

## TOBACCO ADDICTION IN TEXTBOOKS FROM 16 COUNTRIES: PHYSICAL, PSYCHOLOGICAL AND SOCIAL EFFECTS

342

**Graça S. Carvalho**  
CIEd  
Institute of Education  
University of Minho  
Braga, Portugal  
[graca@ie.uminho.pt](mailto:graca@ie.uminho.pt)

**Artur Gonçalves**  
Palmeira School Group  
and  
University of Minho  
Braga, Portugal  
[professorartur@hotmail.com](mailto:professorartur@hotmail.com)

**Catarina Dantas**  
Externato Carvalho  
Araújo  
Braga, Portugal  
[catarina.dantas@sapo.pt](mailto:catarina.dantas@sapo.pt)

### ABSTRACT

Smoking is a serious society problem that affects persons physically, psychologically and socially. The textbook is strongly rooted in school education and works like a "screen" that links the space between the pupil and the external reality. It provides pupils with handy information, well structured and systematized contents, in order to facilitate them to build their own learning. In this context, a comparative analysis of the information conveyed by textbooks from the 16 countries was carried out. They differ for their geographical distribution and their historical, political and socio-cultural development: 12 European countries (Germany, Cyprus, Estonia, Finland, France, Hungary, Italy, Lithuania, Malta, Poland, Portugal and Romania), 3 from Africa (Morocco, Mozambique and Senegal) and 1 from the Middle East (Lebanon). Results showed that Morocco is the only country which textbooks do not address the smoking issue. Only 11 countries present the three dimensions of tobacco consumption (physical, psychological and social effects), some omit the psychological dimension, others the social one and others both. The Finnish textbook is the one presenting the smoking issue in a rather balanced way. The results show differences in political, cultural and curriculum with regard to the way textbooks of different countries explore the tobacco problematic.

**Keywords:** *Health education, smoking prevention, textbooks, cultural diversity.*

### INTRODUCTION

Epidemiological studies have confirmed the association between smoke consumption and several diseases such as those of the digestive, urinary, cardiac and respiratory tract as well as oncologic and psychosocial diseases. It is in such a high proportion that today tobacco consumption is the leading cause of illness and avoidable deaths, reducing life expectancy (WHO, 2009). Several international institutions like World Health Organization (WHO), UNICEF, UNESCO, Centers for Disease Control and Prevention in the United States (CDC), International Union for Health Promotion and Health Education (IUHPE) consider political and educational action to be the most powerful instrument for the prevention of smoking abuse prevention (IUHPE, 2008).

Being an essential link between the scientific knowledge selected for teaching (external didactic transposition) and the knowledge effectively taught in the classroom (internal didactic transposition) (Clément, 2006), the textbook works as a teaching instrument transferring cultural references to the school as it reflects the educational policies and the social interests. It is a cultural object that talks about the society in which it is included (Lebrun, 2007).

Although new ways of thinking and modern pedagogy criticize the intellectual bookish/encyclopedic pupils, the fact is that the textbook is considered by teachers, pupils, parents and governmental institutions as a fundamental and structuring instrument of the educational process and so, the most used pedagogical resource at school.

Therefore the textbook is still strongly rooted in school education and plays the role of a "screen" that links the space between the pupil and the external reality, therefore becoming the centre of formal knowledge (Giordan, 1999). This gives the teacher an important role as he/she must assign an appropriate position contextualized with the teaching-learning process where the book should provide pupils with handy information, and well structured and systematized contents, in order to facilitate them to build their own learning (Perrenaud, 2005)

Accordingly, and particularly in the problem of tobacco addiction, the textbook can assume the role of a memorandum coordinator of facts and ideas built interactively over a lifetime and during classes, in order to complement the acquired knowledge as well as to provide useful reading and suggestive images. In this way, the textbook can contribute for the prevention of tobacco consumption, as smoking is a serious physical, psychological and social problem of modern society, particularly for children and young people who are more vulnerable (Precioso, 1999; Negreiros, 2000; WHO, 2009).

