

Developing persuasive health campaign messages

Carel Jansen

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Information designers in the field of mass health communication face great challenges when developing persuasive messages to change people's behaviour. Theoretical and experimental research, however, has contributed to our knowledge of the determinants of success of persuasive messages. This chapter discusses research into three types of messages that may be used in health promotion campaigns: puzzling messages that may encourage people to talk about the topics that are addressed and may indirectly lead to the intended behavioural changes; fear-appeal messages that try to persuade recipients into healthy behaviour by picturing horrible things that may happen to them if they do not follow the recommendations; and narratives, stories in different formats that may persuade readers into more healthy behaviour by reducing their resistance to attempts to change this behaviour.

Despite a long history of mass media health promotion campaigns, success in persuading recipients into healthy behaviour is far from guaranteed. Campaigns may fail to reach target groups and may be hindered by unforeseen events attracting adverse attention from the media. Campaign messages may also be rejected as being too difficult to understand, irrelevant, boring, irritating or just unconvincing. Theoretical and experimental research, however, has contributed to our knowledge of the determinants of success in mass media campaigns, and has also made us aware of the limited persuasive power of health promotion messages, especially if they are based on assumptions that recipients will consciously contemplate the advantages and disadvantages of maintaining or changing their health behaviour. As Maio et al. (2007, p. 129) contend, unhealthy behaviours are often driven by habit, automatic attitudes and situational limitations that may compete with volitional control. Mass media health messages nowadays have to compete with a vast number of other messages demanding recipients' attention for unhealthy behavioural choices that may seem more attractive. That does not imply, however, that investing in mass media health campaigns is futile. In their review of the outcomes of such campaigns, Wakefield, Loken and Hornik (2010, p. 1261) point to their promise to repeatedly disseminate strong messages at a low cost to a large audience. They suggest that although many campaigns aim at directly affecting the message recipients' beliefs, attitudes and behavioural intentions, behaviour change may be achieved through indirect routes, for instance through interpersonal discussions about the topics in the

message, which may lead to changes in social norms within recipients' networks (p. 1262).

Below, three types of messages will be discussed that, according to research outcomes, under certain conditions may be used effectively in health promotion:

- *puzzling* or *cryptic* messages, which encourage recipients to talk about the topics that are addressed, indirectly leading to the persuasive effects that message designers hope to achieve
- *fear-appeal* messages, that try to scare people into healthy behaviour by picturing horrible things that may happen to them if they don't follow the advice in the message, and
- *narratives*, stories that may persuade readers into more healthy behaviour by reducing their resistance to attempts to change their present behaviour.

Puzzling messages

The billboard from the South African health promotion organisation loveLife in Figure 1 illustrates that health promotion messages are not always straightforward. Youngsters in loveLife's target group may find it difficult to understand that this picture of a loving couple plus the text 'Love 100% pure – made to last' aims at promoting the B-part from the A B C formula (Abstain, Be faithful, Condomise) used in South African HIV/AIDS prevention campaigns.

In common with a growing number of commercial advertisements (Figure 2, for instance), designers of health promotion messages some-

Figure 1
Billboard from
a loveLife
campaign.
© loveLife, 2003.





Figure 2
 'Crow's feet'
 advertisement
 from Olay/Olaz.
 © Procter & Gamble
 Co. / Saatchi & Saatchi
 Australia, 2000.

times deliberately want to puzzle the audience to a certain degree, before the meaning becomes clear.

Puzzling messages may provide the audience with a pleasurable experience when processing their content. As McQuarrie and Mick (1996, p. 427) describe, the reader or listener may 'experience the pleasure of text': the reward from processing a clever and artful arrangement of signs. Tanaka (1992, 1994) argues that solving a pun, for instance, can provide an extra reward. If recipients successfully find the interpretation intended (or rather, if they think they found that interpretation), they are rewarded with the pleasure of having solved the riddle. This way, an intriguing, puzzling message may lead to a positive evaluation of the advertisement itself, and possibly also of the product and producer (Hoeken et al. 2009, pp. 54–55).

