

Transforming Health Promotion Through Narrative

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TRANSFORMING HEALTH PROMOTION THROUGH NARRATIVE

Dr Sheila Murphy and her team including Dr Lourdes Baezconde-Garbanati, Dr Meghan Moran and Dr Lauren Frank are utilising the potency of narratives in order to change knowledge, attitudes and behaviour and reduce health disparities both in the United States and internationally.

Harnessing the power of storytelling

For thousands of years, human beings have used stories to pass on essential information from generation to generation. In spite of this, Western health professionals often ignore this oral story-telling tradition when giving vital health information to their patients, opting instead to rely on lists of symptoms, facts and figures. Stemming from a prestigious five year grant from the National Institutes of Health, Transforming Cancer Knowledge, Attitudes and Behavior through Narrative, Drs Murphy and Baezconde-Garbanati and their colleagues are challenging this convention by examining the effectiveness of stories or narratives as a way to learn and retain important health information. In a number of studies, the team has empirically tested if narrative forms of health communication produce greater effects on knowledge, attitudes and behaviours than more traditional non-narrative sources of information such as clinic brochures and Public Service Announcements (PSAs).

The eclectic mix of medical researchers, scriptwriters, artists, physicians, psychologists, anthropologists, communication scholars and public health professionals involved in this work understand that one size does not fit all when it comes to health education. Although their research on narrative persuasion has implications for virtually all communication, their recent research has focused on the issue of cervical cancer. According to the Center for Disease Control and Prevention, in the United States Latina and African American women, for example, have far lower uptake of cervical screening and significantly higher levels of cervical cancer than their white counterparts. African American women are also twice as likely to die from cervical cancer as white women. Moreover, prior research has shown that individuals from disadvantaged groups are less likely to benefit from traditional public health interventions that aim to improve knowledge and attitudes and promote prevention through facts and figures. These persistent health disparities underscore an urgent need for culturally sensitive, accessible health information among underserved populations. Could narratives that immerse their audience in a story that includes vital health information and features positive role models with whom these women can identify be part of the solution?

Tamale Lesson

As part of a National Institutes of Health grant, an 11-minute narrative film, Tamale Lesson, was produced which aimed to provide information on the human papillomavirus (HPV), the virus that causes cervical cancer, as well as cervical cancer prevention (via vaccination) and detection (via Pap test screening and new genetic tests). The film focused on Lupita, a young Mexican American woman who has recently

been diagnosed with HPV. While preparing tamales for their youngest sister's 15th birthday, Lupita reveals to her sister Connie that she has had an abnormal Pap test and has tested positive for HPV. Lupita then goes on to inform her (and later her mother and mother's friend, Petra) about HPV and its relation to cervical cancer, the importance of Pap tests in early detection and the availability of the HPV vaccine for their younger sister. Lupita also describes and demonstrates the process of a Pap test on the chicken being prepared in order to alleviate the fears of Petra, who has never had a Pap test. The film concludes with Petra going for her first screening.

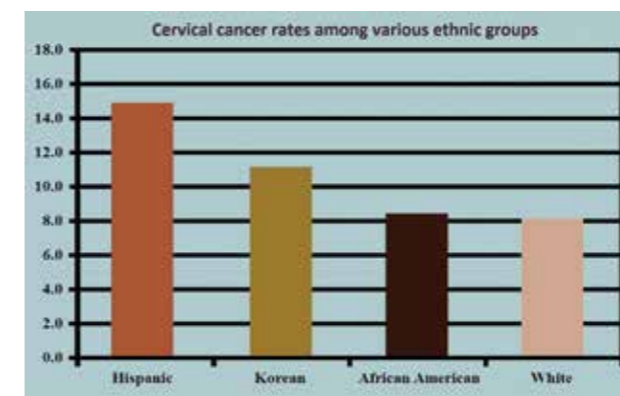


'This research could radically change how health messages are conveyed across different ethnic groups, generations and modalities'

It's Time

A second film, It's Time, was also developed as a non-fictional non-narrative alternative to Tamale Lesson. This film took a more traditional approach and involved doctors and health experts discussing the same key facts surrounding HPV and cervical cancer. It also includes a demonstration of a Pap test on a patient and images of normal and abnormal cervical cells under a microscope.

