Por Ahí Dicen: Sexual Health Promotion Campaign in a Puerto Rican Community

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Abstract
The purpose of this study was to assess Puerto Rican mother’s levels of exposure to the Spanish media campaign launched by Por Ahi Dicen, and to assess the identification mothers had with these stories. The methodology consisted of in-person survey interviews of 210 Puerto Rican mothers residing in the city of Springfield, Massachusetts. The study used a sub-set of data taken from these interviews and analyzed using Microsoft Excel and Stata15. The major finding of this study showed that the mothers who regularly watched television in the 90-day campaign time frame were more exposed to the campaign than they were with the other media formats: newspaper and radio– radio having had the lowest exposure rates of the campaigns. However, our second finding showed that even though the mothers were more exposed to the campaign through television, they felt more identification with the stories from the newspaper’s ads than from the other media formats. These results may indicate that having media sources that are easily accessible/retrievable throughout the day may be the most effective strategy in campaigning for public service and health announcements. This study may also lead to the implementation of social media campaign for easier access to hard-to-reach communities.

Keywords: Spanish media campaign, sexual health, Puerto Rican, mother-child communication

Suggested citation:
Introduction

Several media studies have taken place throughout the Hispanic community, but not many have taken place specifically in the Puerto Rican community itself. Relevant media studies to Por Ahi Dicen (PAD) have found that media-based campaigning attracts a larger number of participants than that of other campaign strategies (Iribarren et al., 2018). Another Spanish media study found that once you incorporate media into research campaign strategies, the “hard-to-reach” communities seem mislabeled due to the efficiency of different media formats (Martinez et al., 2014). Due to these findings and more, this study focuses on Spanish speaking mothers who regularly partake in watching Spanish television networks, read Spanish newspapers issues, and/or listen to Spanish radio stations. Stevens et al (2017) found that children who are exposed to sexual health topics, specifically geared towards contraceptives, through their parents/guardians are ~4.06 times more likely to use some form of contraception. Incorporating media campaigns encouraging mother-child communication of sexuality/sexual health topics is one step towards understanding what actions need to be put into place in order to improve the health disparities that are affecting the Hispanic/Puerto Rican community.

Communication between Puerto Rican/Latinx mothers and their children about sexuality and sexual health topics is sparse, leading to unhealthy risk sexual behaviors and misconceptions of sexual health. Latinx groups are disproportionately affected by poor health/a variety of different health disparities and are a severely underrepresented community (Hudnut-Beumler et al., 2016). Parents play an essential role when it comes to relaying messages about sexual health to their children (Palen et al., 2011), and are also influential in the health and behavior of their children. Mother-child communication about sexuality and sexual health protection is critical to the Puerto Rican community to reduce sexual health disparities affecting them. Latino parents are less likely to speak to their children about important sexual health topics. Increased communication between adolescents and their parents have been found to improve chances of condom and birth control use, and the reduction of STDs and teen pregnancy (Eversole et al., 2016).

The PAD project developed and disseminated public service announcements (PSAs) across a variety of formats. This media campaign consisted of real stories of Puerto Rican mothers speaking about their experiences communicating with their child/ren about sexual health and
other sex topics. PAD aims to reach the parents, specifically mothers, of the Puerto Rican community through media in order to ensure the knowledge needed in addressing their children about these topics. In this study, we hypothesize that:

1. Mothers who reported television as their primary media will have higher levels of exposure to the media campaign PSAs, and consider the stories they saw on television more significant to their life than the stories of the other media formats.
2. Mothers who reported newspapers as their primary media will have lower levels of exposure to the Spanish media campaign PSAs, and will not consider the stories they read in the paper as significant to their lives as they would from the other media formats.

**Method**

**Overall Research Design**

This study uses a subset of the data collected in the PAD study to assess Puerto Rican mother’s level of exposure to the Spanish media campaigns, and to assess the mother’s identification with the stories delivered in the campaigns. We examined mother’s exposure through three types of media formats: newspapers, television, and radios.

