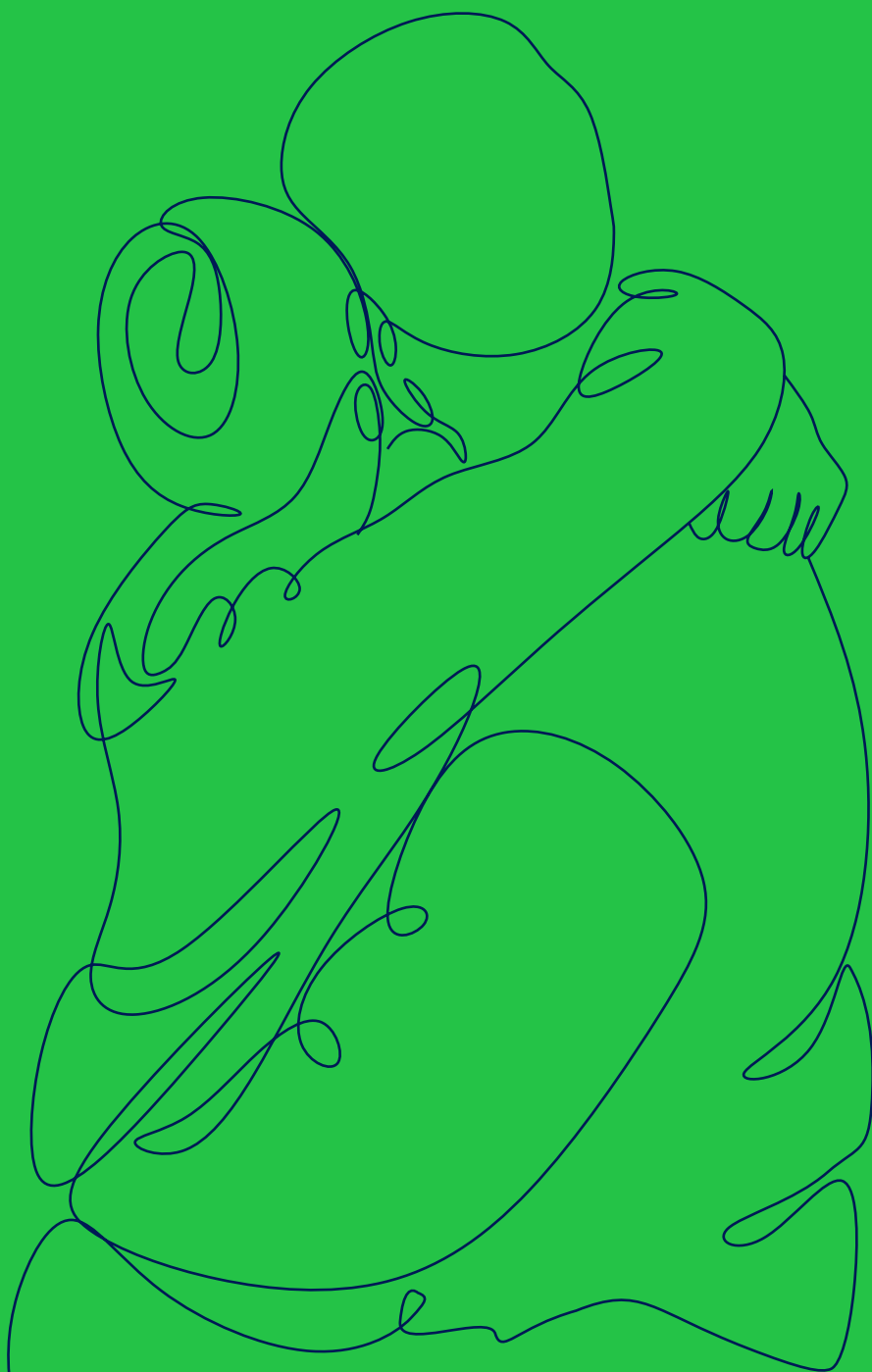


Quality-of-life and needs of cancer survivors in Spain.

A quantitative
study



asociación
española
contra el cáncer

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01

Introduction



Over the last few decades, cancer has become more common, mainly because people are getting older and living longer (1). At the same time, survival rates for almost all types of cancer have gone up in Europe and Spain in recent years. This has highlighted the needs of people who have beaten cancer, a growing group of the population (2).

In the case of Spain, although we have up-to-date data on incidence, 5-year prevalence and mortality (290,000, 909,966 and 113,000 cases in 2024, respectively), we lack up-to-date epidemiological data on the total number of cancer survivors (3). The limitations of information are even greater with regard to the needs and quality-of-life of this population, and even more so if we focus on the knowledge of long-term survivors, this being people who have survived cancer for more than 5 years. There is no long-term data available on the consequences of the disease and, specifically, on the specific needs of these patients in the years following treatment, beyond the risk of recurrence, such as psychological, sexual, social and occupational needs. The latter include the challenges of returning to work or finding a new job, which are added to the adverse effects and consequences of treatment, as well as the management of concomitant conditions.

The most common physical symptoms include fatigue or tiredness, physical pain and cognitive problems, among others. Published studies indicate that approximately one-third of cancer survivors experience fatigue problems (4–8). A study of breast, prostate, and colorectal cancer survivors—grouped according to the time since the end of treatment (6 to 18 months, 2 to 3 years, and 5 to 6 years)—found that 29% of the sample reported significant levels of fatigue, with no difference between the three time cohorts (8). Physical pain is a common problem among survivors in the first few years after treatment. Moreover, 10% of long-term survivors experience severe chronic physical pain that interferes with their daily functioning. The prevalence is much higher in certain subpopulations, such as breast cancer survivors (9–12). Several studies, mainly on breast cancer, but also on colorectal cancer, ovarian cancer and lymphoma, show the impact of chemotherapy on the cognitive functioning of people who have completed treatment (13–17). Other common physical problems include muscle and bone problems such as osteoporosis, muscle weakness or tremors (18,19), cardiotoxicity (20–23) and sexual dysfunction (24–27).

In the psychological sphere, we can find pathologies present in cancer survivors such as distress, anxiety and depression, the two most common psychiatric diagnoses in this population, varying greatly depending on numerous variables such as: type of cancer, stage, treatment, gender and stage of survival (28). Likewise, at least 12% to 18% of long-term survivors suffer from depression and a significant level of anxiety (29). Moreover, post-traumatic stress disorder may appear, with intrusive thoughts being the most common manifestation in survivors, affecting between 16% and 28% of them (30,31). Fear of cancer recurrence is also very common. Data shows that

between 40% and 50% of survivors reported moderate to severe levels of fear (32). A recent study conducted with Spanish female breast cancer survivors shows that fear of relapse and distress caused by a possible cancer diagnosis in a family member are the factors that most impair the quality-of-life of survivors (33).

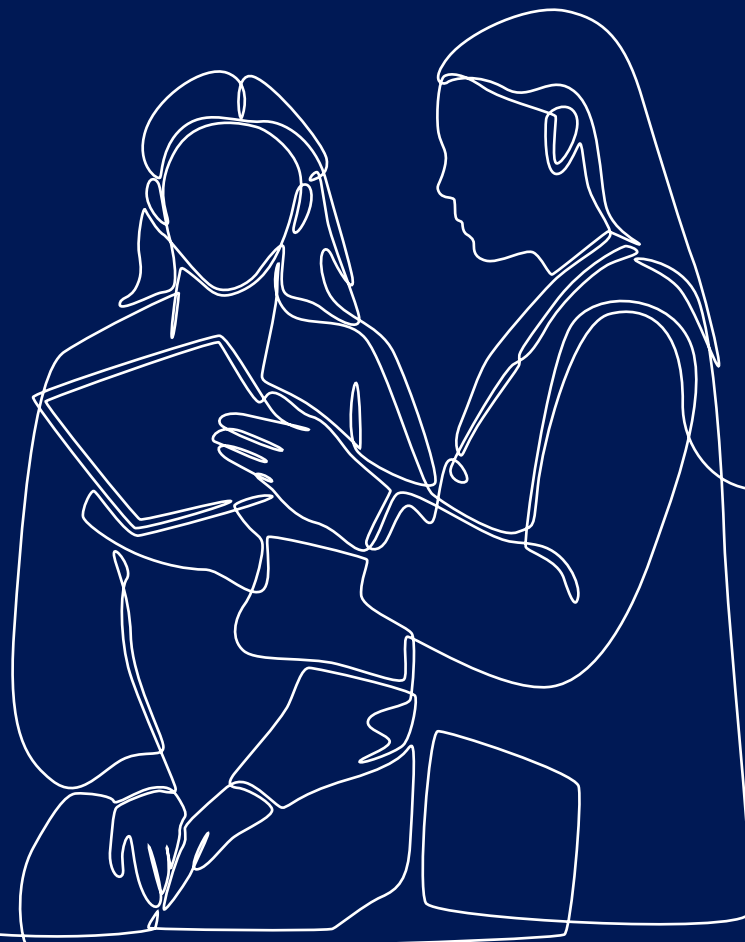
In terms of social consequences, cancer survivors face numerous financial and employment challenges after treatment. Around 31.8% of patients reported this type of problem. Specifically, financial difficulties are more common among cancer survivors aged 18 to 64 than among those over 65 (28.4% versus 13.8%) (34). Survivors, especially those diagnosed during their working years, experience financial and material difficulties, which have a direct impact on their financial situation and their ability to earn an income (35–37). Thus, people who survive cancer are 1.4 times more likely to be unemployed than those who have not had the disease (38). Moreover, social determinants prior to the disease, such as lower income, lower education, minority ethnic origin, unemployment, disability or precarious employment at the time of diagnosis, lead to a higher risk of experiencing employment difficulties after cancer (39–42).

In addition to highlighting these difficulties, given the current social and healthcare system, it is important to note that various national and international organisations are advocating for the implementation of comprehensive, multidisciplinary care models for cancer survivors. These models include personalised follow-up plans and promote the active participation of individuals in their own recovery process. In Spain, various initiatives promoted by autonomous communities, scientific societies and patient associations are working along these lines, with the aim of moving towards more coordinated, equitable and person-centred care (43–47). However, the integration of these models into clinical practice remains a challenge, particularly due to the lack of systematic data and fragmentation of care. All of this highlights the need to continue promoting research, data collection and the development of specific strategies that respond to the real needs of cancer survivors.

Given that there are few studies specifically conducted with the Spanish population to determine the impact of cancer on the quality-of-life and the psychological, sexual, social and occupational needs of cancer survivors, this study is greatly needed. The Cancer Observatory of the Spanish Association Against Cancer, together with the Spanish Society of Family and Community Medicine (semFYC), has promoted research that seeks to understand the problems faced by survivors in order to design future strategies for intervention and solutions to these problems.

02

Objectives



■ The objectives of this study are:

1

To quantify and characterise the quality-of-life and prevalence of health, psychological, occupational, economic and social needs among cancer survivors in Spain.



2

To analyse the emergence and evolution of these needs based on health, sociodemographic, economic and occupational variables.



03

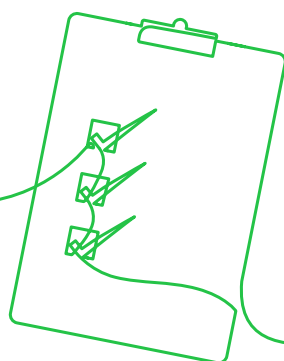
Methodology



■ Design and sample selection

To achieve the above objectives, a survey was conducted among adults residing in Spain who had been diagnosed with cancer in adulthood and who, after treatment, were free of the disease. A distinction was made between short-term survival (survival for less than 5 years) and long-term survival (survival for 5 years or more). A total of 3,009 interviews were conducted between June 2024 and February 2025 using a self-administered online interview technique (CAWI system) through a structured questionnaire with an average duration of 15 minutes.

Non-probability sampling by convenience was used due to the impossibility of guaranteeing a consistent sampling frame of cancer survivors in Spain. After the fieldwork and prior to the analysis, the sample was weighted using an estimate of the number of cancer survivors in Spain as the sampling frame. In order to calculate this estimate, the five-year prevalence rates specific to each tumour group by age group (under 44, 45-54, 55-64 and 65 or over) and gender in 2024, published by the Observatory of the Spanish Association Against Cancer, were applied (3).



■ Measurement instrument/questionnaire

The structured, closed-ended questionnaire was designed jointly by the Spanish Association Against Cancer and the Spanish Society of Family and Community Medicine (semFYC). This questionnaire includes the Spanish version of the Quality of Life in Adult Cancer Survivors (QLACS) questionnaire, used to measure the quality-of-life of cancer survivors. The QLACS has been validated internationally (48,49) and culturally adapted to the Spanish context (50), with positive results in terms of reliability. It is designed so that a high score indicates a greater presence of physical symptoms as well as emotional, social and economic problems, which translates into a poorer quality-of-life. It has 43 items structured into the following 11 dimensions:

Physical discomfort

- **Pain.** Dimension referring to chronic physical pain .
- **Fatigue.** Dimension referring to the subjective feeling of physical, emotional and/or cognitive tiredness or exhaustion that is not proportional to the activity performed.
- **Cognitive problems.** Dimension referring to the deterioration of memory, learning ability, concentration, reasoning, and attention.