In this context, a comparative analysis of the information conveyed by textbooks from the 16 countries involved in the European project BIOHEAD-CITIZEN (Carvalho, 2004; Carvalho & Clément, 2007) was carried out, assuming that, overall, they convey the concepts and ideas of the national Health Education programmes (Gonçalves, 2008). The 16 countries involved in this project differ not only for its geographical distribution, but also and mainly by their historical, political and socio-cultural development: 12 European countries (Germany, Cyprus, Estonia, Finland, France, Hungary, Italy, Lithuania, Malta, Poland, Portugal and Romania), 3 African countries (Morocco, Mozambique and Senegal) and 1 of the Middle East (Lebanon).

To establish whether there are different approaches to the problem of smoking addiction and determine whether physical, psychological and social dimensions have identical treatment in textbooks of different countries, the following research question was formulated: Are there significant differences among the textbooks of the 16 countries regarding the way they address the tobacco problem?

## **METHODOLOGY**

For the analysis of textbooks we used the specific part for tobacco of the Health Education grid (Table 1), developed in the FP6 STREP European project BIOHEAD CITIZEN (Carvalho, 2004). The following indicators were analysed: (i) physical effects, (ii) psychological effects, and (iii) social effects, (iv) anti-smoking campaigns and (iv) environment (Table 1).

These indicators were applied to a total of 76 textbooks where this topic was referred, in primary and secondary school, in the 16 countries involved in the project, distributed as follows: 3 from Cyprus (CY); 5 from Germany (DE); 2 from Estonia (EE) ; 1 from Finland (FI); 6 from France (FR); 5 from Hungary (HU); 11 from Italy (IT); 14 from Lebanon (LB); 2 from Lithuania (LT); 2 from Malta (MT); 7 from Morocco (MO); 2 from Mozambique (MZ); 1 from Poland (PO); 12 from Portugal (PT); 1 from Romania (RO) and 2 from Senegal (SN).

The number of occurrences in relation to the Biomedical model (BM) or the Biopsychosocial model (BPSM) of health were calculated by the occurrences of specific indicators for the BM (pathological, curative and preventive references) and for the BPSM (healthy life, empowerment, environment issues). Similarly, the number of occurrences of physical, psychological and social effects associated to the consumption of tobacco was calculated. Two separated analysis were conducted, one on the textual occurrences and the second on the images.

For each country, the data are the means of the occurrences of each group found (physical, psychological or social effects) in the totality of the analysed textbooks of the country, for either text references or images.

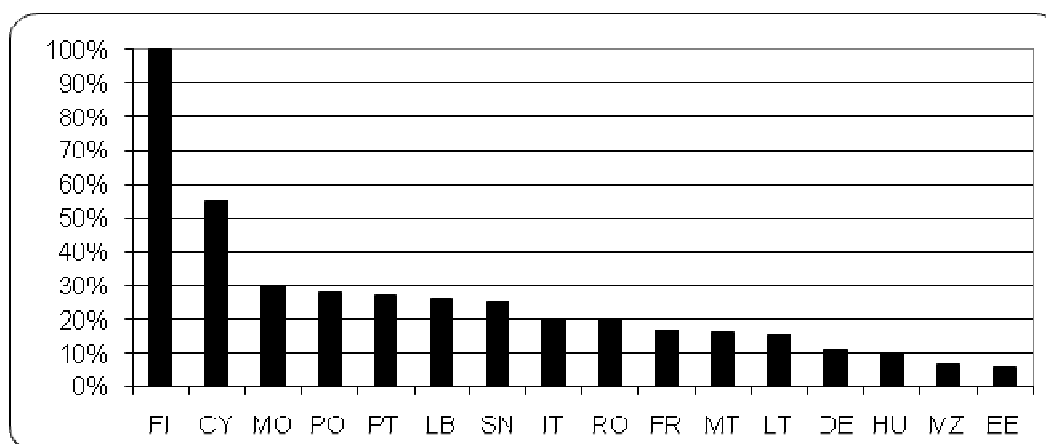
**Table 1 - Grid with indicators for the data collection on Tobacco**