In health communication, an even more important advantage of puzzling messages may be that they stimulate conversations about the topics the messages refer to (Hoeken et al. 2009; Lubinga, Jansen and Maes 2014). Such discussions may lead to social norm change, which, indirectly, may lead to behaviour change (Chatterjee et al. 2009; Durkin and Wakefield 2006; Snyder et al. 2004; Southwell and Yzer 2007). A study by Van den Putte et al. (2011) revealed clear effects of interpersonal discussions about anti-smoking media content on smoking cessation. Evidence was found that exposure to media campaigns led to discussions which influenced not only intentions, but also to more attempts to quit smoking.

An interesting question then is how health campaigners can design messages that could lead to conversations about health topics (Hoeken et al. 2009; Lubinga et al. 2014). A possible answer is provided by South African health promotion organisation loveLife. For a number of years, loveLife used messages that were intended to be puzzling, with the assumption that presenting these messages to their target group (12–17 year olds) would provoke discussion of HIV, AIDS and other sex-related topics with peers and elder people (see Figure 1, for example). According to Refilwe Africa, the former editor of loveLife's magazine *Uncut*, the campaigns were designed to attract controversy and trigger their audiences to talk about HIV and AIDS:

We want people to think about our posters. . . . At some point in our campaign, we will get people to wonder. This creates conversation between parents and children, dialogue between peers. That is exactly what we want to achieve, that people talk about HIV/AIDS and sex. (R. Africa, in Hollemans 2005)

In a radio interview from 2006, quoted in Robbins (2010, p. 226), loveLife's media director Mandla Ndlovu added

the billboards are there to spark discussion and thought among people, among women, among men, among everybody. What exactly do the loveLife billboards mean? Ask your friends.

Although this reasoning may seem plausible, loveLife never offered a theoretical or empirical backing for the claim that a lack of (perceived)

understanding of deliberately puzzling health messages would trigger conversations about their meaning. Hoeken et al. (2009) raise doubts that recipients would tend to talk about messages they do not understand, taking an opposite position, that readers and viewers are only willing to discuss messages they think they understand. According to Hoeken et al., recipients may have two reasons for discussing a puzzling health message. Firstly, they may want to show off their (perceived) understanding of the message to their peers, whom they presume will not understand it (*I am so smart that I understand this message while you probably can't*). Secondly, they may want to discuss a message as a way of strengthening group identity (*We are so smart that we can understand this message, while other people probably can't*) (Hoeken et al. 2009, pp. 58–60).

Studies carried out among students and learners in the province of Limpopo in South Africa (Jansen and Janssen 2010; Lubinga et al. 2010; Lubinga et al. 2014) do not support the assumptions made by loveLife or Hoeken et al. (2009). Lubinga et al. (2014) found that willingness to talk about puzzling health messages is positively related to perceived own comprehension of the messages, perceived comprehension by the conversation partner, perceived comprehension by others, perceived relevance of the message, and appreciation of the message. Apparently, recipients of a puzzling message only want to engage in a discussion if they think that they themselves, their conversation partners and other people understand it, if they like it and if they feel it has some relevance in their own situation.

Studies also show some negative consequences of puzzling messages, especially wrong or dangerous interpretations of intended messages. In Lubinga et al. (2010), for example, one of the learners wrongly interpreted a message by loveLife, 'Prove your love, protect me', as 'Having sex with him means that you will be proving your love for him' (p. 182). Other researchers and critics have also addressed the problem of misunderstanding loveLife messages and label them as 'stylish but cryptic,' 'abstract and nonsensical', 'complex', 'obscure' and 'featuring abstract and seemingly nonsensical images and text' (Delate 2001; Thomas 2004; Singer 2005; Parker 2006). Before being able to advise information designers to make use of puzzling messages in health communication, more research is warranted, for example on willingness to discuss puzzling messages in recipients across cultures and age groups, on the content and form of discussions that are provoked and on the effects that these discussions may have on participants.

Fear appeals

Sixty years of research have produced an abundance of studies of fear appeals: persuasive messages designed to scare people into the proposed, often health-related behaviour (see, for instance, the reviews from Witte and Allen 2000; De Hoog, Stroebe and De Wit 2007; Maloney, Lapinski

and Witte 2011; and Ruiter et al. 2014). Fear appeals are used all over the world, for example, to make people stop smoking – or prevent them from beginning (Figures 3 a and 3 b), or to promote safe sex (Figure 4).

