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Acceptability and Cultural Appropriateness of Self-Help Booklets for Smoking Cessation in Puerto Rico

Nicole S. Menzie[1,2], **Vani N. Simmons**[1,3], **Gwendolyn P. Quinn**[1], **Diana B. Diaz**[1], **Barbara Piñeiro**[1,4], **Julio Jimenez**[5], **Eida Castro**[5], and **Thomas H. Brandon**[1,3]

[1]Department of Health Outcomes and Behavior, Moffitt Cancer Center, Tampa, FL, USA

[2]Department of Psychology, University of South Florida, Tampa, FL, USA

[3]Department of Oncologic Sciences, University of South Florida, Tampa, FL, USA

[4]Department of Psychology, Universidad de Santiago de Compostela, Spain

[5]Clinical Psychology Doctoral Program, Ponce School of Medicine, Puerto Rico

Abstract

Cigarette smoking is associated with a range of cancers and is related to five of seven leading causes of death in Puerto Rico. Minimal self-help interventions have shown promising results in reaching participants and preventing relapse from smoking. Specifically, a collection of 8 self-help booklets has demonstrated efficacy (Brandon et al., 2000; 2004). Those booklets have been transcreated into Spanish, with efforts to make them culturally appropriate across a range of Hispanic cultures. We conducted a pilot study in Ponce, Puerto Rico, to evaluate the Spanish version of our smoking relapse-prevention booklets. Qualitative, semi-structured interviews were conducted with 20 current and former smokers. Interviews were conducted to elicit feedback regarding the booklet's content, cultural appropriateness, dissemination, and perceived availability of smoking cessation resources in Puerto Rico. Interviews were audio-taped and transcribed verbatim. Transcripts were coded using content analysis, with a priori codes based on the interview guide. Emergent themes were examined. Overall, participants liked the booklets' content, perceived them to be culturally appropriate, easy to read and understand. Regarding dissemination, it was recommended that the booklets be disseminated by physicians and advertised through television. Most importantly, participants reported the best way to distribute and complement the booklets would be through support groups. Participants also reported having limited knowledge about resources provided in the community to aid smoking cessation. Overall, this pilot study was able to show the cultural acceptability of the booklets and highlights the need for the dissemination of these materials among current and former smokers in Puerto Rico.

Keywords

Smoking; relapse prevention; smoking cessation; nicotine dependence; self-help interventions

Correspondence to: Nicole S. Menzie, M.A. Moffitt Cancer Center, 4115 E. Fowler Avenue, Tampa, FL 33617, Nicole.Marquinez@moffitt.org.

Smoking remains one of the leading causes of disease and death in the United States. Tobacco use is responsible for approximately 480,000 deaths per year and approximately $289 billion in annual health-related economic losses [1]. The prevalence of smoking among Hispanics living in the U.S. (15.8%) is lower than those for non-Hispanic whites (20.6%) and African Americans (21.3%) [2]; however, Hispanics are less likely to quit compared to non-Hispanic whites [3]. Research has also demonstrated that Hispanic patients in the U.S. are less likely to receive tobacco screening and counseling from their providers [4]. Although Hispanics have lower incidence and mortality rates from common cancers (e.g., breast, prostate, lung, and colon), they have higher incidence and mortality rates from other types of smoking related cancers, such as stomach, liver, uterine, cervix and gallbladder [5].

Smoking behavior among Hispanics varies by Hispanic sub-ethnicity [1, 6]. For instance, Puerto Ricans living in the U.S. are more likely to smoke and smoke more heavily compared to those of Mexican, South American, or Central American ethnicities living in the mainland U.S. [1, 7]. Despite the lower incidence of smoking among Puerto Ricans living on the island (10.6%) [8], cigarette smoking is associated with a range of cancers [9, 10], and with three out of the five leading causes of death in Puerto Rico [11].