PAD is an applied ethnographic study, a scientific approach used to observe social norms, customs and daily practices (Pelto, 2013, pp. 21-31). For this study, we chose to analyze data produced by the PAD post-intervention, a cross-sectional survey conducted in 2015. This research method involves collecting data from a group of people or a population and comparing them at a single point in time. PAD is in collaboration with the Puerto Rican Cultural Center, and is a Community Based Participatory Research (CBPR) study. The CBPR methodological approach is used to promote the engagement of those who face health disparities in order to help them reflect on their own community (Granberry et al., 2015). This study was reviewed and approved by The University of Massachusetts Boston’s Institutional Review Board (IRB), assurance #FWA00004634. Data collection for this study was supported by the National Institute of Minority Health and Health Disparities of the National Institutes of Health under Award Number P60MD006912 housed at The Mauricio Gaston Institute for Latino Community Development and Public Policy. The authors gratefully acknowledge the support of the Puerto Rican Cultural Center, Inc., Community Advisory Committee, and contribution of the
undergraduate students in the Latino Leadership Opportunity Program of the University of Massachusetts Boston in the implementation of the PAD project.

**PSA and Campaign**

The Spanish media campaign was implemented in the Spring of 2015 and focused on the mother-child communication about sexuality and sexual health topics. It was a 90-day campaign that included radio, television and newspaper formats. The longer PSA was delivered through newspapers and consisted of half a page of stories. The radio was a 90 second public service announcement (PSA) including conversations of mothers. The television format was the shortest, consisting of 30 and 45 second videos. There were 3 PSA’s on television and 3 PSA’s on the radio. They consisted of different content, but the same topic. The faces and voices of the women were real mothers, who were members of the community advisory committee.

**Population and Sample**

The sample size of this study is 210 participants. The characteristics and inclusion criteria for these participants include mothers who: agreed to be interviewed, self-identify as Puerto Rican, speak Spanish fluently, and have at least one child ranging in the ages of 10-19 years old. These participants were recruited by being randomly selected from 10 census blocks. The incentive of participation was a reimbursement of a US$25 gift card to a local supermarket upon the completion of the questionnaire. PAD uses clustered random sampling, which are samples chosen at random from a population that has been divided into clusters– in this case, census blocks. The PAD research team examined the Puerto Rican community by mapping out the census blocks within the community, which consisted of walking selected streets and neighborhoods within the community while taking into consideration and recording the status of the buildings (Torres et al., 2016).

**Data Collection**

The data collection process took place in the summer of 2015. The survey instrument was developed in Spanish and then translated into English. In addition to household information, the questionnaire includes questions about which media sources the mothers have been exposed to in the past three months, what the said media sources consisted of, and how effective the mothers
believed the media sources to be. The team who conducted the interviews consisted of trained, bilingual and bicultural undergraduate students and community member residents. They received two training sessions that included ethnographic mapping skills, in-person interviewing process, research literacy to increase awareness about how the study would benefit the targeted community, and a better understanding for the material for the certification by the Collaborative Institutional Training Initiative (CITI). By conducting the training in the community and with community members, the research team developed a trusting relationship (Granberry et al., 2017). All interviews were conducted in the mother’s home starting with an introduction and a consent form that was read out loud (Torres et al., 2016). All interviews were conducted in Spanish by one of the twelve teams of Spanish-speaking undergraduate students and community residents. The average length of the interview was 55 minutes, yielding a response rate of 65.2%.

**Data Management**

To prepare the data for analysis, we undertook several steps. In the first step we examined nine (9) questions from the original descriptive data analyses. These questions assess whether or not the mothers were exposed to the Spanish media campaign based on the media format they used over the span of three months. Each media format was displayed in separate graphical displays. The second step was to observe and put the data into visual displays. As suggested by (Klass et al., 2012), we used bar charts for categorical data. After putting the data into graphical displays, the third step of data management was to observe the missing data presented in the figures, and then to validate the data via hard copies of the post-intervention questionnaire. The fourth step of the data management process was to start our analysis of the variables and measures. The variables for this study are shown below:

