

The role of narrative persuasion in Edu-Entertainment to improve health in Latin America: Review of the last five years

El rol de la persuasión narrativa en el Edu-Entretenimiento para mejorar la salud en América Latina: Revisión de los últimos cinco años

O papel da persuasão narrativa na Edu- Entretenimento para melhorar a saúde na América Latina: revisão dos últimos cinco anos

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ARTICLE



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Abstract

An integrative review of the literature of the last 5 years on narrative persuasion research in health communication in Latin America was carried out. The search was carried out in the WOS and Scopus databases. 87 documents were identified, of which, 6 met the selection criteria. The results indicate that there is much to be investigated in Latin America on how narratives can influence preventive and risk behaviors in health. This would demonstrate how powerful these strategies are in generating attitudinal and behavioral changes and help those who take decisions in the health area to create public policies based on empirical evidence, according to the social and cultural realities of each population.

KEY WORDS

Edu-Entertainment, Health communication, Latin America, Narrative persuasion.

Resumen:

Se realizó una revisión integradora de la literatura de los últimos 5 años sobre las investigaciones en persuasión narrativa en comunicación para la salud en América Latina, la búsqueda se efectuó en las bases de datos WOS y Scopus. Se identificaron 87 documentos, de los cuales

6 cumplieron los criterios de selección. Los resultados indican que falta mucho por investigar en América Latina sobre cómo las narraciones pueden influir en conductas preventivas y comportamientos de riesgo en salud, esto ayudaría a demostrar lo poderosas que son estas estrategias en la generación de cambios actitudinales y conductuales, ayudando a quienes toman las decisiones en el área de salud para crear políticas públicas basadas en evidencias empíricas acordes a las realidades sociales y culturales de cada población.

PALABRAS CLAVE:

Edu-Entretenimiento, Comunicación para la salud, América Latina, Persuasión narrativa.

Resumo

Realizou-se uma revisão integrativa da literatura dos últimos 5 anos sobre as pesquisas em persuasão narrativa em comunicação para a saúde na América Latina, a busca foi realizada nas bases de dados WOS e Scopus. Foram identificados 87 documentos, dos quais 6 cumpriram os critérios de seleção. Os resultados indicam que ainda há muito a ser investigado na América Latina sobre como as narrativas podem influenciar comportamentos preventivos e de risco em saúde, o que ajudaria a demonstrar o quão poderosas essas estratégias

gias são na geração de mudanças atitudinais e comportamentais, auxiliando quem toma decisões na área da saúde para criar políticas públicas baseadas em evidências empíricas de acordo com a realidade social e cultural de cada população.

Palavras-chave

Edu-Entretenimento, Comunicação para a saúde, América Latina, Persuasão narrativa.

1. INTRODUCTION

The demographic, socioeconomic and health situation for the Americas region, according to the latest report from the Pan American Health Organization [PAHO] and the World Health Organization [WHO] (2019), has important variations for each subregion where Latin America and the Caribbean are at a general disadvantage compared to North America. For example, the adolescent fertility rate in Latin America and the Caribbean is 61.9 births per 1,000 women between the ages of 15 and 19, considerably higher compared to the 17.6 of North America. A similar situation occurs with maternal mortality (69.5 vs. 6 deaths per 100,000 births) and mortality per 100,000 inhabitants from communicable diseases (80.4 vs. 27.5), non-communicable diseases (453.7 vs. 404.9), ischemic disease heart disease (87.9 vs. 75.8), cerebrovascular diseases (43.8 vs. 21.7) and diabetes mellitus (43.2 vs. 14.6).

There are other health parameters that, although they occur in a higher proportion in the North American region, constitute a challenge for Latin America and the Caribbean given their consistent progression in recent years and the implications on the development of other chronic conditions of high cost to people and health systems (PAHO-WHO, 2019). Among these are obesity and overweight, which affect 59% of the population. Other important indices to ensure the health and quality of life of the population in the region are the unmet need for

family planning (9%) and prenatal care without trained personnel (14.9%) (PAHO-WHO, 2019).

