



CITIZENS' VIEW OF THE 2009-2010 H1N1 FLU EPIDEMIC. A QUALITATIVE APPROACH

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Abstract

objective: To find out the opinions of the general population, risk groups and health personnel on the flu epidemic.

Design: Qualitative, exploratory study.

Methodology: 10 focus groups in 3 autonomous communities, with 51 participants.

Content analysis. Main results: The attitudes and opinions of the general population and risk groups evolve throughout the process, from an initial state of concern motivated by over-information and a state of alert promoted by the media, towards a reduction in the perception of risk, a lack of confidence in information sources and the need for greater involvement of authorities and formal sources.

Conclusion: Authorities must rely on advanced information systems, prepare health personnel, coordinate and involve all sectors.

Keywords: Influenza, Qualitative research, Epidemic.

Introduction

Following the isolation of the new H1N1 influenza virus in the United States and Mexico in April 2009 and its rapid spread in North America and Europe, the WHO

declared the H1N1 influenza pandemic in June 2009.¹ In Spain, the first cases appeared in May and the peak incidence was recorded in the week of November 15-21, 2009.² The epidemic resulted in approximately 300 deaths and 3,500 hospitalizations.³

The actions of the health authorities in the management of a flu epidemic had begun with the first Plan for Preparation and Response to a Pandemic of Influenza,⁴ following the spread of the avian flu outbreak. Once the influenza A pandemic was declared, the actions of the health authorities followed one another quickly and with visibility: definition of emergency response scenarios, adoption of agreed intervention plans such as the consensus declaration promoted by SESPAS,⁵ publication of daily reports and communications (June-July 2009) or weekly reports (August-December 2009) on the international and national situation of influenza by the Ministry of Health, Social Policy and Equality. Health professionals reiterated the call for calm.³ Despite prior preparation, the influenza epidemic with the new virus came as a surprise to the authorities and public health experts,⁶ in Spain the vaccine arrived late⁷ and had limited coverage³ and the population was considered poorly informed about its symptoms and treatment.⁸

The impact of H1N1 influenza has been less than that of other seasonal influenza epidemics,⁹ but it has received enormous media coverage.¹⁰ As indicated by a recent quantitative study carried out in Toledo, the population received much of its information on influenza A from unofficial sources, mainly non-health media, family and friends⁸ and the information received did not alter normal hygiene attitudes and behaviour, which indicates the need to develop effective health education strategies.



Despite the intense attention paid by the scientific community to the clinical and epidemiological aspects of the pandemic, the available literature lacks studies focusing on the preparation, information, opinions and expectations of the general population during a similar health threat episode. Following Vilella and Trilla, according to whom investments, training and preparation should be made before or after the crisis and not during it,¹¹ the general objective of the study is to find out the opinions of the general population, risk groups and health personnel on the H1N1 influenza epidemic of winter 2009-2010.

Our specific objectives are: (1) To assess the perception of risk and the degree of social alarm. (2) To study the quality of the information received. (3) To study the attitudes, perceptions and the follow-up of the recommendations and the adoption of measures. (4) To study the needs and expectations of the population, the credibility of the sources, of the different instances and the different types of messages.

Participants and methods

Design. Exploratory study using qualitative methodology, through 10 focus groups conducted in the Basque Country, the Balearic Islands and Galicia.

Participants. The sample was chosen intentionally, using criteria of heterogeneity of sex, age and geographical area. The sample included people belonging to the general population (citizens), health personnel (primary care and emergency care) and the at-risk population (teachers, chronic patients, caregivers of dependent persons and pregnant women). The risk groups were chosen based on the fact that they are particularly vulnerable groups, with a higher probability of transmission of the disease. Health personnel were included in the sample because they are

considered a vulnerable group and also because they represent a group with specific knowledge and needs regarding Influenza A (see [Table 1](#)).

