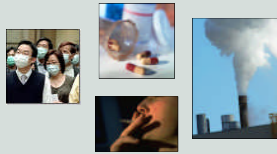


# HEALTH WORRIES: Analysis of Mass Media Influence



Marina Beléndez, Marta Martín-Llaguno, Raquel Suriá & Sandra Hernández

Dep. Sociology II, Psychology, Communication & Didactics. University of Alicante. SPAIN



- During the last years, **mass media** have centred on **health and illness information** more than ever before and stories about health risks fill up newspapers, magazines, TV programmes and internet sites.
- Recently, much of these information are focused on **emergent health risks** (genetically modified food, radiation...). In western countries, mass media appear as one of the main sources of health risks information for many people with a potential effect to shape individuals' health perceptions and worries.
- Although there is a growing interest in studying the media coverage of health topics in **Spain**, it may be necessary to go beyond and to understand the social and psychological processes (interpersonal communication, dependence on mass and media exposure) through which mass communication impact on individual beliefs about personal health.
- The present study is **part of a larger project** aimed to examine:
  - the relationship of new health worries to health complaints and perceptions of health,
  - the media coverage of the main perceived emergent risks and of its impact on health in Spain,
  - the influence of exposure to information about these topics on health worries and the role of interpersonal communication and dependence on media.
- In this study we present a **preliminary exploratory work** from the first phase of this larger project.

## OBJECTIVES

- To determine the most salient modern health worries for a **Spanish students** sample.
- To compare these emergent health worries with the traditional health concerns like tobacco or traffic accidents.
- To analyze the relationship of health worries to subjective health perception.
- To compare the media consumption, media exposure, media helpfulness and interpersonal communication by type of worry (traditional or emergent).

## METHOD

Data were collected from **233** Spanish undergraduates students (193 females and 40 males) between age 18 and 47 (M=22,02 years, SD=5,14) enrolled in different academic programs (Social Work, Optics, Nutrition, Advertising & Public Relations and Education)

## Measures

Participants completed a survey questionnaire containing the following measures:

**Modern Health Worries Scale-revised**: 23-item scale adapted from Petrie et al., (2001) including new items as "Severe Acute Respiratory Syndrome", "Avian Influenza" or "Hatchery Salmon". To assess the underlying structure of the Spanish version of the MHS a Principal Components Analysis was conducted. It was found a final six-factor solution which account for 67,99% of the variance (see Table 1).

**Traditional Health Worries**: Five items related to Sexually Transmitted Diseases, Tobacco, Alcohol, Illegal Drugs and Traffic (accidents).

**Subjective Health Complaints Scale**: 23-item scale translated from Eriksen, Ihlebæk & Ursin (1999). Respondents rated the severity of several somatic and psychological complaints during the last month on a 4-point scale. A principal components analysis on spanish items yielded seven factors (flu, back pain, head pain, pseudoneurology, gastric, intestinal and breast pain) accounted for 56,8% of the variance

**Negative Affectivity Subscale**: 10-item subscale from Spanish Version of PANAS (Sandin et al., 1999).

**Media Consumption**: Six 5-points items to assess how often participants used several media sources (TV, newspapers, Internet...).

**Open-ending question** to identify students' three most salient health worries. After analyzing the content of this question we found 12 types of worries.

**Media Exposure**: Six 5-points items adapted from Morton & Duck (2001). Respondents estimated how often they had seen, read or heard about their three most salient health worries from each of six different media sources (TV news and documentaries, TV entertainment programs, newspapers, magazines, internet and radio).

**Interpersonal communication**: Four 5-points items adapted from Morton & Duck (2001). Participants indicated how much they had discussed their three most salient health worries with peers, family, partners and health professionals.

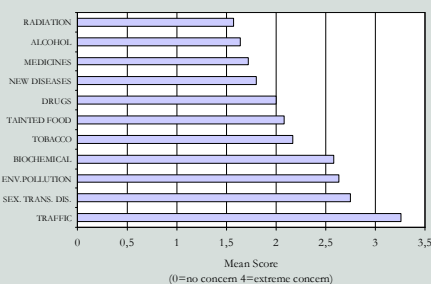
**Media Helpfulness**: Students indicated on eight 5-points items the helpfulness of six media sources for understanding health issues.

