

INTRODUCTION

Over the last decades, medicine's public agencies and health professionals have significantly improved pharmacovigilance risk communication to the public.¹ Risk communication is complex and can affect behaviors, treatment preferences and decisions of the general public, patients and medical doctors. Risk communication about medicines must entail a previous assessment phase to listen and understand all the stakeholders. This knowledge enables options and strategies that facilitate concise and understandable communication, and decrease the likelihood of undesirable public reactions. In previous studies, education level has proven to be a determinant of behaviors and preferences related to the communication about drug and medication safety (MS).^{2,3}

OBJECTIVES

The present study is focused on MS communication and aims to identify, in a Portuguese public sample: **1)** the main information sources about MS and their perceived reliability and efficacy in transmitting information to the public, including the Portuguese public health and regulatory authorities on MS (DGS and INFARMED); **2)** the public needs and preferences on risk information and the behavioral consequences of risk awareness; **3)** the influence of the educational level on the preferences and perceptions related to medicine risk communication.

METHODS

In this cross-sectional observational study, data was collected using a convenience sample of 847 participants of the Lisbon district, who completed a questionnaire previously used in a European study⁴, assessing perceptions, preferences and behaviors about public information on MS as well as sociodemographic data. Bivariate analysis was conducted with chi-square test using SPSS statistical software package version 23. Study was approved by the ESTeSL Ethic Committee.

RESULTS

The sample has a mean age of 35.3 years (± 14.3), 65% are women, 55% are single and 48% have a college degree.

SOURCES OF INFORMATION ON MS AND LEVEL OF EDUCATION

- A large percentage of the respondents (92,3%) know the Portuguese regulatory authority on medicines (INFARMED). Those with a high level of education have a slightly higher knowledge about INFARMED ($p=0.007$).
- The most popular sources of information about drug and MS were pharmacies, doctors, INFARMED website and Internet (Fig.1)
- The sources considered as more trustworthy were doctors, DGS, hospitals/medical centers and INFARMED. Internet and Media are used by a significant percentage of the public despite they are seldom considered as unreliable. INFARMED ($p=0.005$) and DGS ($p<0.001$) credibility increases with the level of education.
- People with lower education level reported INFARMED as more effective in providing information about medicines than those with higher levels of education ($p=0.001$). Level of education was not associated with the perception of DGS efficiency in communicating with the general public.

NEEDS, PREFERENCES AND BEHAVIORS RELATED TO MS INFORMATION

- Most people (64%) would raise their confidence in medicines if they receive more information about drug and MS, and this effect is stronger in people with lower educational level ($p=0,05$).
- A great number of people (47,6%) would like to receive information immediately after the first sign of a drug safety problem, but 47,4% think this information should be given only after scientific investigation / confirmation.
- Concerning the course of action to take after receiving information about a safety problem with a medicine they were taking, 44,7% of the respondents would stop taking the medicine, and 44,6% would seek additional advice.