Table 1. Focus group participants

Grupo focal	Participantes	Lugar
Islas Baleares: Palma de Mallorca		
Embarazadas	3 mujeres	Hospital Son Llàtzer
Enfermos crónicos	1 mujer 2 hombres	
Personal de urgencias	1 mujer enfermera 1 hombre enfermero 4 hombres médicos	
Personal de Atención Primaria	2 mujeres enfermeras 4 hombres médicos	Centro de Salud Camp Redó
Profesorado	1 hombre 2 mujeres	Colegio Público Colegio Anexa Escuela de Prácticas
Ciudadanos	3 mujeres 4 hombres Miembros de la asociación	Asociación Grupo Ecologista Balear
País Vasco: San Sebastián		
Cuidadores	4 mujeres 3 hombres	Empresa Nagusilán
Profesorado	2 mujeres 1 hombre	Colegio Herri-ametsa Ikastola
Galicia: Vigo		
Enfermos crónicos	3 mujeres 4 hombres	Centro cultural Caixanova
Cuidadores	4 mujeres 2 hombres	Centro cultural Caixanova

The following criteria were used for inclusion in the groups, depending on the profile: being of legal age, meeting one of the risk group conditions (being pregnant, being an active teacher in a teaching centre, being chronically ill or caring for a dependent person or being a health professional in a primary care centre or hospital) and, in the case of citizens, being part of a citizens' association. The exclusion criteria used were: suffering from a speech-disabling disease and not mastering the Spanish language.



Contact with participants was made, as appropriate, through an information meeting with citizens' associations, managers of health and educational centres and social workers from primary care centres.

The total sample planned was 70 people, corresponding to 10 focus groups (2 focus groups for each profile, in at least two different geographical areas, except in the case of pregnant women and the general population, with a single focus group). All the participants invited agreed to participate, except for impossibility due to work or home schedules. However, the degree of attendance at the groups was 73%, with only 51 people participating out of the 70 planned. The people included in the focus groups signed an informed consent, where they were presented with the objective of the study and were assured of the confidentiality of the data.

Analysis. Fieldwork was carried out during the months of January and February 2010. Each focus group was conducted by technical personnel with extensive experience in the application of this research technique and who were properly trained to use it in this study. Each of these sessions was recorded digitally to be later processed in the data analysis phase. Data analysis was carried out using the text analysis program Atlas.ti, carrying out: reading the speeches, identifying the text fragments referring to each of the analysis categories (the themes included in the interview script), describing and delimiting the dimensions down to the smallest analysis categories (identifying the codes and code families), analyzing the opinions referring to each theme (relationship between codes and code families) and interpreting the coded information.

Categories of analysis . Knowledge of influenza A, perception of the disease, preventive attitudes towards influenza A, the vaccine, opinions on the performance

of institutions and different social actors. The instrumentalization of this set of dimensions has been reflected in three types of semi-structured thematic scripts to be applied in the focus groups, differentiated according to population group: health workers, at-risk population (education professionals, pregnant women, caregivers of people with risk factors, chronically ill people) and general population.

Results

Knowledge of Influenza A. There is widespread knowledge among participants regarding the origin, spatial-temporal location and symptoms of the disease. The information handled throughout the pandemic phase is considered premature, contradictory and alarming, which is related to the fact that the media is the main source of information, along with the informal route of friends and family: "Knowledge came through the media, both in the press and audiovisuals" (Citizen). "...what is true, the feeling, right? (...) how they have put a lot of fear into us with this..." (Citizen). "I think that society's response has been very marked by the media and there has been an impressive alarmism and people followed behind. Now, for example, there is not so much talk and people seem to be much calmer, they do not give it so much importance" (Emergency Professional).

The institutional route and the role of health professionals are associated with quality information, although the general assessment of the information is negative, either because it is confusing and alarmist (spread by the media), or because it is late or difficult to access (from institutional or health sources): "I trust the doctor. The best person to talk to about these issues is a doctor. And I felt much calmer" (Pregnant woman). "They have transmitted insecurity to us, as they had



too" (Citizen). "Sensationalism at the beginning, the boom to rule out more options and then information in small doses and bad, bad information" (Chronic patient).

Within the risk groups, the need to use specialists to transmit scientific information arises, with the aim of giving more credibility to the message: "There has to be a way to inform without alarming people, you can inform, there is this, this is happening, as precautionary measures you can or should do this, this and this and then dosing in some way, this is what specialists, psychologists or whatever are for..." (Chronic patient).

The healthcare community shows a higher level of information, but they state that the search for information was initially personal and that institutional information arrived late: "The first information, as I said before, through the press... and television" (Primary Care Professional). "And we knew what we knew from our daily experience in the hospital and from what we could, from what was transmitted to us by... the epidemiologist in the hospital..." (Emergency Professional).

In this sense, they demand agreed information protocols, as well as the preparation of a written document with complete and quality information: "And what I have missed is a meeting on Influenza A (...) to explain the doubts about the vaccines" (Primary Care Professional). "So a decalogue would be better (...) but it should be much clearer, more concise. But this document has not been produced" (Emergency Professional).

