Portrayal of diseases in spanish medical tv fiction *Hospital Central* (Telecinco: 2000-2012)

Representación de las enfermedades en la ficción española de médicos Hospital Central (Telecinco: 2000-2012)

A representação das doenças na série de médicos espanhola *Hospital Central* (Telecinco: 2000-2012)

BEATRIZ GONZÁLEZ DE GARAY DOMÍNGUEZ, Universidad de Salamanca, Salamanca, España [bgonzalezgaray@usal.es]
FRANCISCO JAVIER FRUTOS ESTEBAN, Universidad de Salamanca, Salamanca, España [frutos@usal.es]
IRENE DEL ARCO BÓVEDA, Universidad de Salamanca, Salamanca, España [irenedelarco@usal.es]

ABSTRACT

This paper shows the results of a study that analysed how the Spanish TV series *Hospital Central* (Telecinco: 2000-2012) portrays illness: which diseases are shown and which is the profile of the patients. The analytical method used was a quantitative content analysis of a sample of 43 episodes and 256 characters. The research concludes that both the ailments and the patients' profile (age, sex, geographical origin, etc.) portrayed in '*Hospital Central*' do not correspond accurately to medical statistics.

RESUMEN

En el presente artículo se muestran los resultados de una investigación en la que se ha analizado la serie de ficción española Hospital Central (Telecinco: 2000-2012) para conocer qué imagen ofrece de las enfermedades: cuáles aparecen representadas y cuál es el perfil de los personajes que las sufren. El método utilizado en la investigación fue el análisis de contenido sobre una muestra de 43 capítulos y 256 personajes. Se concluye que ni las enfermedades que aparecen representadas ni el perfil de los personajes enfermos en la serie (edad, sexo, procedencia geográfica, etc.) se corresponden totalmente con los datos de incidencia estadística del periodo y lugar de emisión.

RESUMO

No presente artigo mostram-se os resultados de uma investigação em que se analisou a série de ficção espanhola *Hospital Central* (Telecinco: 2000-2012) com o objetivo de conhecer que imagens são oferecidas das enfermidades: quais aparecem representadas e qual é o perfil dos personagens enfermos. O método utilizado nesta investigação foi o da análise de conteúdo sobre uma mostra de 43 capítulos e 256 personagens. Concluiu-se que nem as doenças que aparecem representadas nem o perfil dos personagens doentes da série (idade, sexo, procedência geográfica, etc.) correspondem totalmente com os dados de incidência estatística do período e lugar de emissão.

INTRODUCTION

The choice of the topic of study addresses two fundamental reasons. On the one hand, the importance of television as a communication media and its role in building-representation of reality and, secondly, the scarce presence of such research, especially in the Spanish field.

The Spanish Collegial Medical Organization (OMC, 2007, p. 2) analyzed national series set in hospitals, and the study concluded that the series about doctors "should be realistic –more elderly and fewer children and young people in hospitals, less sophisticated explorations, less miraculous recoveries, less experimental treatments ...–". This alert issued by the medical professionals themselves makes us wonder about the image that this type of television products gives about health and the performance of the health system.

For this purpose, we chose as an object of study the Spanish fiction series *Hospital Central*, which aired for twelve consecutive years in the prime time of Telecinco, becoming the Spanish longest series in its time slot in television history in that country with regard to the number of broadcasted episodes, a total of twenty seasons and three hundred episodes.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Edutainment (Singhal, Cody, Rogers & Sabido, 2004; Singhal & Rogers, 1999) is, as Igartua (2011, p. 71) ensured, a very promising field for health communication, since it uses of research on narrative persuasion (Green, Strange & Brock, 2002; Igartua, 2007; Igartua, Cheng & Lopes, 2003) to engage audiences. From this perspective, research shown here is tries to be useful to analyze the health messages that are poured into entertainment content and thus advance in the knowledge of education and health communication through entertainment, in this case television .

On the other hand, the analysis of the link between television and viewers as to what image they have of diseases and the health system and how television shapes assumptions about social reality (Gerbner & Gross, 1976; Signorielli & Morgan, 1990) is based on the cultivation theory. Specifically, it would be framed in one of three types of analysis that Gerbner and his collea-

gues made (Gerbner, 1995; Igartua, 2002; Signorielli & Morgan, 1996): the analysis of the message system through which it is seek to understand the 'reality model broadcasted on television (Igartua, 2007, p. 77). Fiske (1997, p. 147) also ensures that the television narrative in general, and particularly the one of the series, produces much more open texts than novels or movies. Consequently, the relationship established between society and audiovisual representation is much more interactive and reciprocal than other cultural products. In the same vein, Walkerdine (1998, p. 176) noted that "if fiction can work within the reality, then the same fiction can have real influence".

From this point of view, the study uses the term 'representation', understood as the media representation of social reality (Adoni & Mane, 1984), to conceptualize to what extent the diseases shown in the analyzed television fiction are in the line or offer significant bias regarding the Spanish social reality that serves as a context to the broadcasting. In the same line of content analysis studies conducted by Gerbner and his colleagues, this empirical work aims to determine whether the reality model of diseases that offers Spanish television from a series –from a reference series as *Hospital Central*–corresponds with the statistical incidence data for the period and place of broadcasting: Spain (2000 to 2012).

Several researchers have studied how television fiction about health affects both viewers and the functioning of health services (Brodie et al., 2001; Turow, 1996, 2002). Since the birth of television in Europe, this media has been understood as one of the main sources of educational promotion by the possibilities for dissemination it offers. However, regarding questions of medicine and health, major research shows that the trend of this media is to construct a television reality dissociated of social reality.

The archetypes of characters displayed on the small screen have changed over time. Thus, as Moratal Ibáñez (2012, p. 87-88) explains, fifty years ago characters like Dr. Ben Casey and Dr. Kildare were described as formal professionals with good presence, perfect at all times, not only in their appearance but in all their actions. It was a time when the characters almost always met with this pattern. Since then, over the last twenty years, series with characters like Dr. House or Nurse Jackie have

appeared, selfish, addicts and, in many cases, unprofessional. Characters like these have been analyzed by medical journals and some associations of health professionals, who have criticized the representation that television makes of their profession. "For example, the Nurses Association of New York expressed against the character of Nurse Jackie, claiming it harmed the image of the guild" (Moratal Ibáñez, 2012, p. 87).

Similarly, other studies and doctoral theses have valued the depiction offered in this series about doctors and medicine. According to Padilla (2010), who analyzed the personalities and actions of doctors characters, the profile most represented is a serious person, committed to its work.

