

Empieza con Fuerza Tu Día (Kick Start Your Day): A Comic Book Designed to Increase Knowledge about Healthy Eating Habits among Latino Families

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Abstract

The Latino population in the United States is increasing, and has high rates of overweight and obesity. Hence, innovative health education materials are needed to promote obesity prevention efforts in this population. This article discusses the conceptualization and contents of *Empieza con Fuerza Tu Día* (Kick Start Your Day), a comic book written in Spanish, which promotes healthy eating habits. Key constructs of the health belief model (HBM) were included in various storylines depicted in the comic book. Twenty Latina health educators, *promotoras*, read the comic book and participated in one of two focus group interviews. Their feedback indicated that with some modifications, the comic book would be appropriate for Latino families. Hence, a health belief model comic book approach towards obesity prevention for Latino families is feasible.

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Keywords: comic books, Latinos, obesity prevention, health belief model

Introduction

Obesity is one of the most significant health problems facing Latinos in the United States. Latino/Hispanic children have higher rates of obesity (25.1% among 6-11 year olds) compared to their similar-aged, non-Hispanic White peers (19.0%) (Ogden, Carroll, Kit, & Flegal, 2014).

The Health Belief Model

The health belief model (Rosenstock, Strecher, & Becker, 1988) posits that health-related behaviors are a function of self-perceived susceptibility of acquiring a disease (e.g., likelihood of becoming obese if one eats a high amount of dietary fat), perceived severity of the disease (e.g., the degree to which the consequences of being obese is viewed as serious), perceived barriers to engaging in the health-related behavior being studied (e.g., not enough time to cook healthy meals due to demanding work schedule), and cues to action to engage in the health-related behavior (e.g., seeing a poster that promotes consuming a healthy diet). HBM has been effectively used in

nutrition campaigns. For example, Chew, Palmer, and Kim (1998) found that among adults, higher perceived susceptibility to obesity-related health conditions and perceived benefits of consuming healthy food were associated with healthier food choices. They also found that *Eat Smart*, a one-hour nationally-televised nutrition program, increased viewers' concerns about fitness and diet. Abood, Black, and Feral (2003) conducted a worksite nutrition intervention for university staff that targeted health belief constructs. The intervention participants significantly increased their nutrition knowledge and decreased fat and cholesterol consumption.

Comic Books and the Latino Culture

In the Latino culture, such comic books are called "fotonovelas" or "novelitas." They are enjoyed by readers of all ages, as they are written at a low literacy level, supplemented with pictures that can support the message being conveyed in a culturally relevant manner (Flora, 1985). Fotonovelas have been used to address depression among Latina women, specifically to

increase depression literacy (Hernandez & Organista, 2013; Cabassa, Molina, & Baron, 2012), increase depression help-seeking behaviors (Hernandez & Organista, 2013), and reduce depression-related stigma (Unger, Cabassa, Molina, Contreras, & Baron, 2013). Liebman, Juárez, Leyva, and Corona (2007) used a fotonovela to reinforce one-on-one visits that Latino farmworker families received from promotoras regarding the prevention of accidental pesticide exposure. The intervention led to significant increases in knowledge about pesticide exposure and decreases in actual exposure. Prokhorov et al. (2013) conducted a second hand smoke exposure (SHS) intervention which provided photonovelas to Mexican American families. Compared to families who received standard health education materials, the photonovela intervention led to sharper decreases in household ambient nicotine levels, and greater increases in family members' knowledge and perceived susceptibility for the health effects of SHS.

Comic books have also been an effective health education tool for non-Latino populations. For example, comic books have been used to increase foodborne illness safety knowledge, beliefs, and behaviors among adult AIDS patients (Dworkin et al., 2013), and increase fruit, vegetable, and water consumption among children in after-school programs (Branscum, Sharma, Wang, Wilson, & Rojas-Guyler, 2013). In one study, predominantly African-American after-school students more often chose a healthy snack (versus an unhealthy snack) after reading a comic book about fruit intake compared to a control group of similar students (Leung, Tripicchio, Agaronov, & Hou, 2013).

Empieza con Fuerza Tu Día

A Latina public health professional collaborated with a Latino comic book artist to write the comic book entitled *Empieza con Fuerza Tu Día* (Kick Start Your Day). It was written to educate Latino families about healthy eating habits and the importance of physical activity. *Empieza con Fuerza Tu Día* was written in Spanish at a third grade reading level. The comic book is 40 pages

in length and is a half-letter size (5.5 x 4.25 inches). Its interior is black and white, with the exception of two MyPlate graphics that are in color. The cover is in color as well. The comic book addresses the following issues in eight sections: (1) the importance of eating breakfast; (2) the importance of daily physical activity; (3) how to read food labels; (4) understanding the MyPlate; (5) portion control; (6) what a glycemic index is; (7) a content review section, and (8) a referral directory to on-line services for more information about these topics. Reproduction and distribution of this publication is provided through the Center for Healthy Lifestyles and Obesity Prevention at California State University Fullerton (http://healthylifestyles.fullerton.edu/contact_us.htm).

This Article

This article briefly describes how various illustrations in the comic book target specific HBM constructs, specifically perceived susceptibility, perceived severity, perceived barriers and benefits, and cues to action. We also briefly discuss the perspectives of promotoras who read the comic book. Promotoras are Latina community members who deliver basic health education in their community. Gaining promotoras' perspectives of how the comic book can impact Latino health was informative, as they are a population who interacts with underserved Latino community members. Additionally, this study adds to the comic book health education literature by discussing how various HBM constructs are presented in the comic book.

Methods

The 20 promotoras were recruited via a flyer posted at a Latino community health promotion program office in southern California. Interested promotoras contacted the program office to schedule a time to participate in a focus group conducted by the second and third authors of this study. When the promotoras arrived at the focus group site, they read and signed a consent form, which was provided in both English and Spanish. Next, each of them received a copy of

the comic book to read prior to the beginning of the focus group.