The most influential theory aiming to explain and predict the way fear appeals are processed is the Extended Parallel Process Model (EPPM; Figure 5 overleaf), introduced by Kim Witte (Witte 1992, 1998; Witte, Meyer and Martell 2001).

According to the EPPM, fear-appeal messages may lead recipients to display the recommended behaviour, but only if the threat presented is perceived as severe enough and if the recipients perceive themselves as susceptible to the threat. If these conditions are met, and hence the recipient experiences enough fear, and if the recipient is also presented with a measure that can be taken, then there are two possibilities: the recipient may get into danger control mode or into fear control mode. If the perceived response efficacy (effectiveness of the proposed measure) and the self-efficacy of the recipient (the expectancy that he or she will be

Figure 3

European pictorial warnings on cigarette packaging:

a. Belgian.

The text reads 'Smoking can cause a slow and painful death' in Dutch, French and German.

b. Latvian. The text reads 'Smoke contains benzene, nitrosamines, formaldehyde and hydrogen cyanide'.

© European Union, 1995.



a

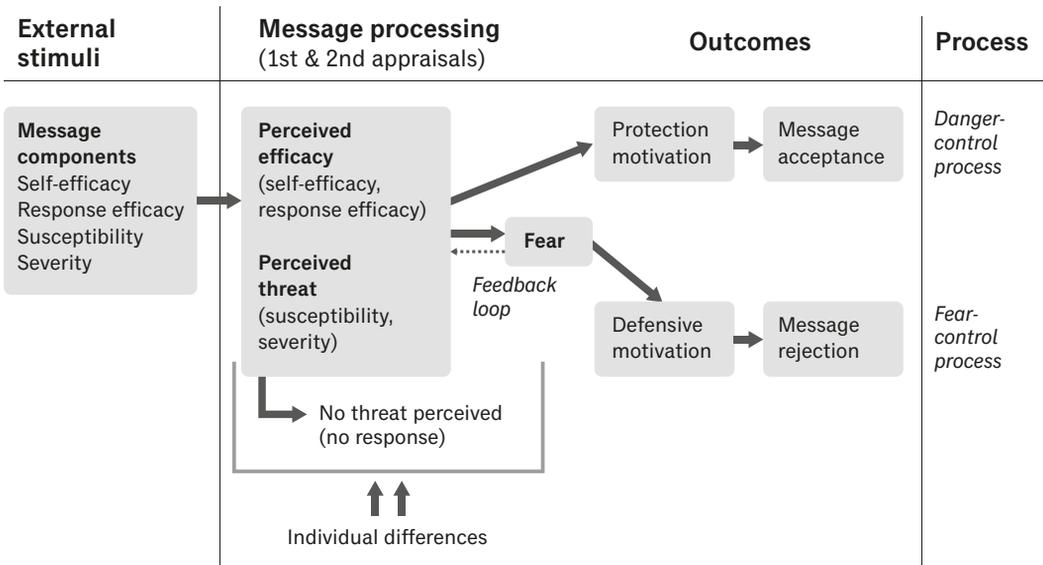
b

Figure 4

French HIV/AIDS prevention message. The caption reads: 'Without a condom, you're sleeping with AIDS. Protect yourself.'

© AIDES, 2007.





able to take this measure) are strong enough, then the EPPM predicts that the frightened recipient will attempt to avert the danger (danger control mode). This is exactly the behaviour that the sender of the fear-appeal message is promoting. However, if the recipient's self-efficacy is low, or if the proposed measure is perceived as inadequate, then the frightened recipient will try to minimize the perceived threat and attempt to subdue the feelings of fear without fighting the danger (fear control mode). In that case, recipients will start defending themselves against the feelings of fear that have been aroused by shielding themselves from the communication that brought these feelings of fear about (defensive avoidance).

