

### Comparative Study on the Sources of Information Contributing to the Cancer's Representations on a Public of Pupils and Students

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#### Abstract

Throughout a large study on cancer's representations among pupils from Year 6 to the second year of master [1], we got an interest at the different sources of information on this young public. To do so, we asked the pupils where they first heard about cancer. Cancer is absent of the French curriculum until science specialised year 12, although it is, among any diseases, the most present in the pupils' mind. This paradoxal situation thus legitimates to question the different sources that structure the representations of this young public.

In a previous work [2], we presented the sources of information of the youngest pupils of our study (year 6 and year 9 pupils), and we compared both levels. In this study, we present the data corresponding to older students (year 12 and Master students) and we propose a general comparison overall the four levels.

Our results show that the family and media spheres stay the two main sources of information on cancer, at every level. Even if information sources seem to be more diverse for older students, television stays largely the predominant medium.

Peers, the scholar sphere and the medical sphere seem to remain of secondary importance.

It is so intriguing that, considering the K, V, P model of Clément P.[3], young adults seem to have constructed their representations of cancer mostly thanks to their interactions within the family and thanks to television. This consideration might partly explain why pupils/students and finally many adults keep a very dark, more or less mythological representation of the disease, which remains far enough from its actual nature.

Keywords: communication, children, school, knowledge, illness;

#### 1. INTRODUCTION

Representation is an act of thought related to an object. Through communication, a person is likely to partially convey its own representation of an object [1, 2].

Numerous studies got interested in cancer's representations on the general public, who had globally been confronted to cancer, in a more or less direct way [5]. These studies give us an outlook at a given moment of the way cancer is perceived in our society.

The originality of our approach is based on the choice made to study different scholar publics and to be more precise, our main objective is to identify the different sources of information acting as the starting point of the structuration and/or evolution of the pupils' representations on cancer.

As we selected 4 different levels, from primary school to higher education, we had the opportunity to, first, identify the different sources of information that can supply the representations on cancer of such a public and secondly, to locate the variations of their influence over time. With this approach, we also wished to question ourselves on the role of the scholar sphere on the development of cancer's representations.

The sources of information of year 6 and year 9 pupils were already presented and a comparison between both levels was discussed last year in [1]. Here we complete the picture with year 12 and master student's sources of information and we propose a general comparison between the four levels.

#### 2. METHODOLOGY

The different sources of information contributing to the cancer's representations were identified through the answers given to the question "How did you hear about cancer?". The previous question, rather open, allows the pupils to use their own vocabulary and does not orientate their answers.

#### 2-1. Data collection

The sample questioned is composed of 277 pupils, from four different levels: 38 pupils from year 6, 96 pupils from year 9, 83 pupils from year 12 with a specialisation in sciences and 38 students from a Biology Master.

#### 2-2. Analysis of the results

A first set of results is presented thanks to conceptual cards. For each level studied, a conceptual card gives us the different sources of information recounted (gathered in spheres) and their percentages calculated from the number of times the pupils or students cited them.

A second set of results, presented as a diagram, will allow us to follow the eventual evolutions through time of those same sources of information.

#### 3. RESULTS AND DISCUSSION

#### 3.1 The students' sources of information on cancer

#### 3.1.1 The sources of information in Year 12

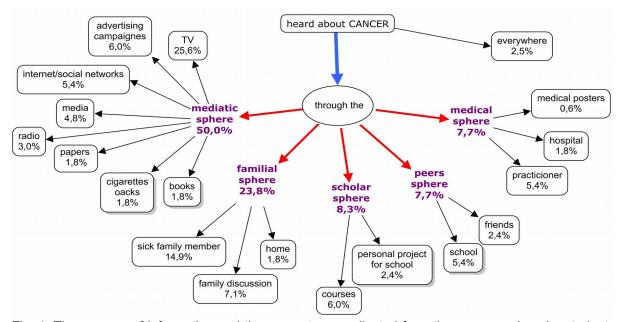


Fig. 1: The sources of information and the percentages collected from the answers given by students in Year 12 with a specialization in sciences (n=83)

As it was the case for younger pupils, in Year 12 with a specialisation in sciences, the two main sources of information are still family and media. The two spheres gather more than 70% of the information collected by this public.

In the media sphere, TV remains the main source of information and the message conveyed by the packets of cigarettes is still present in those young spirits and is associated to cancer.

The scholar sphere appears in the answers given by Year 12 pupils though its impact seems marginal as the percentage is rather low (8,3%). However, 2,4% of the answers relate to the group works put into place at that age and allow us to note that, though the topic is totally free, pupils often chose to tackle the problematic of cancer.

Finally, the element "Never heard of cancer" disappeared compared with the two earlier levels and indicates that all the pupils have now heard about cancer.

#### 3.1.2 The sources of information in a Biology Master

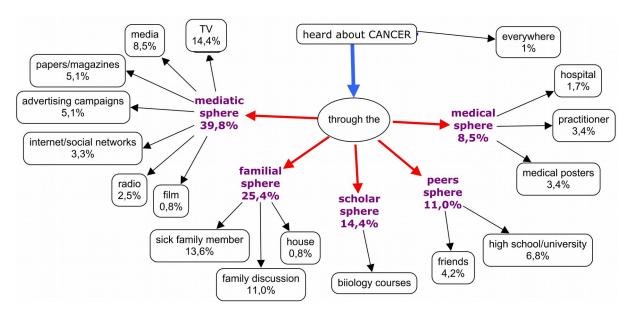


Fig. 2: The sources of information and the percentages collected from the answers given by pupils in a Biology Master (n=38)

At the Master level, the two main sources of information are the same as before: family and media, though they are less cited by this public of young adults (65,2%).

