

How Behavioral Theory Informs Message Strategy in HIV Prevention

Marco Yzer
U of Minnesota, USA
mcyzer@umn.edu

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What is behavioral theory?

- Class of theories that seek to explain behavior ...
- ... with limited number of immediate precursors of behavior
- ... which are psychological; although multilevel, multidisciplinary influence is recognized

This presentation: The Integrative Model of Behavioral Prediction (IM)



EPIDASA rationale: (Where) does the IM fit in?

Overall aims and research objectives

The overall aim of this project is to improve the effectiveness of HIV/AIDS information and education documents (e.g. brochures, booklets, pamphlets, advertisements, posters, etc.) for South African target groups.

The project distinguishes two crucial stages in improving these documents. The first stage is taking well-considered design decisions on content, structure, style, presentation and layout. The second stage consists of tailoring a resulting concept document to the needs and preferences of target audiences. In South Africa the diversity in cultural and demographic background of the various target groups provides an extra challenge for designing effective prevention documents (cf. Perloff 2000; Matsumoto 2000).

Sophisticated knowledge about both stages in the design process is a prerequisite for attaining the goal of the project. Therefore, there are two main research questions:

1. Which choices with respect to content, structure, style, presentation and layout will improve the effectiveness of HIV/AIDS information and education documents for the diverse cultural and demographic target groups in South Africa?

The IM and message-based HIV prevention

Three topics:

1. IM and behavior change interventions: Politically and conceptually correct?
2. Locating the IM among conceptual tools available for HIV prevention
3. Usefulness for message strategy: Deconstructing the IM

Topic 1 – The appropriateness of HIV behavior change intervention

The Politics of Behavioural Change for Environmental Health Promotion in Developing Countries

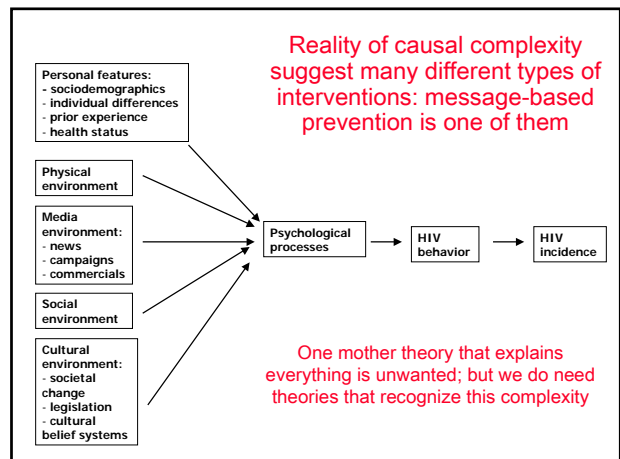
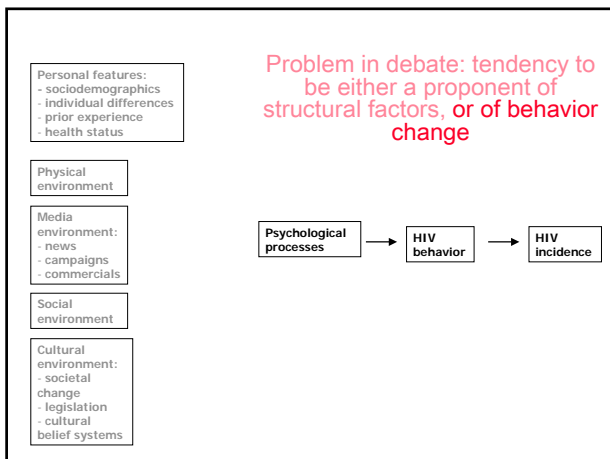
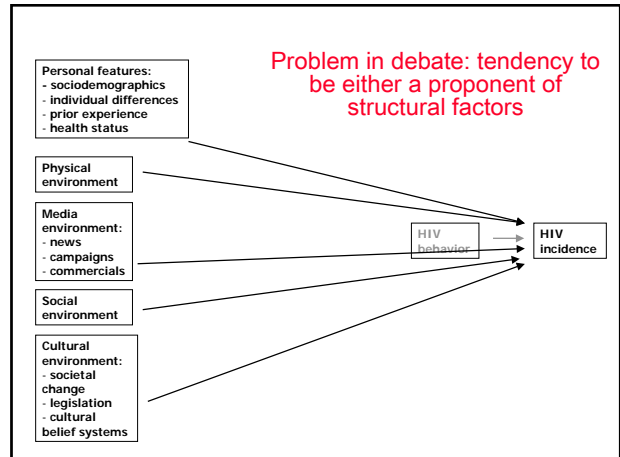
BRENDON R. BARNES
Medical Research Council of South Africa