It is a challenge for the region to address the risks of each segment of the population. For this reason, epidemiological problems continue to be tackled through the implementation of health communication interventions and programs, adapted to each context and with the participation of multiple sectors and society.

Cuervo and Bermúdez (2018) mention the importance of health research, since it is essential to determine the effects of interventions, identify problems, balance costs, and make sensible and well-informed decisions. They consider that health research in the last decade in Latin America has shown great advances, reflected in the increase in the number of countries that have defined and updated their national agendas and health research policies.

On the other hand, Cuesta and Menéndez (2017) point out two aspects of why social communication should be included in public health. The first aspect refers to the “transmission of information that allows citizens to know options for healthy behavior or risk and the second aspect refers to the creation of healthy habits through the implementation of health education programs” (p.61).

Therefore, one of the main objectives of communication in public health is to design effective messages that can persuade the target audience to change attitudes or risk behaviors (Shen et al., 2015).

Within these efforts, the classic health communication campaigns based on the use of short advertisements in mass media have been openly criticized because their effectiveness is limited, and they are not helping to reduce risk behaviors. At the same time, the Education-Entertainment or Edu-Entertainment (hereinafter EE) approach has strongly emerged to face various social and health challenges (Moyer-Gusé, 2008). This format seeks to provoke pro-social changes through the emission of entertainment messages that contain educational messages in a subtle way. This type of strategy is based on the formats of television series, soap operas and others that have a cast of characters whose behaviors and attitudes can serve as a model for viewers.

Storytelling is increasingly used in health communication to achieve public health goals. Research has shown that storytelling can serve as effective health interventions. Compared to other types of messages, storytelling can create story-consistent beliefs and attitudes, increase behavioral intentions, and encourage healthy behaviors (e.g., Dillard et al., 2010; Falzon et al., 2015). In recent years, various theories of EE have converged to identify characteristics such as identification with characters and narrative transport, central elements of persuasive results.

Based on the research carried out in this field, it has been possible to demonstrate, first, how the role of narrative transport can have far-reaching consequences for people's opinions, knowledge, intentions and actions. The various models on narrative persuasion processes (Green and Brock, 2002; Moyer-Gusé, 2008; Slater and Rouner, 2002) also agreed on how narrative transport can explain the per-

suasive effect of a narrative. One explanation is that the audience identifies with a character and as a result becomes more susceptible to that character's beliefs and goals.

In this way, research on narrative persuasion studies the processes or mechanisms that explain how narrative messages can change the attitudes, beliefs, intentions and behaviors of people (Hoeken and Fikkers, 2014; de Graaf et al., 2012; Green & Brock, 2000; Igartua, 2010). In fact, meta-analysis reviews have found that narratives cause significant effects on these processes (Braddock & Dillard, 2016; Shen et al., 2015). This knowledge is applied in health communication (de Graaf et al., 2016), one of the most outstanding developments being the design of EE interventions (e.g., Igartua and Vega, 2016; Moyer-Gusé et al., 2011; Murphy et al., 2013; Robinson and Knobloch-Westerwick, 2017).

Petty and Cacioppo (1986) define persuasion as any change that occurs in people's attitudes as a result of exposure to a type of communication. For his part, Igartua (2007) considers that persuasive communication is the deliberate use of communication to create, modify or reinforce the attitudes or opinions of people regarding a particular issue.

The theories developed in the field of EE and narrative persuasion affirm that there are variables called "persuasive mediators", whose function is to mediate the persuasion process, conditioning the effects of the independent variable (the persuasive message) on the dependent variable (the persuasive message, change of intention, attitude or behavior). It is suggested that mediators of narrative persuasion may include identification with the character and na-

rative transport (de Graaf et al., 2016; Igartua and Vega, 2016; Igartua et al., 2019; Kim and Lee, 2018). In general, these investigations suggest that involvement with the narrated story and with the characters play a relevant role in the persuasive impact of EE messages (Moyer-Gusé, 2008; Robinson and Knobloch-Westerwick, 2017; Van Laer et al., 2014).