On the other hand, some of the published studies have been aimed at assessing how CPR is presented in fiction. In 1996, shortly after the television series *ER* (NBC: 1994-2009) and *Chicago Hope* (CBS: 1994-2000) were premiered, The New England Journal of Medicine published an article (Diem, Lantos & Tulsky, 1996) warning about the unreal and high success rate of cardiopulmonary resuscitation that appeared in this series. After that, it was published that in British medical series like *Casualty* (BBC1: 1986-), *Cardiac* arrest (BBC1: 1994-96), *Medics* (ITV: 1990-1995) (Gordon, Williamson & Lawler, 1998) and Belgian as *Spoed* (VTM: 2000-08) (Van den Bulck & Damiaans, 2004), the initial survival was closer to reality, but not so patient groups and causes of cardiac arrest. Another more recent article on this subject (Harris & Willoughb, 2009), which analyzes *Casualty*, *Holby City* (BBC1: 1999-), *Grey's Anatomy* (ABC: 2005-) and ER, pointed in the same direction.

In Spain, the Spanish Collegial Medical Organization issued in 2007 the report entitled "Image that medical television series offer about doctors and the medical profession in general." It warned of the "risks" of misinformation that people can get watching this kind of series, since, according to them, there should be "more elderly and fewer children and young people in hospitals, less sophisticated scans, less miraculous recoveries, less experimental treatments", which can lead to the creation of false expectations in patients or promoting exploration and unnecessary treatments that increase unnecessary health spending (OMC, 2007, p. 2).

On the other hand, the publication of Pintor et al. (2012), "Medical television series watched by medical students" asked students whether the medical fiction of the series *Grey's Anatomy*, *House M.D.*, and *ER* and *Hospital Central* was close to clinical reality: 84% saw 'usually' or 'always' one to three of the four series, and also considered that most of them had an acceptable scientific and medical quality '. The study also revealed that 26.8% of students surveyed said they had been influenced in some way to choose medicine as a career because of these series.

Another work, developed by the Kaiser Family Foundation (2002) on the impact of health content on television, using the *ER* series as a case study, concluded that viewers gained more knowledge and information on specific issues, compared to those they possessed before watching a particular episode.

Another research on the representation of health in fiction in Portugal (Espanha, 2014) analyzed *House MD*, ER, *Grey's Anatomy* and *Hospital Central*, concluding that they focus on symptoms, treatments and diagnoses, but not on prevention of diseases, in line with "the idea of television dramatization," and that "the reality portrayed in this series is very different from the Portuguese reality" (Espanha, 2014, p. 10).

In short, it seems that the treatment of diseases in television fiction has not been studied in depth in the Spanish area. However, various international research points to the importance of the subject.

METHODOLOGY

The main objective of this research is to know what is the image of diseases showed by the Spanish television series *Hospital Central*. In addition, it is to find out if the representations of these diseases correspond to the statistical incidence data for the period and place of broadcasting: Spain, years 2000-2012.

Taking as reference the findings of the previous investigations on the representation of diseases in fiction, the following assumptions are made:

Hypothesis 1: the diseases depicted in the Spanish fiction series *Hospital Central* do not correspond to the statistical incidence data for the period and place of broadcasting: Spain, 2000-2012.

Hypothesis 2: the profile of the characters who suffer diseases in the series *Hospital Central* does not correspond to the statistical data regarding age, complexion, ethnicity, gender, sexual orientation, nationality, professional field, socioeconomic status, educational level and prognosis.

Within this second hypothesis, the analysis will also be guided by the following research question: what are the attributes of the fiction characters-patients studied in terms of age, complexion, ethnicity, gender, sexual orientation, nationality, professional field, socioeconomic status, educational level and prognosis? Do they correspond to socially hegemonic characteristics such as Caucasian ethnicity, male sex, Spanish nationality, etc.?

To conduct this research we have used content analysis (Igartua & Humanes, 2004, p. 75) as a method. Thus, the first step was to select the sample of our study, that is, the chapters of the series *Hospital Central* that were to be examined. After that, the episodes were analyzed using a codebook specially created for this study. Once all data were extracted, the results were interpreted.

Wimmer and Dominick (1996, p. 170) specify that content analysis " is a method of study and analysis of communication systematic, objective and quantitative, that seeks to measure certain variables". Similarly, for Wimmer and Dominick (1996) there are five fields of application of content analysis, one of them which will apply in the present study: comparison of media content with the "real world". It is therefore a type of analysis that aims to analyze the coherence between the representation given in the media and the situation in reality. According to Igartua and Humanes (2004, p. 79) "data content analysis on a particular aspect will be obtained. Then, this refracted image in the media is contrasted with some description or profile taken from real life. "

Therefore, content analysis, "includes special procedures for processing scientific data" (Krippendorff, 1990, p. 28) and allows quantifying data and providing objective conclusions, supported by numbers that represent real phenomena.

We now explain what were the criteria for selecting our sample and the analysis model to follow (codebook). There was a stratified sample selection, based on the periods in which the seasons that conform the series were broadcasted. Thus, a random season between 1st and 6th (2000-2003) was selected, another sea-son between the 7th and the 13th (2004-2007) and last, one between the 14th and the 20th (2008-2012). We consider it appropriate to make that distinction in three blocks, as it will allow us to observe whether or not changes occur in the representation of diseases depending on the social context in which they have been broadcasted. On the other hand, it ensures a representative, clear and balanced research. Within each of the three selected seasons, all the chapters that compose were included in the sample. The sample was composed of the following three randomly chosen seasons within each of the three blocks of stratification seasons, and all the episodes on each one:

- 1st season. 13 episodes (30 April 2000 to 23 July de 2002): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.

- 11th season. 15 episodes (29 March 2006 to 13 July 2006): 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160.

- 19th season. 15 episodes (25 January 2011 to 11 May 2011): 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283.

Once episodes were defined, the next step was to determine which characters would be analyzed. In this sense and because of the issue that concerns us –the representation of diseases– we have focused only on episodic characters that usually represent the majority of diseases on procedural fiction as the one in question. Through them, pathologies, are usually introduced, because they interpret mainly the sick who come to the hospital in medical dramas as befits the narrative structure of procedural fictions (Brigidi and Comelles, 2015, p. 167) characterized by their auto-conclusive plots, i.e., where the problem or conflict is introduced and fixed in a single chapter (Harriss, 2008; Álvarez & Guarinós, 2011; García Martínez, 2012). Our sample consists of a total of 43 chapters and 256 characters. Considering that the average of episodic characters per episode was 5.9 and that the series has 300 chapters (hence, population or universe: 1786), the margin of sampling error obtained for our selection was 5.7% .

Table 1 is the final sheet that was applied to each of the characters and episodes and includes measures of each of the variables coded a priori is as follows.