Journal of Health Psychology,
2007, 12, 531-538.

This article explores the question of why behavioural change interventions continue to be widely used as an intervention strategy in developing countries and highlights the political implications of this approach. It suggests that framing interventions within a mainstream environmental health science paradigm serves to perpetuate a behavioural intervention approach while foreclosing other options. It also serves to perpetuate sexist representations of poor African women; absolves decision makers from addressing broader socio-political concerns (such as poverty and inequality) that are key to addressing environmental health concerns in developing countries;

Why behavior change interventions may be problematic

- Real causes of public health problems related to HIV in Africa are cultural, environmental and political – not individual beliefs and behaviors
- Choice for behavior change strategy may ...
 - ... not be effective, because focus on individual beliefs ignores important causes of behavior
 - ... be ethically suspect, because it sustains problematic environment



Criticism may reflect misconceptions regarding behavioral theory / IM

Common misinterpretations:

- IM is a Western model, and not applicable to non-US/European populations
- IM only recognizes psychological variables, and does not speak to cultural, environmental (structural) and political factors
- IM assumes people are rational
- IM assumes people make conscious decisions
- There is no place for affect or emotion in the IM

If these were true, then the IM would have nothing to offer HIV message design

The IM is a tool; effects will be more impressive when used correctly

The contextual problems associated with HIV in Africa are daunting, and incomparable with the parameters that most US and European researchers work with

Problem with IM is not that it does not work under these circumstances. The problem is that the IM often is applied without understanding how the IM taking the context in consideration

Compare: *Using the haft of an axe to chop down a tree → the axe is an effective tool, it just is handled ineffectively*

Topic 2 – On the complexity of message-based HIV prevention:
Mapping conceptual approaches to HIV prevention

Message design objectives might reflect two separate questions



Which choices with respect to content, structure, style, presentation and layout will improve the effectiveness of HIV/AIDS information and education documents for the diverse cultural and demographic target groups in South Africa?

Components of message-based HIV prevention: Two critical questions

- *What* do I need to tell my audience?
- *How* am I to deliver that message?

The *how* question in message-based HIV prevention

- Dissemination
 - Media choice, interpersonal channels
 - Frequency, reach (all or opinion leaders?), timing, scope
- Format / message features
 - Colors, audio, pacing
 - Message complexity (literacy)
 - Language style
 - Approach (fear, humor, anxiety, education, entertainment, etc.)

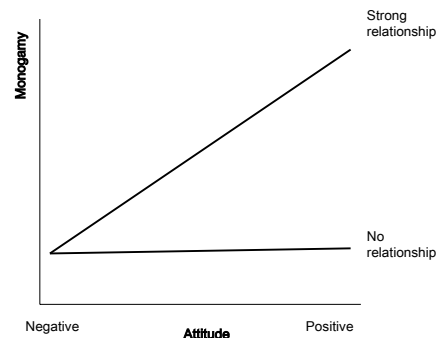


Might agree that this is a superbly designed attitude message

... but this well-designed message will not result in monogamy if monogamy is not guided by attitude

... even if the message greatly improves attitude

Attitude *message* affects monogamy only if attitude affects monogamy



The *how* question in HIV prevention...