Based on the above considerations, the need to carry out an integrative review of the literature of the last 5 years on the study of narrative persuasion applied in Latin America in the context of narratives in communication for health is based, in order to identify the health problems addressed, the format used, the target audience, the methodology used and the common results. It is intended to be carried out in such a way that it allows making a series of recommendations on the implementation and evaluation of this type of narrative strategies in the region.

2. METHODOLOGY

The recommendations of Souza et al. (2010) were used for the integrative literature review. The following databases were used: Scopus and Web of Science (WOS) for being the ones with the greatest international scope. The following search terms were used: *"Communication and Health" + "Narrative Persuasion"*; *"Health Communication" + "Narrative Persuasion"*.

Initially, 67 articles were found in WOS and 54 in Scopus, some of them were repeated in both databases, therefore, the total list was reduced to 87 articles. Then, two reading filters were applied to perform the information analysis. The first filter refers to the preliminary reading of the title and abstract, and the second to the review of the methodology and results, since some studies that were not done in Latin America did study the Latin American population. This information is presented in greater detail in the methodology.

To be included in this review, the documents had to meet the following criteria: a) have been published between 2016 and 2020, b) present empirical findings of studies of narrative persuasion applied in Latin America; and c) present findings on the impact of Edu-Entertainment strategies, including variables such as knowledge, attitudes, intention, perceptions and behaviors regarding a health issue. According to these criteria, 81 documents were excluded.

The final set consisted of 6 articles in English. These were read in their entirety and selected for review. For this, a bibliographic review card was prepared which included the following variables: article title, name of the journal and database, authors and year of publication, country where the study was conducted, medium and message, research design and results. (See Table 1). Finally, a detailed analysis of the information was carried out in order to synthesize it.

Table 1

File of reviewed articles

Title / journal and database	Author(s) / year	Country where the study was conducted	Sample / target audience	Format	Message	Research design	Results
Narrative formats for teenage pregnancy prevention. The effect of the narrative modality on preventive attitudes.	González-Cabrera, Catalina & Igartua, Juan-José (2018).	Ecuador	220 female adolescents (15 to 19 years old).	Video	Prevention of unintentional adolescent pregnancy.	Experimental. Pre-test and post-test questionnaire. The video format "What we don't think" (testimonial vs. dialogic) was used, the narrative voice of the message was used in the first person, with the protagonists looking directly at the camera.	It was found that the level of media literacy moderated the indirect effects of the testimonial narrative video on the perception of the risk of experiencing negative situations in an adolescent pregnancy.
Revista Latina de Comunicación. WOS y Scopus.							
Entertainment-Education Narrative Versus Nonnarrative Interventions to Educate and Motivate Latinas to Engage in Mammography Screening.	Borrayo, Evelinn; Rosales, Monica & González, Patricia (2017).	United States	141 Latina women (40 to 81 years old).	Video and printed material.	Promotion of the use of mammography for the early detection of cancer.	Experimental. Pre-test and post-test measurements. The women were randomly assigned to one of three groups: 1) Watch the video "Where's Maria?", 2) Watch the educational video "Quality Mammography Can Save Your Life", 3) Receive and discuss 3 brochures from the National Cancer Institute and the American Cancer Society with a facilitator.	The three formats used improved the knowledge, self-efficacy and behavioral norms of the women in the study. However, the narrative video produced significantly higher effects than the other two formats.
Health Education & Behavior. WOS.							
Identification with Characters, Elaboration, and Counterarguing in Entertainment-Education Interventions Through Audiovisual Fiction	Igartua, Juan-José & Vega, Jair (2016).	Colombia	208 young men and women from Colombia (14 to 20 years old).	Television series (audiovisual fiction).	Education on sexual relationships, gender violence and sexual diversity.	Experimental. Participants were randomly assigned to watch one of three episodes of the series "Revelados, desde todas las posiciones" on the following topics: 1) Adolescent sexuality, 2) Gender violence, 3) Sexual diversity.	Identification with the characters led to greater cognitive elaboration and this, in turn, to more favorable attitudes towards the behaviors promoted by each of the episodes.
Journal of Health Communication. WOS y Scopus.							
American Journal of Public Health. WOS.							