The film was interspersed with clips of women discussing the barriers to screening and ways in which these obstacles can be tackled. Both pieces targeted and featured primarily Latina women in order to promote their involvement and identification with the film.



To make the comparison between the narrative and non-narrative films fair, both films:

- Contained the same facts regarding cervical cancer detection, screening and prevention
- Were the same length (11 minutes)
- Were created by the same production team from the University of Southern California's School of Cinematic Arts lead by professors Doe Mayer and Jeremy Kagan resulting in comparable high quality

The team's methods and successful results

A sample of 900 European American, African American and Mexican American women living in Los Angeles were recruited through a Random Digit Dial phone survey (RDD) and we surveyed to assess their baseline level of cervical cancer-related knowledge, attitudes and behaviour. They were then assigned at random to receive either the narrative film on DVD or the non-narrative film in the mail. After viewing the film, women were surveyed again two weeks and six months later.

Both films improved knowledge around cervical cancer, HPV and screening. However, women who viewed Tamale Lesson were able to recall significantly more facts than those who viewed It's Time. The narrative film also resulted in more supportive attitudes towards Pap tests and strengthened the intentions of Latina and African American women to undergo screening. The narrative film proved particularly useful for those with lower levels of education as it was able to produce positive changes in the women's perceptions of relevant social norms (namely what percentage of 'women like them' had Pap tests) which, in turn, increased their own intention to be screened.

The team's latest paper, published in the flagship journal of the American Public Health Association, The American Journal of Public Health (Murphy S.T., Frank L.B., Chatterjee J.S., Moran M.B., Zhao N., Amezola de Herrera P. & Baezconde-Garbanati L., American Journal of Public Health, 2015, DOI: 10.2105/AJPH.2014.302332) conclusively demonstrates that narratives can be incredibly effective in reducing inequalities in health. While European American women had more knowledge about cervical cancer and were more compliant with preventative screening than Mexican American women before viewing the films, this disparity had disappeared at the 6 month follow up among those who saw the narrative, Tamale Lesson.

'Although this research focuses on cervical cancer, the results have clear implications for virtually all health care communication'

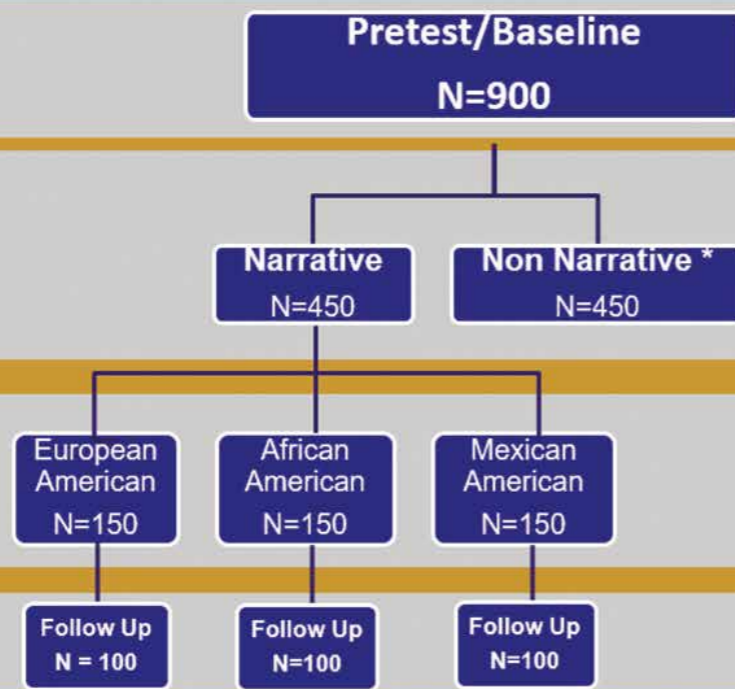
STUDY DESIGN

Time 1: RDD pretest/baseline phone survey

Randomly assign respondents to receive narrative or non-narrative film in mail

Time 2: Conduct post-test phone survey within next 2-weeks

Time 3: Conduct 6-month follow-up



*Identical design for non-narrative respondents

The narrative film also increased the likelihood of participants receiving or scheduling a Pap test. In fact, the Latina women who viewed the narrative film went from having the lowest level of compliance (32%) with screening guidelines to the highest – a whopping 82% – six months after the narrative intervention.