Conceptions	INDICATORS	IMAGES	TEXT	ANNEX
		No. occurrences	No. occurrences	HE-3.2.n
<b>3.1. SMOKING ABUSE</b>	Unhealthy components of tobacco			
	Physical effects in the body: - Respiratory tract - Circulatory system - Nervous system - Fetus disorders (of smoking mother) - Lung cancer - Other diseases			
	Psychological and behavioral effects: - Anxiety - Addiction (dependence) - Others (specify)			
	Family disturbance: - Overspending, - Children's illness - Passive smoking - Mortality rates - Others (specify)			
	Anti-smoking campaign : - Information - Educational action - Legal rules - Promotion of healthy habits - Fear contents - Possible assistance (phone , number, website ...)			
	Environmental (and social) approach: - Tobacco factories - Identifying images - Notion of pleasure during consumption			

## RESULTS

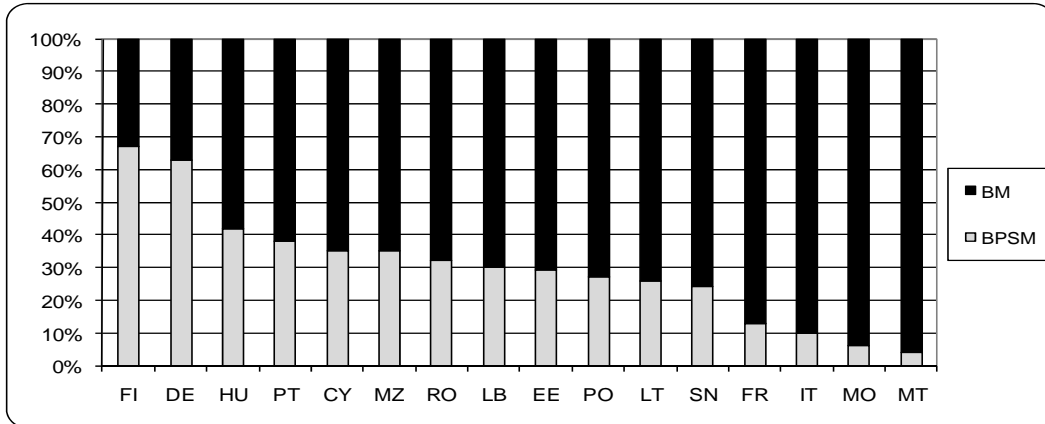
### Health Education in textbooks of 16 countries: Biomedical model (BM) and Biopsychosocial model (BPSM)

Finland is the only country where Health Education is a separate curricular subject. Therefore all pages (100%) of the analysed Finish textbooks were devoted to this issue. About 55% of the Cypriot textbooks were devoted to Health Education whereas in the textbooks of the remaining 14 countries, this topic was below 30% (Figure 1).



**Figure 1- Proportion of the number of pages devoted to health in school textbooks of the 16 countries.**

In what concerns tobacco addiction, the biomedical model (BM) of health (characterised by pathological, curative and preventive dimensions) prevails over the Biopsychosocial model (BPSM) of health (characterized by healthy life, empowerment, environment issues) in both textual and iconic elements of textbooks in 14 of the 16 participating countries (Figure 2). In fact, only textbooks books from Finland and Germany are the ones having more occurrences of HP than BM: 67% HP and 33% BM in Finnish books and 63% HP and 37% BM in German ones (Figure 2).



