aged twenty-five years and older and the overall aim was to heavily utilise public education to reduce high blood pressure among the target audience by increasing knowledge of sources of salt in the diet, of daily recommended levels and address myths and traditional cooking practices. The targeted behaviours were promoted through a mass media campaign which combined radio and television advertising; supported through advocacy and community mobilisation activities, especially with the secondary audiences. The producers acknowledged that Public Service Announcements (PSAs) alone would not be capable of delivering all of the information which the target audiences needed in order to change their behaviour. The plan was therefore to address the barriers to adoption of the desired behaviours through inter-personal communication via nutritionists, print sources and interaction with advocates from governmental agencies and civil society.

The Salt Crisis

Recent data on salt intake shows that populations around the world are consuming much more salt than is physiologically necessary, in many cases, consuming much more than the current World Health Organization (WHO) recommendation of sodium consumption for adults, 2 g sodium/day (equivalent to 5 g salt/day). In industrialized countries, about 75% of sodium in the diet comes from manufactured foods and foods eaten away from home. (6) Locally, bread, fish, rice, poultry, and sweets were major food group sources of sodium, contributing a combined 50% to total consumption. (8) Strong evidence links a high salt intake to high blood pressure and population salt reduction is being touted by the WHO as the simplest and most cost effective measure to reduce NCDs due to its high impact on health, high feasibility and low cost of implementation. (5)

In Barbados, The National Chronic Disease Commission estimates that salt intake is twice the ideal level and is a major concern for public health practitioners. About 20% of Barbadians suffer from high blood pressure, Diabetes is the third leading cause of death after heart disease and cancer and 17% of the population has been diagnosed with Diabetes. More than 55% of Barbadians are obese or overweight and approximately one Barbadian suffers a stroke every day. (11)

A Theoretical Basis for Campaigns

Researchers who investigated the effectiveness of health campaigns agree that utilising an appropriate theory assists in the formation of a successful campaign. Social Cognitive Theory suggests the determinants to focus on, and provides intervention strategies that can be useful in the design of mass media campaigns, including the concept of self-beliefs. The theory explains how people acquire and maintain certain behavioral patterns, while also providing the basis for intervention strategies. Evaluating behavioral change depends on the factors - environment, people and behavior which are constantly influencing each other and according to a number of health communicators, provides a framework for designing, implementing and evaluating programs. (13)

Surveys carried out in five countries in Argentina, Canada, Chile, Costa Rica, and Ecuador highlighted that given the high levels of knowledge and positive attitudes to salt reduction recorded, the most likely explanation for high salt consumption levels across the community was that there were many barriers to changing behaviour. (16) These included heavily advertised, low-cost foods high in salt, and inadequate labeling of salt levels on packaging which would likely be key factors inhibiting reductions in salt consumption, among even well-informed individuals. In contrast, several intervention trials have demonstrated the positive effects of nutrition education on salt consumption, in selected groups of individuals was as a result of the high intensity of the interventions applied, which typically included multiple one-on-one consultations with participants, small group activities or provision of reduced salt foodstuffs. (17) In the UK, Japan and Finland, where population-wide salt reduction have been achieved, community education was underpinned by programs that changed the average salt levels in key foods, salt warning labels were used to reinforce health promotion messages and the broader food environment was altered in some other way. (15)

The literature pointed out that campaigns were also more successful when communicators: conducted formative research with the target audience to clearly understand the behavior and the problem area; pretested messages with target audience to be sure they are both appropriate and effective; used theory as a conceptual foundation to the campaign; segmented audience into meaningful subgroups based on important characteristics such as demographic variables, risk characteristics, experience with the behavior and personality characteristics; used a message design approach that was targeted to the audience segment; and developed novel and creative messages that sparked interpersonal discussions and persuaded individuals. (2) Finally, a trend that will most definitely continue is an increased investment in interactive health communication technology (eHealth and mHealth).

Study Design and Methods

Persons were asked to participate in focus groups to gauge the effectiveness of recent salt reduction PSA messages, to provide information on their knowledge of the sodium reduction messages, to explain what they understood and how this information was used. Purposeful sampling was used to attempt to recruit a maximum of 32 persons, 25-55 years old to create

four focus groups from both a public and a private clinic. Participants signed a consent form which was read to and explained to them. Although there were almost equal numbers of males and females in the clinics, twenty-two persons were eventually recruited (five men and 17 women) with more women than men recalling the ads and showing interest in taking part in the study. The groups were divided into two mixed gendered age groups of 25-40 and 41-55 years of age and 6-8 persons were allocated to each group. The researcher served as facilitator using a semi-structured interview guide, and the natural settings for the sessions were the public and private clinics from which participants were recruited.