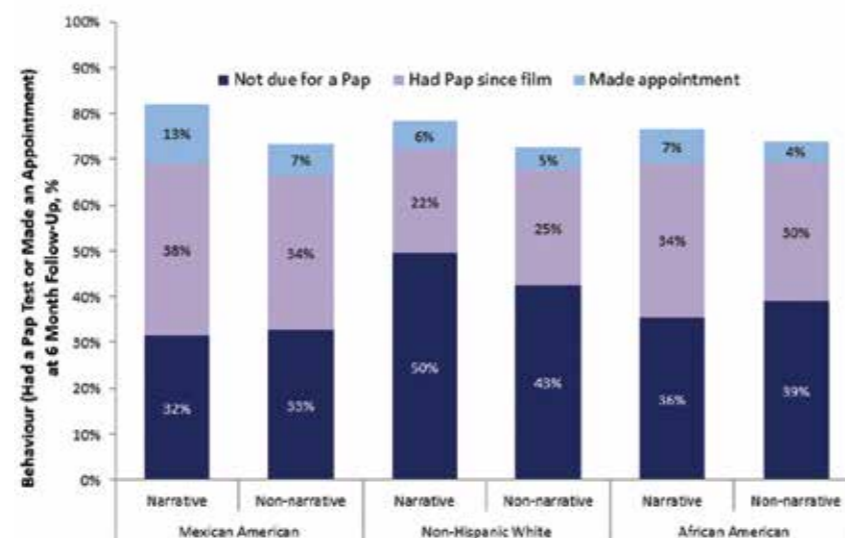
The cultural relevance is clear. While the non-narrative film was effective in motivating women – particularly white women – to be screened for cervical cancer, the narrative film was more motivational among women of colour. Measures of the extent to which they identify with the four main female characters revealed that the European American women were far less likely to identify with the characters in Tamale Lesson. As one participant put it: ‘They’re showing a very Hispanic family and the little girl’s Quinceañera. Anyone can relate to a warm family. That was well done but, quote/unquote it’s... “Hispanic”. You’re not going to be showing it to a bunch of white women in Beverly Hills’. As shown in other research, educational interventions that are culturally sensitive to their audience will garner greater attention and retention. As Dr Murphy explains: ‘Although this research focused on cervical cancer, the results have clear implications for virtually all health care communication’.

Change through identification, transportation and emotion

So why does narrative work? There are at least two key psychological processes – identification with characters and being transported or absorbed into a story.

The first, identification, has roots in social cognitive theory. Social cognitive theory (SCT) posits that one of the ways people learn is through observing others and modelling their own behaviour from these observations. Studies have shown that people are more likely to adopt a behaviour that they have seen others perform, especially if they perceive these individuals as being similar to themselves. Therefore, identification may be positively related to changes in cognition, attitudes, intentions and behaviours.

Behaviour at 6 month follow-up by race/ethnicity



The team from left to right: Nan Zhao, Lauren Frank, Sheila Murphy, Lourdes Baezconde-Garbanati, Paula Amezola, Joyee Chatterjee and Meghan Moran.

This is particularly relevant to health campaigns that promote behaviour change based upon positive social norms. Often campaigns that attempt to change the public’s perception of how frequent or normative a particular behaviour is fail because they lack the contextual detail that makes material applicable and believable to its audience. In narrative persuasion, audiences identify with the characters in the story which, in turn, makes the message conveyed more relevant to their life. In a 2013 study comparing Tamale Lesson with its non-narrative equivalent, Mexican American and African American women identified more strongly with the character of Lupita than their European American counterparts, and this identification with Lupita was significantly associated with more positive attitudes towards Pap tests.

A 2015 paper also shows that identification correlated with the women’s perceptions of susceptibility and severity of HPV infection and the effectiveness of the HPV vaccine. For example, women who strongly identified with Lupita, the character with HPV, tended to feel they themselves were at higher risk for HPV, that the vaccine was effective in preventing HPV, and that HPV infection was a relatively manageable condition. In contrast, identification with Connie, her younger sister, deemed HPV infection to be relatively severe. Therefore, identification with characters can be complex and nuanced and narratives may need to include several different positive role models of different ages, ethnicities, and health histories, so that different individuals can find a character they identify with in order to achieve the intended outcomes.