Emotional discomfort

- **Negative feelings.** Dimension referring to the existence of negative emotional experiences such as sadness, anxiety, or worry.
- **Positive feelings.** Dimension referring to positive emotions and moods, such as joy, optimism, and satisfaction. Given that the indicators comprising this dimension are formulated in positive terms, the interpretation of this dimension must be carried out in reverse. In other words, a low score corresponds to a low quality-of-life in this dimension. This is the only dimension designed in this way.
- **Distress about recurrence.** Dimension referring to fear and concern that the disease will return.
- **Appearance concerns.** Dimension referring to concern about body image and physical appearance.

Social and interpersonal relationships

- **Sexual problems.** Dimension referring to problems associated with sex life such as dissatisfaction, avoidance or lack of interest.
- **Social avoidance.** Dimension referring to the avoidance of social encounters or difficulty in establishing new relationships.
- **Family distress.** Dimension referring to concern that a family member will be diagnosed with cancer.

Financial situation

- **Financial problems.** Dimension referring to the impact of cancer on the financial situation of those affected

Of these 11 dimensions, 7 are generic: pain, fatigue, cognitive problems, negative feelings, positive feelings, sexual problems, and social avoidance. Four are specific to cancer: distress about recurrence, appearance concerns, family distress, and financial problems (50).

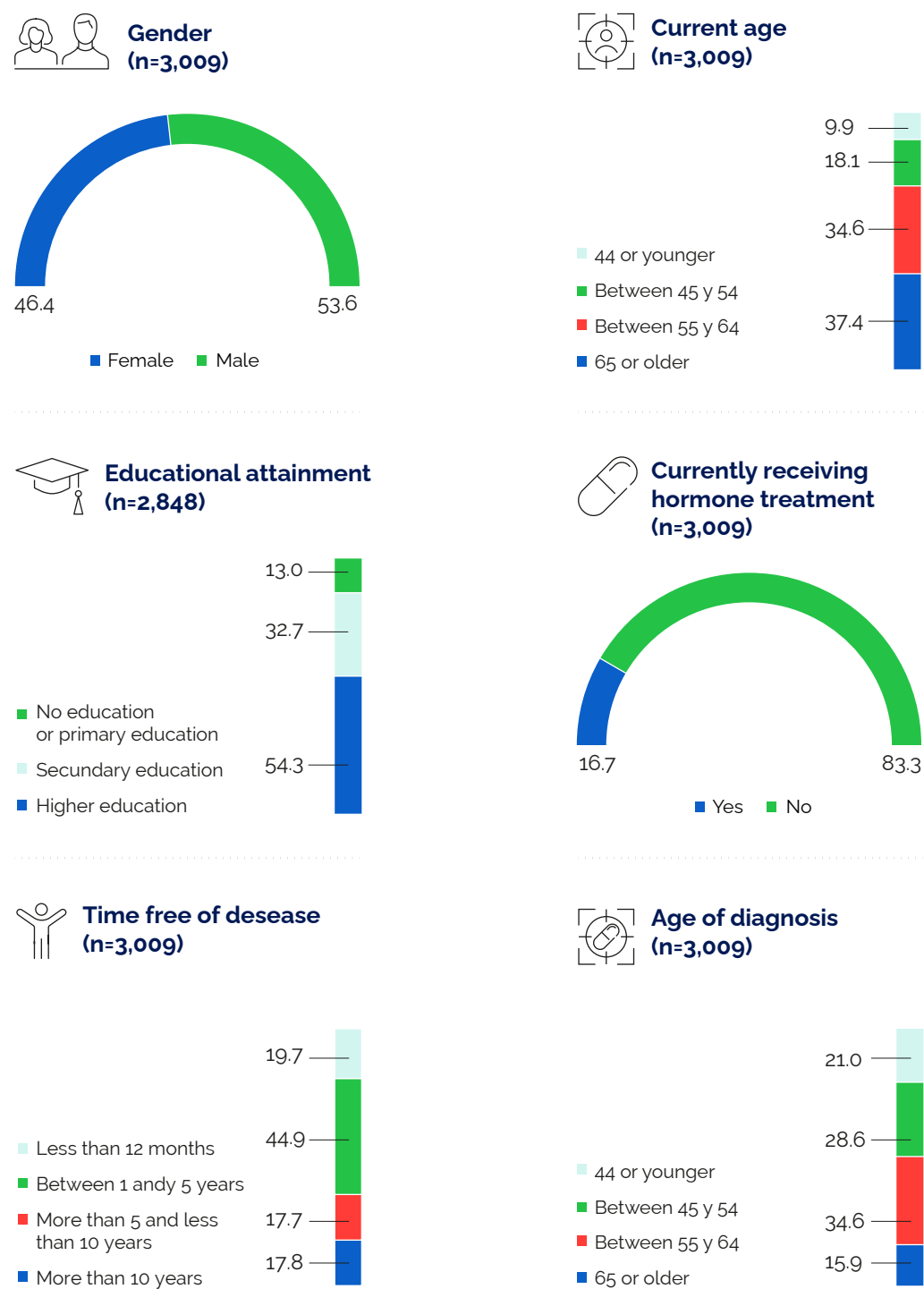
Additional variables have also been included to provide a comprehensive view of physical symptoms, occupational consequences of the disease, and lifestyle habits. Finally, participants were also asked about sociodemographic characteristics and issues related to the disease. Some of these variables have been used to compare the main results of the other sections of the questionnaire.



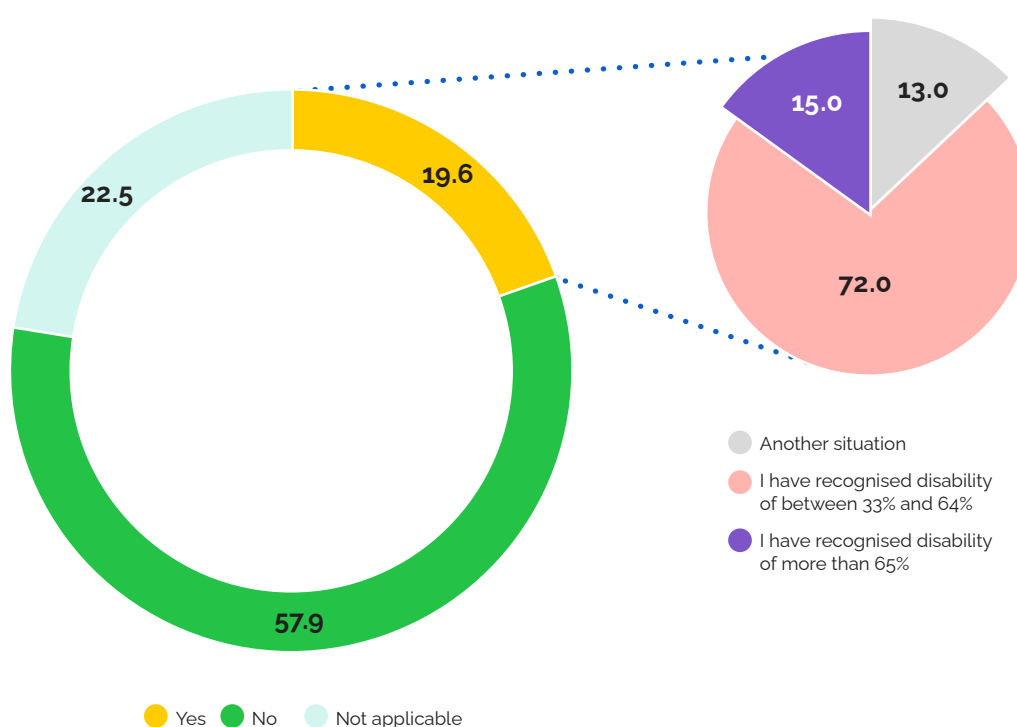
Characterisation of the sample

Figure 1 shows the profile of the study sample after applying the corresponding weighting factors. In this way, respondents were distributed relatively evenly between men and women, with an average age of sixty. 64% had completed treatment less than five years ago.

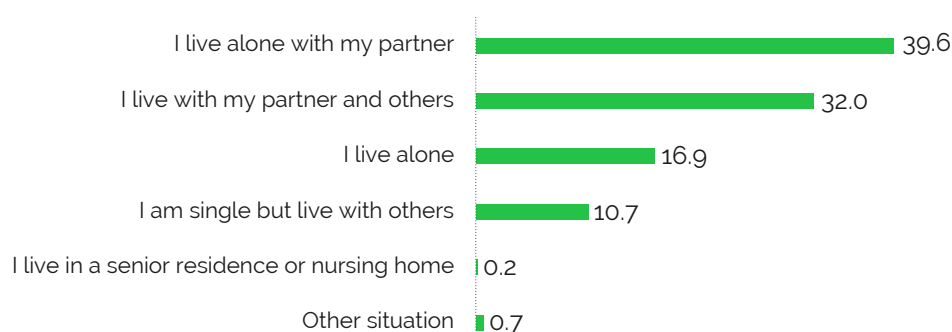
Figure 1. Characterisation of the sample (%)



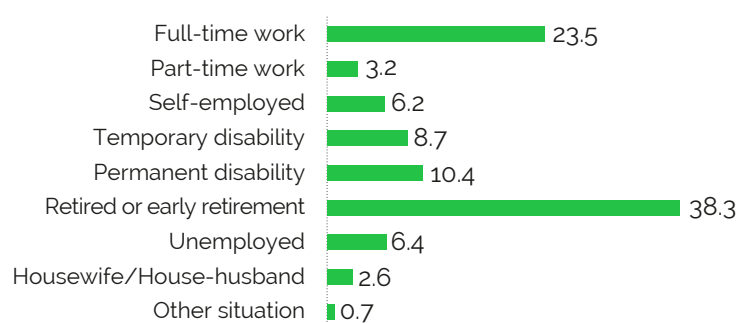
Due to the cancer, have you been recognised as having any degree of disability? (n=2,848)



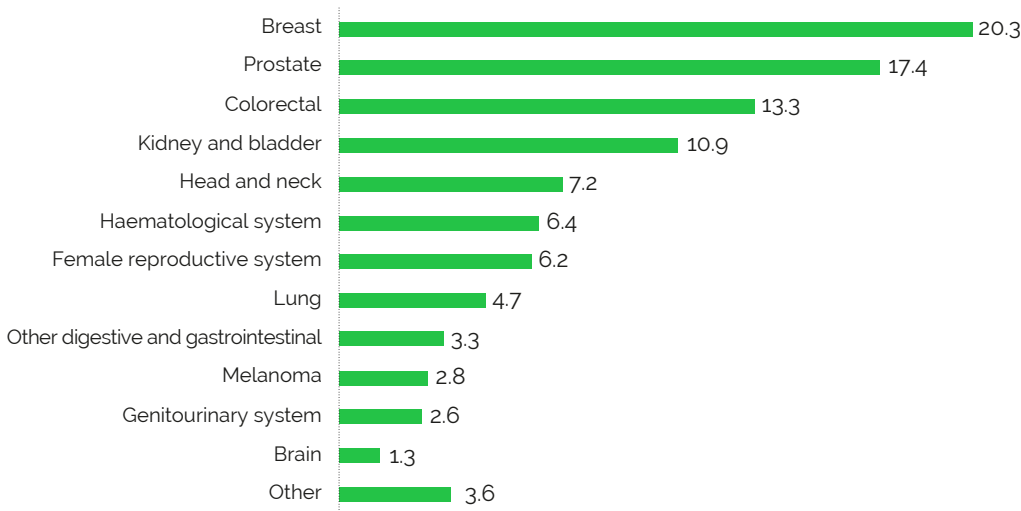
Living situation (n=2,853)



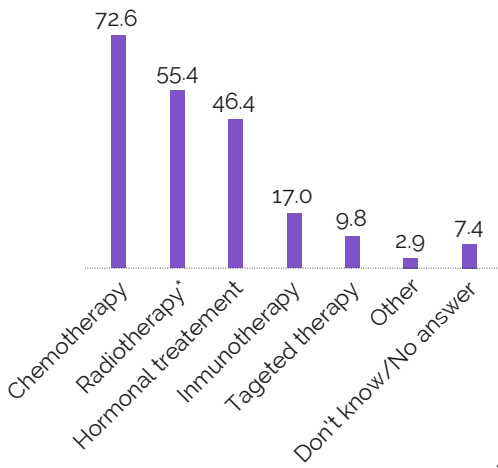
Current employment status (n=2,882)



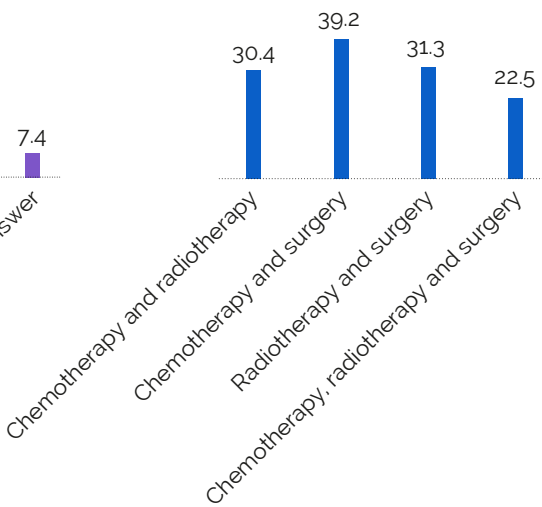
Type of tumor
(n=3,009)



Type of treatment
(n=3,009)

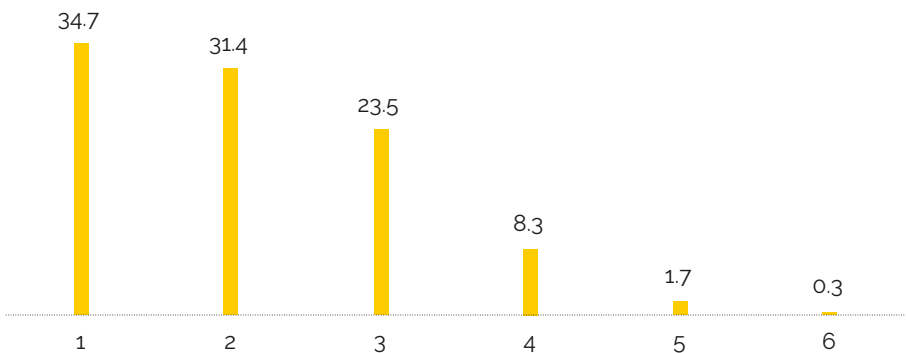


At least
the following treatments
have been received
(n=3,009)



*The radiotherapy category also includes proton therapy and brachytherapy treatments.