... can be addressed when we have an answer to the *what* question

The *what* question asks what the message content should be in the target audience

Message strategy = deciding on message content

Some conceptual tools available for HIV prevention

Message content (what):

- Behavioral determinants; reasoned action, social cognitive theory, health belief model, information-motivation-behavioral skills
- Stages of change; trans-theoretical model, AIDS risk reduction model

Or in short: The IM

Message format (how):

- Information processing
- Fear appeal
- Language and learning
- Message framing
- Rhetoric

Effective health interventions need to draw on both classes of theory

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ORIGINAL ARTICLE

Integrating Message Effects and Behavior Change Theories: Organizing Comments and Unanswered Questions

JOC, 56 (s1), 2006

Joseph N. Cappella
Annenberg School for Communication, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA 19104-6220

Three broad classes of theories about message effects in cancer control are presented in this special supplement to the Journal of Communication. These are behavior change, information processing, and message effects theories. All three types have implications for the design of messages for cancer control. The theories are not just different approaches to a complex problem but offer complementary perspectives on the effects of messages on audiences. This summary article explores why theory is so important to efficient research in message effects and speculates about the interrelation among behavior change, information processing, and message effects models.

Topic 3 – How the IM informs HIV prevention

The IM and HIV messages

Key idea is simple yet vital:

Give your audience what they need

Give your audience what they need

- Urban youth use condoms
- Urban youth intend to use condoms, but they don't
- Urban youth do not intend to use condoms
- May not need intervention
- Something keeps them from acting on their intention; remove those barriers
- Improve intention – find precursors of intention and improve them

IM is important for HIV prevention exactly because it can identify what audiences need

- Tool for message strategy:
 - Locates people on intention – behavior continuum
 - Suggests different types of interventions; not all are message-based
 - Identifies critical message content: If you know where people are, you know what to give them

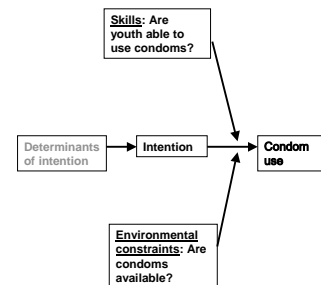
Research recommendations for using the IM

1. Formative research = open-ended, qualitative → rich understanding of environment target audience live in
2. Survey research = questionnaire -partly standardized, partly informed by formative research- assesses IM variables in sample of target audience
3. Use results to develop message-based or other type of intervention
4. Evaluate intervention on what it was designed to improve

Youth use condoms: No intervention



Youth intend to, but do not use condoms: What keeps them from acting?



Department of Health and Human Services
Centers for Disease Control and Prevention

AIDS Community Demonstration Projects:
A Successful Community-Level Intervention to Reduce HIV Risk

Environmental Facilitation

Because the ability of individuals to reduce risk behaviors may depend in part upon whether they have the tools to practice protective behaviors (e.g., are condoms accessible), the projects sought to create an environment that encouraged the use of condoms and bleach kits by having them readily available to persons at risk. This led to an early decision to distribute condoms and bleach kits along with the small media materials.

Intention, no behavior:
Example interventions

Brazil vows to install condom machines in schools

Reuters
Wednesday, February 7, 2007, 10:30 AM

BRASILIA (Reuters) - Brazil's health ministry vowed on Tuesday to proceed with plans to put condom vending machines in schools and sought to defuse criticism with a new study showing that parents in the world's largest Roman Catholic nation approve of the idea.

Brazil's health ministry has been offering free condoms and sex education for more than a decade in some schools as part of an AIDS-prevention program that has been recognized worldwide for its success in avoiding an epidemic of the sexually transmitted disease.

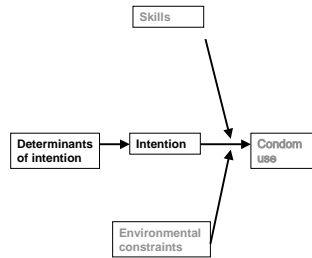
The UNESCO study was conducted among 135 schools already participating as well as a smaller number of non-participant schools across about half of Brazil's states.