<table>
<thead>
<tr>
<th>Variable Number</th>
<th>Variable Content</th>
<th>Type of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influential</td>
<td>Scale of importance for each media format</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>Exposure</td>
<td>Combination of radio, newspaper and television</td>
<td>Interval Scale</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>33</td>
<td>Have you read a Spanish-language newspaper during the past three months?</td>
<td>Nominal</td>
</tr>
<tr>
<td>35</td>
<td>Have you read any articles in these newspapers about how Puerto Rican mothers could speak to their children about (a-d)?</td>
<td>Nominal</td>
</tr>
<tr>
<td>41_f</td>
<td>We want to know how you felt when you read the stories of Puerto Rican mothers who spoke to their child/ren about sex and sexuality. Tell me if: you considered the stories important to your life</td>
<td>Ordinal</td>
</tr>
<tr>
<td>42</td>
<td>Have you watched television in Spanish in the afternoons or evenings during the past three months?</td>
<td>Nominal</td>
</tr>
<tr>
<td>44</td>
<td>Have you watched any public announcement on television in Spanish encouraging Puerto Rican mothers to speak to their children about (A-D) during the past three months?</td>
<td>Nominal</td>
</tr>
<tr>
<td>50_f</td>
<td>We want to know how you felt when you saw the public television announcements that presented mothers talking about the importance of how to speak to your child/ren about sex. Tell me if: you considered the stories important to your life</td>
<td>Ordinal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>51</td>
<td>Have you heard Spanish-language radio during the past three months in the morning?</td>
<td>Nominal</td>
</tr>
<tr>
<td>53</td>
<td>Have you heard any public announcement on the radio in Spanish encouraging Puerto Rican mothers to speak to their children about (A-D) during the past three Months?</td>
<td>Nominal</td>
</tr>
<tr>
<td>59_f</td>
<td>We want to know how you felt when you heard on the radio public announcements presenting mothers speaking about how to speak to child/ren about sex and sexuality. Tell me if: you considered the stories important to your life</td>
<td>Ordinal</td>
</tr>
</tbody>
</table>

**Measures**

The following measures were used to test associations between variables.

*Exposure* is the first variable used in our analysis. It is comprised of three media formats used for the Spanish media campaign: Newspaper, radio and television. If the mothers were exposed to one of the media formats, the score would be one (1). If the mothers were exposed to two different media formats, the score would be two (2). If the mother was exposed to all three of the media formats, the score would be three (3).

*Influence* is the second variable used in our analysis. It is comprised of three categories regarding the importance the mothers felt from being exposed to the campaign. If the mothers did not feel influenced at all or a little by the campaign, the score would be two (2). If the mothers felt influenced enough by the campaign, the score would be three (3). If the mothers felt a bit or highly influenced by the campaign, there score would be four (4).

Mothers identification of the questions as significant to their lives with the PSA stories was a question asked for each media format. Included are the following questions: (1) We want to
know how you felt when you read the stories of Puerto Rican mothers who spoke to their child/ren about sex and sexuality. Tell me if: you considered the stories important to your life; (2) We want to know how you felt when you saw the public television announcements that presented mothers talking about the importance of how to speak to your child/ren about sex. Tell me if: you considered the stories important to your life; (3) We want to know how you felt when you heard on the radio public announcements presenting mothers speaking about how to speak to child/ren about sex and sexuality. Tell me if: you considered the stories important to your life. All of these questions were asked with a 5-point Likert scale.

Data Analysis
In order to analyze the data, we used Microsoft Excel to perform descriptive statistics to obtain the measures of central tendency. After these procedures were performed, we then updated all tables and graphs in order to display the frequency data shown in the results section of this review. To test for associations between variables, we input our data into the STATA15 software and use the Chi Squared Test and Pearson Score to assess association between variables. Our bivariate analysis tested for associations between the variable exposure to each of the three media format used in the campaign and mother’s perceived importance of the PSAs stories (influence). We ran the variable exposure with influence through Chi² functions and Cramer’s V tests.

Results

Characteristics of the Sample
The average age of the 210 participating mothers is 39 years old. The majority (~69%) of the mothers who were interviewed for the study were born in Puerto Rico.

Media Exposure
Figure 1a shows out of the 210 mothers, 120 (57.14%) reported that they did not read the newspaper in the three-month time frame. Of those who did (89), 44% of the mothers were exposed to the ads about general sexual health topics, 49% of the mothers were exposed to the ads about teen pregnancy, 38% of the mothers were exposed to the ads about HIV/AIDS, and 52% of the mothers were exposed to the ads about other sexually transmitted infections.
Similar to the data of the newspaper, in figure 1b, we found that more mothers did not listen to the radio (53.8%) than those who did (46.2%). Of the mothers who did listen to the radio (97), only 30% of the mothers were exposed to the STI campaign, 49% of the mothers were exposed to the ads about general sexual health topics, 41% of the mothers were exposed to the ads about teen pregnancy, 38% of the mothers were exposed to the ads about HIV/AIDS, and 33% of the mothers were exposed to the ads about other sexually transmitted infections.
When analyzing the results on television in figure 1c, we observed that more mothers (84.3%) partook in watching television programs than mothers who did not (15.7%). Of the mothers who regularly watched television in the three-month time frame (177), 65% of the mothers were exposed to the ads about general sexual health topics, 66% of the mothers were exposed to the ads about teen pregnancy, 70% of the mothers were exposed to the ads about HIV/AIDS, and 57% of the mothers were exposed to the ads about other sexually transmitted infections.