Number of treatements received (n=3,009)



■ Limitations

Firstly, it is important to note that we do not have a robust sampling framework, which prevented the implementation of probabilistic sampling. As it is not stratified by tumour type, gender or age, we cannot guarantee that the results are representative or generalisable to all cancer survivors in Spain. In order to align with the distribution of cancer survivors, the sample has been weighted according to 5-year prevalence, tumour grouping, gender and age. The weighting of the sample and the sample size achieved allow us to approximate the national representativeness of cancer survivors in general, although the small size of some tumour groups (for example, brain and genitourinary system) particularly limits the interpretation of results and the extraction of conclusions in these specific groups, although the data do allow for a general approximation.

Moreover, the sample may present some biases, mainly self-selection bias, due to the inherent limitations of non-probability sampling, given the technique used (self-administered online interview), which limited the participation of older people, possibly due to technological barriers, or people of any age who were not familiar with online technologies. To minimise this bias, people were assisted in completing the questionnaire at health centre consultations.



04

Results



■ A general overview of the quality-of-life of cancer survivors

In order to characterise the quality-of-life of people who have overcome cancer, it is essential to have a comprehensive view that takes into consideration the different dimensions comprising it: physical, emotional, social, interpersonal and financial. This comprehensive view allows us to understand how having gone through the disease impacts the daily lives of those who have survived it.

The results of the survey show that, in general terms, the quality-of-life of cancer survivors is acceptable with some limitations, reflecting how **the after-effects of cancer continue to persist to a greater or lesser extent once treatment has been completed**. According to the mean scores obtained on the QLACS scale (1 Never – 7 Always), the total mean of the scale is 3.3, indicating that problems and needs related to cancer are present with some frequency in this population.

As shown in **Figure 2, 16.3% of cancer survivors scored high on the QLACS scale, reporting poorer quality-of-life**. In addition, the **time elapsed since the end of treatment appears to be related to the perception of quality-of-life**: Among survivors whose treatment ended **less than five years ago**, the percentage with a poorer reported quality-of-life is **20.3%**, while among cancer survivors who have been in remission for more than five years, this percentage is **9.1%**.

Figure 2. Overall quality-of-life of cancer survivors

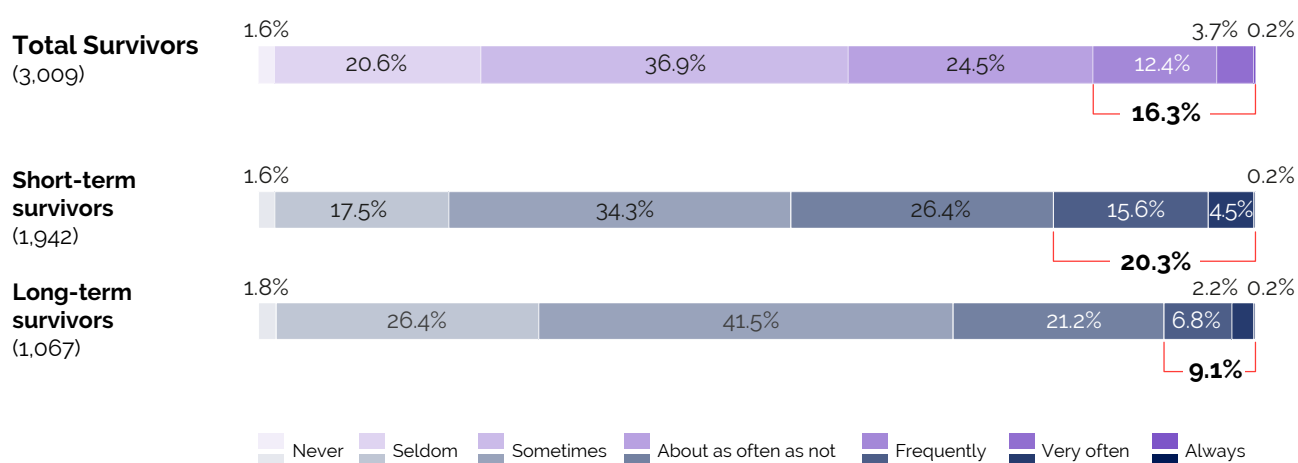


Table 1 shows the mean scores for each of the 11 dimensions comprising the QLACS scale. Looking at the results, it can be seen that *Family distress*, which has the highest score (4.6), followed by *Distress about recurrence* (4.2), are the most problematic areas for survivors. The next domains with higher mean scores are: *Sexual problems* (3.6), *Fatigue* (3.5) and *Negative feelings* (3.4). Below the mean score for the total QLACS (3.3) are *Cognitive problems* (3.1) and *Pain* (3.1). Finally, *Financial problems* (2.2) and *Social avoidance* (2.8) have the lowest mean scores.

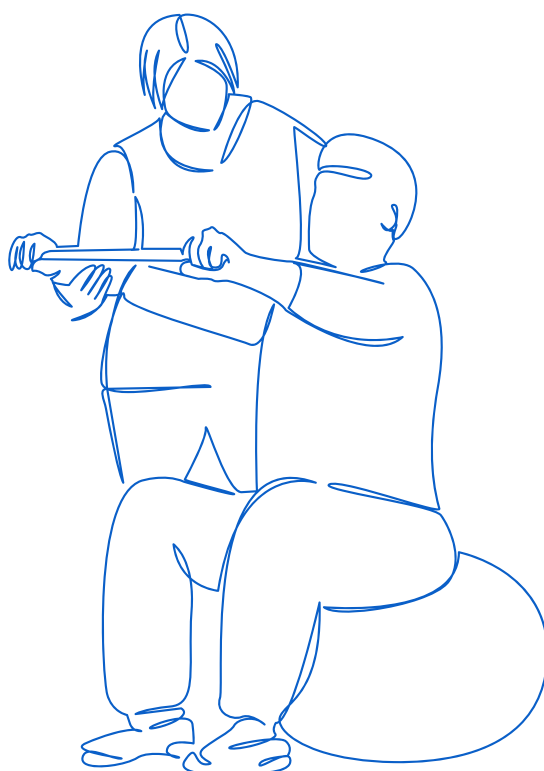
The scores for each dimension according to the different tumour groupings can be found in **Appendix 1**.

*Table 1. Mean score per QLACS dimension (1-7)**

Dimension	Mean	Standard deviation	Median	Interquartile range
Physical pain	3.1	1.6	3.0	2.0
Fatigue	3.5	1.5	4.0	3.0
Cognitive problems	3.1	1.5	3.0	2.0
Negative feelings	3.4	1.3	3.0	1.0
Positive feelings (reverse interpretation)	5.0	1.4	5.0	2.0
Distress about recurrence	4.2	1.7	4.0	3.0
Appearance concerns	2.8	1.7	2.0	3.0
Sexual problems	3.6	1.7	4.0	3.0
Social avoidance	2.8	1.6	3.0	2.0
Family distress	4.6	1.9	5.0	3.0
Financial problems	2.2	1.6	1.0	2.0
Total QLACS score	3.3	1.1	3.0	1.0

*A higher score on the questionnaire indicates a poorer reported quality-of-life in that dimension

Table 2 shows the mean score on the quality-of-life scale for cancer survivors according to the different sociodemographic and disease variables analysed. It is important to note that, in these tables, values highlighted in different colours (green and red) are statistically significant differences between groups. The scores in red indicate a poorer quality-of-life compared to other groups and the values in green indicate a better quality-of-life compared to other groups. In this regard, a poorer reported quality-of-life is observed in younger people, especially in the 44 years or younger group. As age increases, scores decrease, with quality-of-life being more favourable in the 65 years or older group.



In terms of gender, women score lower on the quality-of-life scale than men. Differences are also seen depending on the type of tumour: people diagnosed with breast cancer score lower on the quality-of-life scale than those with other types such as prostate, kidney or bladder cancer. In relation to survival time, people who have been disease-free for less than 5 years have lower scores, reflecting a greater impact of cancer on their quality-of-life. Likewise, significant differences were detected according to employment status: unemployed people, those with temporary disability or permanent disability had the highest scores. On the other hand, those who are retired or early retired had the lowest scores, associated with a better quality-of-life. Finally, people with a recognised degree of disability also had poorer scores on the quality-of-life scale.

Table 2. Total mean QLACS score by sociodemographic profile*

		Mean QLACS scores	Sample
Gender	Female	3.6	1,398
	Male	3.0	1,611
	Total	3.3	3,009
Age	44 or younger	4.0	298
	Between 45 and 54	3.8	545
	Between 55 and 64	3.4	1,042
	65 or older	2.8	1,125
	Total	3.3	3,009
Type of tumour	Breast	3.8	612
	Colorectal	3.2	401
	Prostate	2.8	523
	Head and neck	3.4	216
	Haematological system	3.4	192
	Other digestive and gastrointestinal	3.4	100
	Female reproductive system	3.5	186
	Lung	3.3	141
	Kidney and bladder	3.1	327
	Genitourinary system,	3.6	80
	Melanoma	3.1	86
	Brain	3.4	39
	Other	3.4	107
	Total	3.3	3,009
Survival	Short-term survival	3.4	1,942
	Long-term survival	3.1	1,067
	Total	3.3	3,009
Educational attainment	Primary education	3.3	370
	Secondary education	3.4	930
	Higher education	3.3	1,547
	Total	3.3	2,848
Current employment status	Employed	3.3	771
	Self-employed	3.1	179
	Unemployed	4.0	184
	Retired or early retirement	2.8	1,104
	Temporary disability	4.1	251
	Permanent disability	3.9	299
	Housewife/House-husband	3.4	76
	Total	3.3	2,864
Recognised degree of disability (≥33%)	Yes	3.8	559
	No	3.2	2,289
	Total	3.3	2,848

*Values highlighted in colour indicate statistically significant differences between columns ($p < 0.05$), according to the comparison of means performed

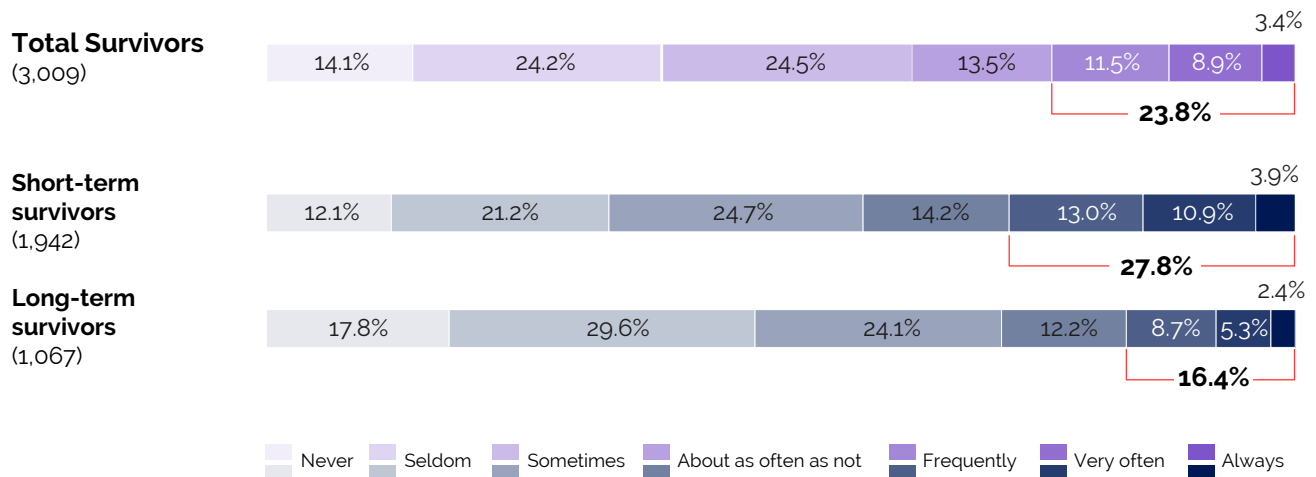
**A higher score on the questionnaire indicates a poorer quality-of-life

Physical discomfort in cancer survivors

Physical pain is one of the most common symptoms among cancer survivors. Around 24% of the total sample studied reported experiencing physical pain frequently, very often or always. This discomfort is more pronounced in people classified as short-term survivors (28%) than in long-term cancer survivors (16%) (Figure 3).