Table 1. Analysis sheet of the sample

1. SERIEs		
1.1 GENERAL DATA		
	1.1.1 Chapter title	
	1.1.2 Season number	
	1.1.3 Chapter number	
	1.1.4 Year of broadcasting	
2. CHARACTERIZATION OF THE CHARACTER		
2.1 IDENTIFICATION OF THE CHARACTER		
	2.1.1 Name of the character/patient	
2.2 EXTERNAL ASPECT		
	2.2.1 Age	2.2.1.1 Childhood
		2.2.1.2 Adolescence
		2.2.1.3 Youth
		2.2.1.4 Maturity
		2.2.1.5 Old age
	2.2.2 Complexion	2.2.2.1 Endomorph
		2.2.2.2 Mesomorph
		2.2.2.3 Ectomorph
	2.2.3 Ethnicity	2.2.3.1 Caucasian
		2.2.3.2 Non Caucasian
	2.2.4 Gender	2.2.4.1 Male
		2.2.4.2 Female
2.3 SEXUAL ORIENTATION / SEXUAL TENDENCY		
	2.3.1 Heterosexual profile	
	2.3.2 Homosexual profile	
	2.3.3 Bisexual profile	
2.4 NATIONALITY		
2.5 OCCUPATION		

Continuación Tabla 1

2.6 SOCIOECONOMIC STATUS		
	2.6.1 High class	
	2.6.2 Middle-high class	
	2.6.3 Middle class	
	2.6.4 Middle-low class	
	2.6.5 Low class	
2.7 CULTURAL LEVEL		
	2.7.1 High	
	2.7.2 Medium	
	2.7.3 Low	
2.8 DISEASE		
	2.8.1 Infectious and parasitic diseases	2.8.12 Musculoskeletal diseases
	2.8.2 Neoplasms	2.8.13 Diseases of the genitourinary system
	2.8.3 Diseases of the blood and immune system	2.8.14 Diseases of pregnancy, childbirth and postpartum
	2.8.4 Endocrine diseases	2.8.15 Diseases of the fetus and newborn
	2.8.5 Mental disorder	2.8.16 Congenital diseases, malformations and chromosomal abnormalities
	2.8.6 Central nervous system and sensory organs diseases	2.8.17 Symptoms and clinical observations or laboratory abnormalities not classified elsewhere
	2.8.7 Diseases of the senses	2.8.18 Injuries, wounds, poisoning and other external factors
	2.8.8 Diseases of the cardiovascular system	2.8.19 Other causes of mortality and morbidity in transportation accidents
	2.8.9 Diseases of the respiratory system	2.8.20 Falls, bumps, and various accidents
	2.8.10 Diseases of the digestive system	2.8. 21 Side effects
	2.8.11 Skin diseases	
2.9 PROGNOSIS		
	2.9.1 Healing	
	2.9.2 Good prognosis	
	2.9.4 Bad prognosis	
	2.9.2 Death	

Source: Own elaboration.

To narrow age ranges we use the classifications of Philip Rice (1997, p. 6) and Guy R. Lefrançois (2001, p. 4). Bringing together some of the subdivisions posed by these authors, we delimitate five intervals of age: children (0-11 years), adolescence (12-19), youth (20-39), maturity (40-59) and old age (over 60).

We rely on Knapp (2005, p. 153) for the classification of the complexion and in Malgesini and Jiménez (2000) for ethnicity. We also rely on the International Statistical Classification of Diseases and Related Health Problems (ICD) for the delimitation of diseases.

To measure inter-rater reliability, that Igartua (2006, p. 15) defined as "the degree of consensus or agreement between different coders that have separately analyzed the same material with the same assessment tool", we randomly selected a sample of 14% of the contents, 6 chapters of the 43 analyzed. Each chapter has assigned a number from 1 to 43 and by raffle the following 6 posts were obtained: 33, 9, 35, 4, 12, 6. Therefore:

- Season 1: chapter 4 ("Difficult relationships"), chapter 6 ("Out of game"), chapter 9 ("Blood ties"), chapter 12 ("Do not touch, danger of death").

- Season 19: chapter 273 ("Fear and daring") and chapter 275 ("Show must go on").

After applying the Cohen's kappa coefficient, the following results were obtained: age (0.853), complexion (0.702), ethnicity (1), gender (1), sexual orientation (0.566), nationality (1), occupation (0.621), socioeconomic status (0.241), educational level (0.109), disease (0.707), prognosis (0.703).

Considering a Cohen's kappa coefficient of 0.7, the reliability of coding is good, so the requirement was met for seven of the eleven categories. The remaining four (sexual orientation, occupation, socioeconomic status and educational level) were therefore discarded in the results.

RESULTS
DISEASE

In general, the diseases most represented in *Hospital Central*, regardless of the characteristics of the characters (age, gender, ethnicity, nationality, complexion, etc.) are "injuries, wounds, poisoning and other external factors" and "falls, bumps and various accidents", with a total of 115 characters. Second, "other causes of death" such as car accidents, with 25 characters and, thirdly, "diseases of the cardiovascular system," with 22 characters. By contrast, the less represented

Figure 1. Percentage of diseas more and less represented by the characters in *Hospital Central*
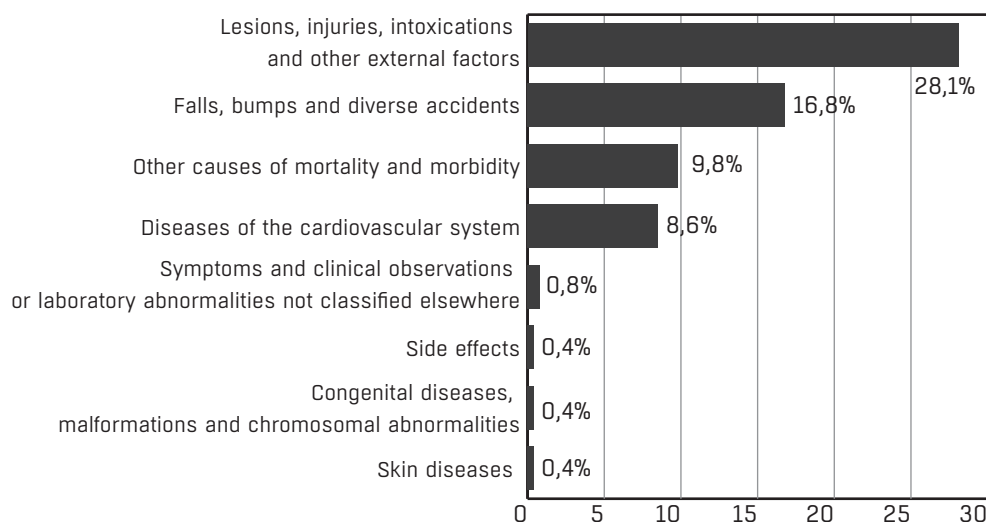
Source: Own elaboration from data obtained from the study.