Prior studies have reviewed the effectiveness of, and access to, smoking cessation programs among the Hispanic population [12, 13]. Although some interventions, such as *Adiós a Fumar* [14], have been successful in reaching and treating underserved Hispanic smokers in the U.S., only a handful of randomized controlled trials have been conducted testing interventions for Hispanic smokers [12]. A major step towards tobacco control in the U.S. was the creation of tobacco Quitlines. However, data suggest that access to Quitlines among Hispanics is low compared to the general population [15]. In 2004, the Puerto Rico Quitline was introduced by the Department of Health. From 2004 to 2005, only 373 per 100,000 smokers contacted the Puerto Rico Quitline [15]. These rates are below the average utilization of 1% of smokers for state Quitlines in the mainland U.S. [16]. Although resources exist for smoking cessation aids in Puerto Rico, they are not widely used.

Minimal self-help interventions have shown promising results in reaching participants and preventing smoking relapse. Two previous clinical trials have demonstrated that a series of self-help booklets entitled, *Forever Free®*, significantly reduced smoking relapse and were highly cost-effective in terms of quality adjusted life years saved [17, 18]. Topics covered in the *Forever Free* booklets include: information regarding nicotine dependence, stages of quitting, suggestions for behavioral and cognitive ways for coping with urges to smoke, information regarding smoking and weight, and how to deal with stress and negative moods without cigarettes. The booklets have been “transcreated” in Spanish, titled *Libres Para Siempre (LPS)* [19]. That is, they have been adapted from English to Spanish in a way that preserves the evidenced based content, but adapts the tone, context, cultural relevance, and imagery for diverse Hispanic cultures [19].

A long-term goal of our research group is to conduct a randomized controlled trial of the LPS booklets across a range of Hispanic sub-ethnicities, including Puerto Ricans. However, the first step toward this goal is to verify the appropriateness of the LPS booklets for use in Puerto Rico (or among those of Puerto Rican sub-ethnicity). The goals of the current

qualitative study were to examine the cultural appropriateness of the booklets and to explore preferences for dissemination modalities specific to Puerto Rico. Results will inform whether further modifications are required for this population, how best to disseminate the booklets in a future clinical trial, and whether other communication modalities should be included in future empirical studies and dissemination efforts.

Method

Participants

A purposive qualitative sampling strategy was used to obtain feedback from 10 current and 10 former smokers. Equal numbers of participants who were current smokers and former smokers were recruited to gather perspectives regarding both barriers and facilitators to quitting smoking. Additionally, equal numbers of males and females were recruited. Eligible participants were: 18 years of age or older; current smoker or former smoker who quit within the past 5 years; able to read and understand Spanish; and self-identifying as Puerto Rican.

Procedures

Participants were recruited from the metropolitan city of Ponce, PR, and surrounding communities. The primary means of recruitment included a weekly radio show, flyers, and referrals from key informants in the community. Recent quitters and current smokers were invited to provide feedback on a series of Spanish language booklets that aid in cessation and preventing smoking relapse. Interested participants called a study telephone number to obtain more information. A brief screening questionnaire was administered to determine eligibility and collect contact information. Interested participants were read the titles of the booklets (see Table 1) and selected the topic that was of most interest to them. Participants were then mailed or hand-delivered a copy of the LPS booklets. Each participant received the general Overview booklet (*Introduction)*, the booklet chosen by the participant, and one additional booklet randomly selected by the researcher. By allowing participants to select a topic and a booklet of interest, we were able to receive feedback on most booklets.

A face-to-face interview was scheduled one week after the participants received the booklets. The interview was conducted at either the Ponce School of Medicine, the participant’s home, or a convenient location selected by the participant. Before the interview, written informed consent was obtained. The interviews were audio recorded. All interviews were conducted in Spanish. Participants were provided a $30 gift card for completing the interviews, which lasted between 30–60 minutes.