Title / journal and database	Author(s) / year	Country where the study was conducted	Sample / target audience	Format	Message	Research design	Results
How in-film product placement stimulates fast food consumption in developing countries.	Redondo, Iganacio & Bernal, Jorge (2020).	Chile	812 men and women from Tarapacá, Chile (from 18 to over 41 years old).	Movie	Nutrition education for consumers in developing countries to understand and resist the promotion of unhealthy fast food embedded in movies.	Experimental. Two study groups were randomly assigned to view the two experimental treatments. One with the scenes where McDonald's products are consumed in the movie <i>The Good Lie</i> , and the other where those scenes are not (control group).	The visualization of content related to McDonald's embedded in the film produced an increase in the choice of its products, this occurred because the participants identified with the characters and were transported by the story.
Interciencia. Scopus.							
Who cares what others think? The role of Latinas' acculturation in the processing of HPV vaccination narrative messages	Walter, Nathan; Murphy, Sheila; Franz, Lauren & Baezconde-Garbanati, Lourdes (2017).	United States	186 Mexican American women (27 to 47 years old).	Video	Promotion of the HPV vaccine.	Experimental, Two conditions ("Tamale Lesson" narrative vs. non-narrative).	The level of acculturation moderated the processing of the message. Consistent effects were found for less acculturated women in descriptive and cautionary norms regarding HPV vaccine adoption. The format of the message (narrative vs. non-narrative) did not have a direct effect on vaccination standards and behavioral intent.
Journal of Health Communication. WOS y Scopus.							
East Los High: Transmedia Edutainment to Promote the Sexual and Reproductive Health of Young Latina/o Americans	Wang, Hua & Singhal, Arvind (2016).	United States	In the survey: 100 young Latinas (between 12 and 23 years old) and 110 people related to young pregnant Latinas. In the experiment: 136 young Latinas (between 18 and 28 years old).	Television series	Promotion of sexual and reproductive health	Multi-method and multi-stage study to analyze the first season of the series "East Los High": 1) Follow-up of the online analysis (2013-2014), 2) Online viewer survey (2013) and 3) Laboratory experiment (El Paso, TX, 2014).	<i>East Los High</i> reached a wide audience, generated strong audience engagement, and had a positive cognitive, emotional, and social impact on sexual and reproductive health education and communication.
American Journal of Public Health. WOS.							

The results present a brief summary of the selected investigations that have been carried out in Latin America or with a Latin American population. The research design, the study population, the communication strategy and the analyzed variables are detailed, along with how the results can be of social implication.

3. RESULTS

3.1. IDENTIFICATION WITH CHARACTERS, ELABORATION, AND COUNTERARGUING IN ENTERTAINMENT-EDUCATION INTERVENTIONS THROUGH AUDIOVISUAL FICTION

The experimental study carried out by Igartua and Vega (2016), involved young people between 14 and 20 years old ($N=208$, $M=15.85$, women=51.9%), from six cities in Colombia. Participants were randomly divided into three groups to see for the first time one of three episodes of the EE television series “*Revelados, Desde todas las posiciones*”. Each of the chapters dealt with a different topic: 1) Adolescent sexuality, 2) Gender violence and 3) Sexual diversity. Immediately after watching the episode, the participants filled out a questionnaire on identification with the main characters, cognitive elaboration, counter-argumentation and attitudinal measures.

The results indicate that the participants achieved a greater identification with the character related to the preventive behavior promoted in each chapter. This was associated with greater cognitive elaboration, with more favorable attitudes towards sexual decision-making and

towards homosexual men who express themselves openly about their sexuality, as well as a greater rejection of violence against women.

This led researchers to conclude that stimulating thought and reflection on a particular issue can help persuade them. This suggests that narrative persuasion models and dual rhetorical persuasion models may be compatible in certain contexts.