Table 2. Comparison between percentages of stays by type of disease according to NSO (2013) and *Hospital Central*

DISEASE	NSO	*Hospital Central*
Circulatory apparatus / Diseases of the cardiovascular system	15,3%	8,6%
Tumors / neoplasia	11,9%	4,7%
Respiratory apparatus / respiratory diseases	11,1%	5,9%
Injuries and poisonings / injuries, wounds, poisoning and other external factors	10,2%	28,1%
Gastrointestinal apparatus / digestive system diseases	10%	3,5%
Mental illness / mental disorders	9,5%	1,6%
Episodes of pregnancy and childbirth / diseases of pregnancy, childbirth and postpartum	4,8%	3,9%

Source: Own elaboration from data obtained from the study.

diseases are "skin diseases", "congenital diseases and malformations" and "side effects", each with a representation of a single case (figure 1).

Comparing the above with 2013 data from "Discharges, total stays and average stays by main groups of diseases" of the National Statistics Office (NSO) we can observe significant differences in the more and less common diseases for which patients are admitted to the hospitals.

Thus, there is an overrepresentation of "injuries and poisonings (NSO)/injuries, wounds, poisoning and other external factors (*Hospital Central*)" and underrepresentation of "mental illness (NSO)/mental disorders (HC)", "digestive apparatus (NSO)/digestive system diseases (HC)","respiratory apparatus (NSO)/respiratory diseases (HC)","tumors (NSO)/neoplasia (HC)" and "circulatory system (NSO)/disease cardio circulatory system (HC)" (table 2).

AGE

We found that the age group most represented on the screen are those of 20-39 years, with 95 characters (37.1%) and 40-59 years, with 61 characters (23.8%).

The age group least represented is that of +60 years, with only 29 cases over three seasons (11.3%). However, according to the NSO, on 2013 the age group with more hospital stays were over 55 years, with a total of 20,680,211 (67.2%); followed by the group of 35 to 54

years with 5,528,938 (17.9%). Third is the age group of 15-34 years with 2,821,174 (9.1%) (INE, Encuesta de Morbilidad Hospitalaria, 2014).

COMPLEXION

As for the complexion, we have observed that of the 256 characters in the sample, 188 (73.4%) are ectomorphs, while 54 (21.1%) are endomorphs and only 14 (5.5%) are mesomorphs.

Most children, youth and adults (up to age 39) are part ectomorphs, while in the groups above 40 years we find endomorph characters, especially in those over 60 years . They are not excessive differences between the representation of diseases by type of complexion, all three groups represent a majority of "injuries, wounds, poisoning, other external factors, and falls, bumps and various accidents".

ETHNICITY

We have observe that the number of Caucasians characters is very superior than those of a non-Caucasian ethnicity: of the 256 characters that make our sample, 240 (93.8%) are Caucasian and only 16 (6.2%) of the characters that have appeared on screen are not.

The diseases represented by non-Caucasian ethnic characters are mostly "injuries, wounds, poisoning, external factors, falls and various accidents" (37.5%), followed by "neoplasms" and "diseases of the digestive

system", with 2 cases each (12.5% each). Meanwhile, there is only one case (6.2%) of "infectious and parasitic diseases", "endocrine diseases", "diseases of the senses", " diseases of the cardiovascular system", "diseases of childbirth, pregnancy and postpartum" and "disease of the fetus and newborn."

As for Caucasians, the results also show a majority representation of the group "injuries, wounds, poisoning, external factors, falls and various accidents", with a total of 109 cases (45.4%). Second, there are 25 (10.4%) characters with "other causes of mortality." In third and fourth place, respectively, we have "diseases of the cardiovascular system," with 21 cases (8.8%) and "respiratory diseases", with 15 (6.2%).

Thus, both Caucasians and non-Caucasians characters, have a greatest representation of "injuries, wounds, poisoning, external factors, falls and various accidents." However, the other diseases suffered differ between non-Caucasians and Caucasians.

GENDER

The first thing we observe is the predominance of male characters (62.89%) compared to female characters (37.11%).

The male characters have more "falls, bumps and various accidents", with 48 cases (29.8%), and "injuries, wounds, poisoning and other external factors", with 34 cases (21.1%), followed by "diseases of the cardiovascular system" which have greater male representation, with 16 cases (9.9%). Third, "other causes of mortality and morbidity" with 12 cases (7.5%) and in fourth and fifth place, respectively, "respiratory diseases" with 8 cases (5%) and "neoplasms" with 7 cases (4.3%). The diseases least represented by males are "mental disorders", "skin diseases", "congenital diseases", "symptoms and abnormal observations" and "side effects", all with a single case (0.6%) .

For females, it is observed that the diseases with highest representation in the series are included within "injuries, wounds, poisoning and other external factors", with 24 cases (25.3%). However, the second block of diseases more represented by women is "other causes of mortality and morbidity" with 13 cases (13.7%), followed by "diseases of pregnancy, childbirth and postpartum" with 10 cases (10 ,5%).

Although data regarding representation of diseases are similar by gender, the most significant and obvious difference is that women represent the diseases of pregnancy.

Meanwhile, the NSO data recorded the following. In men, the "diseases of the cardiovascular system" are those that have more admissions, with 2,595,990. Second, the "neoplasms" with 2,084,957 admissions. Third, the "diseases of the respiratory system" with 1,974,048. However, the "diseases of the digestive system" with 1,691,393; "mental disorders" with 1,608,734 admissions; and "injuries, wounds, poisoning, falls, bumps and various accidents" with 1,470,028, appear respectively on the fourth, fifth and sixth place. This last figure is striking, since in our study " injuries, wounds, poisoning, falls, bumps and various accidents" are first. However, this may be due to own the 'spectacularity' of this series of fiction; i.e., accidents, fires, shootings and fights are resources very used to capture the attention of the audience and maintain the dramatic tension.

In the case of women, we find more differences, since according to the NSO, the first and second place, respectively, are also occupy by the "diseases of the cardiovascular system" with 2,102,897 admissions, and "neoplasms" with 1,562. 627, as in the case of men. Third, the data shows that women suffer more "injuries, wounds, poisoning, other external factors, falls, bumps and various accidents", with 1,653,203 admissions from these causes. The "diseases of pregnancy, childbirth and postpartum" occupy the fourth place with 1,462,259 admissions, while there are 1,442,238 admissions by "respiratory diseases" (fifth place) and 1,396,214 by "diseases of the digestive system" (sixth place).