Measures

The primary instrument was a semi-structured interview guide that included open-ended questions regarding the cultural appropriateness of the smoking cessation booklets, perceived comprehension of the content presented in the booklets, possible means of dissemination, preferred type of dissemination (massed (all booklets at one) v. gradual (delivering the booklets gradually over the course of 12 months), availability and accessibility for smoking cessation programs Puerto Rico. The interview included questions

such as, “Tell me about your experiences with quitting smoking”; “What resources are available in the community to help you quit smoking?” and “What would be the best way to get the materials to smokers living in Puerto Rico?” A smoking history section was included in the interview guide to gather information on smoking-related variables (smoking rate, years smoking, number of successful and unsuccessful quit attempts, level of nicotine dependence, and length of abstinence). We also assessed motivation to quit smoking among current smokers, as well as demographic information: age, gender, income, employment, marital status, years of education, and language preference.

Materials

The English and Spanish titles of the booklets are presented in Table 1. As described previously, a subset of the *LPS* series for preventing smoking relapse, was evaluated by participants.

Analysis

Twenty interviews were audiotaped and transcribed verbatim. A trained bilingual-bicultural native Spanish-speaking interviewer conducted the interviews in Spanish. The transcripts were reviewed to develop an initial a priori code list, based on the aims of the study and the questions in the interview guide. Open coding was used to identify emergent themes and new codes added to the original code list. Key points and representative quotes made by the participants were compiled according to the content included in the interview guide and extracted based on frequency and salience. The key themes were compared and combined to develop an overall summary for each interview guide question. All coding was done by hand by three researchers from the team. Each researcher independently coded five transcripts and the codes were compared. A reliability of .79 was initially reached. Definitions and themes were negotiated and discussed until agreement was reached on all discrepancies. Finally, quotes were translated into English.

Results

Participant Characteristics

Demographic and smoking characteristics of the participants are shown in Table 2. Major themes along with illustrative quotes are presented below. There was a substantial overlap in comments among current and former smokers, thus responses from these groups are presented together.

Sources of Smoking Cessation Information—Participants were asked where they usually look for smoking cessation information. Participants reported they searched for information about resources on the television, internet, newspapers, university smoking cessation programs, and the nearby medical school. Some participants noted that family and friends were an additional source of information.

> In TV commercials, the internet, and through friends and family, who are the ones that want me to quit smoking.

Reasons to Quit and Quit Attempts—Current smokers were asked about their reasons for wanting to quit. These participants mentioned several reasons to quit smoking, such as future health outcomes, leading a healthy lifestyle, being physically active, family, God, pressure from family, and co-workers.

> They [my children] wouldn't bring my grandchildren to visit if I continued smoking…It wasn't a deal, it was an ultimatum.

Participants who quit smoking were asked about facilitators of their successful quit attempt. Most participants talked about preparing themselves mentally for their quit attempt and reminding themselves to stay positive and not give up. Nicotine Replacement Therapy (NRT) was mentioned as a tool that helped them in their quit attempt.

Withdrawal symptoms (e.g., irritability, headache, and increased appetite), medication side effects, and easy access to cigarettes were cited as the great challenges during previous quit attempts. Some participants mentioned that they tried the nicotine patch as well as varenicline without much success. In fact, the majority of participants indicated that they quit smoking without any aids.

Availability of Cessation Resources—Participants were asked about the resources available in the community to help people quit, and the majority expressed not being aware of any. Participants believed that, although programs must exist, they would have to find out about them by asking their health provider. A few participants reported awareness of community resources citing the medical school, church, friends and family, NRT, and medications (e.g. varenicline).

Experiences and Satisfaction with Quitline—Out of the 20 participants, only two had heard of the Tobacco Quitline in Puerto Rico (Déjalo Ya). These individuals had also called the Quitline and they both expressed dissatisfaction with the services provided.

> I called Déjalo Ya once and they sent me a few things. But it didn't work. The pamphlet they sent me was not helpful.

> They got my name, phone number, even my date of birth. I don't know why. And that is where everything stayed; I never heard from them.