Although a number of studies report favourable outcomes of fear-appeal messages, the interaction effects between threat and efficacy that may be expected from the EPPM are seldom found (Witte & Allen 2000). According to Ruiter et al. (2014), self-efficacy – and to a lesser degree response efficacy and also perceived susceptibility – are more important in explaining and predicting success of fear-appeal messages than perceived severity of the threat. Ruiter et al. conclude that information about the severity of the threat may lead to defensive reactions instead of the reactions that the messages aim at. Defensive reactions may be avoided by providing information about the susceptibility of the recipient and about how recommended actions should be implemented (p. 68). In view of these conclusions, warnings that only accentuate the severe consequences of smoking tobacco, such as those in Figure 3, may have little value. Explicit susceptibility information is lacking, as is information on measures that smokers could take to fight against the dangers they are confronted with.

The approach of anti-smoking campaigns in Australia is more in line with what Ruiter et al. infer from their research overview. As the examples

Figure 5
 Extended Parallel
 Process Model
 (EPPM) (Witte
 1998).

Figure 6

Front and back panels of cigarette packaging with anti-smoking warnings.

© Australian Government Department of Health, 2012.



in Figure 6 illustrate, the front panel of Australian cigarette packages now presents verbal and visual information on the threat, in this case that ‘Smoking damages your gums and teeth’, combined with an illustration that specifically addresses male smokers. The back panel of this package is more specific about the severity of the danger:

Smoking causes inflammation of the gum and other tissue around your teeth (periodontitis). Symptoms can include gum redness, swelling, bleeding, infection and pain. The gum, bones and other tissue supporting your teeth can be destroyed resulting in tooth loss.

The back panel shows that not only male, but also female smokers are susceptible. Furthermore, efficacy information is provided on measures that may help smokers to quit:

Want to talk about quitting? Call Quitline 13 7848, talk to your doctor or pharmacist, or visit www.quitnow.gov.au.

The text on the side of the package again refers to the severe effects of smoking on blood vessels, body cells and immune system, and also accentuates each smoker’s susceptibility to these effects; it is about *your* blood vessels, *your* body cells, and *your* immune system.

Critical remarks on the EPPM are made by Popova (2012). She concludes that none of the propositions of the EPPM have been supported unequivocally in testing (p. 461). Among other things, she raises concerns about the role of individual differences in the processing and the outcomes of fear appeals (pp. 465–466). Some studies (Witte and Morrison 2000; Ruiter et al. 2004, for instance) suggest that individual differences directly or indirectly influence reactions to a fear appeal, whereas other studies suggest they do not, or only on rare occasions (Witte and Allen 2000).

It is unclear, for instance, if and how culture may influence the reactions to fear-appeal messages, with only a few studies empirically testing the possible interaction between nationality or cultural orientation and message characteristics. The results from these studies are equivocal,

partly due perhaps to flaws in experimental design and the way cultural orientation in participants was measured – or sometimes just assumed (see Jansen and Verstappen 2014, pp. 348–349). In a new study, Jansen and Verstappen (2014) tried to circumvent the shortcomings in earlier research. In their study, participants from Spain and the Netherlands either read a version of a narrative fear appeal that accentuated the misery of a girl suffering from chlamydia, or a version that focused on her parents' sorrow. Manipulation checks showed that differences between the version accentuating the suffering of the girl and the version accentuating the suffering for her family were indeed recognized as such. Cultural orientation of study participants was assessed using a scale for measuring individualism and collectivism, and a scale for measuring familism. Based on Hofstede (2001), Dutch participants were expected to be more individualistic and less family-oriented than Spanish participants. That turned out to be the case. Contrary to claims from earlier studies, however, there was no interaction between nationality or cultural orientation and participants' response to fear-appeal version.

One reason for failure so far to find convincing evidence of an interaction between recipients' nationality or cultural orientation and differing fear messages may be that the messages in these studies were typically designed to appeal to basic aspects of culture, such as individualism versus collectivism, or familism. Perhaps fear-appeal messages that refer to other cultural aspects, such as familiarity with religious themes, or tolerance towards depiction of nudity and sexual activities might have effects that vary between different target groups. In recipients who are not familiar with themes from the Old Testament, for example, a fear appeal such as that used to promote HIV and AIDS prevention in Tanzania (Figure 7) may be less successful than in recipients who are well acquainted with references to Noah's ark. To give another example, fear-appeal messages that



Figure 7

Tanzanian AIDS message. The text reads 'Floods!! Board the boats' in Swahili. The boats are labelled with the A B C formula (Abstain, Be faithful, Condoms).