Figure 1

Frame from the *Revelados* series



Source: *Revelados* profile on Facebook <https://n9.cl/il4ed>

3.2. ENTERTAINMENT-EDUCATION NARRATIVE VERSUS NONNARRATIVE INTERVENTIONS TO EDUCATE AND MOTIVATE LATINAS TO ENGAGE IN MAMMOGRAPHY SCREENING

Borrayo et al. (2017) conducted an experimental study in which a group of Latina women in the United States ($N = 141$, $M = 51.8$, $SD = 9.8$) filled out a questionnaire on knowledge, self-efficacy, normative behaviors, and intentions related to mammography. Then, they were randomly assigned to one of three groups.

The first group ($N=41$) watched the video “*Where’s Maria?*”. It was an 8-minute narrative style video, created in a way that was understandable

to a low literacy Latino audience. Its characters model behaviors such as obtaining a mammogram, reinforcing desired self-efficacy, subjective norms, and behavioral intentions.

The second group (N = 54) was exposed to the video *“Quality Mammography Can Save Your Life”*, also 8 minutes long, which uses a non-narrative and didactic format to present information about mammograms.

The third group (N=46) received three non-narrative printed brochures produced by the *National Cancer Institute* and the *American Cancer Society* and discussed them with a facilitator. These aimed to educate women about breast cancer and mammograms.

The results show that the three formats produced positive results in the knowledge, self-efficacy and behavioral norms of women in relation to mammograms. However, the narrative format video produced significantly higher results in the same variables, where self-efficacy and behavioral norms were moderated by the parasocial relationship of the participants with the characters and their absorption in the narrative of the story.

3.3. EAST LOS HIGH: TRANSMEDIA EDUTAINMENT TO PROMOTE THE SEXUAL AND REPRODUCTIVE HEALTH OF YOUNG LATINA/O AMERICANS

In the United States, Wang and Singhal (2016) analyzed, through a mixed and multi-stage method, the first season of the *East Los High* series, aimed at young Latinos and addressing

sexual and reproductive health issues. The authors conducted an anonymous monitoring of web traffic through Google Analytics and applied a survey to the viewers of the series (100 young Latinas between 12 and 23 years old, and 110 relatives) about their attitudes and behavioral intentions related to sexual and reproductive health. They used scales to measure narrative transport, identification with the characters, and narrative engagement. Finally, they developed a laboratory experiment with a partial factorial design 2 (non-dramatic vs. dramatic narratives) x 3 (text vs. multimedia vs. transmedia) to test the effect of different storytelling formats on the target audience of *East Los High*, but with people who had never seen the series (136 young Latinas between 18 and 28 years old).

The results showed that the series had a wide audience reach, even in geographic areas with large Latino populations, with high rates of adolescent pregnancy and poverty. The adolescents and young people who watched the series consistently demonstrated high levels of narrative engagement, understood the nuances of the characters and their stories, felt immersed in the story by relating its content to their life experiences, actively reflected on the plots, and showed themselves emotionally engaged.

Regarding the laboratory experiment, it was found that transmedia produced significantly better results than other conditions over time and that this is probably due to the fact that it was used to highlight the critical and precise information incorporated in the dialogue with a main character.

Figure 2

"East Los High" Series



Source: *hdreport series* <https://cutt.ly/Chotrzt>

3.4. WHO CARES WHAT OTHERS THINK? THE ROLE OF LATINAS' ACCULTURATION IN THE PROCESSING OF HPV VACCINATION NARRATIVE MESSAGES

In an experimental study, Walter et al. (2017) had the participation of 186 Mexican American women ($M = 40$, $SD = 5.23$; between 27 and 40 years of age), who were randomly assigned to a condition of narrative visualization (Tamale Lesson) or non-narrative (Interviews + information). The content of both films deals with the importance of the prevention and detection of the Human Papilloma Virus [HPV]. After watching the films, the participants filled out a questionnaire to verify the visualization and knowledge related to the preventive message. Two weeks later they filled out another questionnaire designed to measure the constructs of the study: the intentions to vaccinate their adolescent child, descriptive and precautionary social norms, and the moderating variable "level

of acculturation" (how much they are attached or not to the culture North America), adding to this the measurement of socio-demographic and health-related variables, including general health, education, marital status, health coverage, among others.