27.4% of participants have experienced physical pain, 27.0% say that physical pain prevented them from doing the things they wanted to do, 23.7% say that their mood has been affected by physical pain and 24.4% say that physical pain has affected their social activities. This information can be found in **Appendix 2**.

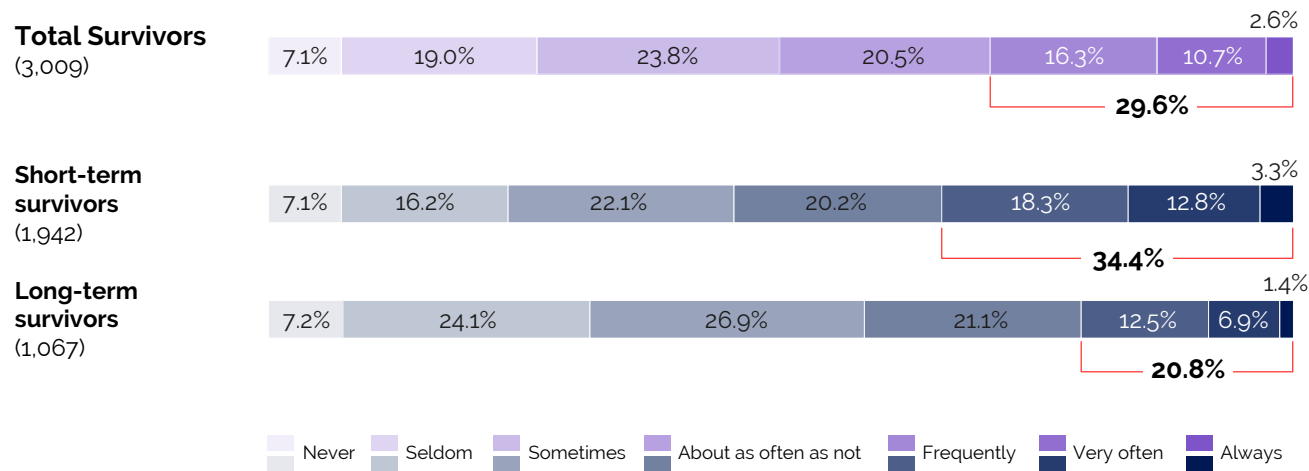
Figure 3. Physical discomfort. Physical pain dimension



Fatigue (a subjective feeling of tiredness or physical, emotional and/or cognitive exhaustion that is not proportional to the activity performed) is another common effect after cancer. As shown in **Figure 4**, 3 out of 10 survivors (29.6%) reported feeling fatigued frequently, very often or always. This feeling of exhaustion is more intense in those who are in the early years after overcoming the disease (34.4%), although it is also present in 20.8% of long-term survivors.

A total of 23.9% of survivors reported a lack of energy to do the things they want to do, and 33.7% have felt tired a lot (see **Appendix 2**).

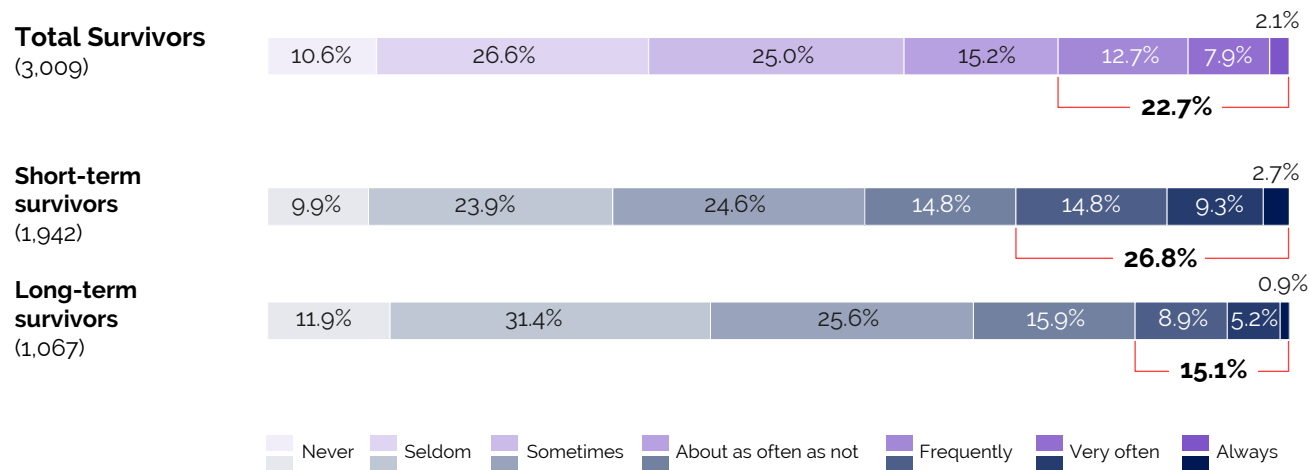
Figura 4. Physical discomfort. Fatigue dimension



Cognitive problems are common symptoms after cancer. Difficulties concentrating, remembering things or keeping focused are common. In many cases, these problems are related to the effects of treatment, especially chemotherapy. More than 1 in 5 survivors (22.7%) reported experiencing these problems frequently. Although the percentages are higher among those who have been in remission for less than 5 years (26.8%), 15.1% of long-term survivors continue to live with these difficulties (Figure 5).

Focusing on the variables comprising the dimension, as shown in Appendix 2, we observe that 25.3% have had trouble *remembering things*, 25.9% have had *difficulty doing activities that require concentrating*, and 24.3% have been *bothered by forgetting what they started to do*.

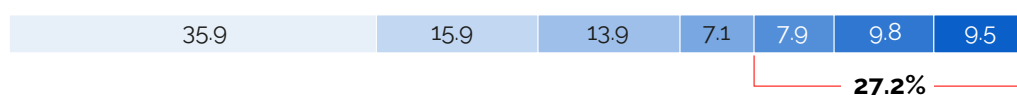
Figure 5. Physical discomfort. Cognitive problems dimension



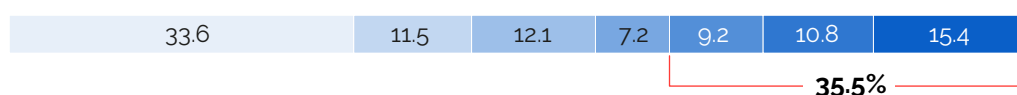
In addition to the quality-of-life dimensions already discussed, other physical symptoms experienced in the month prior to the interview were identified by a significant proportion of cancer survivors (**Figure 6**). Among the most frequent are joint and/or muscle discomfort (35.5%), tingling or numbness in the extremities (31.0%) and muscle cramps or weakness (27.9%). These symptoms can affect physical well-being and limit certain daily activities. For example, 21.7% reported frequent difficulty sleeping, and nearly 20% reported impediments to leisure activities or hobbies. Although to a lesser extent, 11.3% also reported difficulty with household chores, and 3.4% need help with basic activities such as eating, bathing, or dressing.

Figure 6. Physical symptoms perceived due to cancer in the last month (%)

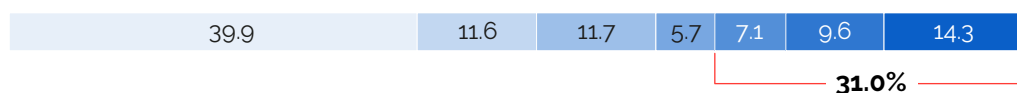
Due to the cancer, in the last month, have you had difficulties to sleep? n=2,939



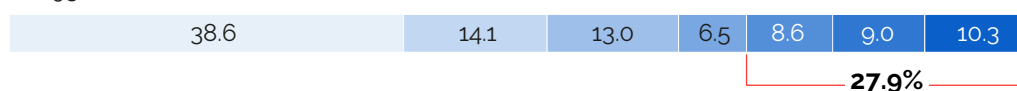
Due to the cancer, in the last month, have you experienced discomfort and/or pain in your joints and/or muscles? n=2,935



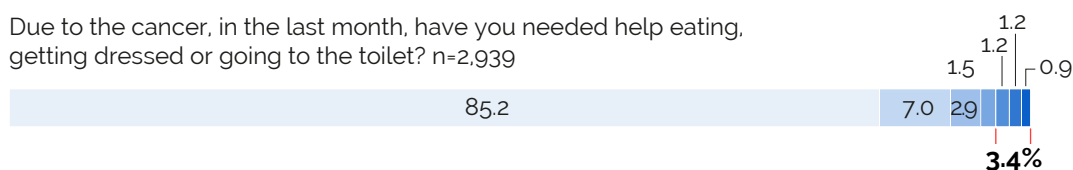
Due to the cancer, in the last month, have you had pins and needles or numbness in your feet, hands or fingers? n=2,933



Due to the cancer, in the last month, have you had muscle cramps or weakness? n=2,938



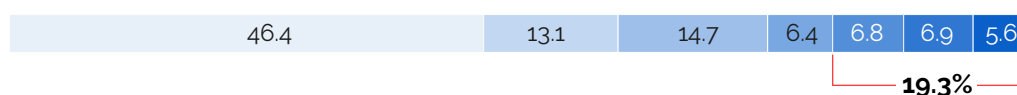
Due to the cancer, in the last month, have you needed help eating, getting dressed or going to the toilet? n=2,939



Due to the cancer, in the last month, have you had any impediment engaging in activities related to caring for your home? n=2,941



Due to the cancer, in the last month, have you had any impediment in pursuing your hobbies or other leisure activities? n=2,937



Never Seldom Sometimes About as often as not Frequently Very often Always

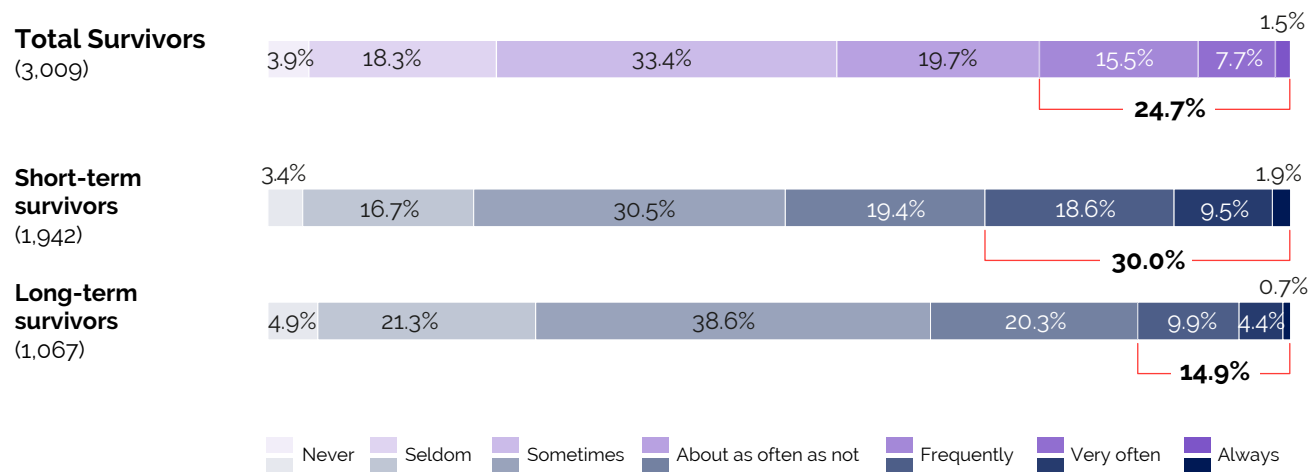
■ Emotional discomfort in cancer survivors

Emotional discomfort or distress is one of the most significant challenges faced after overcoming cancer. **Although many people manage to recover physically, the psychological after-effects can linger** and continue to influence their well-being.

Negative feelings refer to emotional states such as irritability, sadness or discouragement, which may be present in the lives of survivors. These emotions are not always linked exclusively to cancer or its treatment but may also respond to other personal or contextual factors. 24.7% of survivors reported experiencing negative feelings frequently, very often or always. This emotional discomfort is more prevalent among those who have survived cancer for less than five years (30.0%) and improves in survivors for whom more time has elapsed since the end of treatment (14.9%) (Figure 7).

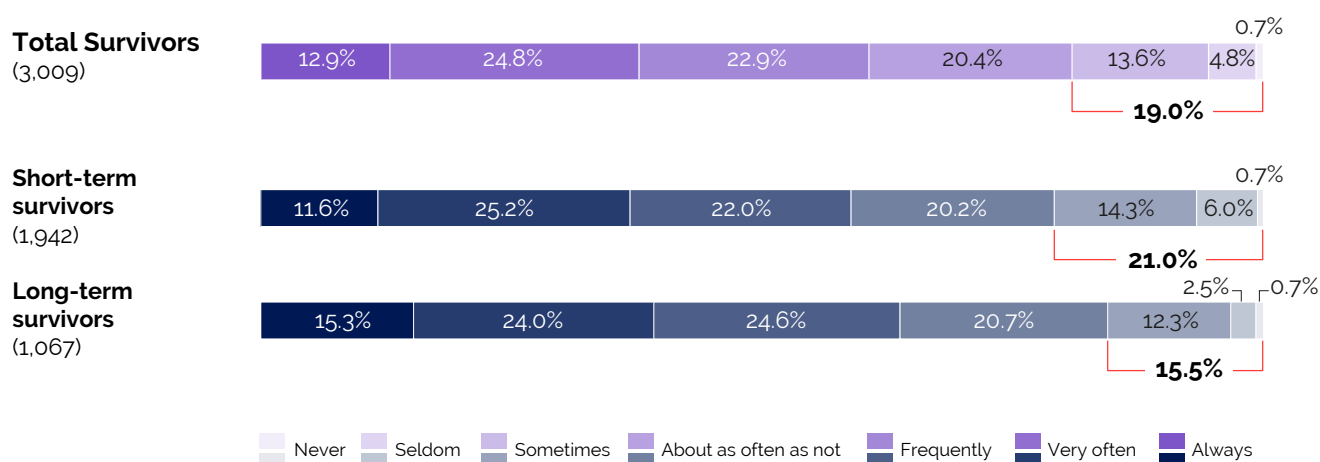
Section 2 of the Appendices shows that 25.1% of survivors *have felt blue or depressed*, 30.7% anxious, 27.8% have experienced mood swings and 24.9% have felt worried frequently, very often or always.