Therefore, the gender representation in the series is similar to the statistical data. The biggest difference has been found in the data provided by the NSO compared to those of *Hospital Central* is that women suffer large proportion of "neoplasms" than what is represented in the series (there are only 5 cases) and the men suffer "mental disorders" also in a significantly higher proportion than the series shows (1 case).

NATIONALITY

Of the 256 listed in our sample, 235 are Spanish (91.8%), the rest of other nationalities. Most of the characters who are not Spanish belong to different Latin American countries: Cuba (3 cases), Peru (2 cases),

Colombia (2 cases), Brazil (2 cases), Chile (1 case), Argentina (1 case) , Venezuela (1 case) and Dominican Republic (1 case), although the highest representation by nationality, after the Spanish, is the Romanian with 4 cases (1.6%). Behind that, two Senegalese (0.8%), 1 Moroccan (0.4%) and 1 British (0.4%) appear.

According to the NSO, Spain had in 2013 11.7% of foreign population, and the percentage of non-Spanish episodic characters in *Hospital Central* was 8.2%, indicating a slight under-representation of this group

The characters from other countries that appear in *Hospital Central*, like the Spaniards, mostly suffer from diseases related to "injuries, wounds, poisoning, other external factors, falls, bumps and various accidents". However, that in all cases (4) Romanian characters appear representing "diseases of childbirth, pregnancy and postpartum" (2 cases) or "disease of the fetus and newborn" (2 cases). On the other hand, the proportion of foreigners suffering from "infectious and parasitic diseases" is somewhat higher than that of Spanish: 1 Brazil (4.7% foreigners), 5 Spaniards (2.1% Spanish).

Figure 2. Total percentage of sick characters according to their prognosis
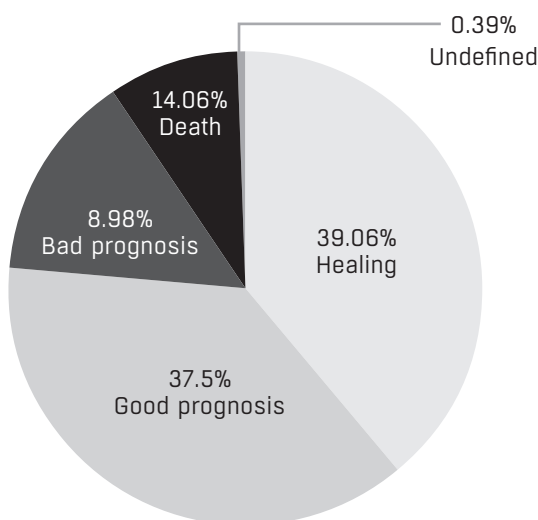
Source: Own elaboration from data obtained from the study.

PROGNOSIS

Of the 256 characters in the sample, 100 (39.1%) were cured, 96 (37.5%) have a good prognosis, 23 (9.0%) have a bad prognosis, 36 (14.1%) die and only 1 (0.4%) has an undefined prognosis. So we can say that a total of 196 characters (76.6%) were cured or improved, while 36 (14.1%) die (figure 2).

By diseases, the first group that accumulates most cases is "injuries, wounds, poisoning, other external factors" and "falls, bumps and various accidents" (with 72 and 43 characters, respectively), representing a total of 115 characters, which are divided into 91 characters that end up being cured or have a good prognosis, 2 have a bad prognosis and 22 died. Secondly, we find "other causes of mortality and morbidity" (which include accidents in transportation) where there are 18 characters that are cured or have a good prognosis, 3 have a bad one and 4 die: a total of 25 characters . Third are the "diseases of the respiratory system" represented by 22 characters, of which 15 are cured or have good prognosis, 4 have a bad prognosis and 3 died.

Disease groups who accumulate more deaths are, in this order: "injuries, wounds, poisoning, other external factors" and "falls, bumps and various accidents", with 22 deaths, "neoplasms" with 5, "other causes of death and morbidity" with 4 deaths and fourthly, the "cardio circulatory system diseases" with 3 deaths. Meanwhile, diseases that have more cases of bad prognosis are "neoplasms" with 5 cases, " cardio circulatory system diseases" with 4 cases and "respiratory diseases", along with "other causes of mortality and morbidity", with 3 cases each.

To compare these data with the data from NSO on rates of cure, improvement and death it should be noted that this statistic does not collect the data referred to "bad prognosis", so that data is beyond comparison. In addition, we note that the good prognosis and healing are data presented jointly and therefore the presentation of our results have also followed that procedure.

Considering the above, we note as a general fact that total of all diseases adds to 4,637,427 hospital admissions, of which 4,267,494 people were discharged (92%), while 184,624 people (4%) died. The other 185,309 people (4%) were transferred to other hospitals, but that figure is beyond our study, since it cannot be compared with the data obtained from the series, as

we have only considered episodic characters representing diseases in specific chapters. Therefore, the majority of patients (92%) is cured or improved, whereas a minority (8%) is transferred to other hospital centers or dies. The figure for deaths in the studied television fiction is, however, higher as 14.06% of the episodic characters dies.

According to these NSO data, the diseases that have a higher rate of discharge are "diseases of the digestive system" with 95% of cases (537,541 of 565,782 total admissions). Something similar is observed in the case of *Hospital Central*, since 100% recovers or has a good prognosis.

Secondly, there are the "respiratory diseases", with 89% of patients who are discharged (452,278 of 506,573 cases), a figure slightly higher than what seen on the screen, where 72% of those characters afflicted with these diseases are cured or has a good prognosis.

Meanwhile, the "injuries, wounds, poisoning, other external factors" have cure or improvement rates slightly higher in the statistics that on the screen (NSO 91%/88.9% HC).

Finally, the "neoplasms" have a high percentage of discharges, 86% (390,050 of 452,013 admissions), but in the series we see only 2 cases of improvement, compared with 5 deaths and 5 others bad prognosis, which represents 17%.

The main causes of death according to the NSO are tumors (24.8% of deaths), diseases of the circulatory system (21.6%) and respiratory apparatus (18%), while in *Hospital Central* it is falls, bumps and various accidents (32.6%), injuries, wounds, poisoning and other external factors (22.2%), neoplasms (13%), other causes of mortality and morbidity (11.1%) and diseases of the cardiovascular system (8.3%).

CONCLUSIONS AND DISCUSSION

This research has analyzed the representation, through the characters, of diseases in the Spanish fiction series *Hospital Central*. Given the results, the conclusions reached in each of the hypotheses are now discussed.

The first hypothesis, which anticipated that diseases represented in the series *Hospital Central* do not correspond with the data of statistical incidence of the period and place of broadcasting, is partially corroborated, since although not all diseases appearing represented in the series correspond entirely with data statistical incidence, it is true that in some diseases there is similar representation.