The focus groups were moderated in Spanish by the director of the program office. The questions assessed whether families could learn about health from reading the comic book, whether the comic book could ultimately lead to change in health behaviors, what they liked/disliked about the comic book, and whether they would use the comic book in their health education efforts. The focus group discussions were audio recorded without any information that could identify promotoras. Promotoras received lunch and a \$30 gift card for their participation. All procedures described here received IRB approval from the first author's affiliation.

HBM Constructs Addressed in Comic Book and Promotoras' Perspectives

Perceived Susceptibility

Perceived susceptibility is one's perception of the likelihood that he or she will acquire a disease or health condition. In this comic book, perceived susceptibility is addressed in the scene in which a superhero tries to save the people in a building that is ready to collapse. Since the superhero did not have breakfast that morning, despite his mother's reminder to do so, he did not have the physical energy and mental focus to complete his task. See Figure 1. This scene was designed to raise awareness that a lack of proper nutrition (e.g., failing to eat breakfast) can make one susceptible to a negative consequence (e.g., an inability to perform what should be a normal task). When asked whether the book would motivate children, the promotoras unanimously replied yes. One response that was relevant to the concept of perceived susceptibility was, "This book is a signal of alert for people who are uninformed in nutrition."

Perceived Severity

Perceived severity is the extent to which an individual believes that a disease or health condition will impact his or her life, if he or she develops the disease/health condition. *Empieza con Fuerza Tu Día* (Figure 2) discusses that the possible consequences of obesity include Type 2

diabetes, heart disease, high blood pressure, cancer, and a sedentary lifestyle. When asked about what families could learn from reading the comic book, one promotora replied, "...unfortunately, we don't like to be told the truth. But, it is always important to start learning and becoming aware of the dangers of our health."

Perceived Barriers

Perceived barriers refer to the deterrents, or barriers that one may experience when attempting to modify a health behavior such as improving their eating habits or increasing their level of physical activity. The characters in *Empieza con Fuerza Tu Día* present simple strategies to overcome barriers to healthy eating habits and physical activity (Figure 3). These strategies include reducing fat intake, taking daily walks around the block, using the stairs instead of the elevator, parking the car in a spot that is farther away from the grocery store entrance, and choosing smaller portions and entrees at restaurants when dining out. When discussing barriers to being physically fit, several promotoras discussed how the comic book appropriately depicted "mindless eating in front of the T.V", as this is a prevalent barrier among families in general.

Cues to Action

Cues to action refer to the external factors that increase the readiness level of an individual to engage in behavioral change. Such external factors can include information that is presented to the individual. The characters in *Empieza con Fuerza Tu Día* provide information about how sugar intake can affect the glycemic index, how to read food labels, and how to follow the MyPyramid guidelines. When discussing what families could learn from the comic book, one response that was relevant to the cues to action construct was, "I love the information about breakfast; I did not know that it had such importance." Another comment was: "There is one particular page in which it makes it very easy to remember how to exercise portion control."

Other Responses to the Comic Book

health education tool. Some of the comments were: "...makes [people] be conscious about the present time", "If this is dedicated to children, I think this is good because kids like comic books", and "...it is clear for all types of people to understand and it is very entertaining. When you read it, you don't want to stop but continue to read."

Along with the positive reviews, the promotoras did provide comments which suggest that the comic book illustrations and themes need to be further considered to better reach Latino families, especially children. Some of the comments were: "the drawings were rude.", "I don't like the expression, 'Don't Stuff Yourself!' It feels and it seems very aggressive....", and "The title page of the woman should be happier."

Discussion

Comic books have been utilized as a health education tool for a variety of topics and across

The majority of promotoras provided comments which indicated that the comic was valuable as a variety of populations. Our findings suggest that from the promotora perspective, a comic book approach towards obesity prevention is likely to be well-received by Latino families. Further research is needed to determine whether the comic book utilized in this study leads to changes in health belief model constructs and dietary intakes.

It has been suggested that strong cultural sensitivity and overcoming language barriers are key for health promotion efforts to be successful among U.S. Latinos (Heiss, Rengers, Fajardo-Lira, Henley, Bizeau, & Gillette, 2011). To this end, we learned that although the comic book was well-accepted, further consideration needs to be given to how the target audience, particularly children, interpret the meaning of illustrations. Along these lines, it has been suggested elsewhere that members of the Latino community should be actively involved in the creation of health-related comic books to ensure the relevance of its storylines and messages (Hinojosa, Hinojosa, et al., 201

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Figure 1
Perceived Susceptibility Conveyed Through Lack of Proper Breakfast Consumption



Figure 2
Consequences of Obesity and Perceived Severity



Figure 3
Perceived Barriers to Becoming Healthy

¿Qué puedes desayunar?

- CEREAL DE TRIGO que tenga 5 gramos de fibra y no más de 5 gramos de azúcar
- FRUTA con yogurt
- HUEVOS al gusto
- LECHE SIN GRASA y pan tostado de trigo
- BARRAS DE QUESO sin grasa y fruta

Evita el tocino, las salchichas, el aceite, y la leche entera así como el azúcar.



¡ Mmm... y mucho mejor que comer niños...!

ROSTAN 2009.

Actividades físicas sencillas como caminar a la escuela, subir escaleras en lugar de tomar el elevador, dar una caminata familiar después de la cena, pasear al perro en el parque, caminar en lugar de mirar la televisión, correr, jugar a la pelota, o simplemente APAGAR LA TELE y hacer otra cosa fuera de casa, puede mejorar tu salud.



¡ Mmm... y mucho mejor que comer niños...!