Perception of the disease. All groups point out the overestimation of the impact of the disease in relation to its incidence and severity, a fact due to the alarmist action of the media: "The only ones who have given importance to this have been the



media. Because the population, nothing, the doctors either, that is to say nobody" (Ciudadano).

The general perception is related to the low intensity of vulnerability and risk, although in the group of pregnant women the perception of risk and concern about the possible development of the disease is evident: "At first I felt more at risk and such... then... and you protect yourself for the baby, but not for anything else" (Pregnant woman).

Health personnel mention the existence of an initial state of concern, which gradually decreases when the low virulence of the disease is confirmed.

Preventive attitudes towards influenza A. All participants show a high level of knowledge and appreciation of non-pharmacological preventive measures, related to basic hygiene standards, the adoption of which has not altered their daily lives: "What has worked above all have been the preventive measures... cleaning your hands, covering your mouth with your hand when you cough, when you sneeze..." (Emergency professional). "You had hand hygiene and all that kind of stuff on every corner" (Chronic patient).

The participants claim to carry out these measures, but highlight the difficulty of implementing them among younger population groups, especially in schools: "Yes, apart from these hygiene measures, especially with small children, you make them wash their hands, but they pass pens from one to another, through their mouths and any object, it was very difficult. Anything they touched, they suck everything, they touch everything" (Educator).

As proposals for improving the measures and action protocols, all groups agree on the need to place greater emphasis on the adoption of preventive measures



throughout the year and especially in the child population: "I believe that hygienic measures are the ones that should always be used, every year..." (Primary Care Professional).

Healthcare protocols have been the subject of criticism: the lack of a standardised protocol has led to different types of care depending on the healthcare centre: "What I have missed is that the Ministry of Health has published a basic document for all regions of Spain. Here, everyone has gone with the protocol of each hospital" (Emergency professional).

The vaccine. In the population segments interviewed, an attitude towards the vaccine is observed. Health professionals report mistrust due to insufficient research on the vaccine and the possible pharmaceutical business that it entails, while the at-risk and general population perceive the position of health professionals and acquire the same unfavorable attitude : "I get the feeling that behind all this there are economic and business interests" (Emergency professional). "None of the doctors I have spoken to and heard have been vaccinated or have said they were going to be vaccinated" (Citizen). "I think there is not enough information because it is demonstrated by the fact that health professionals did not want to be vaccinated" (Chronic patient). "No information at all. The only information was don't take it and that I read in the newspaper that it had a mercury component" (Caregiver for dependent people).

There is a consensus in the different opinions stating that there is a general lack of information about the vaccine, caused by the lack of knowledge of its side effects and its manufacturing method: "(...) we have not been informed directly in a

clinical session, nursing, assistants, orderlies, administrators, doctors... this is the flu A vaccine, we have obtained it this way" (Emergency Professional).

Opinions on the performance of institutions and different social actors. The performance of health authorities is considered contradictory or incoherent by the general population and especially by risk groups: "...the minister said one thing, the other said another, Sarkozy said he was going to vaccinate everyone, the German said I don't know how many, so there was so much contradictory information" (Educator).

The health personnel highlight the reassuring intention of the institutional messages, but they are late, after the alarmist vision of the media: "...the governments, their mission (...) is to reassure" (Emergency professional). "They passed the information to society through the media. Then, if you went to the doctor, they informed you directly..." (Citizen).

The performance of health professionals is valued positively, although the need for more information for health professionals from institutional sources is identified: "I think that we have been given more information from non-health media related to our day-to-day work, than in some cases (...) the hospital itself..." (Emergency Professional).

As regards the performance of the media, there has been a unanimous assessment related to the imprudence in the transmission of alarmist messages, based on sectoral interests and causing the loss of credibility of this source (see [Table 2](#)).