In this regard, there is an overrepresentation of "injuries, wounds, poisoning and other external factors" and "falls, bumps and various accidents" as well as deaths. Both figures are possibly related to the desire to introduce spectacularity and more visual elements in the plots, thus engaging the audience. At the other extreme is the underrepresentation of "mental disorders", possibly related also with the little visuality of these anomalies as well as the social stigma attached to them, that make them taboo.

The data obtained are consistent with previous studies regarding the spectacular or dramatic pathologies and treatments shown (Espanha, 2014; Harris & Willoughb, 2009; OMC, 2007; Diem, Lantos & Tulsky, 1996).

The second hypothesis, which anticipated that the profile of the characters who suffer diseases in the series *Hospital Central* does not correspond to the statistical data regarding age, complexion, ethnicity, gender, sexual orientation, nationality, professional field, socioeconomic status, cultural level and prognosis, is confirmed, because although some data on the profile of the sick characters correspond to the statistical data in certain sections, in most cases it does not. Categories of sexual orientation, professional environment, socioeconomic and cultural level were finally eliminated because the intercoding reliability standards were not met.

On the other hand, we respond to the research question regarding the endowment of sick characters with socially dominant characteristics, stating that *Hospital Central* shows characters who have mostly hegemonic characteristics (socially acceptable) within the context of broadcasting: Caucasian ethnicity, ectomorph complexion, male and Spanish nationality.

Significantly, there is a strong underrepresentation of the elderly, despite being those with more diseases. There is a prevalence of a profile patient who responds to culturally hegemonic groups of the society in which the fiction is broadcasted: young (between 20 and 39 years), Caucasian, men, ectomorphs and Spanish.

These results are also consistent with previous warnings about the discursive exclusion of the group most affected by health problems, the elderly (OMC, 2007), as well as multiple investigations into television representations of hegemonic social groups (Barker, 2003; Dines & Humez, 2003; Mastro & Grennberg, 2000; Signorielli & Bacue, 1999; Greenberg & Collette, 1997, etc.).

The imbalances found between media representation and statistical incidence can, according to academic trends as the Theory of Culture (Gerbner & Gross, 1976; Signorielli & Morgan, 1990), generate erroneous ideas about the incidence of diseases, prognosis or the profile of people who suffer from them. This is also reflected on others studies on health-related content on television (Byrd-Bredbenner, Finckenor & Grasso, 2003; Bahk, 2001; McCreary & Sadava, 1999). In this line, the sociologist Arthur W. Frank states (Glynn, 2000, p. 48) that there has been a shift of the real body for the screen body in medical dramas that can be associated with the Baudrillardian culture of hyperrealistic simulation, the Debordian society of the spectacle and beautification of suffering on television (Chouliaraki, 2006).

Therefore, it is essential to study the content of audiovisual entertainment on health as a way to detect possible disorders between popular beliefs or prejudices and statistical data. In this sense, this research serves to confirm the importance of edutainment as a tool to tackle social and health challenges (Moyer-Guse, 2008; Igartua & Vega, 2014). It positions in line with other studies using the analysis of medical dramas in their edutainment role (Hether et al., 2008) and, in general, indicate the potential of TV entertainment to educate regarding health matters (Brodie et al., 2001; Sharf, Freimuth, Greenspon & Plotnick, 1996; Larson, 1991).

Regarding the limitations of this study, on the one hand, it could be interesting to difference between emergency and programmed admissions (in the series and hospitals) to check whether the profusion of diseases caused by accident injuries, falls, etc. responds to the entry form to the hospital (emergency or planned) as well as a possible spectacularity sought to engage the audience. However, it is complex to perform such a calculation in the case of fiction, because often episodic frames begin *in medias res*, i.e., when the doctor is already treating the patient and it cannot be established whether it was derived from emergency or a scheduled appointment.

On the other hand, we have considered data of hospital morbidity in Spain in 2013, since the series ended on 27 December 2012. However, it would have been more accurate to make the average of every year of broadcasting, 2000 -2012. However, certain changes in statistical measurements of the survey over the years and the realization that the data has not changed significantly in the period analyzed (the order of the causes of morbidity, admissions, deaths, etc. remains constant), led us to take the last year as a reference. In addition, the main objective was to analyze the data of the series for a broadly comparison about how certain aspects are under or overrepresented.

In the development of derived future research other geographical locations could be addressed, conduct studies of reception on the series to check the effect of the studied contents, deepen variables that have been left out of the study (as certain characteristics of the profile of the characters suffering from diseases) or apply them to other audiovisual products.

In short, the Spanish television fiction on doctors *Hospital Central* reflects the most representative diseases of the society in which it occurs, but in the narrative framework of a fictional series whose main objective is not to accurately show the reality but to entertain and capture the attention of viewers, so both the incidence and how to represent the diseases, and the profile of the sufferer are affected and may imply distortions in the collective imagination.

FOOTNOTES

1. La CIE es publicada por la Organización Mundial de la Salud. Se utiliza a nivel internacional para fines estadísticos relacionados con la mortalidad, los sistemas de reintegro y soportes de decisión automática en medicina. La CIE es la clasificación central de la *WHO Family of International Classifications* (WHO-FIC) –en español, la *Familia de Clasificaciones Internacionales de la OMS*–.

REFERENCES

Adoni, H. & Mane, S. (1984). Media and the social construction of reality toward an integration of theory and research. *Communication Research, 11*(3), 323-340. doi: 10.1177/009365084011003001

Álvarez, I. G. & Guarinos, V. (2011). 'Kate, we have to go back'. Idas y vueltas de la nuevas estructuras narrativas del género seriado ficcional en la hipertelevisión ['Kate, we have to go back'. Turns and comebacks of the new narrative structures of the fiction gender in hipertelevision]. In Pérez Gómez (Coord.), Previously in *Estudios interdisciplinarios sobre la ficción televisiva en la Tercera Edad de Oro de la Televisión* [Interdisciplinary studies on televisión fiction in the Third Golden Age of Television] (pp. 367-383). Sevilla: Biblioteca de la Facultad de Comunicación de la Universidad de Sevilla.

Barker, C. (2003). *Televisión, globalización e identidades culturales* [Television, globalization and cultural identities]. Barcelona: Paidós.