FINDINGS

Most persons, who saw or remembered the advertisements, viewed them on television during prime time (6 p.m. - 8 p.m.), as this was the only time the majority of persons stated that they watched the local channel. A large number heard the jingle on the radio and a few recalled seeing the campaign in the print media. No one saw the social media or bus/shelter visuals.

Few persons recalled seeing "The Supermarket" public service announcement but correctly identified the main message as the need to read labels and reduce salt as a result of an increased risk of high blood pressure. A large number of the study subjects recalled hearing the "See Salt and Don't See Salt" jingle and identified the message as a call for reduced salt consumption, while noting that all salt was equally damaging, if consumed in large amounts, though what level that was, was unknown. Mainly the younger persons recalled "The Park" ad, though they remembered it in slightly different ways and with mixed views on the strength and relevance of the messaging.

Most persons demonstrated that they understood the core messages that salt/sodium was a main contributor to high blood pressure, that it was a risk factor for heart disease and stroke, and the importance of reading nutrition labels on food products. They were also aware that a large percentage of the salt is already in the food we buy and that it could raise one's blood pressure. However, some persons expressed that although the ads made them somewhat more aware of the need to lessen the amount they consumed, the PSA's did not sufficiently highlight that sodium could be found in copious amounts, in a number of products, eaten by many persons daily.

There was a general notion that the ads were educational, however, some persons revealed that they did not take the ads seriously, calling the jingle "funny" and the ads "not persuasive". They suggested graphic PSA's that portrayed the effects of salt as has been the route of international anti-smoking campaigns. They also recommended that the testimonials of persons who have been affected by illness as a result of behavioral choices like smoking and high salt consumption were very persuasive. Additionally, there was agreement in the groups that for the messaging to be impactful, there needed to be sustained. Most persons did not identify that they had learnt anything new from the advertisements, mainly stating they reinforced what they already knew.

Perception of Crucial Target Audience and Message

An interesting dynamic noticed in all of the groups was the view by the older persons that younger people should be the target market for low-salt campaigns, since, in their view, it was the youth who ate the most salt. However, it was noted from listening to the eating habits of the older age group, they were also guilty. Mainly the female participants in both the public and private clinics argued that there needed to be a balance in the messaging as they were of the view that the body needed salt and the ads were an exaggeration of the problem. Participants, both young and old, spoke about beliefs and practices that older persons held and passed on, including a need to eat salt or drink salt water to ward off cramps. It was mentioned in three of the five focus groups (two being the older age group) that a lack of salt caused this cramping.

Frustration with Information

Another theme which emerged in all groups but mainly, with women was the frustration faced when trying to decipher what was factual in the health messages they received from various sources, whether they be public or private practitioners, traditional or non-traditional experts or through mass media or online sources. The end result was that some participants did not know who or what to believe and have, in aggravation, stopped paying attention to health messaging. Participants stated that one of the objectives of the PSAs was to encourage persons to read nutritional labels to be aware of what they were consuming but they pointed out their exasperation with not understanding the terms and numbers on the labels. They also indicated they did not have the time while shopping to read each product label. As a result, most participants revealed that they only looked for the expiry date and the price, while a few looked at the labels, but after were no wiser. The younger group however were less likely to read labels, eating what they wanted, when they wanted it.

Why Limit/Not Limit Salt?

With the exception of one male, mainly the females stated that they were trying to reduce their salt intake. The women commonly mentioned being motivated by having a close family member who was hypertensive, diabetic and/or had a stroke or heart attack. It was evident from all of the focus groups that the main driver for using salt was the need for the food to be tasty and "appetizing". Though some persons claimed they did not use "much salt" and utilised fresh herbs and seasonings instead, they still used salt meat and bouillon seasoning cubes to "flavor the pot". Although some persons recognised that particularly older persons could cook and season flavourful food without using excessive salt, they believed that they did not have the skills to accomplish this.

Advice on Reach for Salt Reduction Messages

Participants suggested that radio was still a powerful tool which could influence a number of persons of all age groups and also offer an avenue for persons to ask questions and solicit

feedback. However, they considered that video was still the most impactful medium. Based on these group members, if placing PSAs on the local channel, CBC channel 8, the best times were during the first 20 minutes of the News at 7:00 p.m., during Days of our Lives (weekdays from 6:00 – 6:50 p.m.) and during the local programme 'Q in the Community' (Saturday at 8:30 p.m./Tuesdays at 9:30 p.m. Those in the younger age category recommended that viral videos, images and information be placed on social media (Facebook, Instagram, Twitter and YouTube) and smart phones be considered as a medium to reach the younger and middle age market.