Table 2. Level of information, knowledge, sources and assessment

Perfil poblacional	Fuentes de información usadas	Cantidad información	Calidad información	Valoración de las fuentes	Demandas y fuentes de información deseadas
Población general	Medios de comunicación	++	--	Información prematura y alarmista	Personal sanitario y autoridades sanitarias
	Autoridades sanitarias	+	-	Información tardía	
Enfermos crónicos y cuidadores	Medios de comunicación	++	--	Información prematura y alarmista	Personal sanitario y autoridades sanitarias
	Personal sanitario	+	+/-	Información tardía	
	Autoridades sanitarias	-	-	Información tardía	
Personal educativo	Medios de comunicación	++	--	Información prematura y alarmista	Autoridades sanitarias
	Autoridades sanitarias	+	+/-	Información tardía	
Mujeres embarazadas	Medios de comunicación	++	--	Información prematura y alarmista	Personal sanitario y autoridades sanitarias
	Personal sanitario	+	+/-	Información tardía	
	Autoridades sanitarias	-	-	Información tardía	
Personal sanitario	Medios de comunicación	+	-	Información prematura y alarmista	Autoridades sanitarias
	Autoridades sanitarias	+	+/-	Información tardía	

Discussion

Our study reveals that, in general, the attitudes and opinions of the general population and risk groups evolve throughout the process, from an initial state of concern motivated by over-information and a state of alert promoted by the media, towards a reduction in the perception of risk, a lack of confidence in information sources and the need for greater involvement of authorities and formal sources.

The use of qualitative methodology has allowed us to investigate the perceptions of participants and offer a complex conceptual map on the construction of the influenza A epidemic as a public health problem in the international and national context. The participation of the general population, pregnant women, chronic patients, caregivers, teachers and health personnel from three different autonomous communities responds to the need to incorporate the voice of different social profiles to obtain a holistic view of the problem. As limitations of the study, we highlight those inherent to the qualitative methodology, specifically the intentional choice of the sample or the difficulty of comparing the results with those of other

studies and of offering conclusions that can be extrapolated to other social contexts.

A notable fact in our study is the amount of information that the participants have handled. Despite having the necessary information, the people interviewed refer to an imbalance in the emission of messages from formal and informal sources: the media appear overrepresented, while health authorities and specialized personnel do not intervene sufficiently in the work of information and health education. This justifies the change in the perception of the disease, from a high initial feeling of risk (coinciding with the state of health alert caused by the media) to a state of disbelief or intermediate confusion and a final state of mistrust and deception.

In this sense, the 2009-2010 flu epidemic manifests itself as a media epidemic, which Vilella and Trilla describe in a 2009 editorial as an epidemic, experienced in real time, with the media usually one step ahead of official special announcements.¹¹

In view of possible health alert situations in the future, it would be important to manage in advance the communication flows between the competent authorities and health professionals, as well as to make official information channels more visible and accessible to the public. Health authorities could also consider the fundamental role played by health personnel in the health education of patients and facilitate their preparation and action in a crisis situation, taking into account the margin of manoeuvre and responsibility that these professionals have in their practice.¹²

In general, the behaviour of the population during the epidemic is revealed to be rational and cautious. Risk groups show a certain degree of concern, although the



study does not detect any manifestations of panic or alarm. The specific needs of risk groups refer to more information on the interpretation of flu symptoms and their relationship with chronic conditions.¹³ At the time of maximum risk perception, the intensification of preventive hygiene measures is observed, correctly assimilated by the population. Regarding the use of the vaccine, a low acceptance of it is observed and skeptical attitudes regarding its manufacture, safety and adverse effects. The unfavorable perception of the vaccine is consistent with the results of other recent studies that raise questions about its usefulness and control in such a short period of time.^{3,12} Additionally, the population's adherence to pharmacological measures is determined by the degree of threat perception¹³ and therefore, if the population does not perceive the epidemic as a real risk - either due to a lack of quality information or mistrust - the probability of being vaccinated is reduced.¹⁴

If we compare the attitude towards non-pharmacological preventive measures with the use of antivirals and vaccination, we observe that the former have been very well assimilated, while in the use of drugs there is a greater need for information and doubts are often generated.⁸ Health personnel appear to be the main source of consultation in the face of these doubts, which makes them the social and health agents of greatest relevance for citizens.

The assessment of the participants on the role of authorities, institutions and professionals reveals once again the need for communication and health coordination, with a direct, constant and responsible involvement of the health authorities that facilitate protocolized and agreed actions by professionals in health centers and hospitals.¹⁵



In conclusion, the population interviewed perceived an initial feeling of vulnerability, as well as confusion and deception at the end of the influenza epidemic, which is explained by the contradictory and unscientific information at the beginning of the epidemic, provided largely by the media and aggravated by the late and uncoordinated action of the health authorities. The authorities must rely on advanced information systems, train health service personnel and organize their work around the coordination and involvement of all sectors (citizens, administrations, companies, etc.) in order to achieve an early warning system adapted to the needs of all social actors.¹⁶

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