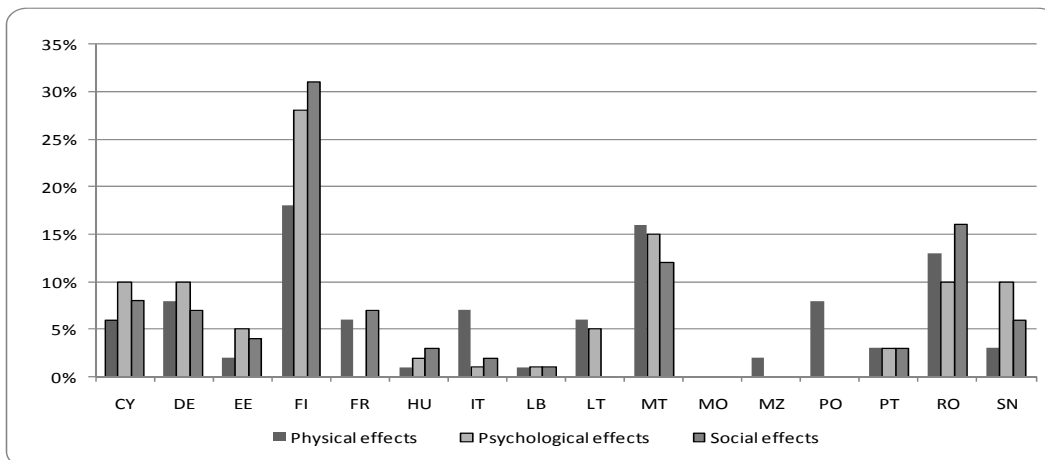
**Figure 2- Biomedical Model (BM) and the Biopsychosocial model (BPSM) of health distinguished in textbooks of the 16 countries.**

### Physical, psychological and social effects of tobacco in textbooks of 16 countries

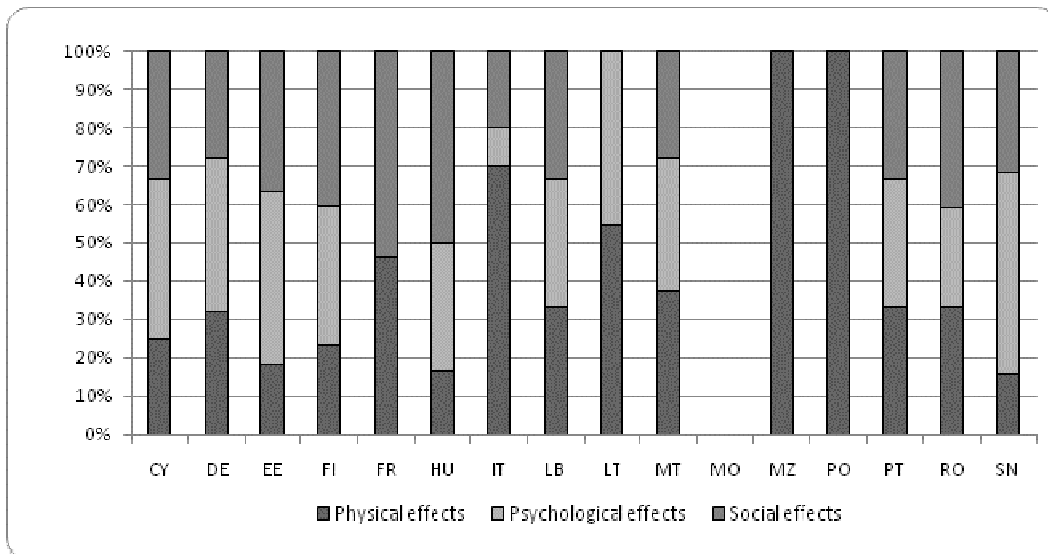
#### Text analysis

Finland stands out as the country whose textbooks present more text mentioning physical, psychological and social effects of tobacco (Figure 3). The physical effects of tobacco are the most frequently discussed in the text of all countries textbooks, followed by psychological and social ones (Figures 3 and 4).

Only 11 countries explore the three dimensions of the tobacco problem. The following 6 countries textbooks leave out one, two or the three dimensions of tobacco effects: French textbooks omit the psychological dimension and Lithuanian books the social dimension; Poland and Mozambique do not mention psychological and social dimensions while Moroccan textbooks do not mention any of the three dimensions (Figure 3 and 4).