Contrary to the hypothesis, the results showed that exposure to the story related to the HPV vaccine did not have a direct effect on research results, including normative beliefs and behavioral intentions (vaccination of their children). However, acculturation was shown to significantly moderate the effect of narrative exposure on descriptive norms. That is, the *Tamale Lesson* story had stronger effects on normative beliefs for less acculturated participants compared to participants in the non-narrative condition and/or more acculturated women. In summary, the authors demonstrate in their research the importance of the narration containing characters and stories similar to the culture of their audience, thus they can improve educational strategies in preventive health.

Figure 3

"The Tamale Lesson: Narrative Education on Cervical Cancer"



Source: *Tamale Lesson* <https://youtu.be/Lyhv9KmLroc>

3.5. NARRATIVE FORMATS FOR TEENAGE PREGNANCY PREVENTION. THE EFFECT OF THE NARRATIVE MODALITY ON PREVENTIVE ATTITUDES

In their experimental study, González-Cabrera and Igartua (2018) used the format of a video (direct address testimonial and first-person point of view vs. dialogic) created to prevent unintended adolescent pregnancy in Ecuador. The adolescent participants of the study ($M = 16.19$, $SD = 0.92$; 15 to 19 years of age) filled out a pre-test questionnaire in which the level of media literacy was measured, focused on the critical ability to perceive the sexualized content of the media, since it was expected to determine if the level of literacy would moderate the effect of the video (testimonial vs. dialogic) on the outcome variables. In the pre-test, the measured variables were: attitudes towards appropriate sexual behaviors, perception of vulnerability and risk, knowledge and intention of preventive behavior. One month later, the participants were randomly distributed to the two experimental conditions: half watched a narrative video in testimonial format and the other half a narrative video in dialogic format. Then, they filled a post-test questionnaire on variables of the receptive process: identification with the characters, narrative transport, counter-argumentation, enjoyment, realism and personal resonance; as well as the result variables to check for any changes in them.

The results showed that the level of media literacy did moderate the indirect effects of the testimonial narrative video on the perception of the risk of experiencing negative situations in an adolescent pregnancy, since the testimonial

format (as opposed to the dialogic) increased the perception of risk through the induction of a high narrative transport, but exclusively in people with a low level of media literacy. This research indicates which variables can moderate the narrative process and the level of media literacy, an individual difference that, as has been proven, can condition the effects of the narratives on the perceptions of risk that, as in this case, entail an unwanted pregnancy.

Figure 4

"What we do not think" Experimental condition of testimonial video vs. dialogical video



Source: González-Cabrera e Igartua (2018)

3.6. HOW IN-FILM PRODUCT PLACEMENT STIMULATES FAST FOOD CONSUMPTION IN DEVELOPING COUNTRIES

Redondo and Bernal (2020) exposed 812 Chileans (between 18 and more than 41 years old) to the visualization of two versions of the North American film *The Good Lie*, the experimental intervention group saw the film with the scenes in which the characters (migrants) ate and enjoyed McDonald's products, while the control group watched the film without those scenes. After the film, the participants filled out a questionnaire where they chose between a McDonald's or Subway menu (dependent variable). Attitude towards the McDonald's brand was also measured and several items were adapted from previous studies that measured: narrative transport, identification with the characters, perceived realism, enjoyment, and other elements that allowed to verify if they saw the film.

Through a logistic regression model, it was determined that the visualization of content related to McDonald's embedded in the film produced an increase in the choice of McDonald's, this occurred because the participants identified with the characters and were transported by the story. Therefore, the authors emphasize the need to undertake educational initiatives so that consumers in developing countries learn how *product placement* takes advantage of audience receptivity to improve attitudes towards fast food and encourage its consumption, which is not convenient for their health.

Figure 5

"The Good Lie"



Source: Website oficial <https://www.warnerbros.com/movies/good-lie>

4. DISCUSSION

4.1 LOW NUMBER OF HEALTH INTERVENTIONS BASED ON EE STRATEGIES

The results show that there are few publications of evaluations carried out on narrative persuasion in EE strategies in health issues. The country that has studied the most on the subject with a Latino population is the United States.