The study found that 45 percent of students aged 13 to 19 already had an active sex life and that 60 to 70 percent had used condoms to protect against unwanted pregnancy or sexually transmitted diseases like AIDS.

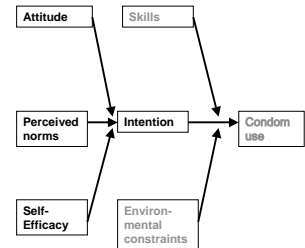
About 10 percent said they had sex without using a condom because they could not afford one, while 42 percent said they simply did not have one handy.

Intention, no behavior:
Example interventions

Youth do not intend to use condoms: What informed those negative intentions?



Youth do not intend to use condoms: What informed those negative intentions?

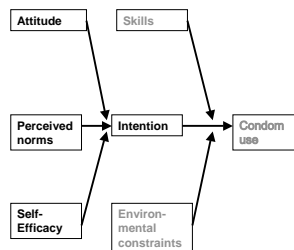


These are very general evaluations of how good or bad I feel my using condoms is (attitude), expected social support for or pressure against my using condoms (perceived norms), and whether I will be able to use condoms (self-efficacy).

No intention to use condoms: What informed those negative intentions?

Find out which one of these offers the best explanation of intention, and we know what our message should focus on.

Analytical: Regress intention on attitude, perceived norms and self-efficacy and examine regression coefficients



ACDP example: Separate messages for different risk groups

- injection drug users (IDU)
- female sex partners of IDUs
- female prostitutes
- street youth
- non-gay-identified men who have sex with men



Predictors are unique to risk groups: clearly very different interventions

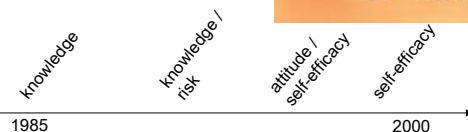
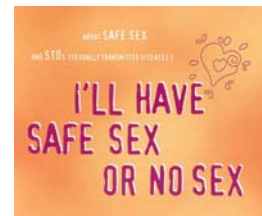
ACDP example: Condom use with non-main partners

	FP-IDU	Youth	CSW	MSM
Attitude	.27	.63	.36	.49
Perceived norms	.21	.14	.14	.30
Self-efficacy	.44	.13	.35	.17

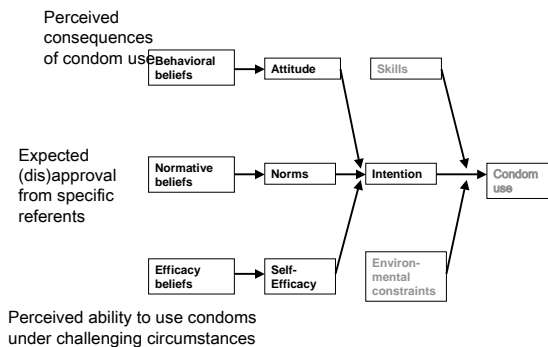
FP-IDU = Female partners of IDUs; CSW = prostitutes; MSM = men who have sex with men

Example: Dutch safer sex media campaigns

- campaign development based on behavioral theory: each (annual) campaign targeted those variables that at that point in time were most important for condom use



... but messages can change the -very specific- precursors of those evaluations: beliefs



Misconception: IM assumes rationality

IM assumes *reasoned* – reasoned does not equal rational

For example:

- Indigenous belief that epidemics are believed to be caused by ancestors' discontent, and thus sacrifices need to be made to appease ancestors. Some deem this belief irrational, but it is reasoned, and it guides behavior
- IM performs well to explain condom use among mental health patients who, according to DSM-IV, have irrational thought (Blank et al, 2007)

Misconception : IM assumes conscious and deliberate decision-making

- Attitude formation is a naturally-occurring and typically unconscious process. New information is translated automatically in how we feel about someone/something
- Modeling the belief – attitude relationships reflects this idea, and has the added practical benefit of allowing us to identify particularly important beliefs

