Knowledge and beliefs about cancer – results of qualitative interviews with the general population in France

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BACKGROUND

Recent research developments suggest cures may become available for several cancers in the near future. Societal preferences should be taken into account in the evaluation of these treatments, which are likely to come with high costs to society. In the context of preparation for a discrete choice experiment, we explored the perception of the French population regarding cancer.

OBJECTIVES

- To understand the French general population's beliefs about cancer and its treatment
- To prepare a preference study by exploring knowledge and beliefs about cancer types, prevalence, treatments and their cost.

METHODOLOGY

The study was carried out in 3 steps:

Figure 1. Research flow

- **A literature review** was conducted in order to identify characteristics previously reported as influencing perception of cancer and its treatment.
  - A search strategy was implemented, and included keywords related to disease, methodology and objectives.
  - MEDLINE and Embase were searched via Ovid
    - 78 abstracts included at screening
    - 34 full texts included at screening
  - The data extracted was used to prepare the interview guide for the next step
- **Qualitative interviews** were conducted with respondents recruited through internal networks.
  - To be included, respondents had to be 18 years old at least and speak fluent French. Medical professionals were excluded.
  - The interview guide covered the following topics
    - Knowledge and beliefs about what defines the severity of a cancer, on the impact the disease can have on patients, and on incidence.
    - Knowledge and beliefs about treatments, availability and the way a treatment is chosen.
    - Reimbursement policy and the price of the different treatments.
  - Respondents were also asked about the criteria they would consider for the reimbursement of a treatment, and completed a ranking exercise. The results of these criteria and ranking are not reported here.
  - Word-for-word transcripts of recordings were done. Thematic analysis was carried out using Atlas software designed for qualitative research. The codes were organized into dimensions and concepts.
  - A conceptual model illustrating the dimensions that constitute respondents' knowledge and beliefs about cancer was developed.

RESULTS

- **Respondent Population**

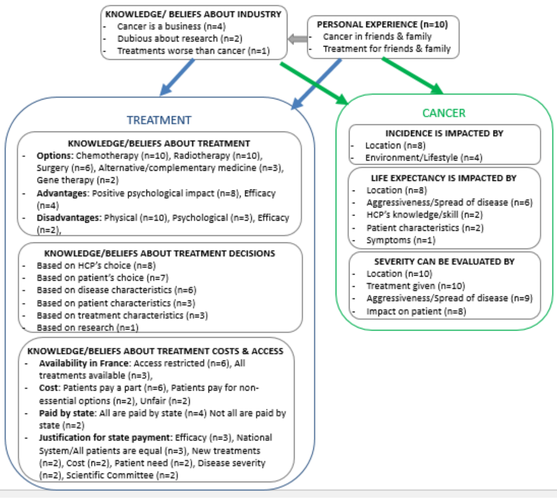
Table 1. Respondent Population

Respondents	• Men • Women	• n=5 • n=5
Household composition	• live with a spouse • live with spouse and children • single parents, living with child(ren) • single • lives with parents and siblings	• n=3 • n=3 • n=2 • n=1 • n=1
Level of education	• Middle school diploma • High school diploma • Vocational qualification • Undergraduate degree • Postgraduate degree	• n=1 • n=1 • n=2 • n=2 • n=4
Level of income	• 1501 to 3000 € per household/month • 3001 to 4500 € per household/month • 4501 to 6000 € per household/month	• n=3 • n=6 • n=1
Age	• 18 to 35 years old • 36 to 50 years old • 51 to 70 years old • 71 to 80 years old	• n=1 • n=3 • n=5 • n=1

RESULTS (Cont'd)

- **Beliefs about Industry:** This dimension brings together global beliefs about cancer and the pharmaceutical industry. Cancer is seen by some as a business where profit drives decisions. A few respondents also perceive research as a "guinea pig" strategy, and believe that data is not communicated.
- **Personal Experience**: Personal experience of cancer and its treatment experienced by friends or family influenced all dimensions of beliefs/knowledge. It also influences beliefs about the industry
- **Treatment:** Chemotherapy and Radiotherapy are the most common treatments spontaneously mentioned. Respondents reported advantages (efficacy and a positive psychological impact) and disadvantages, notably physical side effects. A minority believe that treatments in general are not efficacious.
- **Treatment Decisions:** Most believe that the patients are consulted in the choice of treatment, although a minority reported that patients should not influence selection as they have no medical knowledge. Besides HCPs, who always select the treatment, respondents reported that disease and patient characteristics influence the choice of treatment. Some reported that new research may also be a factor.
- **Treatment Costs & Access:** On this subject, the majority of respondents reported having little knowledge. There is uncertainty regarding if and how much individuals have to pay for treatments. Access to treatment is divisive, and some respondents believe that the country a drug is produced in, or the location of a hospital, may influence patient access to treatments. There was a large heterogeneity in beliefs about reasons driving treatment choice in France. No majority of respondents agreed on criteria.
- **Cancer Incidence:** Incidence of different cancers is understood by all respondents as being related to the location of the cancer. Some also identify a link to lifestyle/environment: *"My father died of a cancer he had when he was a road mender, at the time we used hot tar"* FR01 009
- **Life Expectancy:** Knowledge/beliefs about life expectancy are influenced by beliefs about severity, and again notably by location. Respondents also report that the expertise of the healthcare professional, the symptoms and patient characteristics can influence life expectancy: *"We may be more combative when we are young"* FR01 006
- **Cancer Severity:** All respondents believe severity can be evaluated with knowledge of the location of cancer (notably pancreas, lung and liver). Severity can also be estimated, in respondents' opinion, according to the type of treatment received and to the impact on the individual or the patient's age. Severity in terms of aggressiveness of the cancer was explained as due to the timing of the diagnosis and difficulty treating: *"Someone I know has melanoma and I know that it is difficult to treat and that it goes fast"* FR01 003 as well as the spread of the disease.

Figure 2. Conceptual Model of Respondents' Knowledge and Beliefs about Cancer and its Treatment



CONCLUSION

Our results show that the knowledge of the French general population concerning cancer and its treatment is limited. Beliefs about cancer are driven by the location of the tumor, and may be due to public health campaigns and the media.

There is little awareness of healthcare system in France as regards pricing and costs. A large heterogeneity in beliefs can be noted concerning how treatments are selected for reimbursement by the state, and respondents are unaware of how much is being paid by individuals for their treatments.

It may be of value to target the general public in communications to increase knowledge of cancer and its treatment, beyond screening and lifestyle communications that are now common in order to modify behavior.

ISPOR 2019, Copenhagen, Denmark, Nov 2-6 2019. PCN276.