In the media sphere, TV still remains the main source of information (14,4%) with an impact that decreases though. This decrease is to be moderated as there are 8,5% of the answers under the term "media" that could be an association to television in the students' minds. It is surprising that internet and social network represents only 3,3% of the answers.

The source of information "Packets of cigarettes" disappeared which may indicate that this information is no longer present in this young public's everyday life. We may wonder why and risk some hypothesis that, as for instance, this public is no longer linked to packets of cigarettes or they do not dare telling us because they are feeling embarrassed.

However, the scholar sphere is much more cited with 14,4% of the answers. It seems that the information read or heard during a lesson grows in importance in the elaboration of cancer on this public. Of course this importance of the scholar sphere might be specific, since these students are specialised in biology, the result is expected to be different for other specialised students.

3.2. Variation of the importance of the sources of information depending on the level

#### of studies

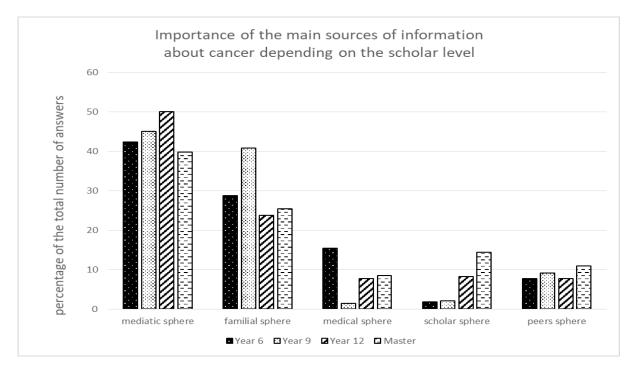


Fig. 3: Variations of the importance of the sources of information depending on the scholar level

The familial sphere seems to be a space where cancer is largely evoked, especially for young pupils. Despite a supposed existing taboo, it appears to be an important source of information for the representations on cancer. According to our results, the influence of the family seems to be more important at the year 9 level, than at any other level. Maybe because this serious topic is less often evoked with younger children, then older teenagers might be more distant in their relationship inside the family and privilege other sources of information.

The media sphere remains the most cited source of information at any level. One could expect this result because the importance of media in general (TV and Internet in particular) is well known amongst young people under 25.

In this sphere, TV remains the most important source of information, even if its influence seems to diminish for master students.

The apparent weak influence of internet and social network among the sources of information of the older students (3,3%) might be surprising. Indeed, one could expect that in 2015, this young generation take mainly its information from these modern media. This result is probably the illustration that pupils and young adults are mostly informed about cancer in a passive way. Using internet and social network implicate generally a direct search of keywords. And we can imagine that young people usually don't do any active research of information about cancer.

The peers sphere is one of the secondarily important sources of information on cancer, at every age, maybe because there is a certain discomfort to tackle this difficult and painful topic. It is also possible that fear could be one of the reasons as, still nowadays, the representation of cancer as a contagious disease is persistent [1, 3, 4, 6].

The scholar sphere only appeared as a source of information on cancer in Year 12 (around 16 years old). As formerly said, this source of information was mostly cited among students in a Biology master and it is not surprising to see that this source was cited by pupils in Year 12 specialised in science and students from a biology master. Indeed, this thematic is to be seen in Biology as stated in the programs elaborated by the Department for Education. But what about pupils with other options (literature, economics or technology) who never tackle this thematic as it is not included in their programs. We may thus think that the scholar influence is tiny once you include every young French



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pupil from 10 to 21.

#### 4. CONCLUSION

Our results showed that as from Year 6, cancer is a very present topic in a pupil's life [1] and that it is rather rare that they have not heard of it. The topic is often tackled in the familial sphere, largely heard in the media and discussed between peers. We can thus suggest that from a very young age, 9-10 years old, the representations on cancer in our kids' minds start developing (or are already developed) with information coming mostly from family, media and to a less extent, discussions or opinions issued by peers.

These joint influences still persist through time and do not vary much until adulthood, even though we noted a diminution of the impact of peers from 21-22 years old.

The references to scholar and medical spheres appeared late: from 12-13 years old for the medical sphere and 15-16 years old for the scholar sphere [4].

Former studies showed that cancer was strongly perceived by the scholar public with an extreme dangerousness factor. Pupils and students cited cancer as the most serious disease and the deadliest, way before AIDS [1]. In that, the scholar public share a same sensibility with the rest of the population [2, 3, 6].

Even though medicine has made a lot of progress in the recovery from numerous cancers, the notion of death is still associated to this disease in the representations of the studied public.

The scholar sphere is practically absent from the sources of information that structure these representations, yet the representations remain the product of a triptych involving values/opinions, social experience but also knowledge [5]. It would thus be interesting to understand how these media and familial sources of information structure these representations and how the scholar sphere could be more implicated.

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