© Association Prévention sida La Flotille de l'Espoir, 1994.



Figure 8

German HIV/AIDS prevention message. The text reads 'Unprotected intercourse lasts forever. Anyone infected with HIV will die from it. Stop the virus. Use condoms.'

© Michael Stich Stiftung 2010.

explicitly show nudity and sexual activities (Figure 8; note the ironic and slightly puzzling combination of text and picture) may be more convincing in most Western countries than in parts of the world where sexual taboos are more prevalent. More research is warranted here.

Narratives

One problem in health communication is that message recipients tend to resist any pressure for change they perceive. People want to be free to determine their own norms, beliefs and attitudes, and to choose their own behaviour. Persuasive messages aimed at changing health behaviour, therefore, are often perceived as a threat to individual freedom and may be met with high levels of scepticism or even with immediate rejection (Moyer-Gusé 2008, p. 414). It is important to find ways to overcome such resistance. Recent research shows that including persuasive messages in a *narrative* may provide a solution. A narrative may be defined as 'any cohesive and coherent story with an identifiable beginning, middle, and end that provides information about scene, characters and conflict; raises unanswered questions or unresolved conflict; and provides resolution' (Hinyard and Kreuter 2007, p. 778; Moyer-Gusé and Nabi 2010, p. 29). Moyer-Gusé (2008) presents a theory, depicted in the *Entertainment Overcoming Resistance Model* (EORM), to explain why and how narratives

may positively affect the persuasiveness of messages. The EORM (Figure 9) builds on Bandura’s social cognitive theory (Bandura 2002) and Slater and Rouner’s (2002) *Extended Elaboration Likelihood Model (E-ELM)*.

The EORM is intended to apply to all narratives, including movies, dramatic television series, radio plays, etc. As Figure 9 shows, it refers to a number of entertainment features positively affecting the adoption of story-consistent attitudes and behaviours by the audience, by reducing their initial resistance to possible changes. Entertainment features that play an important role in this process are *transportation, identification, and parasocial interaction*.