**Figure 3- Contribution of each country for the total number of text occurrences of physical, psychological or social effects of tobacco.**



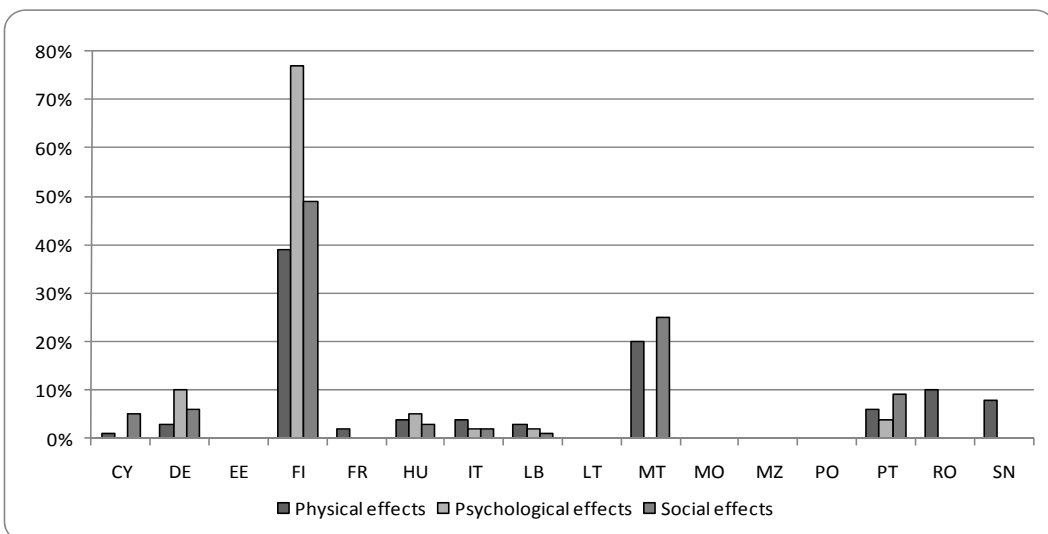
**Figure 4- Proportion of text references of physical, psychological and social effects of tobacco in textbooks of each country.**

#### *Images analysis*

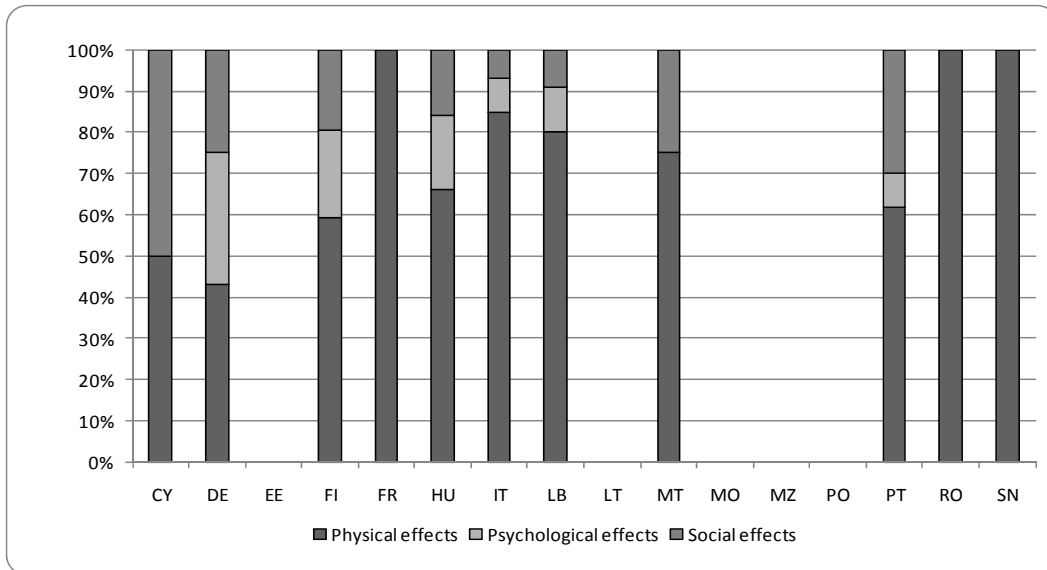
Five of the 16 countries participating in this study (Estonia, Lithuania, Morocco, Mozambique and Poland) do not present images related to physical, psychological or social effects of tobacco and only 6 (Finland, Portugal, Germany, Hungary, Italy and Lebanon) explore the three dimensions of tobacco problem by images (Figure 5). Once again, the Finnish textbook is the one presenting more images related to physical, psychological and social consequences of tobacco consumption (Figure 5).