**Figure 1c: Exposure to Media Campaign Through Television**

<table>
<thead>
<tr>
<th>Question</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>p42. Have you watched television in Spanish in the last three months in the evenings or afternoons?</td>
<td>16%</td>
<td>84%</td>
</tr>
<tr>
<td>p44a. Have you seen this public announcement about sex or sexuality during the last 3 months?</td>
<td>35%</td>
<td>65%</td>
</tr>
<tr>
<td>p44b. Have you seen this public announcement about teen pregnancy during the last 3 months?</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>p44c. Have you seen this public announcement about HIV or AIDS during the last 3 months?</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>p44d. Have you seen this public announcement about other STIs during the last 3 months?</td>
<td>43%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Figure 1c: Percentage of mothers watched television in a three-month time frame. The x-axis represents the total amount of mothers, the y-axis represents the yes, or no statements/level of exposure given by each mother.

**Bivariate analysis**

When we ran exposure to the television media format, we observed no association between this media format and *influence*, (p-value of 0.899). The mothers exposed to the campaign did not appear to find the television PSAs important or relevant to their lives.

We then ran *exposure* with the radio media format and found that the same results: the radio format was also insignificant in terms of *influence* (p-value of 0.868). The mothers exposed to the campaign did not appear to find the radio PSAs as important/influential to their lives.

However, our results for exposure to the newspaper format were significant with a CChi2 test score of 17.94 and a p-value of 0.022. Indeed, mothers exposed to the newspaper found the PSAs stories important and relevant to their lives. Below is a table of the results from Stata15:
Table 1
*Pearson’s Chi$^2$, Cramer’s V, P-value, and demographics of media study by relevancy of PSAs*

<table>
<thead>
<tr>
<th>Media Format</th>
<th>Chi2</th>
<th>Cramer’s V</th>
<th>P-value</th>
<th>n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Newspaper</td>
<td>17.9444</td>
<td>0.3967</td>
<td>0.022*</td>
<td>57</td>
</tr>
<tr>
<td>2. Television</td>
<td>3.4977</td>
<td>0.1160</td>
<td>0.899</td>
<td>130</td>
</tr>
<tr>
<td>3. Radio</td>
<td>3.8764</td>
<td>0.2201</td>
<td>0.868</td>
<td>40</td>
</tr>
</tbody>
</table>

* P ≤ 0.05

**Discussion**

The newspaper media format was the most significant media format in our study. Though exposure rates for the format were the second lowest, we found that mothers who read the newspaper and were exposed to the ads had higher levels of considering the other mothers’ stories highly significant to their lives. This finding remains consistent with a study done by (Davis et al., 2010) that after being exposed, mothers felt more confident that parent-child communication would have a larger, more positive impact on their child’s future success, and could picture themselves having a conversation with their children about sexual health topics.

According to (Martinez et al., 2014), the engagement of various media platforms leads to a more interactive dialogue. We found that through the newspaper format, mothers hold higher significance to the ad, which will lead to a more active, open dialogue with their children. These results show that newspaper exposure will help facilitate parental communication on sexual health topics.

Our results show the level of exposure of the PAD Spanish Media Campaign was greater for the television media format than for newspaper and radio. More mothers partook in watching television regularly, and thus had larger chances of being exposed to the ads than not. This finding supports the original claim that having television as a primary media source would lead to higher exposure rates of the campaign. The data also supported the originally stated hypothesis that mothers would have less exposure to the campaign if their primary media source was the newspaper. However, the results that mothers exposed to the PSAs found the stories used in the newspaper to be important to their own lives suggest that the newspaper is the better media source in terms of the relevance of the PSAs to targeted audience.
Mothers who had been exposed to the media PSAs via the radio were seen to show no significance in the way they found the stories of the other mothers important to their lives. According to the findings of (Solorio et al., 2016), one of the best ways to communicate to the Latino community is through the radio. In the PAD study, however, we found that these results were not consistent in the fact that the radio media format had the lowest exposure rate, and insignificant numbers in data.

Of all the media formats, television was the only media format that did not fall under half of the percentage of exposure within all categories: HIV/AIDS, STIs, teen pregnancy, and sexuality/sexual health topics. However, even though the exposure to the campaign was high, we found that television had no significant effect on the way the mothers found the stories of the other mothers significant to their lives. This also remains inconsistent with the findings of previous studies, for example, Davis et al. (2011) found that television and radio both have been one of the most popular sources of communication within the Hispanic health community. With the first most insignificant data series, we reject the null hypothesis that television will produce higher levels of media significance to the mother's life.