Advice on how to read labels and for them to be listed in measurements more readily understood by laypersons was also deemed necessary. Both males and females felt strongly that the PSAs should move beyond showing what you should not eat and offer replacements and alternatives. To reach adults another recommendation was in targeting persons as they waited in clinics, hospitals, doctors and other professional offices with short, educational and catchy PSAs and features that offered solutions and alternatives.

Salt sources were listed as salt added to food, fruits and fruit juices, chips/crisps, canned foods, seasonings, salt meat, fast foods, cheese, hot dogs, biscuits, cereals, nuggets, butter and processed meats. They also spoke about the traditional "lime and salting" of meat as a necessary evil and suggested that they used these products because it made foods taste better. Despite understanding the ads, persons stated that they used salt and products which they deemed to be high in salt because of taste preferences, habit, cost, convenience and an awareness of their addiction to the condiment.

Discussion

No association was found between consumer knowledge, attitudes and behaviours and actual perceived levels of salt intake and actions to control salt intake were more common in women than men. (15) No differences were detected between different age groups and in the public or private clinic setting, in terms of their level of understanding or self-efficacy. This research highlighted the most likely explanation for estimated high salt consumption levels on the many barriers to changing behaviour even in well-informed individuals. (16) The results of this study support the ideas held by other researchers, that health behaviours are the result of interactions in the environment, personal factors, attributes of the behaviour itself and a person's perception of their ability to perform a certain activity or self-efficacy. Therefore some changes to the environment will be necessary to activate a change.

A lack of exposure to the ads, particularly with younger persons, highlighted that the campaign's reach may not have been as broad as needed, with many persons at recruitment stating that they did not see or remember seeing the ads. A heavy reliance on the local channel might have caused this since many potential recruits and participants stated that they did not watch the channel at all or much and if they did, they only watched a portion of the 7:00 p.m. news, Days of Our Lives and Q in the Community. Those who had cable channels watched those more and many received health messages from the internet, radio and interpersonal communication.

The heavy reliance on television in the campaign not only made it difficult to ensure widespread, frequent, and prolonged exposure to messages but also, had a tendency to neglect audience segmentation, causing focus group members not to see the ads as relevant to them in some cases and suggested that the ads be targeted at another demographic. (20) By the end of Phase One of the campaign study participants stated that making the healthy choice was still a difficult choice.

RECOMMENDATIONS

The findings suggest that the local salt campaign would benefit from the use of various popular mass media avenues and other non-traditional/social media to reach targeted age groups. The next phase or re-launch of the campaign should therefore not rely heavily on the local television channel as it did not prove to be the most effective medium to reach the desired target market in Phase One. If the local channel is to be used however, more in depth formative research, with the target group, should be carried out using focus groups. Messages should also be pretested with the target audience to be sure they are both appropriate and effective. The findings suggest that radio is a suitable medium to reach the target audience using short bite-sized infomercial or tips and discussion-styled programmes to allow persons to ask questions and solicit feedback.

Media supplemented by interpersonal communication through outreach or clinics and the use of role models would also be recommended. International campaigns using role model messages had a larger average campaign effect size, than campaigns not using role models. Public relations or media advocacy campaigns that shape the treatment of a public health issue by news and entertainment media would represent a promising complementary strategy to conventional media campaigns and should therefore be investigated. Increased investment in interactive health communication technology (electronic - eHealth and mobile - mHealth) based on the large percentage of Barbadians who utilise cellular phones, the internet and social media (Facebook, YouTube, Twitter and Instagram) would allow public health campaigns to blend interpersonal online systems with mass-media outreach. (21)

There is value in segmenting the audience into meaningful subgroups based on demographic variables, risk characteristics, experience with the behavior and personality characteristics. This research, future studies and local disease profiles should guide on the selection of the target audience. However, with the current information, this researcher suggests targeting females 25-55 and a secondary market of the youth, mainly primary school children.

This information will be key to message design approach so as to develop novel and creative messages that would spark interpersonal discussions, persuade individuals of the need to and their ability to make the desired changes and lead to advocacy towards policymakers, food manufacturers, importers, itinerant vendors and food establishment owners. This should create an environment more supportive to salt reduction. In addition to the new identified target group, the aforementioned will be critical players in the success of this multi-pronged approach.

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