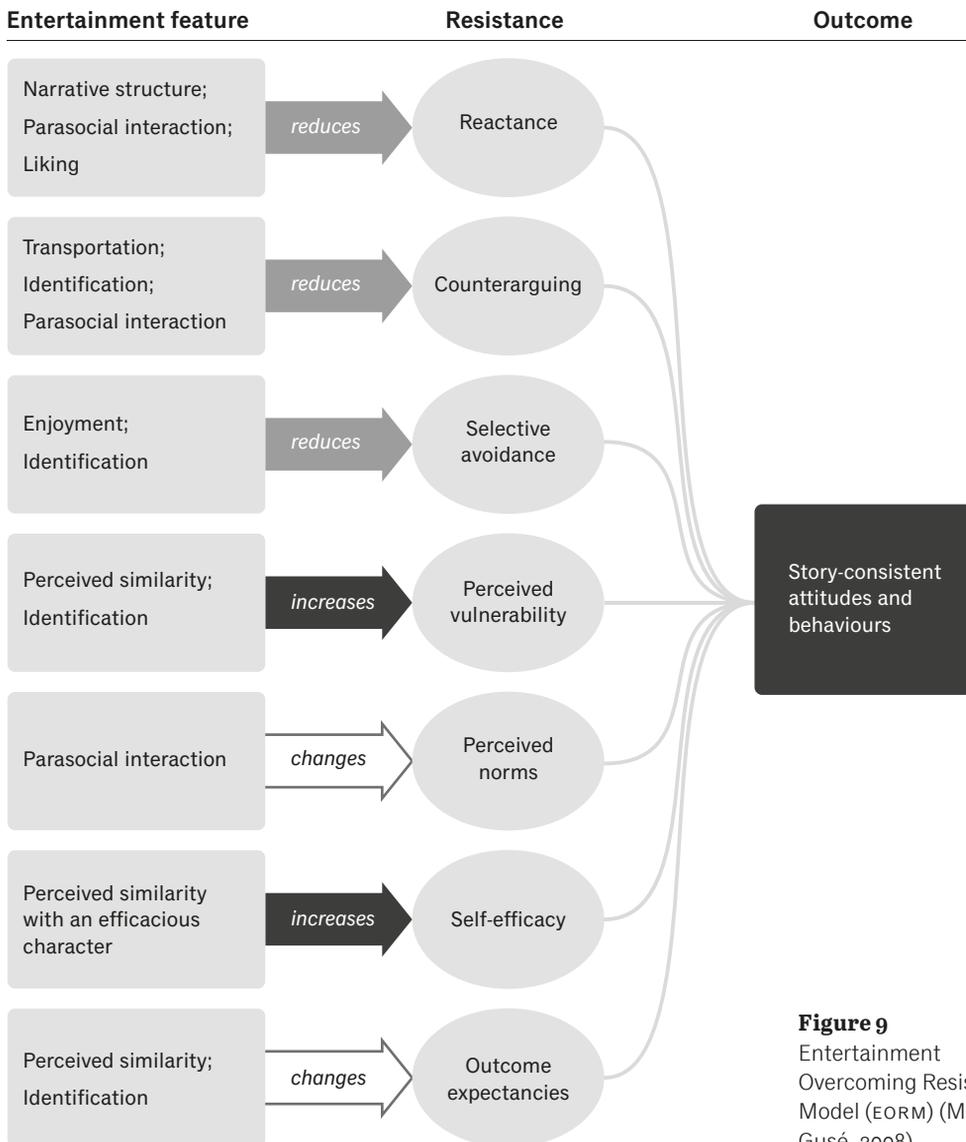


Figure 9
Entertainment Overcoming Resistance Model (EORM) (Moyer-Gusé, 2008).

Transportation refers to ‘the process by which an individual becomes immersed into the story, losing track of the real world as he or she experiences the unfolding events in the story’ (Moyer-Gusé and Nabi 2010, p. 29). Other labels used for this phenomenon of being swept into the storyline (Moyer-Gusé 2008, p. 409), are absorption (Slater and Rouner 2002) and narrative engagement (Busselle and Bilandzic 2009).

Identification is defined in the EORM as ‘an emotional and cognitive process whereby a viewer imagines himself or herself as a particular character’ (Moyer-Gusé and Nabi 2010, p. 29). This process involves sharing a character’s feelings or perspective, internalizing a character’s goals and losing self-awareness during exposure. Losing self-awareness clearly overlaps with transportation but while identification involves getting absorbed through the eyes of one particular character, transportation does not require this kind of perspective-taking. Also important to note is that identification is not the same as perceived similarity. Readers, viewers and listeners may readily identify with a character by taking on his/her role and experience of fictitious events as if they happened to themselves without having anything in common in reality (Moyer-Gusé 2008, p. 410; Moyer-Gusé and Nabi 2010, pp. 29–30).

Parasocial interaction (PSI) is understood in the EORM as ‘the seeming face-to-face relationship between spectator and performer’ (Moyer-Gusé and Nabi 2010, p. 30). Although recipients may very well realise that they are only connected to a story character through a pseudo-relationship, they may experience this character as part of their own social world. Different from identification, PSI does not imply that the character’s perspective is taken. Experiencing the character as a well-known acquaintance suffices.

The general idea behind the EORM and its precursors is that transportation reduces the motivation and ability to counter-argue the persuasive message embedded in the story, because audience members do not want to interrupt the enjoyable and immersive process of being transferred to another world. Being swept into the story makes them less aware of its persuasive intent. Identification and PSI are also assumed to reduce counter-arguing and reactance, respectively. Identification promotes adoption rather than criticism of the thoughts and feelings of a character, and PSI with a peer will reduce resistance because the peer is perceived as less authoritative and controlling (Moyer-Gusé and Nabi 2010, pp. 31–32).

A special kind of narrative that is gaining popularity in health communication and that recently has drawn the attention of researchers, is the *fotonovela*. Fotonovelas are small booklets that tell a dramatic story by means of photographs and short and easily readable captions (see Figure 10).

