

# Persuasive oral hygiene communications in Uruguay and Spain

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# Background

- Oral disease consequence of inadequate oral hygiene behavior (OHB)
- Inadequate OHB very prevalent in all cultures
- Important to establish determinants, which depend on context and culture
- ‘*One-size fits all*’ approach will not be effective
- Identification and assessment important for developing oral health care interventions

# Aim of the study

- to examine the extent to which the **persuasive effects** of **positively** and **negatively framed** messages designed to promote oral hygiene behavior, were moderated by:
  - *promotion and prevention focus*
  - *level of education*
  - *country*

# Method

- 155 dental patients who visited a dental faculty in Montevideo (**Uruguay**) and in Valencia (**Spain**)
  - completed a multiple culturally adapted paper-and-pencil-questionnaire,
  - randomly assigned to either a **positively-**, or a **negatively-framed** oral health message

# Method

The *positively* framed message emphasized:  
the **benefits** of engaging in an adequate OHB

e.g., “individuals **with an optimal OHB** have a **better oral health**, which means healthy gum, a fresh breath, younger appearance, more self-esteem, more positive reactions in interpersonal relationships, and they have a **lower chance of undesirable outcomes**, such as cavities or pain, feelings of shame or rejection, stress and disappointment by others”



# Method

The *negatively* framed message emphasized:  
the **costs of failing** to engage in an adequate OHB

e.g., “individuals **without optimal OHB** have a **bad oral health**, which means bad and unhealthy teeth, being viewed as less intelligent, weaker, and they have **lower chance of desirable outcomes**, such as healthy gum, no pain, et cetera”.

# Participants

	Uruguay	Spain	P-value
number of patients	80	75	
female	67,5%	77,3%	
average age (years, SD)	35 (14)	43 (10)	< .001
married	44%	79%	.06
- High / college/university training	50%	20%	
- medium / advanced vocational training	43%	40%	< .001
- low / vocational training	6,3%	40%	
Index for Oral Hygiene Behavior (OHB index)			
- tooth brushing twice a day	79%	88%	
- tooth brushing in the morning + before they go to sleep, for two minutes each time	75%	60%	
- use interdental cleaning	88%	88%	
- fluoride containing toothpaste	86%	100%	
- tongue cleaning: once a day / sometimes	44% / 41%	55% / 13%	



# Results Promotion focus as moderator

- **Uruguayan** participants with a *high promotion focus* were more persuaded when given the positively framed message,  $p = .049$

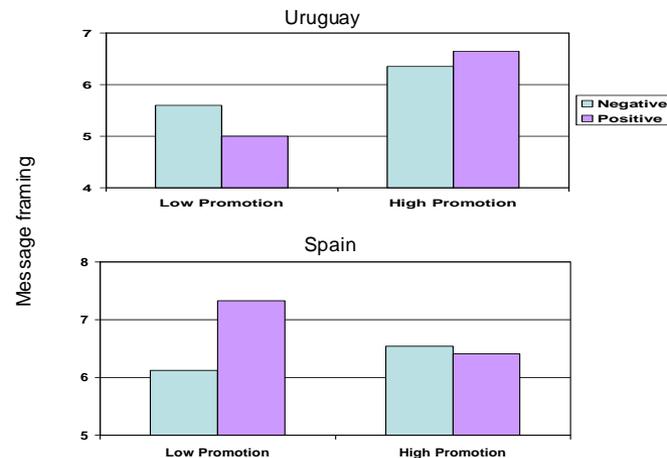
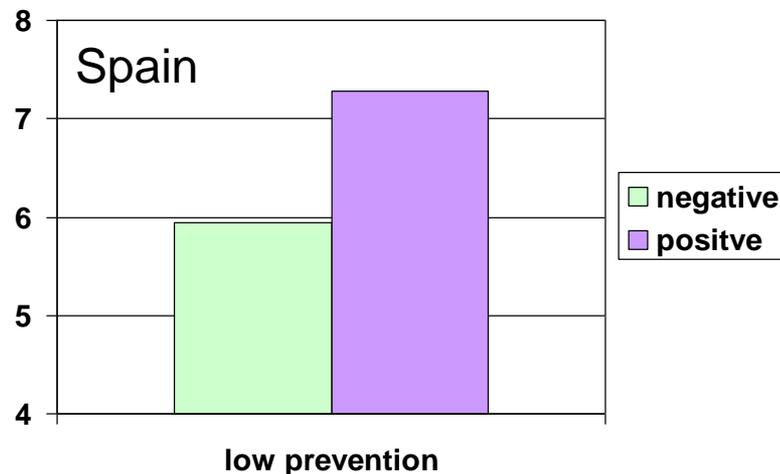