**Implications**

One limitation of this study that should be taken into consideration for future research, is the short period of time given for the campaigns. In past studies, longer campaign times have been accredited with more exposure to the media (Reininger et al., 2010). It would be beneficial to the PAD study to run campaigns both for a longer period of time, and to lengthen the ads in general. Discovering new methods of providing Puerto Rican mothers with the proper insights of sexuality and sexual health topics is pertinent for the well-being of their children. The advancement of knowledge in a community will lead to further rates of confidence in communication. According to (Palen et al., 2011), mother-child communication has been found to improve adolescent’s interpretation about the consequences of premature sexual interactions. The implication for further research and implementation of campaign on the topic of psychological, economical, and social consequences amounting from premature sexual interaction would provide beneficial information about prevention tactics in today’s Puerto Rican youth.
Based on our findings that newspaper provided the best format to deliver relevant PSAs, we suggest that future media campaigns include longer PSAs and longer exposure time. In addition, such a campaign should also consider incorporating newspapers, and similar formats such as newsletters to improves the chances of mothers being able to picture themselves providing useful knowledge about sexuality and sexual health topics. By exposing mothers to media campaigns, it has been found that not only do mothers feel more confident in their ability to talk to their children about sexuality and sexual health topics, but it also promotes children into healthier mindsets about the topics in general. It is of utmost importance for mothers to speak to their children about these topics, as it would increase general health in the Hispanic community.

Another suggestion for future interventions is the incorporation of social media, as an additional format for PSAs. Like the newspaper, social media is text-based, and the mothers can dwell on the topic after exposure rather than be introduced to a new topic immediately after the PSA was aired (like with television and radio). Social media is an important resource in reaching underrepresented communities, such as the Hispanic community (Iribarren et al., 2017). The advantage of using social media to increase mother-child communication is associated with wider exposure through media apps commonly used by the Hispanic community, such as: Instagram, Twitter, Facebook, etc. (Solorio et al., 2016). In considering the limitations on apps such as Twitter, one can imagine adding short description of the campaign along with a link to the longer documented stories in a website. Increased communication between adolescents and their parents have been found to improve chances of condom and birth control use, and the reduction in STDs and teen pregnancy (Eversole et al., 2016). This implication is particularly important for public health practitioners, as social media is a vastly used source for health information (Hudnut-Beumler et al., 2016).
References


The Mauricio Gastón Institute for Latino Community Development and Public Policy at the University of Massachusetts Boston conducts research on and for the Latino population in New England since 1989. Our goal is to generate the information and analysis necessary to develop a more inclusive public policy and to improve Latino participation in the policy-making process.

The purpose of this study was to assess Puerto Rican mother’s levels of exposure to the Spanish media campaign launched by Por Ahí Dicen, and to assess the identification mothers had with these stories.

About the Authors

María Idalí Torres is an applied anthropologist and former director of the Gastón Institute. She continues to collaborate with the Institute in research training initiatives with a focus on Puerto Rican families in Massachusetts and Puerto Rico. Her vast professional experience includes practicing health education in school and community settings from 1975 to 1992, and teaching public health and anthropology course at UMass Amherst and UMass Boston for the past 27 years. Her most recent study funded by NIH aimed at enhancing Puerto Rican mother-child communication about sexuality and sexual health protection, and used a Spanish media campaign as the intervention strategy.

Isabella M. Antenucci is currently a 2019 Summer CatCH Scholar working under the supervision of Dr. María Idalí Torres and Dr. Phillip Granberry of the Gaston Institute. She is an in the undergraduate student in the Honors College, specializing in Psychology and English.

Phillip Granberry is a social demographer. He worked with various community-based organizations assisting recently arrived U.S. immigrants before earning a Ph.D. in Public Policy from the University of Massachusetts Boston. He has published several articles on the accumulation and use of social capital among Latinos and the sexual health communication of Puerto Rican mothers with their children. In addition to his research and teaching in the Gastón Institute and Economics Department at UMass Boston, he is Senior Researcher in demography for the Boston Planning and Development Agency.

Yessica Guzmán is currently a 2019 Summer CatCH Scholar working under the supervision of Dr. María Idalí Torres and Dr. Phillip Granberry of the Gaston Institute. She is a senior in the Biology Program and hopes to pursue graduate studies in public health.