Figure 7. Emotional discomfort. **Negative feelings dimension**



Positive emotions and moods, such as joy, optimism and satisfaction, were also analysed. This domain is known as **positive feelings**. In **Figure 8**, we observe that 19% of respondents reported a low frequency of these positive emotions. This positive experience is more common among those who have been cancer survivors for longer (only 15.1% reported low levels of positive feelings), compared to those who are in the first five years after treatment (26.8%).

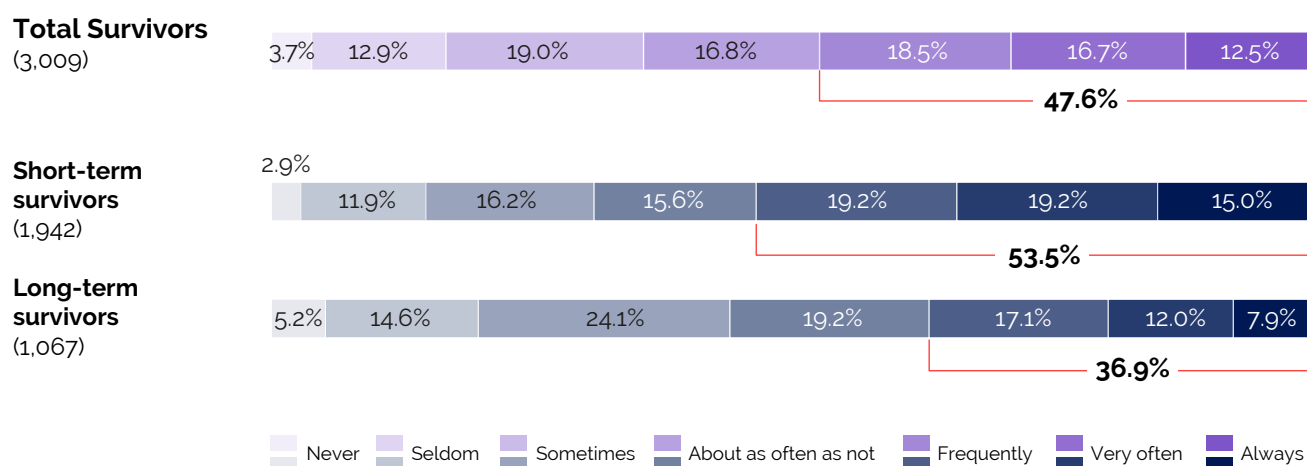
Figure 8. Emotional discomfort. **Positive feelings dimension (reverse interpretation)**



Distress about recurrence of the disease is one of the most common emotional concerns among people who have survived cancer. As shown in **Figure 9**, almost half of those surveyed (47.6%) reported experiencing this fear frequently, very often or always. This concern is more common among those who completed treatment less than five years ago (53.5%), although it is also present in 1 in 3 long-term survivors (36.9%) either frequently, very often or always.

This distress about recurrence manifests itself in a *concern about dying from cancer* (52.6% of survivors), about the cancer coming back (65.8%) and a *concern about associating pain with the cancer coming back* (42.1%), as can be seen in **Appendix 2**.

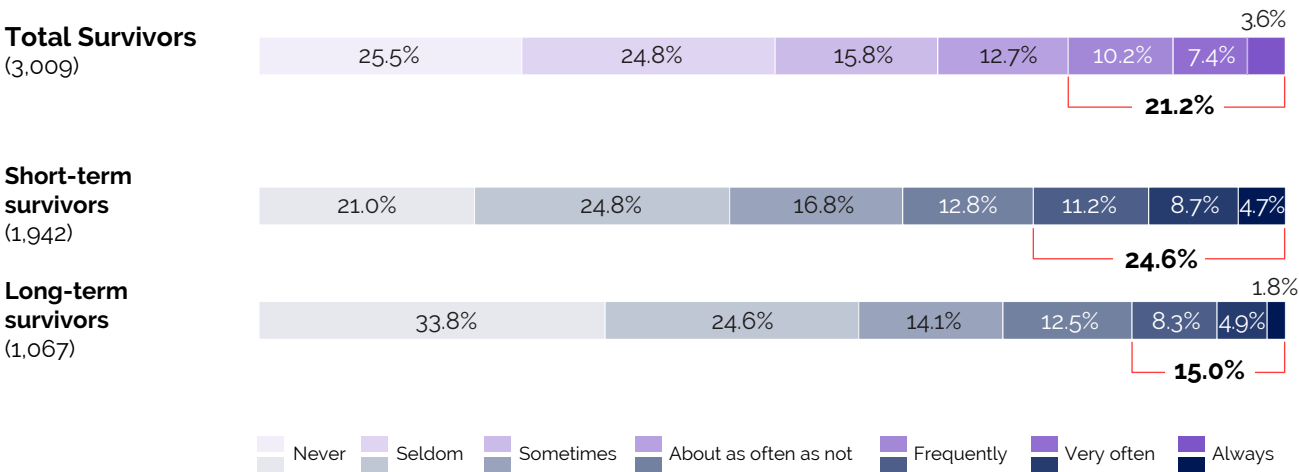
Figure 9. Emotional discomfort. **Distress about recurrence dimension**



Concern about body image and physical appearance affects a significant proportion of survivors. 21.2% reported feeling concerned about their body image frequently. This concern is more intense among those who have been in remission for less than five years (24.6%), whereas among those who have been in remission for more than five years, the percentage drops to 15.0% (**Figure 10**).

Analysing the indicators comprising this dimension and which appear in **section 2 of the Appendix**, we find that 28.9% have been *self-conscious about the way they look because of the cancer or its treatment*, 29.0% did not *feel attractive because of the cancer or its treatment*, 20.3% *were bothered by hair loss*, and 22.8% felt that *people treated them differently because of changes to their appearance* either frequently, very often, or always.

Figure 10. Emotional discomfort. Appearance concerns dimension



Social and interpersonal relationships of cancer survivors

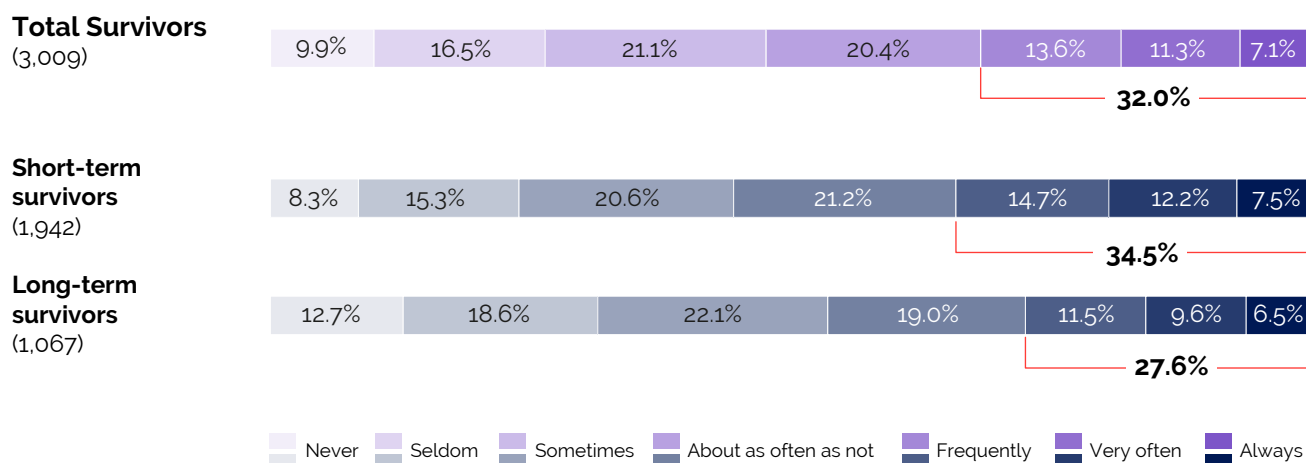
Cancer and its treatments affect the social and interpersonal relationships of people who have survived cancer. Some of the most common challenges include the avoidance of social encounters, sexual problems, and concerns about the risk of cancer in family members.

Cancer and its treatment can significantly affect **sexuality**. Loss of desire, difficulties in maintaining sexual relations, physical effects such as early menopause, physical pain, dryness, erectile dysfunction or changes in sexual response are common after-effects that affect sexual activity.

32.0% of survivors reported **sexual problems**, which are more common in survivors with less time free of the disease (34.5%). Although problems tend to decrease over time, 27.6% of long-term survivors still reported having experienced sexual difficulties on a regular basis (**Figure 11**).

34.0% of people have *felt bothered by being unable to function sexually*, 36.0% have *felt dissatisfied with their sex life*, 37.1% have *lacked interest in sex* and 34.7% have *avoided sexual activity* either frequently, very often or always. These data can be consulted in **section 2 of the Appendices**.

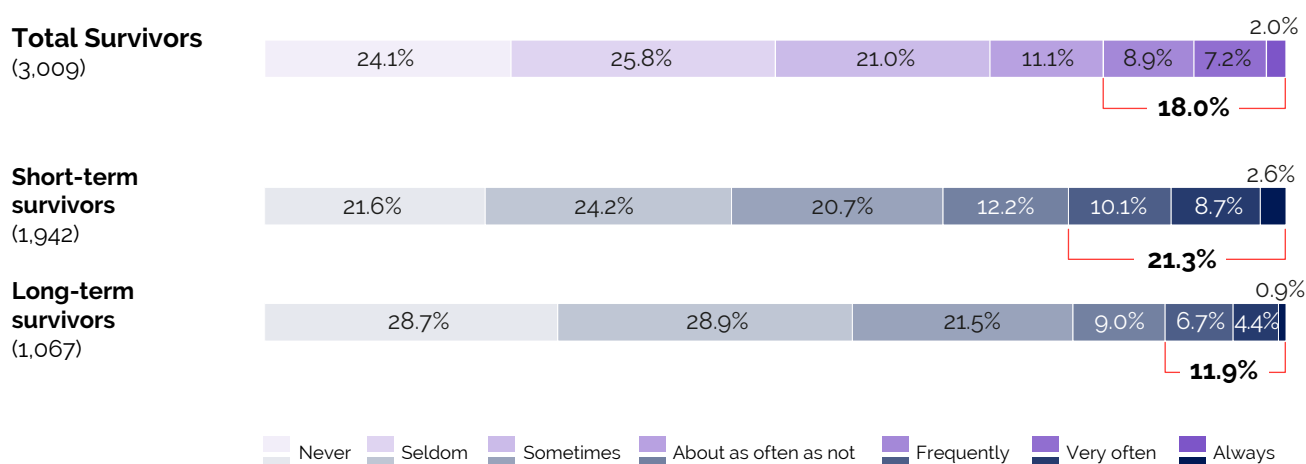
Figure 11. Social and interpersonal relationships. **Sexual problems dimension**



Social avoidance or difficulty establishing new relationships are persistent problems that hinder full reintegration into society. In our study (**Figure 12**), 18.0% of survivors reported experiencing these problems, which were more common among those who had completed treatment less than 5 years ago (21.3%) than among those who had completed treatment more than 5 years ago (11.9%).

The distributions of the indicators—which can be consulted in **section 2 of the Appendices** - show that 22.8% have been *reluctant to start new relationships*, 21.9% have *avoided social gatherings*, and 16.5% have *avoided their friends* either frequently, very often, or always.