Fotonovelas are especially popular in southern Europe, in South and Central America and in the Latino/Hispanic community in the USA. The genre originates from Italy, where the first fotonovelas were published in the second part of the 1940s, when going to the movies was a form of luxury many people could not afford. Stills from popular films were combined

**Figure 10**

Page from the fotonovela
Sweet Temptations.

© University of Southern California
2009.

and captions were added to create a surrogate movie (Schimming 2002). Aiming at target groups with low literacy levels, health organisations in the USA have recently started to explore the possibilities of fotonovelas to transfer relevant knowledge and to persuade readers into adopting specific healthy behaviours.

Results reported from studies comparing fotonovelas with more traditional text formats seem promising. Unger et al. (2013), for instance, found that a fotonovela aimed at increasing knowledge about depression and reducing associated stigma among low-literate Hispanic adults in the USA outperformed a traditional text pamphlet in a test measuring knowledge and attitudes immediately after the intervention. In a follow-up test approximately one month later, positive effects were found again, but in this case only with respect to attitudes. James et al. (2005) developed a fotonovela on sexually transmitted infection (STI), which they presented to secondary school learners in South Africa. They measured the effects in comparison to a control group that had not read the fotonovela. A significant increase was found in knowledge about the spread of STIs and also in attitude towards condom use, both immediately after a single reading of the fotonovela and six weeks later. Other studies, such as Unger, Molina and Baron (2009), Valle, Yamada and Matiella (2006) and Lee et al. (2013) into the effects of fotonovelas also report favourable results. Some of

these studies, however, lack the experimental rigour needed to draw firm conclusions about the superiority of fotonovelas compared with other documents. New studies measuring the effects of fotonovelas are needed, especially where outcomes can be related to the levels of transportation, identification and parasocial interaction readers experience.

An intriguing question for future studies concerns the cultural sensitivity of fotonovelas and other narratives used in health communication. Larkey and Hecht (2010), for instance, claim that culturally grounded narratives are a natural choice for identifying and shaping messages for specific audiences (p. 114), and that identification may be fostered by closeness of the story to the reader's own situation or culture (p. 125). Valle et al. (2006, p. 72) also advocate developing 'culturally and linguistically appropriate [...] materials', and Lee et al. (2013) assert that a fotonovela may be effective because of its culturally appropriate components such as photos of faces and daily dialogues familiar to the community, and storylines drawn from common life experiences (p. 695).

To our knowledge, however, these assumptions have never been examined, and one may wonder what empirical tests will reveal if they are. As indicated in discussion of the EORM model, above, similarity is not the same as identification. As readers of novels and viewers of films about fictional characters and situations will know, if a well-told story succeeds in appealing to basic human emotions, it is easy to get swept into events that in reality can never take place in one's own context. To what extent perceived similarity between readers and characters is a prerequisite of identification in health promoting fotonovelas is an open question. The same applies to the level of subtlety that is necessary when including a health education message in a narrative, be it in a fotonovela or in another format. Conceivably, messages that are hidden deeply may not be noticed, while messages that readers regard as preaching overtly (cf. Moyer-Gusé 2008, p. 420) may be experienced as irritating and annoying, and may meet resistance. Moyer-Gusé (2008) also contends that fear appeals embedded in stories may result in less defensive avoidance than other fear appeals, because the engaging structure of a narrative makes it harder to escape from the threatening message (p. 417–418). New empirical studies would be welcome here.

Final remarks

Information designers working in the field of mass health communication have to overcome some great challenges when trying to develop effective persuasive messages. Both to attract and to convey meaning, approaches to communication have to be considered that are often not considered in the world of information design. The behaviours that are targeted in health communication are frequently performed automatically and unconsciously, making it difficult to get recipients to even contemplate

changes. Many health messages also have to compete with commercial messages that point in the exact opposite direction and may be much more attractive in the eyes of the recipients. That is not to say that trying to create effective health messages would be a useless undertaking. As the saying goes, there is nothing as practical as a good theory. The aim of this chapter, therefore, is to raise awareness of current, influential and empirically-based theories. Such theories, and their development through future research, provide a basis for the design of messages that will help improve many people's health.

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