Barriers to Quitting—Participants were asked about barriers in the community that make it difficult for smokers to quit. Participants reported the government should have an important role in the community to help people quit smoking and that regulations, education, and financial support are necessary, but lacking in the community. Lack of smoking bans were mentioned as a perceived barrier to quitting. In addition, lack of tax increases and health care coverage for smoking cessation aids were mentioned as barriers.

> The department of education can create programs in the schools. It is important. I am sure there are many people that would want to get involved and would volunteer their time for that. I think that is what's important; the community has to get involved.

The majority of participants expressed a desire for the availability of group support in a structured setting comparable to Alcoholics Anonymous. Many participants cited needing to share their experiences with other smokers who have quit or are going through the process of quitting.

Feedback regarding LPS Booklets—As described below, participants were asked to provide their opinion on several aspects of the LPS booklets, including their overall impression, perceived comprehension, and length. The majority of the participants reported that the books were very good, complete, and very easy to understand.

> They [booklets] are simple, the vocabulary is simple, people with any level of education can understand it because they are simple and not redundant.

When asked about the length of the booklets, most participants reported finding the length acceptable.

> The first one [booklet] is longer than the rest, but it says everything it has to say. The ideas go to the point. I didn't find them long. If a person is seeking help, they wouldn't find it lengthy. It is not difficult to read 8 to 12 pages.

Although some participants found the introduction (Booklet #1) to be the most preferred, a few participants believed that it was too long and boring, and suggested the text be reduced.

When asked about the illustrative vignettes provided in the booklets, most participants felt they were a great way to relate to the concepts in an understandable manner. Some suggested the addition of more vignettes as a possible edit.

> The examples are fantastic because they represent our daily life. You identify yourself with every case.

When asked about the visual appeal of the booklets, participants found the colors to be very appealing and the pictures appropriate, in particular, one participant noted an appreciation for the diversity of ages represented in the pictures.

> When I read the first booklet, it was like all my neurons were activated. The first booklet explained how the quitting smoking process works… and it was like a desire, like I was anxious. When I'm almost done the levels go down, when I moved on to the 2nd booklet, the anxiety was gone.

> They're very colorful and beautiful. Another cool thing; at certain points the booklet supports you and it tells you, you can do it, we support you, you're doing great. It's cool to feel the support from someone who doesn't even know you.

Of note, a few participants found the cover designs to be repetitive and thus not appealing despite the different colors.

> The covers are the same, therefore, if the booklets were displayed, it will be hard to know there's a difference between them [in content].

Booklet Content—Most participants reported that the content was very interesting and provided alternatives to deal with the challenges of quitting smoking. One participant provided an example of the positive messages conveyed in the booklets.

> What I found positive in the booklets, and the booklet itself says it, is that sometimes its counterproductive to present negative things, something very terrible looking like a black lung. In reality those things are not very effective. These booklets have a very positive message; it's something easy that you can do.

Participants were asked about the novelty of the smoking content presented in the booklets. Most current smokers reported that they were not previously knowledgeable about several areas including withdrawal symptoms and how long they last, the cognitive and behavioral coping skills to use when trying to quit, nutritional information, the money spent on cigarettes, the addictive properties of cigarettes, chemicals found in cigarettes, and the effects of cigarettes during pregnancy.

> I learned about what I am going to feel…sometimes I am going to be stressed, or sometimes I am going to feel irritable….sometimes I am going to have a headache, which I didn't know.

> If I quit smoking I am going to gain more weight and I am trying to lose weight to fit in my wedding dress. God! Gaining weight again! But here they teach you that you can exercise, how much to eat, when quitting smoking, eat more fruits and vegetables…They provide important information that is applicable to me.

> In all the years that I have been smoking, I never knew what I was actually smoking.

Some participants also believed the information they read was useful because it reminded them of information they might have already known, but forgot.

> Well, I think all the information is always useful, even if you know it already. It is good to refresh it, remember it.

> …It helped doing relaxation exercises and breathing. I tried it yesterday and I went to bed without smoking.

When asked what content was missing in the booklets, many participants mentioned that they wanted to see a list of community resources presented in the booklets.