FIGURE 1. The effect of Message Framing and Promotion on Intention to perform OHB

- **Spanish** participants with a *low promotion focus* were more persuaded when given the positively framed message,  $p = .025$

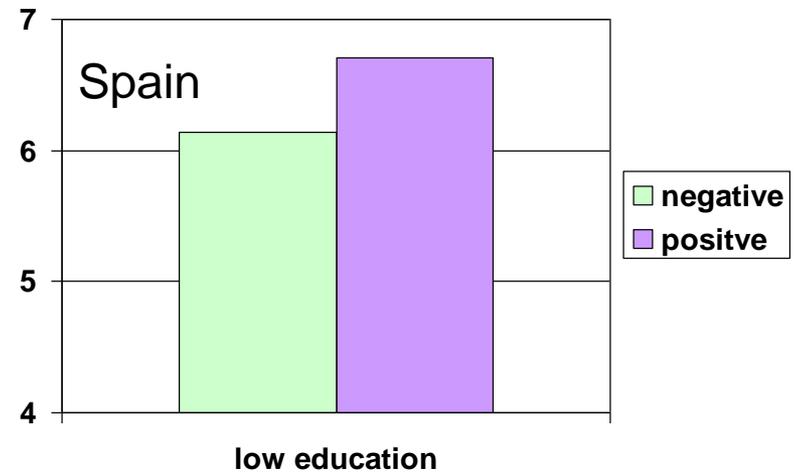
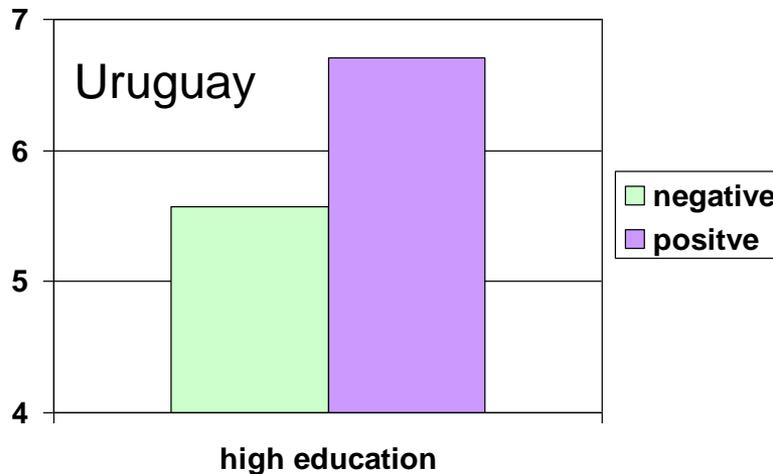
# Results Prevention focus as moderator

- In the **Uruguayan** samples none of the effects were significant
- **Spanish** participants with a **low prevention focus** were significantly more persuaded when given the positively message than when given the negative message,  $p = .005$



# Results Education as moderator

- **Uruguayan** participants with a *high level of education* were more persuaded when given the positively framed message,  $p = .02$



- **Spanish** participants with a *low level of education* were more persuaded when given the positively framed message,  $p = .04$



# Conclusion / Discussion

- This study illustrates that message framing effects in a naturalistic setting can have differential effects depending on the individual's **promotion or prevention focus**, **education level** and the **country** in which it is applied
- Current findings support the well-established fact that messages in oral hygiene self-care intervention **tailored to individual differences may be more effective** than a so called '*one-size fits all*' approach

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# Thank you

## Questions?

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