Despite the large discrepancy in values obtained for the images of physical, psychological or social impact, school textbooks in Germany, Finland and Portugal stand out as those with a better balance between the three dimensions (Figure 5 and 6).

In the case of the Estonian, French, Romanian and Senegalese textbooks, only the physical dimension of tobacco is shown in images (Figures 5 and 6).



**Figure 5- Contribution of each country for the total number of images of physical, psychological or social effects of tobacco.**

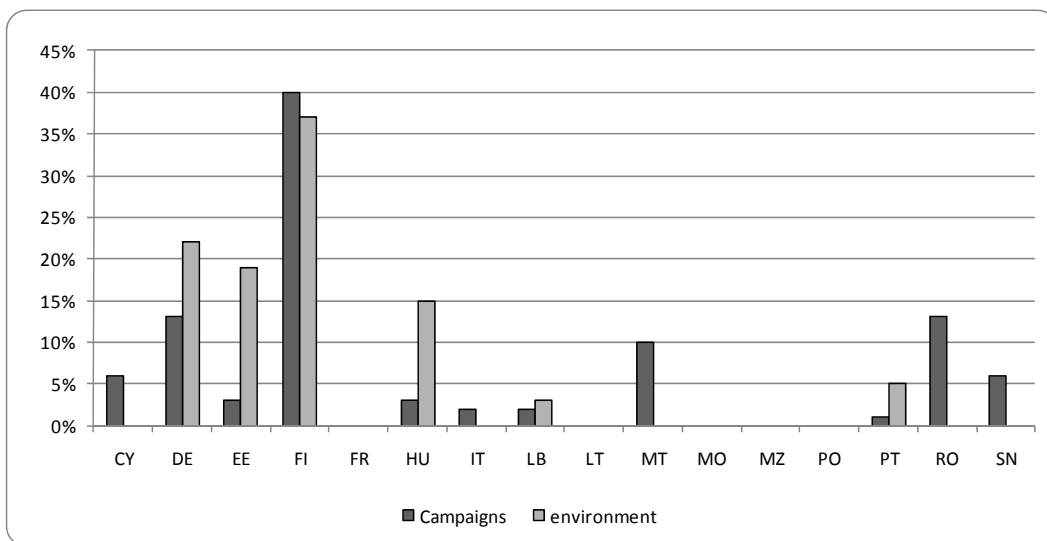


**Figure 6- Proportion of images of physical, psychological and social effects of tobacco in textbooks of each country.**

#### Anti-smoking campaigns and environment contexts in textbooks of 16 countries

Only six countries (Germany, Estonia, Finland, Hungary, Lebanon and Portugal) mention in their textbooks anti-smoking campaigns and refer some smoking environment contexts (Figure 7), such as smoking pleasure, smoking groups, tobacco production, tobacco factories, trade legislation, consumption legislation or associations for smoking dependents. Once again the Finnish textbook is the one that presents about 40% of total references to prevention campaigns and 37% of total environment contexts. As for the environments, the texts with more references are the ones from Germany (22%), Estonia (18%), Hungary (15%) and Portugal (5%).