> Maybe make the information about places to look for help accessible to people. For instance, the quit line, support groups, etc. If it is going to be used [the booklets] with the Latino population, then list all the centers there are, all the information you can get across different counties…I think it would be a success.

One participant noted that the booklets were missing complementary material, such as logs that would allow them to track their progress.

Cultural appropriateness and perceptions of pictures used in the booklets—Most participants noted several positive aspects of the booklet photographs such as: the

ability to identify with the people portrayed in the pictures; the diversity of the pictures; and that the people in the pictures appeared happy, healthy, humble, friendly, and even peaceful.

> When you look at the appearance of the people [in the booklets], when they don't smoke they look healthier.
>
> You can tell they [the people portrayed in the pictures] are all Hispanic.

Dissemination and Distribution—The majority of participants noted that they would prefer the booklets to be disseminated through a smoking cessation program or in a support group setting. Participants noted that such a setting would foster commitment from participants and would hold them accountable.

> You should think about developing a program that has some control on what is happening with participants. It [the program] should go through the booklets one by one, ask participants what they are going to do about their smoking, how they are going to cope, and establish a commitment. I believe that there should be some type of follow-up…This makes people accountable…
>
> To create meetings. Smokers should have someone to talk to. A group where you can share your experiences and hear how other people learn to cope. Exchanging information would be nice.

Several participants also recommended creating charlas or conferences where the booklets are presented and discussed, or distributing the booklets in doctors' offices.

> Each time you go to the doctor, the doctor should ask you if you smoke when he/she is conducting the physical exam. If you smoke, he can give you the booklets and say 'this helps'," "You can have the booklets in the waiting room of the doctor's office so when you are waiting, you'll see them there.

Distribution Schedule—In our prior work, the booklets have been disseminated either all at once or over the course of 12 months. Therefore, we asked participants to report their preferred distribution schedule. Almost all participants noted that they preferred to receive the booklets gradually over time.

> All at once? No! Because is too much information and it is easy to forget even if it is interesting. You can read them all in one week, but you'll forget. If you get one at a time, you read one per day, and the other ones come the following week, and you can read it slowly. I think it is better that way.

Dissemination Source—Doctors, health professions, and former smokers were mentioned frequently as the best sources to deliver the booklets.

> Well, I think a peer, someone just like you [should distribute the booklets]… someone who's been through it and the booklets helped them, then it's the best way, who would be better? That's the AA philosophy, who better than an alcoholic in recovery to go along with you in this process.

> A doctor [should distribute the booklets] and that is not common. Any type of doctor could distribute them because sometimes you don't listen to friends and family.

Discussion

Given the dearth of Spanish-language smoking resources, the present study sought to examine the cultural acceptability and appropriateness of the LPS booklets for use in Puerto Rico, as well as assess dissemination preferences. In addition, to better understand the unique circumstances and potential barriers for smokers in Puerto Rico, participants were asked more generally about the availability and accessibility of smoking cessation information and resources.

Participants reported limited availability of smoking cessation resources in their community, as well as lack of knowledge about the Quitline and success with FDA-approved smoking medications (e.g. nicotine patch, varenicline). Our results are consistent with prior studies demonstrating underuse of NRT [20] as well as lower utilization of the Quitline by island Puerto Ricans compared to other Hispanics groups in the U.S. [15]. It is important to note however that prior research has demonstrated the impact of adequate resource allocation to for increasing the reach of Quitline services to Hispanic smokers in the mainland [14]. Taken together, our findings suggest the need for additional resources to promote the Quitline and educate smokers in Puerto Rico regarding existing cessation resources available in their communities.

When asked about barriers to quitting smoking, participants mentioned a lack of smoking bans as a perceived barrier. This finding was interesting in light of the fact that Puerto Rico is known to have some of the strictest smoking bans in the U.S. and the Caribbean (e.g., no smoking allowed in casinos, bars, restaurant patios, inside cars with children younger than 13 years old, beaches, etc.) [e.g., 21, 22, 23]. These findings indicate a need to increase awareness regarding tobacco control policies on the island. A lack of enforcement of smoking bans would also explain participants' failure to recognize existing smoking bans; however, data on enforcement of these policies is lacking, precluding such an explanation.