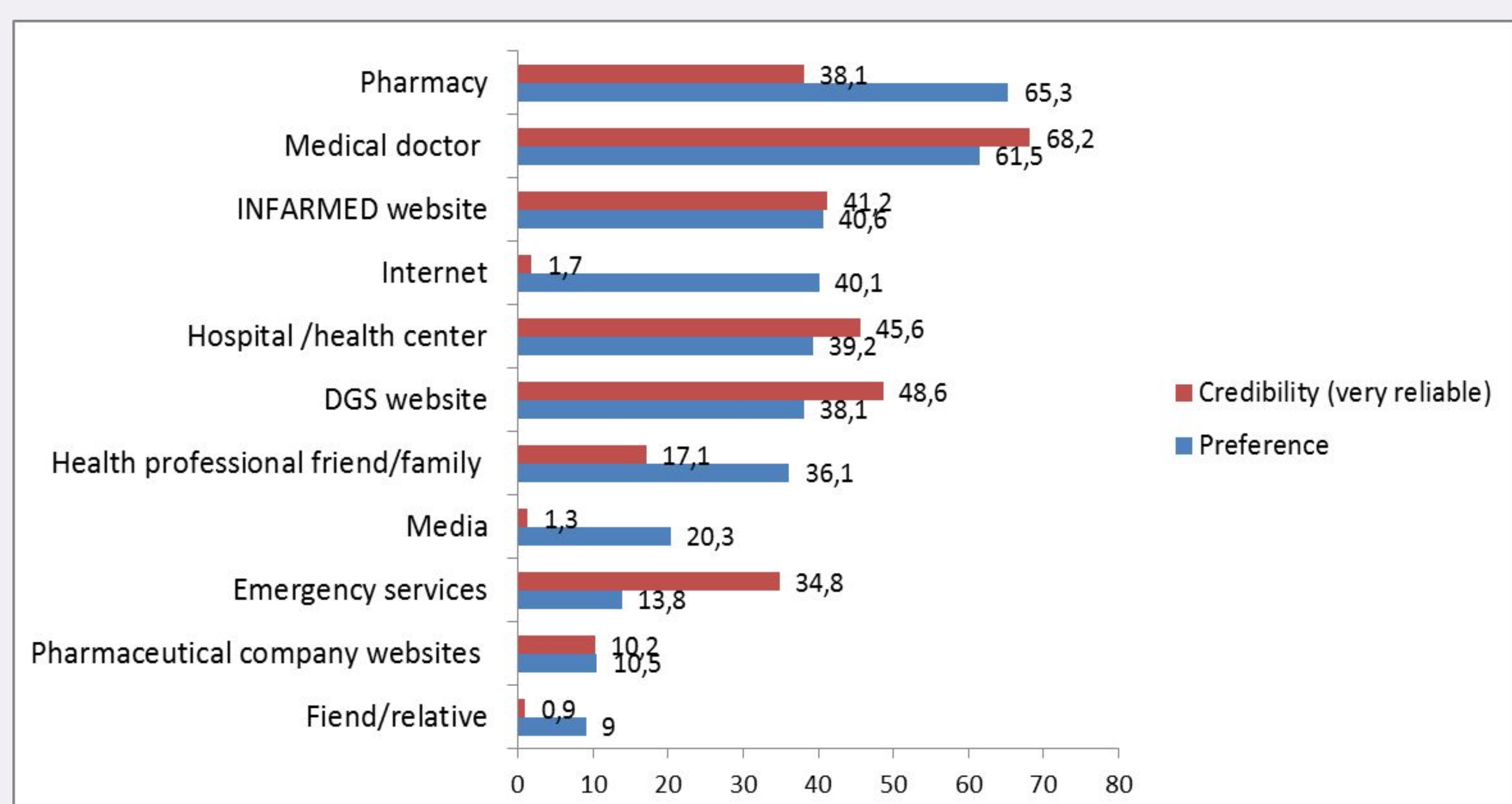


Fig 1. Mean averages of preferences and credibility of information sources about MS

CONCLUSIONS

- The present study is the first Portuguese study to assess public characteristics related to MS communication. The knowledge and credibility given to the national public agencies responsible for divulging MS information to the public (INFARMED and DGS) are higher than in some other European countries.⁴ Other preferred sources of information are doctors, pharmacies, and internet, which is in line with other studies.² Health professionals need also to take into account what the public perceives from the information retrieved from the media.
- To improve pharmacovigilance communication, actions targeted to people with lower educational levels are needed to: 1) increase the awareness and credibility of INFARMED; 2) enhance information about MS as a way to generate more confidence in medicines.

REFERENCES

1. Fischhoff B, Brewer NT, Down JS. Communicating risks and benefits: An Evidence-Based User's Guide. Fischhoff B, Brewer NT, Down JS, editors. Silver Spring: Food and Drug Administration (FDA), US Department of Health and Human services; 2011; 2. Maclennan K, Brounéus F, Parkin L. Public Knowledge and Desire for Knowledge about Drug Safety Issues: A Survey of the General Public in New Zealand. Pharmaceut Med. 2016;30(6):339–48; 3. Ziegler DK, Mosier MC, Buenaver M, Okuyemi K. How much information about adverse effects of medication do patients want from physicians? Arch Intern Med. 2001;161(5):706–13; 4. Boudier F, Way D, Lofstedt R, Evensen D. Transparency in Europe: A Quantitative Study. Risk Analysis 2015;35(7):1210-29.