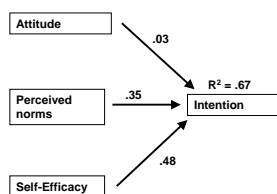
Example: Giles et al (2005) in AIDS Care

Condom use in African adolescents: The role of individual and group factors

- Target group: young Zulu adults
- Four focus groups (male and female) reported on
 - consequences of condom use
 - important normative people re: their condom use
 - factors that might keep them from using condoms
- Most frequently reported beliefs used for survey

Primary determinants in Zulu sample

- Survey: 152 young Zulu adults in rural agricultural settlement in South Africa



Misconception : IM is a Western model

- Relative importance of attitude, norms and self-efficacy vary as a function of population and behavior
 - Norms often predict intention poorly in individualistic populations, but strongly in collectivistic populations
- Belief systems are assumed to be unique in different cultures

Key control beliefs

Table IV. Zero-order correlations of intention with underlying control beliefs.

Control beliefs	Intention
1. Cultural beliefs	-0.208*
2. Previous experience of condoms	-0.218*
3. Partner's attitude towards condoms	-0.061
4. Knowing that condoms sometimes break	0.089
5. The limited availability of condoms	0.055
6. The fear of upsetting one's partner	0.021
7. Not knowing how to use condoms	0.076
8. The fear of contracting an STD	-0.176*
9. The fear of embarrassment in front of one's partner	0.027
10. <u>Not knowing where to get condoms</u>	0.222**
11. The fear of pregnancy	-0.214*
12. The fear of embarrassment at the time of collection	0.033
13. The poor fit of condoms	0.127
14. My inability to initiate a discussion	0.139
15. <u>The fear of contracting HIV/AIDS.</u>	-0.263**

* $p < 0.05$; ** $p < 0.01$.

Messages might inform about condom availability and response efficacy of condoms

Key normative beliefs

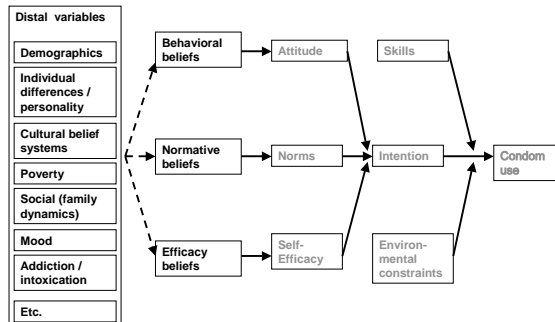
Table V. Zero-order correlations of intention with underlying normative beliefs.

Normative beliefs	Intention
1. My partner	0.268**
2. My family	0.393**
3. My close friends	0.222**
4. My teachers	0.189*

* $p < 0.05$; ** $p < 0.01$.

From a practical perspective, the finding that family plays an important role in regulating sex practice might imply that parents could be encouraged to talk more to their children about sex-related issues. Although media campaigns are currently promoting more frank discussions of sexual behaviour within African families, these run counter to strong and established cultural constraints (Kelly & Parker, 2000). A more realistic approach might be to target young parents and possibly adolescents 'who will one day be parents in order to develop parent child relationships beyond the communication impasse which seems to prevail' (Kelly & Parker, 2000, p. 19).

Back to the context: Where do beliefs come from?



Misunderstanding: IM ignores non-psychological variables

- Non-psychological variables can be critically important sources of beliefs
- Formative research necessary to understand background of target audience
- Understanding where beliefs come from also gives insight in feasibility of message-based prevention
 - Messages cannot undo people's personal prior experience
 - Messages cannot (should not) change accurate beliefs about negative legal consequences of behavior

In conclusion / sales pitch

- IM can identify critical determinants of HIV behaviors in any cultural, demographic or otherwise specific population
- If correctly used, IM informs message content and thus greatly contributes to HIV message effectiveness

In conclusion / sales pitch

If IM can do all that, then question is not

why behavioural change interventions continue to be widely used as an intervention strategy in developing countries.

In conclusion / sales pitch

but

why

behavioural change interventions **that do not employ the IM**
continue to be widely used as an
intervention strategy in developing
countries .