Overall, participants expressed a very positive impression of the LPS booklets, regardless of smoking status. The booklets were rated favorably with respect to relevant content, acceptable length, and ease of comprehension of the content. The content was also frequently praised for being engaging and providing several alternatives to deal with the challenges of quitting smoking. In addition, the photographs and language used were reported as culturally appropriate. Despite documented differences between Island and Mainland Puerto Ricans, our results suggest our process of adapting the English booklets with input from diverse sub-ethnicities of Hispanics was successful, and that further adaptation for smokers living in Puerto Rico in not needed. Given the resources needed to develop tobacco interventions tailored to specific Hispanic subgroups, additional studies are warranted to determine whether such efforts are necessary in terms of cultural acceptability, and importantly, efficacy.

Despite the overwhelmingly positive response to the booklets, and multiple advantages of self-help interventions (e.g., cost-effective, easy dissemination), use of the booklets as a stand-alone intervention was not appealing to participants. Rather, a striking majority of participants expressed an interest in using the booklets in the context of social support groups or "charlas." This finding is consistent with prior research in the Puerto Rican population [24] documenting a desire for delivering smoking information using in-person modalities. Moreover, these results underscore the importance of assessing intervention preferences among culturally diverse populations.

A notable limitation of our study, inherent with all qualitative studies, is that our findings are not intended to be generalizable to other populations. Interviews were conducted in the city and surrounding communities of Ponce, Puerto Rico. It is possible that participants from other geographic regions of Puerto Rico may have different perspectives or knowledge regarding smoking cessation resources.

In summary, the findings of this pilot study suggest there is a great need for education about smoking cessation in the community of Ponce, PR. The educational needs identified in the current study include: communicating the availability of existing smoking cessation resources (i.e., Puerto Rico Quitline); providing education on evidence-based smoking cessation aids; and relaying basic smoking education on topics such as nicotine withdrawal, chemicals found in cigarettes, and existing tobacco control policies. Overall, participants showed interest in the booklets and learned new information, such as coping strategies, that are essential for succeeding in quitting smoking. The results from this study also demonstrated that smokers on the Island desire written information to be presented within the context of "charlas" or support groups for smoking cessation. Taken together, findings from this study support the need for smoking cessation resources in Puerto Rico and demonstrate the acceptability of the LPS booklets for use with this population. Prior research has demonstrated the efficacy of the English version of these booklets (*Forever Free*®) in reducing smoking relapse. Given the reported preferences for receiving the booklets in a group or "charla" context, or distributed by their providers, future research will be needed, not only to demonstrate the efficacy of these booklets among Hispanic smokers, but to investigate the comparative efficacy of a stand-alone intervention versus an intervention that uses these booklets in an interpersonal context. The LPS intervention represents a low-cost and readily disseminable self-help intervention with potential for reaching large population [25]. Moreover, the LPS booklets could be provided in the context of a charla or as a complement to an existing Quitline. Indeed, wider dissemination of evidence-based interventions for promoting continued smoking abstinence among underserved ethnic minority populations is a public health priority [26].