Bahk, C. M. (2001). Drench effects of media portrayal of fatal virus disease on health locus of control beliefs. *Health Communication, 13*(2), 187-204. doi: 10.1207/S15327027HC1302_4

Brigidi, S. & Comelles, J. M. (2015). Entre etnografía y didáctica: La construcción de la experiencia sobre el proceso salud, enfermedad y atención en los "medical dramas" [From ethnography to education: The construction of experience in the health-illness-treatment cycle in medical dramas]. *Panace@: Revista de Medicina, Lenguaje y Traducción, 16*(42), 165-176. Retrieved from http://www.medtrad.org/panacea/IndiceGeneral/n42_tribuna-SBrigidiJComelles.pdf

Brodie, M., Foehr, U., Rideout, V., Baer, N., Miller, C., Flournoy, R. & Altman, D. (2001). Communicating health information through the entertainment media. *Health Affairs, 20*(1). Retrieved from http://content.healthaffairs.org/content/20/1/192.full

Byrd-Bredbenner, C., Finckenor, M. & Grasso, D. (2003). Health related content in prime-time television programming. *Journal of Health Communication, 8*(4), 329-341. doi: 10.1080/10810730305721

Chouliaraki, L. (2006). The aestheticization of suffering on television. *Visual communication, 5*(3), 261-285. doi: 10.1177/1470357206068455

Diem, S. J., Lantos, J. D. & Tulsky, J. A. (1996). Cardiopulmonary resuscitation on television – miracles and misinformation. *New England Journal of Medicine, 334*(24), 1578-1582. doi: 10.1056/NEJM199606133342406

Dines, G. & Humez, J. M. (2003). *Gender, race, and class in media: A text-reader.* Thousand Oaks, CA: Sage.

Espanha, R. (2014). *Ficción televisiva y construcción de representaciones sobre salud en Portugal* [Television fiction and health portrayals construction in Portugal]. Retrieved from http://portalcomunicacion.com/uploads/pdf/54_esp.pdf

Fiske, J. (1997). *Television culture.* London: Routledge.

García Martínez, A.N. (2012) Una máquina de contar historias. Complejidad y revolución del relato televisivo [A story-telling machine. Complexity and revolution of the TV story-telling]. In *La televisión en España: informe 2012* [TV in Spain: 2012 report] (pp. 225-246). Barcelona: UTECA.

Gerbner, G. (1995). Television violence. The power and the peril. In G. Dines & J. M. Humez (Eds.), *Gender, race and class in media. A text-reader* (pp. 547-557). Thousand Oaks, CA: Sage.

Gerbner, G. & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication, 26*, 173-199. doi: 10.1111/j.1460-2466.1976.tb01397.x

Gordon, P. N., Williamson, S. & Lawler, P. G. (1998). As seen on TV: observational study of cardiopulmonary resuscitation in British television medical dramas. *BMJ: British Medical Journal, 317*(7161), 780. Retrieved from http://www.jstor.org/stable/25180424?seq=1#page_scan_tab_contents

Green, M. C.; Strange, J. J. & Brock, T. C. (2002). *Narrative impact. Social and cognitive foundations.* Mahwah, NJ: Lawrence Erlbaum Associates.

Greenberg, B. S. & Collette, L. (1997). The changing faces on TV: A demographic analysis of network television's new seasons, 1966-1992. *Journal of Broadcasting & Electronic Media, 41*(1), 1-13. doi: 10.1080/08838159709364386

Glynn, K. (2000). *Tabloid culture: Trash taste, popular power, and the transformation of American television*. Durham and London: Duke University Press.

Harris, D. & Willoughby, H. (2009). Resuscitation on television: Realistic or ridiculous? A quantitative observational analysis of the portrayal of cardiopulmonary resuscitation in television medical drama. *Resuscitation, 80*(11), 1275-1279. doi: 10.1016/j.resuscitation.2009.07.008

Harriss, C. (2008). Policing Propp: Toward a textualist definition of the procedural drama. *Journal of Film and Video, 60*(1), 43-59. doi: 10.1353/jfv.2008.0001

Hether, H. J., Huang, G. C., Beck, V., Murphy, S. T. & Valente, T. W. (2008). Entertainment-education in a media-saturated environment: Examining the impact of single and multiple exposures to breast cancer storylines on two popular medical dramas. *Journal of health communication, 13*(8), 808-823. doi: 10.1080/10810730802487471

Igartua, J. J. (2002). El análisis del sistema de mensajes: hacia una definición de la violencia desde el proyecto de Indicadores Culturales [Message system analysis: Towards a definition of violence based on the Cultural Indicators' project]. *Cultura y Educación, 14*(1), 43-54. doi: 10.1174/113564002317348101

Igartua, J. J. (2006). *Métodos cuantitativos de investigación en comunicación* [Quantitative Research Methods in Communication]. Barcelona: Bosch.

Igartua, J. J. (2007). *Persuasión narrativa* [Narrative persuasion]. Alicante: Editorial Club Universitario.

Igartua, J. J. (2011). Mejor convencer entreteniendo: comunicación para la salud y persuasión narrativa [It's better to convince entertaining: Health communication and narrative persuasion]. *Revista de Comunicación y Salud, 1*(1), 69-83. Retrieved from http://revistadecomunicacionysalud.org/index.php/rcys/article/view/12

Igartua, J. J.; Cheng, L. & Lopes, O. (2003). To think or not to think: two pathways towards persuasion by short films on Aids prevention. *Journal of Health Communication, 8*(6), 513-528. doi: 10.1080/716100420

Igartua, J. J. & Humanes, M. L. (2004). *Teoría e investigación en comunicación social* [Theory and research in social communication]. Madrid: Síntesis.

Igartua, J. J. & Vega, J. (2014). Ficción televisiva, edu-entretenimiento y comunicación para la salud [TV fiction, edu-entertainment and communication for health]. *Revista de Estudios de Juventud, 106*, 15-29. Retrieved from http://www.injuve.es/sites/default/files/2014/47/publicaciones/1 Ficción televisiva y edu-entretenimiento.pdf

INE, Encuesta de Morbilidad Hospitalaria a 26 de noviembre de 2014 [Hospital Morbidity Survey on November 26, 2014]. Nota de prensa. Instituto Nacional de Estadística, Madrid, 2015. Retrieved from http://www.ine.es/prensa/np878.pdf

INE, Encuesta de Morbilidad Hospitalaria año 2013 [Hospital Morbidity Survey 2013]. Instituto Nacional de Estadística. Retrieved from http://www.ine.es/dynt3/inebase/index.htm?type=pcaxis&path=/t15/p414/a2013/&file=pcaxis

INE, Padrón Municipal [Register of inhabitants]. Instituto Nacional de Estadística, Madrid, 2013. Retrieved from http://www.ine.es/jaxi/Datos.htm?path=/t20/e245/p08/l0/&file=01001.px

Kaiser Family Foundation. (2002). *The Impact of TV's Health Content: A Case Study of ER Viewers, Survey Snapshot.* Oakland, CA: Kaiser Family Foundation Survey.

Knapp, M. L. (2005). *La comunicación no verbal: el cuerpo y el entorno* [Essentials of nonverbal communication]. Barcelona: Paidós.