	M (SD)	FACTOR I	FACTOR II	FACTOR III	FACTOR IV	FACTOR V	FACTOR VI
<b>ENVIRONMENTAL POLLUTION (<math>\alpha = 0,85</math>)</b>							
Traffic fumes	2,74 (0,96)	0,79					
Depletion of the Ozone Layer	3,04 (0,99)	0,78					
Air Pollution	2,67 (0,98)	0,73					
Other Environmental Pollution	2,52 (1,13)	0,72					
Noise Pollution	2,19 (1,20)	0,70					
<b>TAINTED FOOD (<math>\alpha = 0,85</math>)</b>							
Additives in Food	2,05 (1,16)		0,80				
Genetically Modified Food	1,91 (1,21)		0,69				
Pesticides in Food	2,38 (1,20)		0,67				
Hormones in Food	2,29 (1,21)		0,63				
Fluoridation of Water	1,77 (1,17)		0,54				
<b>NEW DISEASES (<math>\alpha = 0,80</math>)</b>							
Avian Influenza/"Bird Flu"	1,84 (1,27)			0,78			
SARS	2,28 (1,40)			0,72			
Mad Cow Disease	2,10 (1,30)			0,65			
Hatchery Salmon	1,90 (1,15)			0,52			
<b>BIOCHEMICAL (<math>\alpha = 0,75</math>)</b>							
Contaminated Water Supply	2,81 (1,27)				0,76		
Bio-terrorism	2,77 (1,28)				0,72		
Drug Resistant Bacteria	2,16 (1,28)				0,60		
<b>RADIATION (<math>\alpha = 0,77</math>)</b>							
Radio or Cell Phone Towers	1,55 (1,16)					0,86	
Cell Phones	1,17 (0,98)					0,84	
High Tension Power Lines	1,98 (1,29)					0,69	
<b>MEDICINES (<math>\alpha = 0,69</math>)</b>							
Antibiotics	1,67 (1,18)						0,73
Vaccination Programmes	1,57 (1,32)						0,72
Overuse of Antibiotics	1,93 (1,32)						0,62

Table 1. Factors loadings, means (0=no concern 4=extreme concern), standard deviations and factors reliabilities for the Spanish version of the Modern Health Worries-Revised.

## RESULTS

### Mean scores on Modern and Traditional Health Worries

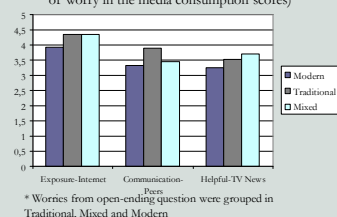


Partial correlations, controlling for negative affectivity, between modern health worries (MHW: Scale) and subjective health complaints.

	HEAD PAIN	GASTRIC	TOTAL SYMPTOMS
RADIATION	0,06	0,03	0,04
MEDICINES	0,17*	0,15*	0,13
NEW DISEASES	0,02	0,04	0,03
TAINTED FOOD	0,13	0,10	0,09
BIOCHEMICAL	0,12	0,15*	0,19**
ENV. POLLUTION	0,20**	0,16*	0,18**
TOTAL WORRIES	0,15*	0,15*	0,15*

\*p<.05 \*\*p<.01

### Significant differences on media exposure, interpersonal communication and media helpfulness by type of worry\* (There were no differences by type of worry in the media consumption scores)



\* Worries from open-ending question were grouped in Traditional, Mixed and Modern

Health Worries ranking after content analysis on **Open-ending question** to identify students' three most salient health worries and intercorrelations with scores on Modern and Traditional Health Worries assessed by questionnaire.

WORRIES RANKING	Modern and Traditional Health Worries Scales						
	TRAFFIC	SEX. TRANS.	ENV POLLUT	BIO-CHEM	TOBAC	TAINT FOOD	DRUGS NEW DISEASE
ENV. POLLUTION			0,35**				
TRAFFIC	0,16*						
SEX. TRANS. DIS.		0,34**					
TOBACCO				0,26**			
TAINTED FOOD					0,28**		
DRUGS						0,27**	
BIOCHEMICAL				0,24**			
LIFE STYLE		-0,17**	-0,22**				-0,21**
OTHERS							
RADIATION							
ALCOHOL							
NEW DISEASES							0,19**

\*p<.05 \*\*p<.01

## DISCUSSION

- Since this work presents the preliminary results from a larger project in progress the conclusions should be treated with caution.
- To assess modern health worries in our sample an specific instrument were needed and the present work has found that the Spanish MHS is a reliable and valid instrument that may allow for its application for comparative international studies.
- As a previous study (Petrie et al., 2001) we found that environmental pollution was the modern issue that caused most concern for participants, however, traditional worries as "traffic" and "sexually transmitted diseases" were highly scored in this Spanish students sample. As expected, results show significant correlations between modern health concerns and subjective health complaints.
- Related to media variables, we didn't find significant differences by type of worry (modern/traditional) except for the frequency of Internet exposure, frequency of discussion their worries with peers and TV news helpfulness for understanding health topics. Students concerned about modern issues showed the smallest scores. Media exposure and interpersonal communication were assessed by frequency and it would be interesting to assess another type of measure, for example, content.
- Future research on larger samples is necessary to answer several questions that our exploratory work has raised.

Corresponding author: Marina Beléndez

Depo. Sociología II, Psicología, Comunicación y Didáctica, Edificio de Ciencias Sociales, Campus de San Vicente del Raspeig, 03080 Alicante, España.

Tel.: + 34 96 590 38 76 Fax: +34 96 590 34 95 [marina.belendez@ua.es](mailto:marina.belendez@ua.es)