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References

1. CDC. The Health Consequences of Smoking-50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention; Washington, DC: National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014. 2014 http://www.surgeongeneral.gov/library/reports/50-years-of-progress/. [Accessed May 2014]
2. CDC. Smoking-attributable mortality, years of potential life lost, and productivity losses-United States, 2000–2004. Morb Mortal Weekly Rep. 2008; 57:1226–1228.
3. Perez-Stable EJ, Ramirez A, Villareal R, Talavera GA, Trapido E, Suarez L, Marti J, McAlister A. Cigarette smoking behavior among US latino men and women from different countries of origin. Am J Public Health. 2001; 91:1424–1430. [PubMed: 11527775]
4. Sonnenfeld N, Schappert SM, Lin SX. Racial and ethnic differences in delivery of tobacco-cessation services. Am J Prev Med. 2009; 36:21–28. [PubMed: 18977111]
5. O'Brien K, Cokkinides V, Jemal A, Cardinez CJ, Murray T, Samuels A, Ward E, Thun MJ. Cancer statistics for Hispanics. CA Cancer J Clin. 2003; 53:208–226. [PubMed: 12924775]
6. Caraballo RS, Yee SL, Gfroerer J, Mirza SA. Adult tobacco use among racial and ethnic groups living in the United States, 2002–2005. Prev Chronic Dis. 2008; 5(3):A78. [PubMed: 18558028]
7. Kaplan RC, Bangdiwala I S, Barnhart JM, Castañeda SF, Gellman MD, Kee DJ, Pérez-Stable EJ, Talavera GA, Youngblood ME, Giachello AL. Smoking among U.S. Hispanic/Latino adults: The Hispanic community health study/study of Latinos. J Prev Med. 2014; 46(5):496–506.
8. CDC. State specific prevalence of cigarette smoking and smokeless tobacco use among adults, 2009. Morb Mortal Weekly Rep. 59(43):1400–1406.
9. Hayes RB, Bravo-Otero E, Kleinman DV, Brown LM, Fraumeni JF, Harty LC, Winn DM. Tobacco and alcohol use and oral cancer in Puerto Rico. Cancer Causes Control. 1999; 10:27–33. [PubMed: 10334639]
10. Xie H, Hou L, Shields PG, Winn DM, Gridley G, Bravo-Otero E, Diehl SR, Bowman ED, Brow LM, Hayes RB. Metabolic polymorphisms, smoking and oral cancer in Puerto Rico. Oncol Res. 2004; 14:315–320. [PubMed: 15206494]
11. Department of Health of Puerto Rico. Reporte Annual de Estadisticas Vitales en Puerto Rico. San Juan PR: Departamento de Salud de Puerto Rico, Secretaria Auxiliar de Planificacion y Desarrollo; 2010. http://www.salud.gov.pr/Datos/EstadisticasVitales/Pages/default.aspx. [Accessed May, 2014]
12. Webb MS, Rodriguez-Esquivel D, Baker EA. Smoking cessation interventions among Hispanics in the United States: a systematic review and mini meta-analysis. Am J Health Promot. 2010; 25(2): 109–118. [PubMed: 21039291]
13. Woodruff SI, Talavera GA, Elder JP. Evaluation of a culturally appropriate smoking cessation intervention for latinos. Tob Control. 2002; 11(4):361–367. [PubMed: 12432162]
14. Wetter D, Mazas C, Daza P, Nguyen L, Fouladi RT, Li Y, Cofta-Woerpel L. Reaching and treating Spanish-Speaking smokers through the National Cancer Institute's Cancer Information Service. A randomized controlled trial. Cancer. 2006; 109:406–143. [PubMed: 17149758]
15. Ortiz AP, Diaz-Toro E, Calo WA, Correa-Fernandez V, Cases A, Santosortiz MC, Mazas C, Mejia L, Wetter DW. Characteristics of smokers accessing the Puerto Rico Quitline. P R Health Sci J. 2008; 27:213–219. [PubMed: 18782965]
16. Cummins SE, Bailey L, Campbell S, Koon-Kirby C, Zhu SH. Tobacco cessation quitlines in North America: a descriptive study. Tob Control. 2007; 16:9–15.
17. Brandon TH, Collins BN, Juliano LM, Lazev AB. Preventing relapse among former smokers: a comparison of minimal interventions through telephone and mail. J Consult Clin Psychol. 2000; 68:103–113. [PubMed: 10710845]
18. Brandon TH, Meade CD, Herzog TA, Chirikos TN, Webb MS, Cantor AB. Efficacy and cost-effectiveness of a minimal intervention to prevent smoking relapse: dismantling the effects of amount of content versus contact. J Consult Clin Psychol. 2004; 72:797–808. [PubMed: 15482038]

19. Simmons VN, Quinn G, Litvin EB, Rojas A, Jimenez J, Castro E, Meade CD, Brandon TH. Transcreation of validated smoking relapse-prevention booklets for use with Hispanic populations. J. Health Care Poor Underserved. 2011; 22:886–893.