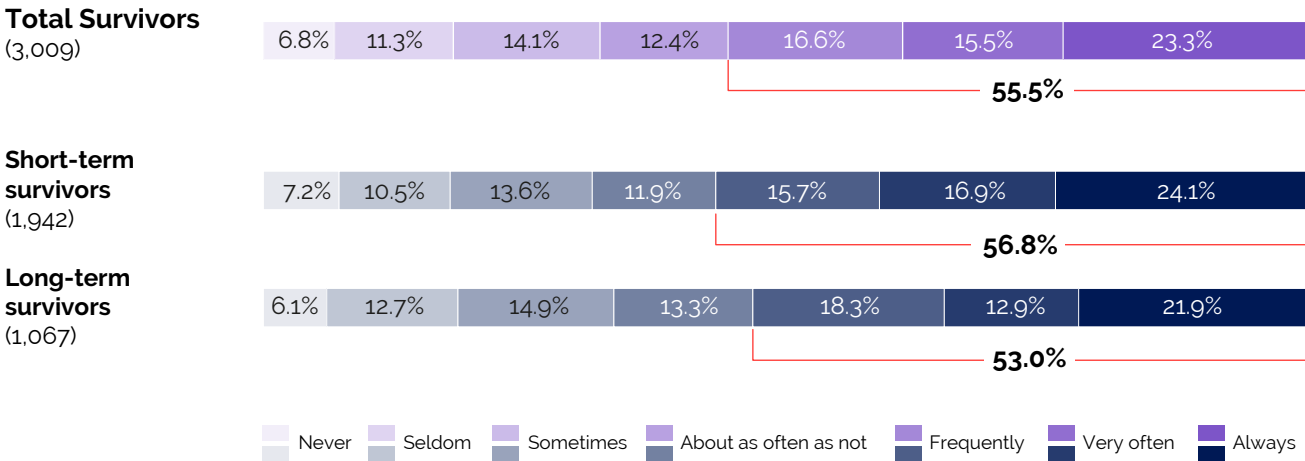
Figure 12. Social and interpersonal relationships. **Social avoidance dimension**



Anxiety related to the health of loved ones is also a significant source of discomfort. In this regard, concern about the possible diagnosis of cancer in a family member (**family distress**) was analysed, finding that 55.5% of survivors reported feeling this concern very often, being slightly more common in those who had completed treatment less than 5 years ago (56.8%) compared to those who had been cancer-free for more than 5 years (53.0%) (**Figure 13**).

65.1% were worried that their family members were at risk of getting cancer, 60.5% worried that their family members might have cancer-causing genes, and 42.7% worried about whether their family members should have genetic tests for cancer. This information can be consulted in **Appendix 2** of this report.

Figure 13. Social and interpersonal relationships. Family distress dimension



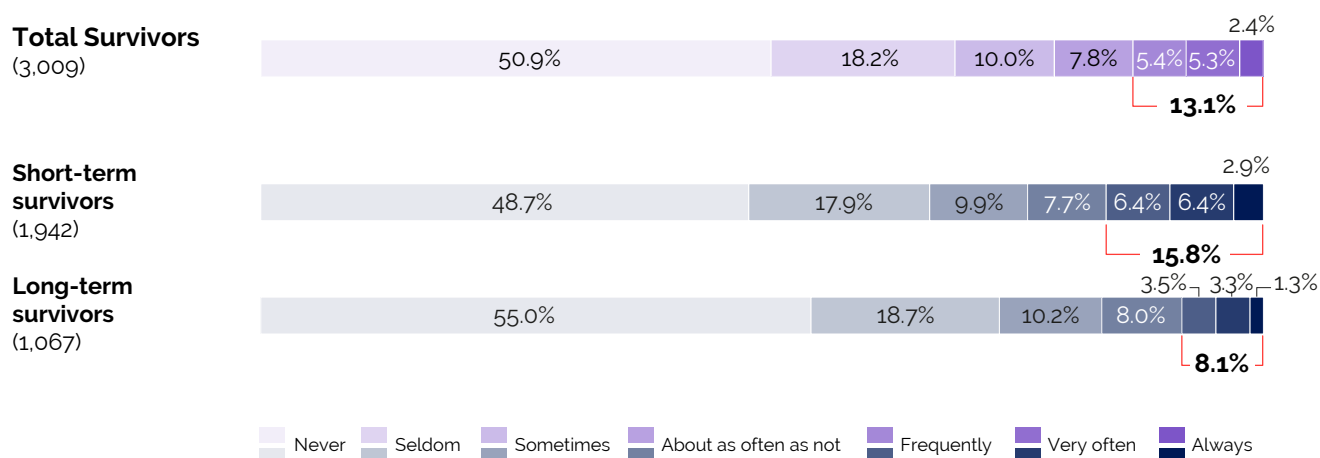
Financial and employment situation of cancer survivors

Cancer can have **significant consequences on a person's financial and employment situation**. After overcoming the disease, many people face challenges in returning to the labour market, with changes in their employment conditions and potential financial difficulties. Moreover, possible expenses related to treatment not covered by the National Health System (SNS) and potential loss of income during the period of illness can cause both short and long-term financial problems. This section analyses how cancer impacts the economic and employment situation of those who have suffered from it.

With regard to **financial problems**, we find that 13.1% say they have experienced financial difficulties. This proportion is higher in the first few years after completion of treatment (15.8%) and decreases over time, to 8.1% in long-term survivors (**Figure 14**).

In addition, 18.9% have had *problems due to loss of income as a result of cancer* and 13.2% have *had financial problems because of the cost of treatment* either frequently, very often or always (**section 2 of the Appendices**).

Figure 14. Financial problems of cancer survivors



The current employment situation of survivors shows that 32.9% are employed, 38.3% are retired or early retired, while the rest are in other situations such as permanent disability (10.4%), temporary disability (8.7%) or unemployment (6.4%) (**Figure 15**).

Figure 15. Current employment status % (n=2,882)

Current employment status (%) n=2,882

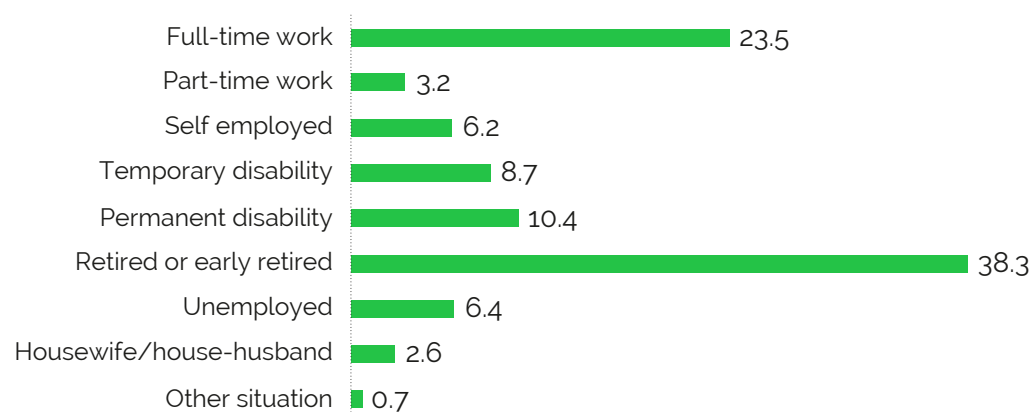
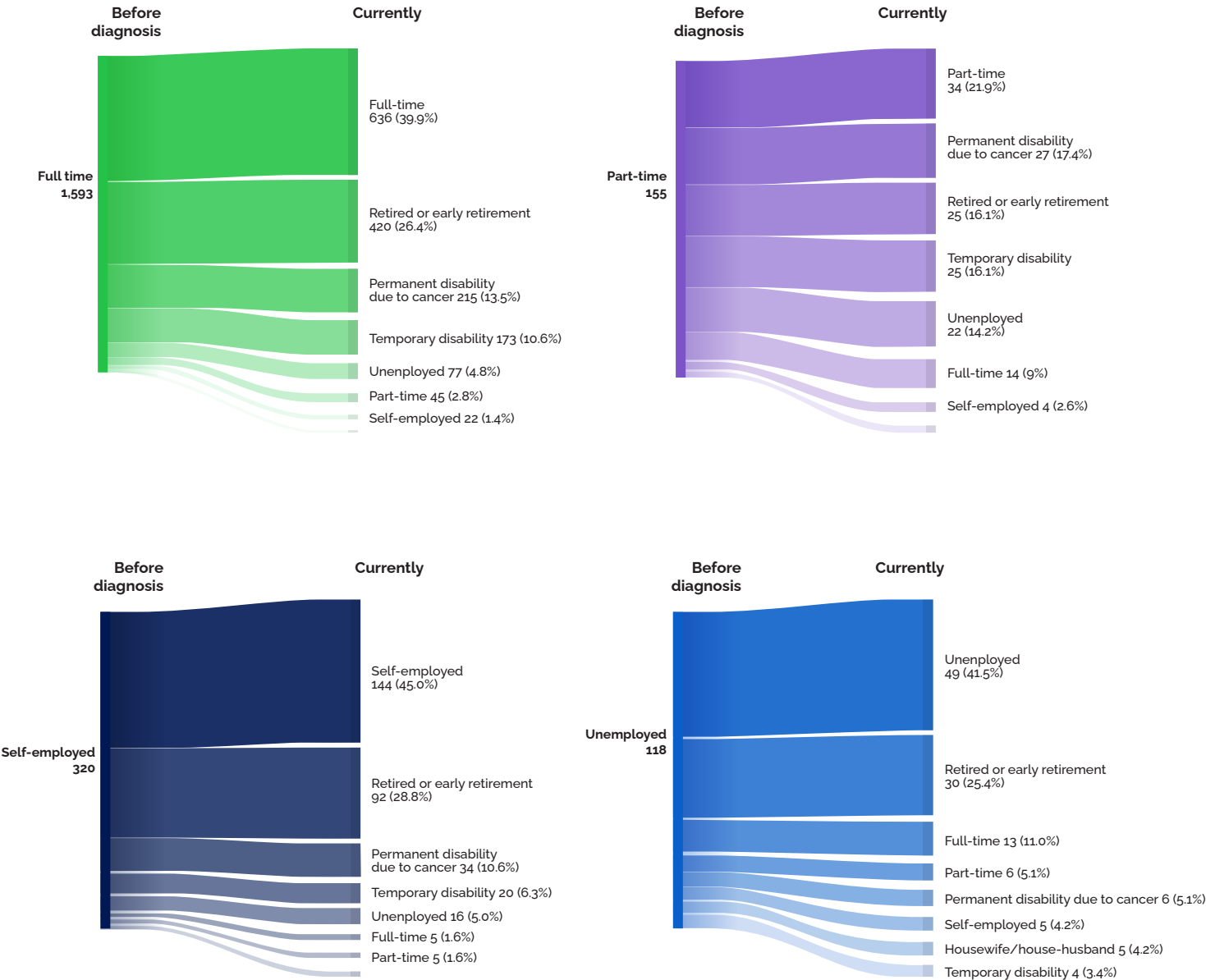


Figure 16 analyses the impact of cancer on employment status, comparing **their employment status before diagnosis with their current status** after their treatment was completed.

- Among those who worked full-time before diagnosis, 39.9% have returned to their previous situation, while 26.4% have retired. 13.5% are permanently disabled due to cancer and 10.9% are temporarily disabled. Moreover, 4.8% are unemployed and 2.8% work part-time.

- As for those who worked part-time before diagnosis, 21.9% have returned to this type of work. 9% have returned to full-time work, and 14.2% are unemployed. In addition, 16.1% have retired or taken early retirement, 17.4% are permanently disabled due to cancer and 16.1% are temporarily disabled.
- Of those who were self-employed before diagnosis, 45% have resumed their activity as self-employed workers, while 28.8% have retired. 10.6% are permanently disabled due to cancer and 6.3% are temporarily disabled. 5.0% are unemployed.
- Finally, among those who were unemployed before diagnosis, 41.5% remain in the same situation. 25.4% have retired or taken early retirement, while 11.0% have returned to the labour market full-time, 5.1% part-time and 4.2% as self-employed workers.

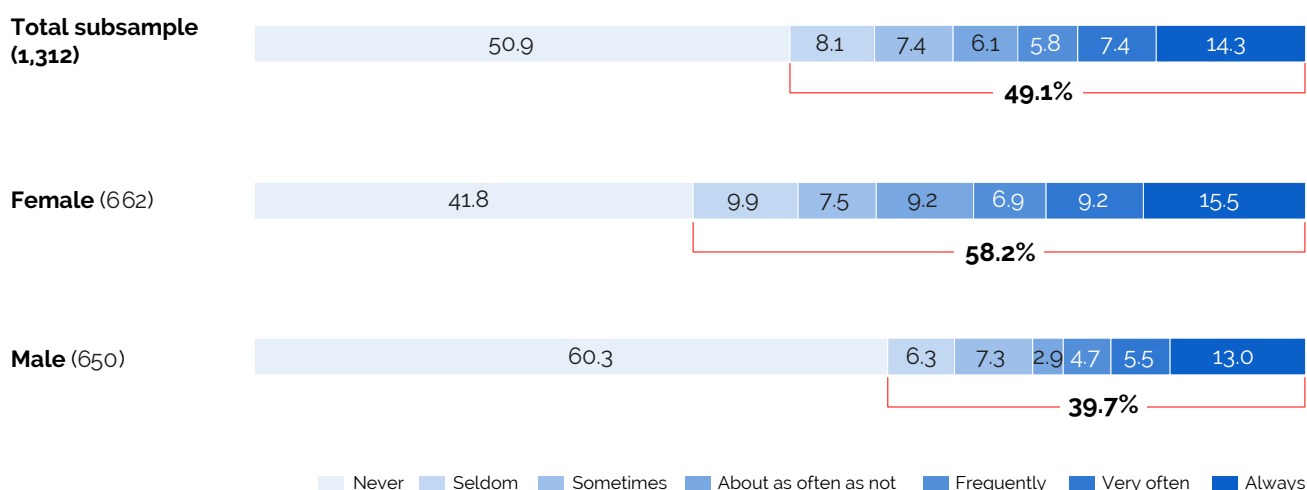
Figure 16. Employment status of survivors before and after the disease.