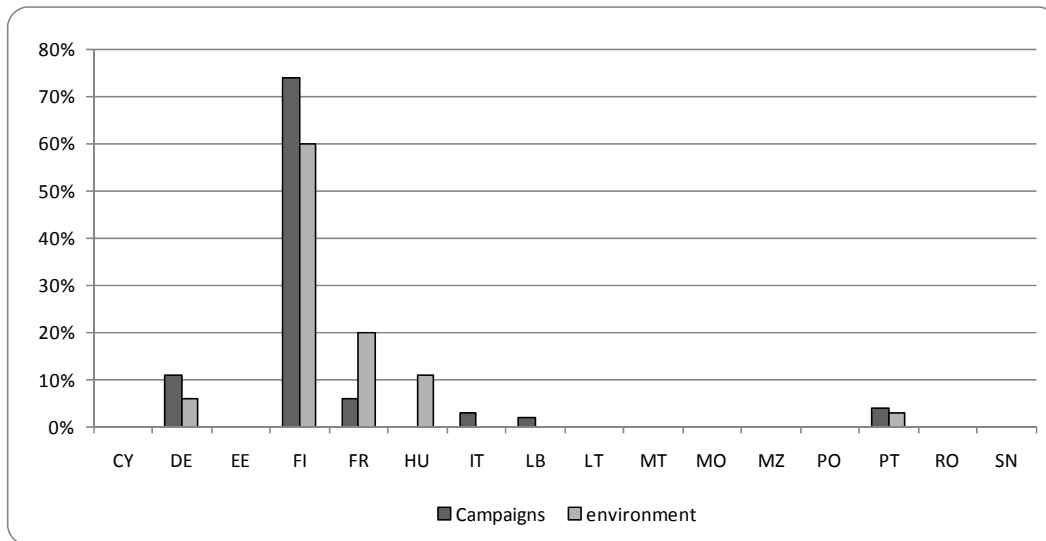
In contrast, the analysed textbooks from France, Lithuania, Morocco, Mozambique and Poland do not incorporate textual references about prevention campaigns nor about the environment related to smoking. Romania, Malta, Cyprus, Senegal and Italy address only the topic of prevention campaigns (Figure 7).



**Figure 7- Contribution of each country to the total number of text occurrences of anti-smoking campaigns and environment contexts.**

Textbooks from Germany, Finland, France and Portugal present images about anti-smoking campaigns and smoking environment contexts (Figure 8). The Finnish textbook is once more the one with more images from both campaigns (73%) and environments (60%) followed by the Germany textbook for the first issue (11%), France (6%) and Portugal (4%), and for environments the ones from France (20%), Hungary (11%), Germany (6%) and Portugal (3%).

In contrast nine other countries (Cyprus, Estonia, Lithuania, Malta, Morocco, Mozambique, Poland, Romania and Senegal) do not show images concerning both issues (Figure 8). Italian (3%) and Lebanese (2%) textbooks refer only to anti-smoking campaigns while the Hungarian textbooks include only images of smoking environments (12%).



**Figure 8 - Contribution of each country for the total number of images of anti-smoking campaigns and environment contexts.**

## CONCLUSIONS AND DISCUSSION

Of all countries involved in this study, Finland is the only one having a separate curricular subject of Health Education and so the textbook devotes 100% of its content to this subject. The majority of the Finnish book as well as the German book (66% and 63%, respectively) express explicitly or implicitly the contemporary Health Promotion view whereas the other countries textbooks are mainly within the classical Biomedical Model. In addition the Finnish textbook is the only one exploring the smoking issue in a rather balanced approach with regard not only to the three health dimensions (physical, psychological and social dimensions) but also to the emphasis given to anti-smoking campaigns and smoking environment contexts.

Morocco is the only country in which textbooks do not address the smoking issue. This may be due to the fact that smoking is a rather common and well accepted male habit in the country.

Of the 15 countries referring to this issue, only 11 countries present the three dimensions of tobacco consumption (physical, psychological and social consequences), some omit the psychological one while others the social one and others both.

In all countries the physical, psychological and social effects of smoking are treated in more detail than the anti-smoking campaigns and smoking environment contexts, in both space (text and image occurrences) and depth of analysis.

In the universe of analysed textbooks only few mention the existence of institutions to help smokers stop smoking. This seems to be a serious gap, since for many pupils the textbook may be the most important source of information they have access to.

The data among the 16 countries indicate that there are different cultural and educational policies in the approach to smoking addiction either in the field of prevention of starting smoking and in the combat for stopping smoking.

On the whole, the present study indicates that the Finnish textbook is the one which presents the smoking issue in a rather balanced way. This study is mainly a quantitative approach therefore a qualitative analysis should be carried out in more detail in order to evaluate whether this Finnish textbook could be taken as an example of good practices regarding the approach to the smoking issue. Therefore it might be considered a model to other countries textbooks, with some adaptations to their specific socio-cultural background.

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