Krippendorff, K. (1990). *Metodología de análisis de contenido. Teoría y práctica* [Content analysis. An introduction to its methodology]. Barcelona: Paidós.

Larson, M. S. (1991). Health related-messages embedded in prime-time television entertainment. *Health Communication, 3*(3), 175-184. doi: 10.1207/s15327027hc0303_3

Lefrançois, G. R. (2001). *El ciclo de la vida* [The cycle of life]. Mexico: Thompson

McCreary, D. R. & Sadava, S. W. (1999). Television viewing and self-perceived health, weight, and physical fitness: Evidence for the cultivation hypothesis1. *Journal of Applied Social Psychology, 29*(11), 2342-2361. doi: 10.1111/j.1559-1816.1999.tb00114.x

Malgesini, G. & Jiménez, C. (2000). *Guía de conceptos sobre migraciones, racismo e interculturalidad* [Guide of concepts about migration, racism and interculturality]. Madrid: Catarata.

Mastro, D. E. & Greenberg, B. S. (2000). The portrayal of racial minorities on prime time television. *Journal of Broadcasting & Electronic Media, 44*(4), 690-703. doi: 10.1207/s15506878jobem4404_10

Moratal Ibáñez, L. M (2012). El impacto de las series médicas [Impact of medical TV-series]. *Medicina y cine, 8*(3), 87-88.

Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: explaining the persuasive effects of entertainment-education messages. *Communication Theory, 18*(3), 407-425. doi: 10.1111/j.1468-2885.2008.00328.x

Neuendorf, K. (2002). *The content analysis guidebook.* Thousand Oaks, CA: Sage.

OMC (2007). *Informe de la Comisión Central de Deontología sobre la imagen que los seriales médicos de televisión ofrecen sobre los médicos y la profesión médica en general* [Report of the Central Ethics Committee about the image that medical television series offer about doctors and the medical profession in general]. Organización Médica Colegial, Madrid, 2007. Retrieved from http://www.comsor.es/word/informe%20sobre%20seriales%20medicos-2.pdf

Padilla, G. (2010). *Las series de televisión sobre médicos (1990-2010). Tres enfoques: comunicación interpersonal, comunicación institucional, relaciones entre ética, moral y política* [Tesis doctoral] [Medical TV series (1990 - 2010): Three approaches. Interpersonal communication, institutional communication and relations between ethics, moral and political (Doctoral thesis)]. Madrid: Universidad Complutense de Madrid.

Pintor, E., Rubio, M., Herreros, B., Corral, O., Rueda, L. & Vivas, E. (2012). Series médicas en televisión vistas por estudiantes de medicina [Medical television series seen by students of medicine]. *Educación médica, 15*(3), 161-166. Retrieved from http://scielo.isciii.es/scielo.php?pid=S1575-18132012000300009&script=sci_arttext

Rice, F. P. (1997). *Desarrollo humano. Estudio del ciclo vital* [Human development: A life-span approach]. Mexico: Prentice-Hall Hispanoamericana.

Sharf, B. F., Freimuth, V. S., Greenspon, P. & Plotnick, C. (1996). Confronting cancer on thirty something: Audience response to health content on entertainment television. *Journal of Health Communication, 1*(2), 157-172. doi: 10.1080/108107396128121

Signorielli, N. & Bacue, A. (1999). Recognition and respect: A content analysis of prime-time television characters across three decades. *Sex roles, 40*(7-8), 527-544. doi: 10.1023/A:1018883912900

Signorielli, N., & Morgan, M. (1990). *Cultivation analysis: New directions in media effects research.* Newbury Park, CA: Sage Publications.

Signorielli, N. & Morgan, M. (1996). Cultivation analysis: research and practice. In Salwen, M. B. & Stacks, D. W. (Eds.), *An integrated approach to communication theory and research* (pp. 111-126). Mahwah, NJ: Lawrence Erlbaum Associates.

Singhal, A., Cody, M. J., Rogers, E. M. & Sabido, M. (2004). *Entertainment-education and social change. History, research and practice.* Mahwah, NJ: Lawrence Erlbaum Associates.

Singhal, A. & Rogers, E. M. (1999). *Entertainment-education. A communication strategy for social change.* Mahwah, NJ: Lawrence Erlbaum Associates.

Turow, J. (1996). Television entertainment and the US health-care debate. *The Lancet, 347*(9010), 1240-1243. doi: 10.1016/S0140-6736(96)90747-3

Turow, J. (2002). *As Seen on TV: Health Policy Issues in TV's Medical Dramas.* Oakland, CA: Kaiser Family Foundation Report, University of Pennsylvania.

Van den Bulck, J. & Damiaans, K. (2004). Cardiopulmonary resuscitation on Flemish television: Challenges to the television effects hypothesis. *Emergency medicine journal, 21*(5), 565-567. doi: 10.1136/emj.2003.010819

Walkerdine, V. (1998). Sujeto a cambio sin previo aviso: la psicología, la posmodernidad y lo popular [Subject to change without notice: Psychology, postmodernity and the popular]. In J. Curran, D. Morley & V. Walkerdine, (Comp.), *Estudios culturales y comunicación: análisis, producción y consumo cultural de las políticas de identidad y el postmodernismo* [Cultural studies and communication: Analysis, production and cultural consumption of the politics of identity and postmodernism] (pp. 153-186). Barcelona: Paidós.

Wimmer, R. D. & Dominick, J. R. (1996). *La investigación científica de los medios de comunicación: una introducción a sus métodos* [Mass media research: An introduction]. Barcelona: Bosh.

ABOUT THE AUTHORS

Beatriz González de Garay Domínguez, Assistant Professor Ph.D. at the Faculty of Social Sciences of the Universidad de Salamanca and member of the Center for Audiovisual Content. Graduated with Honors Thesis in Audiovisual Communication at the Universidad Carlos III of Madrid (2007) and European Ph.D. from the Universidad Complutense (2012). She has also worked as a script analyst and assistant director.
Francisco Javier Frutos Esteban, Professor at the Faculty of Social Sciences of the Universidad de Salamanca and Director of the Master in Audiovisual Communication Research. Previously, he developed his work as a photographer and manager of audiovisual content primarily in the International Valladolid Film Festival and the Film Library of Castilla and Leon. He is a member of the Center for Audiovisual Content.
Irene del Arco Bóveda, Graduated in Audiovisual Communication from the Universidad de Salamanca in 2015. She has worked as a writer and broadcaster on Radio Intereconomía and Radio Nacional de España. Currently, she is completing the Master in Multimedia Journalism at the Universidad Complutense of Madrid and works in the press department of the Casa de América (Madrid).