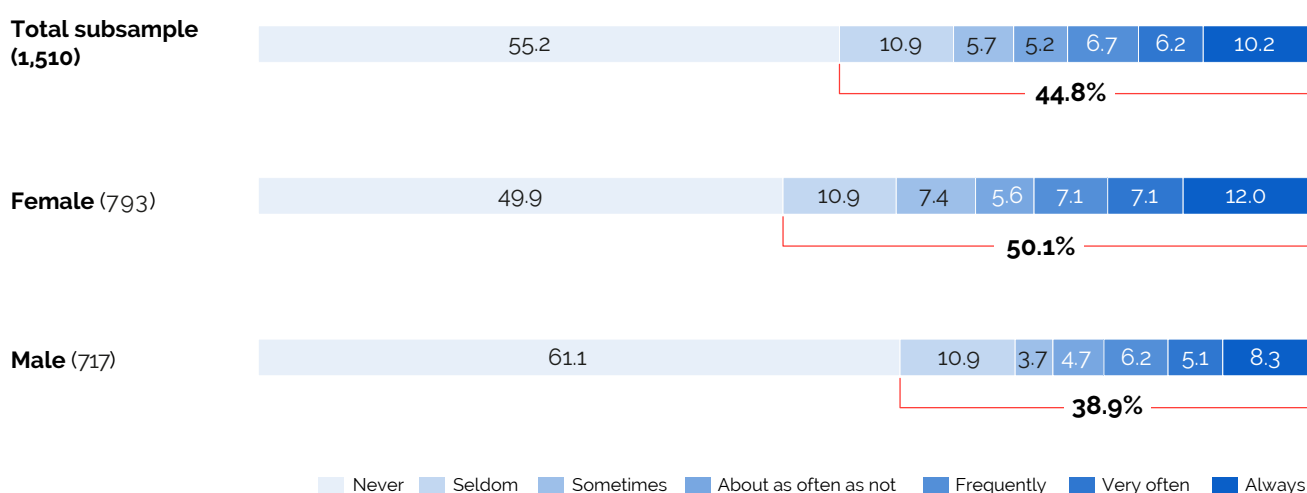
In addition to the dimensions analysed above, significant challenges related to employment status have been identified (**Figure 17**). Not everyone responded to this set of questions, as it did not apply to their situation. Among those who did respond, 49.1% reported having difficulties performing their job. This percentage is higher among women (58.2%) than among men (39.7%). Moreover, 44.8% reported experiencing a lack of support or understanding from colleagues or managers regarding their situation, again more frequently among women (50.1%) than among men (38.9%). Finally, 53.0% feel that cancer has limited their job opportunities, with a difference of more than 16 percentage points between women and men (60.6% and 44.6% respectively).

Figure 17. Employment problems of cancer survivors

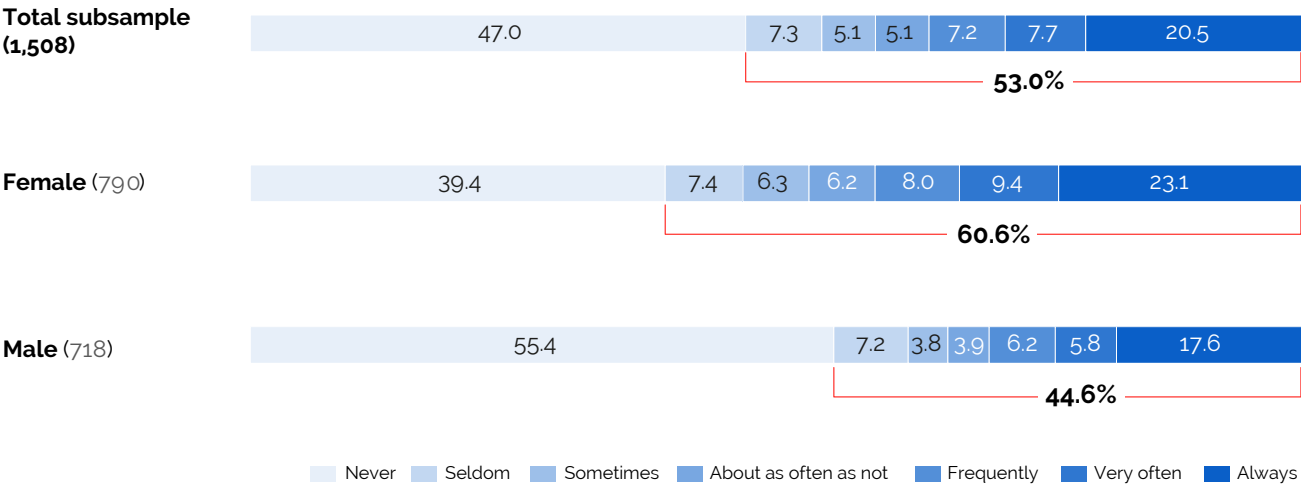
Have experienced some impediment performing their job due to cancer (n=1,312)



Have felt a lack of support or understanding from their colleagues or managers due to cancer (n=1,510)



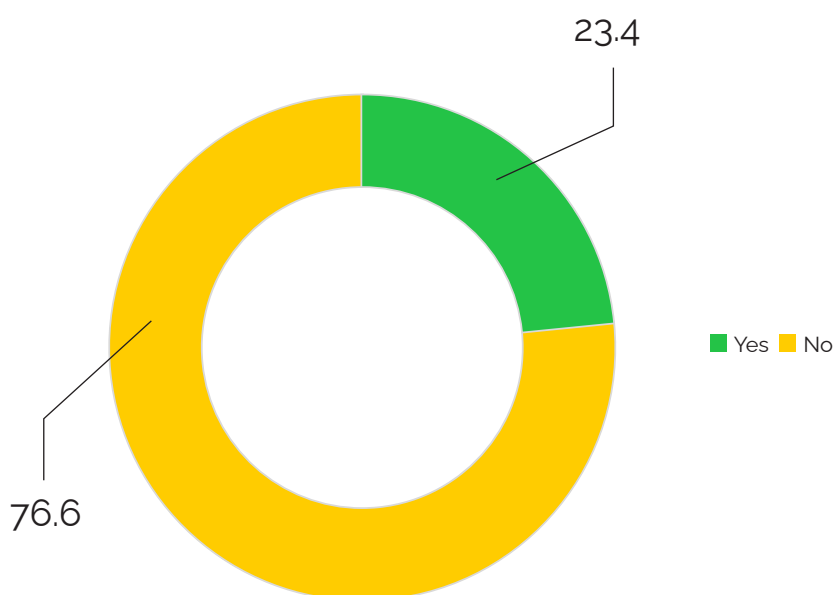
Have felt that cancer has limited their job opportunities or their careers (n=1,508)



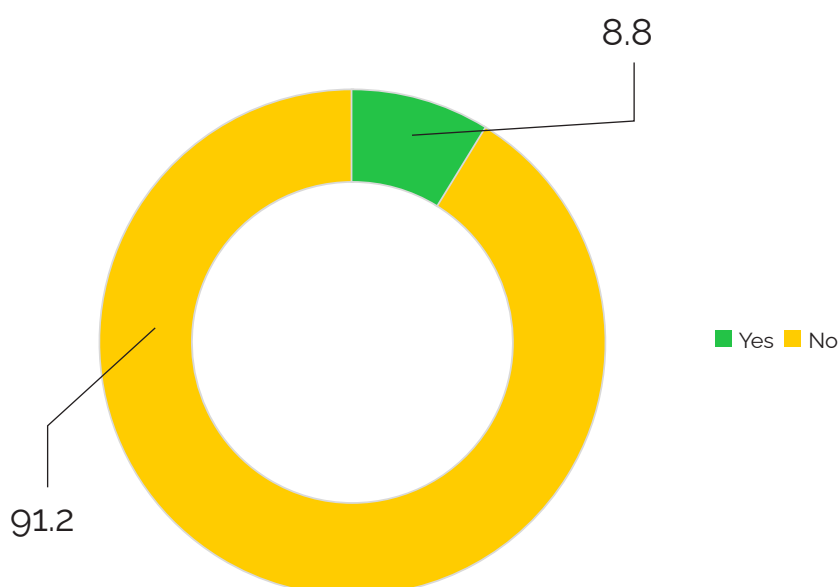
When we continued to explore the impact of cancer in the workplace, we found that 23.4% say they have been forced to leave their jobs as a result of the disease and 8.8% say they have been dismissed from their jobs as a direct result of cancer (**Figure 18**).

Figure 18. Questions about the possible impact of cancer on work (once treatment has been completed and medical discharge has been granted, etc.)

Have you been forced to leave your job? (n=1,517)



Have you lost your job because of cancer? (n=1,422)



05

Conclusions

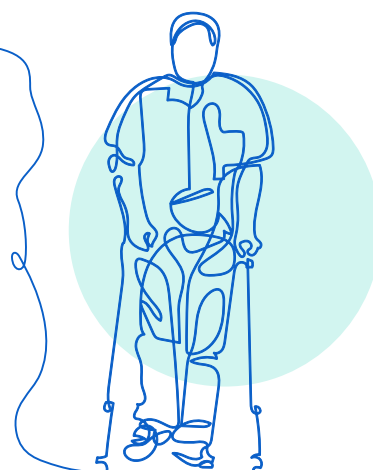


Cancer survivors in Spain face multiple challenges that have a persistent and multidimensional impact on their quality-of-life, even years after completing treatment.



Although some survivors manage to resume their lives with a certain level of normalcy, a significant proportion still face substantial difficulties. Some **16.3% reported an impaired quality-of-life, a figure that rises to 20.3% among those who have most recently overcome cancer.**

Persistent physical symptoms affect a considerable percentage of cancer survivors, even those who completed their treatment more than five years ago. Within this group of long-term survivors, between **15% and 20% reported physical symptoms** that negatively impact their daily lives. This suggests the need to prioritise follow-up care for survivors in the medium and long term.



47.6% are afraid of recurrence and 55.5% are concerned about their family, these being the most intense and persistent concerns, with no differences in terms of survival time. This consolidates **the emotional dimension as a critical area** for intervention after treatment.



32% reported **sexual problems** and 18% reported difficulties in social relationships, with these percentages being higher in younger people.

13.1% face financial difficulties, 23.4% have been forced to leave their jobs, and 8.8% have been dismissed from work due to cancer, highlighting the **significant socio-economic and employment impact**. The results also reveal a consistent pattern of vulnerability: women, young people (under 44 years of age) and those who have completed treatment less than five years ago consistently showed worse mean scores in all dimensions analysed. In the **workplace, women reported more frequent difficulties** in performing their jobs, less support in their professional environment and greater limitations to their development, thus confirming the existence of a **multidimensional vulnerability profile**.



Key challenges faced by cancer survivors

16.3%
reported poorer
quality-of-life
20.3%
if they had recently
overcome cancer

47.6%
indicated experiencing
fear of recurrence
55.5%
reported distress
about their family

13.1%
have financial
problems
23.4%
have quit
their jobs
53.0%
have perceived
limitations in
their job

15%-20%
are affected by
persistent physical
symptoms

32%
expressed having
sexual problems
18%
experience difficulties
in social relationships

■ Implications and proposals

These findings highlight the need to:

- 1/ ■ Implement comprehensive, multidisciplinary, and longitudinal care after initial treatment aimed at improving quality-of-life, based on primary care.
- 2/ ■ Focus attention on detecting and treating persistent after-effects such as fatigue or tiredness, chronic physical pain and cognitive problems, as well as emotional health in the presence of distress.
- 3/ ■ Develop specific psychological care programmes specialising in addressing the after-effects of survivors, such as distress about recurrence, family distress and sexual problems, as well as social and employment-based care.
- 4/ ■ Promote policy measures that favour the implementation of adaptations in the workplace, with the aim of encouraging more people who have undergone cancer treatment to return to work.
- 5/ ■ Prioritise care for the most vulnerable groups and ensure fairness in access to resources and support.
- 6/ ■ Improve registration systems and data collection on survivors in order to design evidence-based policies and reduce fragmentation of care.

Overall, cancer survival is a specific phase that requires tailored and specialised responses from multiple parties to ensure the well-being and quality-of-life of those affected.