20. Zinser MC, Pampel FC, Flores E. Distinct beliefs, attitudes, and experiences of Latino smokers: relevance for cessation interventions. Am J Health Promot. 2011; 25:1–15.

21. Gobierno de Puerto Rico. Reglamiento sobre la práctica de fumar en determinados lugares públicos y privados. Regrlamento del secretario de salud y del superintendente de policía; 2011. http://www.salud.gov.pr/Publicaciones/Anuncios/Documents/Avisos%202011/Aviso-fumar/BORRADORPARAVISTA.pdfhttp://www.salud.gov.pr/Services/Dejaloya/Pages/NuevaLeyNum40.aspx#Bookmark_prohibe

22. Marín HA, Díaz-Toro E. The effect of the smoke-free workplace policy in the exposure to secondhand smoke in restaurants, pubs, and discos in San Juan, Puerto Rico. P R Health Sci J. 2010; 29(3):279–285. [PubMed: 20799516]

23. Cabrera-Serrano A, Ramos-Colón MV, Rivera-Alvarado A, Cases-Rosario A, Ramos JI. Descriptive profile of people with diabetes who use the Puerto Rico Quitline. Ethn Dis. 2012; 22:45–50. [PubMed: 22774308]

24. Litvin EB, Rojas A, Brandon TH, Quinn G, Meade CD, Simmons VN, Jimenez J, Castro E, Diaz Z. Cultural acceptability of a smoking relapse prevention intervention for pregnant women in Puerto Rico: providers' feedback. Hisp. Health Care Int. 2011; 9:117–126.

25. Curry SJ, Ludman EJ, McClure J. Self-administered treatment for smoking cessation. J Clin Psychol. 2003; 59:305–319. [PubMed: 12579547]

26. Fiore, M. Tobacco Use and Dependence Guideline Panel. Treating tobacco use and dependence: 2008 update. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service; 2008.

Table 1

Booklet Titles in English and Spanish

Booklet	English Version	Spanish Version
1	An Overview	Introducción
2	Smoking Urges	Deseos de Fumar
3	Smoking and Weight	Fumar y el Peso
4	What if you Have a Cigarette?	¿Qué pasa si se fuma un cifarillo?
5	Your Health	Su Salud
6	Smoking, Stress, and Mood	Fumar, el estrés y los estados de ánimo
7	Lifestyle Balance	Estilo de vida balanceado
8	Like Without Cigarettes	La vida sin cigarillos

Table 2

Participant Characteristics (N = 20)

	Former Smokers n (%)	Smokers n (%)
Age (M, SD)	44.20 (16.41)	39.60 (14.21)
Male	5 (25)	5 (25)
Race		
Caucasian	7 (35)	4 (20)
Mixed	3 (15)	5 (25)
African American	0	1 (5)
Ethnicity		
Hispanic	10 (50)	10 (50)
Marital Status		
Single	3 (15)	6 (30)
Married	6 (30)	1 (5)
Divorced	0	2 (10)
Widowed	1 (5)	1 (5)
Education		
11^{th} grade or below	1 (5)	0
High School	2 (10)	0
AA/Technical Degree	0	4 (20)
Some College	1 (5)	6 (30)
College Degree	3 (15)	0
Master's Degree of Above	4 (20)	0
Employed	8 (40)	5 (25)
Income		
Below $10,000	2 (10)	3 (15)
$10,000 – $19,999	4 (20)	5 (25)
$30,000 – $39,999	0	2 (10)
$40,000 – $49,999	1 (5)	0
Above $90,000	2 (10)	0
Smoking Variables		
Cigarettes per day (M, SD)	—	27 (10.33)