Transportation into the story or narrative is likewise key. Transportation describes a state in which the audience becomes highly engaged or absorbed in a storyline. In a 2011 study looking at a cancer storyline on Desperate Housewives, Dr Murphy and her team found that transportation was the factor most strongly associated with changes in knowledge, attitudes and behaviours surrounding cancer prevention. A subsequent 2015 study likewise revealed that women who found the narrative to be relevant to their lives and were transported into the storyline were more likely to think that HPV infection was serious and that the vaccine was effective. It appears that stories may be particularly well-suited to persuade as audience members tend to suspend disbelief and not counterargue while processing narratives.

Looking to the future

The film Tamale Lesson won the 23rd Annual American Public Health Association’s Public Health Education and Health Promotion Award as well as The Top Translational Research Award in Health Communication. Moreover, the research described above recently won the National Institutes of Health Common Fund 10-Year Commemoration Award. Finally, it was largely for this recent work that Sheila Murphy received the 2015 Everett M. Rogers Award given to ‘an individual who has made an outstanding contribution to advancing the study and/or practice of public health communication’ by the American Public Health Association.

Dr Murphy and her team have begun to expand their research internationally. A Spanish language version of Tamale Lesson has been produced and disseminated not only throughout California but across several countries in the Caribbean and Latin America, including Colombia, Mexico, Panama, Costa Rica and Argentina. Research on the attitudes, knowledge and beliefs surrounding HPV and cervical cancer has also been undertaken in Panama by Dr Lisa Gantz, under the supervision of Drs Murphy and Baezconde-Garbanati. By teaming up with the National Association against Cancer, the National Ministry of Health and the Panamanian Association for Family planning, researchers in the University of Southern California and the University of South Florida were able to develop a multimedia toolkit to improve cancer knowledge and attitudes of the Panamanian community.

Dr Murphy is also leading another NCI-funded project with Drs Moran, Frank, Baezconde-Garbanati and Dr Sandra Ball Rokeach, that examines barriers to cervical cancer prevention in Hispanic women. Using focus groups and surveys, the team explore the factors that inhibit or facilitate naturally occurring cancer related storytelling amongst women’s social networks. In this way, they can determine the individual, interpersonal and community level factors that influence health behaviours and design interventions accordingly.

Meet the researchers



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Dr Sheila Murphy is a Full Professor at the Annenberg School for Communication and Journalism at the University of Southern California. Her work primarily focuses on health-related decisions and on the role of narrative or storytelling in shaping the public's knowledge, attitudes and practices. Understanding ethnic and cultural diversity is a second major theme that characterizes her work. Dr Murphy uses an unusually wide variety of methodological tools including experiments, large-scale surveys, focus groups, content analysis, social network analysis, multilevel analysis and field observation in order to paint a more complete picture of a particular problem. Dr Murphy has received the American Public Health Association's Public Health Education Award, The Top Translational Research Award in Health Communication and the National Institutes of Health Common Fund Award. For her work on narrative Dr Murphy recently received the 2015 Everett M. Rogers Award given to 'an individual who has made an outstanding contribution to advancing the study and/or practice of public health communication' by the American Public Health Association. Dr Murphy also works internationally with GirlEffect increasing the value of girls in various African countries, and with the BBC integrating health-related information into entertainment programming in developing countries.

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Dr Lourdes Baezconde-Garbanati, PhD, MPH, is a tenured Full Professor in the Department of Preventive Medicine at the Keck School of Medicine of the University of Southern California. She is also the founding Director of the Center for Health Equity in the Americas and Co-director of the Global Health Tract in the MPH program. She is a member of the directorate of the Institute for Health Promotion & Disease Prevention Research at USC and the USC/Norris Comprehensive Cancer Center, with oversight of the Patient Education and Community Outreach Center. Her work focuses on community-based research and public health initiatives that explore the role of culture in health behaviours, with an emphasis on the elimination of health disparities. Her research focuses on providing an evidence base and culturally grounded strategies for best practices to modify cultural and lifestyle risk factors for cancer and tobacco control at the community level. This includes the award winning Tamale Lesson, a video to increase cervical cancer screening among Hispanic women, and Es Tiempo, an outdoor media and clinic intervention to reduce cervical cancer disparities among Hispanics. She has received multiple awards and recognition for her work, and is well published in a variety of topics. She has a strong record of extramural funding from NIH and the California Department of Public Health, and has published widely in a variety of peer reviewed journals and community based outlets.

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