This absence of publications can be explained by: 1) prevention in health issues in this region has not necessarily prioritized this type of EE strategies, 2) countries do not carry out this type of prevention strategies in health that implement EE, either due to budget limitations or lack of knowledge, 3) there are few published and open access research on narrative persuasion.

In the first case, despite the evidence on the importance and utility that the literature confers on EE strategies in generating changes in the audience on health issues (Dillard et al., 2010; Falzon et al., 2015), it is evident that knowledge about these strategies has hardly been identified and assumed as a cognitive process and as a health communication strategy by institutions and researchers working on these issues in the region.

In the second case, it is generalized that there are not always sufficient resources to assume the costs of production and evaluations of this type of EE strategies in Latin American countries.

In the third case, although little research is being generated, it is observed from the number of articles found that in recent years there has been awareness that health communication strategies cannot be thought of in a massive way and by mass media (Vega et al., 2020). These strategies must be designed for specific population groups, adapted for each context and for academic purposes that allow scientific validation.

4.2. HEALTH PROBLEMS ADDRESSED IN RESEARCH

In general, the health problems that have been considered in the reviewed research are lack of information on reproductive sexual health and how to prevent unintended teenage pregnancy, cervical cancer caused by HPV, breast cancer and problems derived from an improper diet.

It should be noted that one of the social problems in Latin America that have become public health problems is unintended adolescent pregnancy (González-Cabrera and Igartua, 2018; Igartua and Vega, 2016). Figures from the National Institute of Statistics and Censuses (INEC) indicate that in 2019, of the total number of pregnancies that occurred and were registered in that year, 17.5% were adolescents between 15 and 19 years of age, and 0.6% were adolescents between 10 and 14 years of age.

Also in Colombia, the Ministry of Health indicates in the document "Analysis of the Health Situation (2019)" that adolescent pregnancy, despite having shown a reduction in the last decade in the group of women aged 15 to 19, had 75 to 61 live births per 1000 women, in the 10 to 14 age group it remains at 3 live births per 1000 women.

For this reason, it is evident that most of the health communication interventions found in this review address the problem of the lack of information on sexual and reproductive health in young people, because the figures issued

by government entities are alarming and it is necessary to target communication strategies that help educate young people in sexual and reproductive health, and in how to prevent unintended adolescent pregnancy.

One of the studies found in this review addresses an audiovisual piece aimed at the Latino population in the United States that promotes the Pap smear test for the early detection of the Human Papilloma Virus, a recognized precursor of cervical cancer (Walter et al., 2017). This issue corresponds to the worrying rate of new cases of cervical cancer in Hispanic women in that country (8.9 per 100,000 women), even higher than that of any other ethnic group (Centers for Disease Control and Prevention, 2020).

However, the type of cancer that most affects Hispanic women in the United States is breast cancer, which has an incidence of 94.5 per 100,000 women and the highest mortality rate among the different types of cancer (13.5 for each 100,000 women). Hence the relevance of studies such as that of Borrayo et al. (2017) which verified the efficacy of three different communication formats to improve knowledge, self-efficacy and behavioral norms of women in relation to mammograms, a fundamental diagnostic test for the early detection of breast cancer.

According to the work of Redondo and Bernal (2020), it is worth mentioning that one of the fastest growing public health problems in recent years in Latin America and the Caribbean is obesity and overweight, according to the United Nations Regional Overview of Food Security and Nutrition (FAO et al., 2019). Chile, the country where the study was carried out, is no exception to this trend. Obesity and overweight present a high and increasing prevalence from the first years of life, to the point that more than

60% of the population has some degree of excess weight (PAHO, 2020).

In sum, research carried out in other countries has used and verified the effectiveness of narratives in various areas of health such as: the promotion of physical activity (Falzon et al., 2015), the importance of a healthy diet (Oh and Larose, 2015; Staler et al., 2003), the mitigation of the stigma related to depression (Zhang and Wen, 2020), the promotion of the hepatitis B vaccine (de Wit et al., 2008), organ donation (Reinhart et al., 2007), condom efficacy (Collins et al., 2003), emergency contraception and human papillomavirus (Brodie et al., 2001), HIV (Kennedy et al., 2004), and breast cancer (Beck, 2004; Hether et al., 2008; Wilkin et al., 2007).

4.3. RESEARCH METHODS AND DESIGNS

The six related investigations in this review were developed under a quantitative approach and have a causal scope. All used experimental designs, however, Wang and Singhal (2016) developed a multi-method study in addition to the experiment.

Among the limitations of the studies analyzed, one of them refers to the type of format used. For example, González-Cabrera and Igartua (2018) emphasize that having worked with narrations in audiovisual format instead of written narrations could be a limitation, since Tukachinsky (2014), in his meta-analysis on the effectiveness of experimental manipulations of the mechanisms that intervene in the narrative process, found smaller effects in the stimuli through videos than in printed formats or video games.

On the other hand, Walter et al. (2017) mention as a limitation the fact that the study has focused on a specific subpopulation (Mexican

Americans), a particular health risk (contracting HPV) and a single stimulus (narrative vs. non-narrative), which can cause problems of external validity and generalizability. Their hypotheses concerned perceptions about HPV vaccination, however, their sample was not limited to parents of adolescents (target audience), posing a notable threat to the interpretation of the results. Finally, they mention the results regarding the normative beliefs variable, since the meta-analytic evidence on persuasion suggests that normative constructs are a weak predictor of behavioral intention. Therefore, they suggest not taking for granted the ability of normative beliefs in narratives to influence health-related behavior.

Likewise, Redondo and Bernal (2020) point out as an important limitation having used a specific type of product placement (McDonald's fast food), therefore, they suggest that future research consider three types of location that could potentially lead to different results. For example, the branding should be prominent enough to the plot of the film in terms of visibility, length, and relevance. It should play a role related to the thoughts, conversations and actions of the characters, and not appear artificially within the story, as viewers could perceive an inappropriate commercial intrusion and reduce their level of immersion in the story or offer more resistance to adopt attitudes consistent with the content of the narrative.

5. CONCLUSIONS

This review contributes to understanding the status of the evaluation of narrative persuasion based on EE strategies in Latin America. In the first place, there is concern about the low number of published and open access articles on health interventions based on EE strategies in narrative persuasion that have been developed in Latin America to date. This may be due to the lack of knowledge about the effectiveness of EE strategies in generating changes in the audience on health issues and the limited budgets that our region must address these issues.

Second, it is observed that most of the topics addressed in the research refer to sexual and reproductive health, the prevention of adolescent pregnancy, cervical cancer caused by HPV, breast cancer and problems related to an improper diet. The fact of addressing these issues can be explained as a response of institutions, researchers and workers in the health area to the worrying figures reported by entities such as the National Institute of Statistics and Censuses (INEC) and the Ministry of Health (2019) referring these issues, which have become a priority in preventive efforts in this region.

Third, in terms of the methodology and designs of the investigations analyzed in this review, it is observed that all have a quantitative approach with experimental designs. This shows that the investigations are being developed with great rigor and with the aim of making scientific contributions to the health communication area in Latin America.

As limitations of this integrative review, it was observed that there are very few published open access articles that report results on the analysis of narrative persuasion on interventions with EE strategies in Latin America. This limited the analysis due to the small number of documents found and is a major challenge, both for health institutions and academia. It is key to generate alliances that allow the design of EE strategies designed for the Latin American population and design studies with sophisticated methodologies that allow finding evidence of the great contributions that EE strategies can make in different health behaviors through narrative persuasion mechanisms. In this way, there would be references for greater rigor and strength from the very planning, production and evaluation of EE strategies based on the evidence.

For future research in this field, it is advisable to continue investigating the effectiveness of EE presentation formats, the variables that moderate and mediate the narrative persuasion pro-

cess, and to continue addressing prevention issues in adolescents and groups at risk both in the area of sexual and reproductive health and sexually transmitted diseases. In other population groups, other health problems caused by risky behaviors can be addressed, such as driving under the influence of alcohol, smoking, excessive consumption of drugs and alcohol, lack of information on prevention of skin and breast cancer, etc. In addition, much remains to be investigated in sensitive topics that affect health, such as organ donation.

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