06

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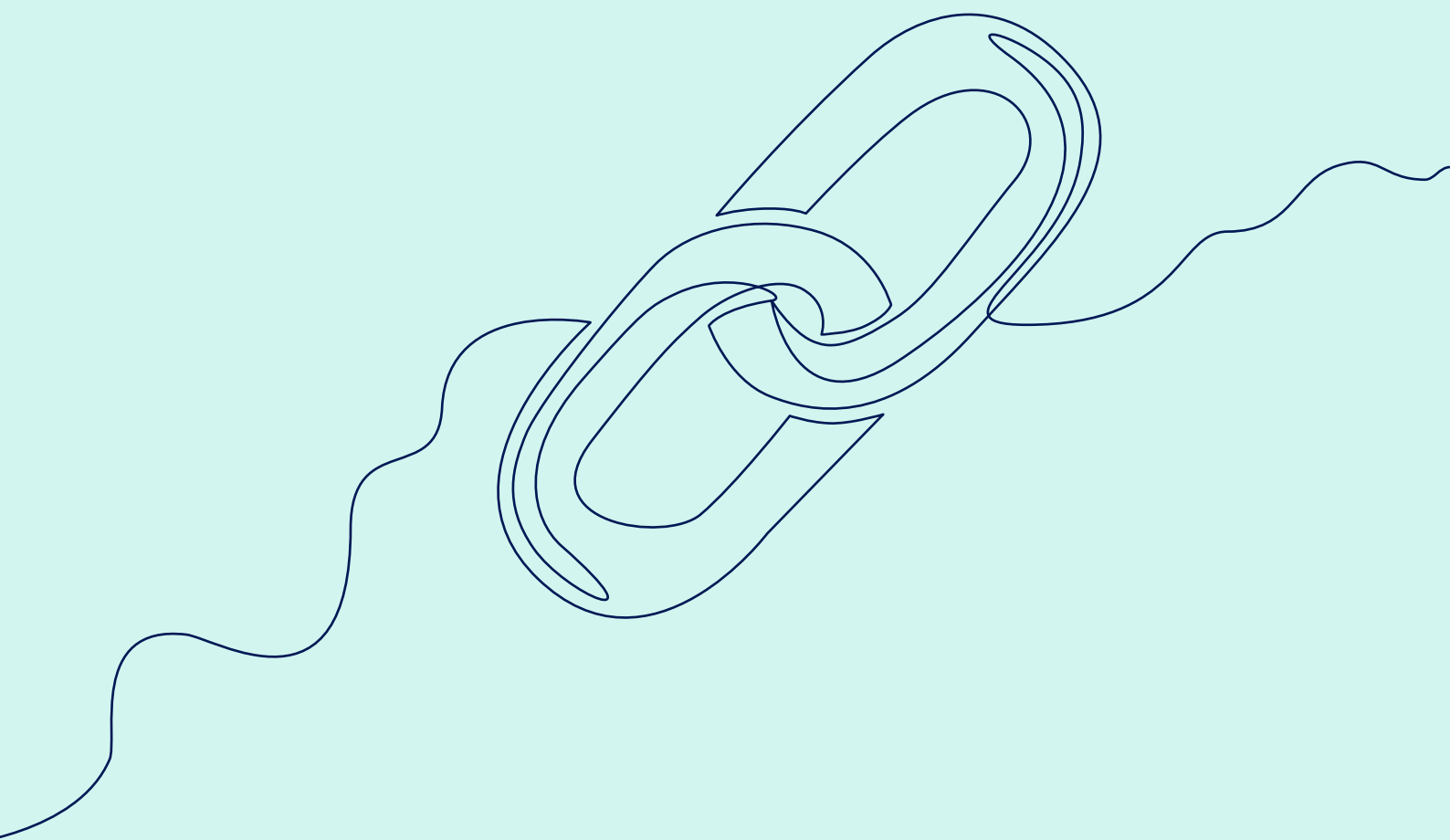
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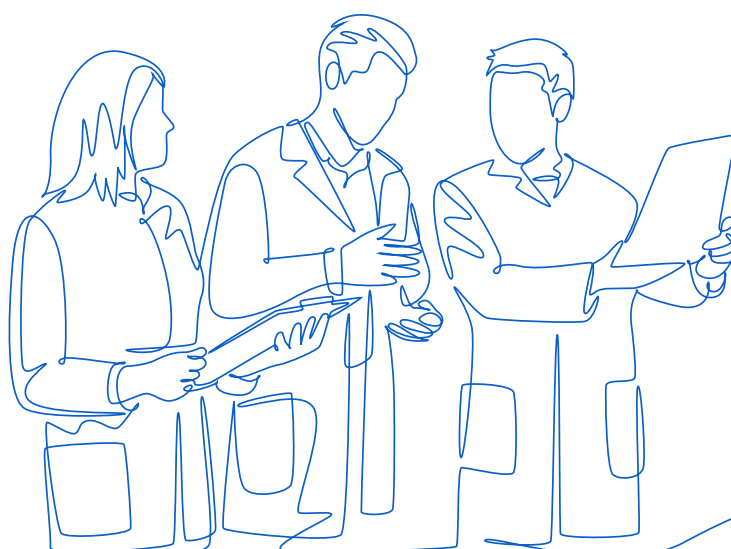
Appendices



■ Appendix ¹. Mean scores by dimension according to tumour group

This appendix addresses one of the specific research questions raised in the study: what is the distribution of the different quality-of-life dimensions according to the tumour location in survivors?

This question is relevant considering that people with cancer are a heterogeneous group comprising multiple tumour types associated with diverse treatment plans and different side effects. This heterogeneity therefore means that people with cancer do not have the same behaviour patterns and needs, as each person experiences different short-and long-term health risks and has specific needs^{1,2,3}. These needs are individual, depend on the disease and the treatment received (surgery, chemotherapy, radiotherapy) and may change in intensity as cancer survivors go through the transition and extension phases of survival⁴.



In this regard, our results show that tumour location is a relevant factor in determining differences in quality-of-life dimensions. The data broken down by the different tumour locations are shown below. The graphs detail the results, with the red envelope line showing the mean scores in the different quality-of-life dimensions for all survivors who participated in the study, compared with the blue envelope line showing the mean scores obtained by survivors in each tumour group.

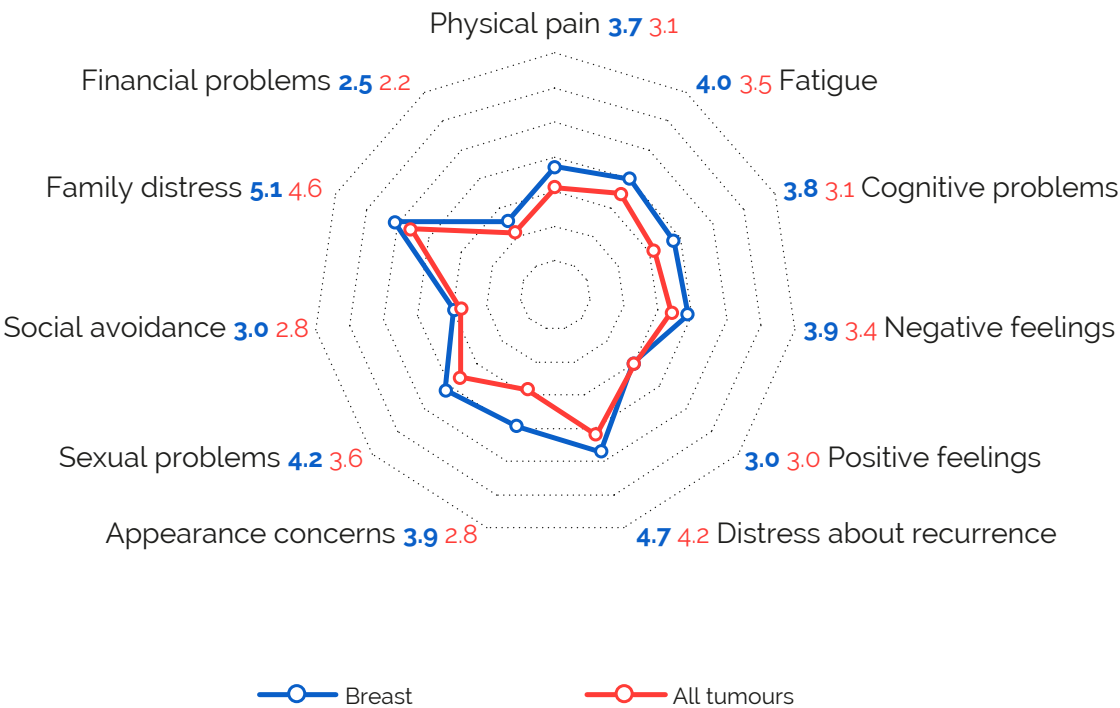
¹ Levit L, Balogh E, Nass S, et al. The evidence base for high-quality cancer care. 2013. Available at <https://www.ncbi.nlm.nih.gov/books/ NBK202140/>. Accessed December 11, 2021. 24.

² Park ER, Peppercorn J, El-Jawahri A. Shades of survivorship. *J Natl Compr Cancer Netw*. 2018;16:1163-1165.

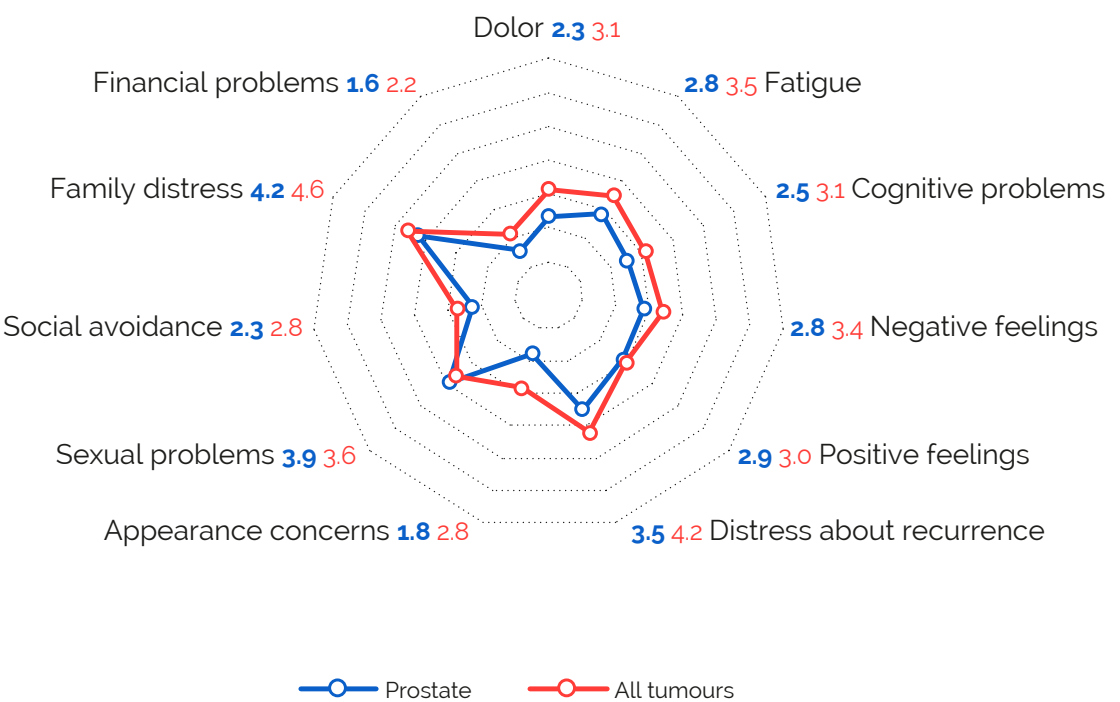
³ Vaz-Luis I, Masiero M, Cavaletti G, et al. ESMO Expert Consensus Statements on Cancer Survivorship: promoting high-quality survivorship care and research in Europe. *Ann Oncol* 33:1119-1133, 2022. <https://doi.org/10.1016/j.annonc.2022.07.1941>.

⁴ Gallego, A., Beato, C., Brozos, E. et al. Spanish Society of Medical Oncology recommendations for comprehensive assessment and care of cancer survivors' needs. *Clin Transl Oncol* 27, 95-107 (2025). <https://doi.org/10.1007/s12094-024-03571-9>.

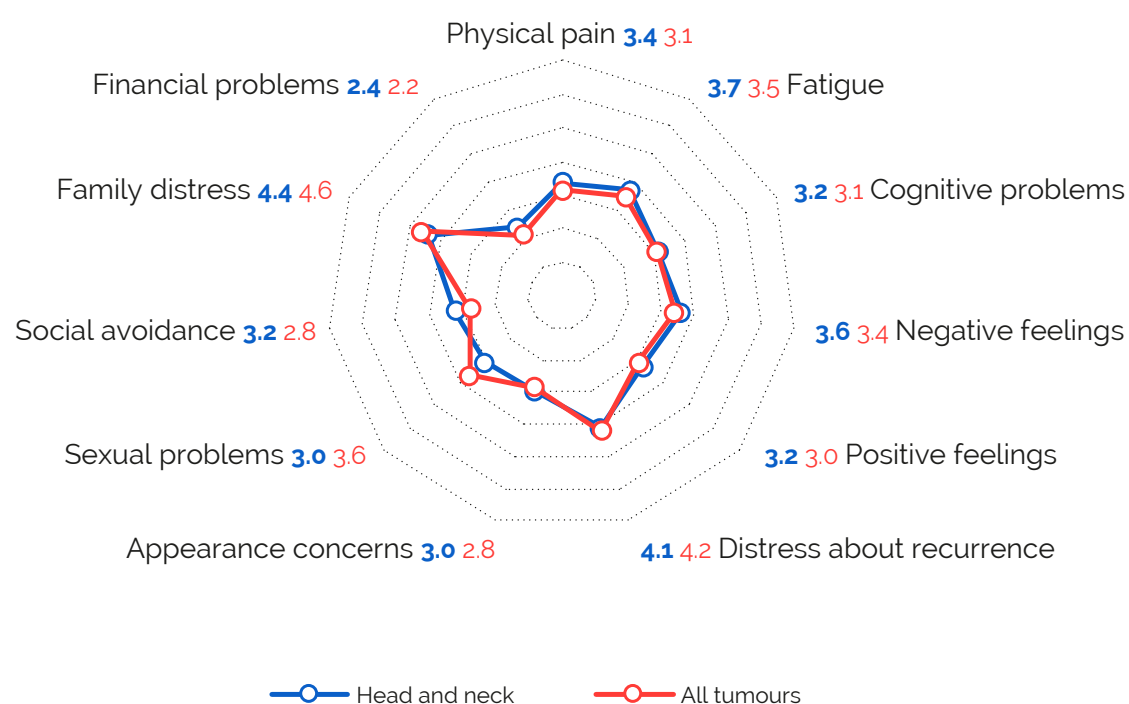
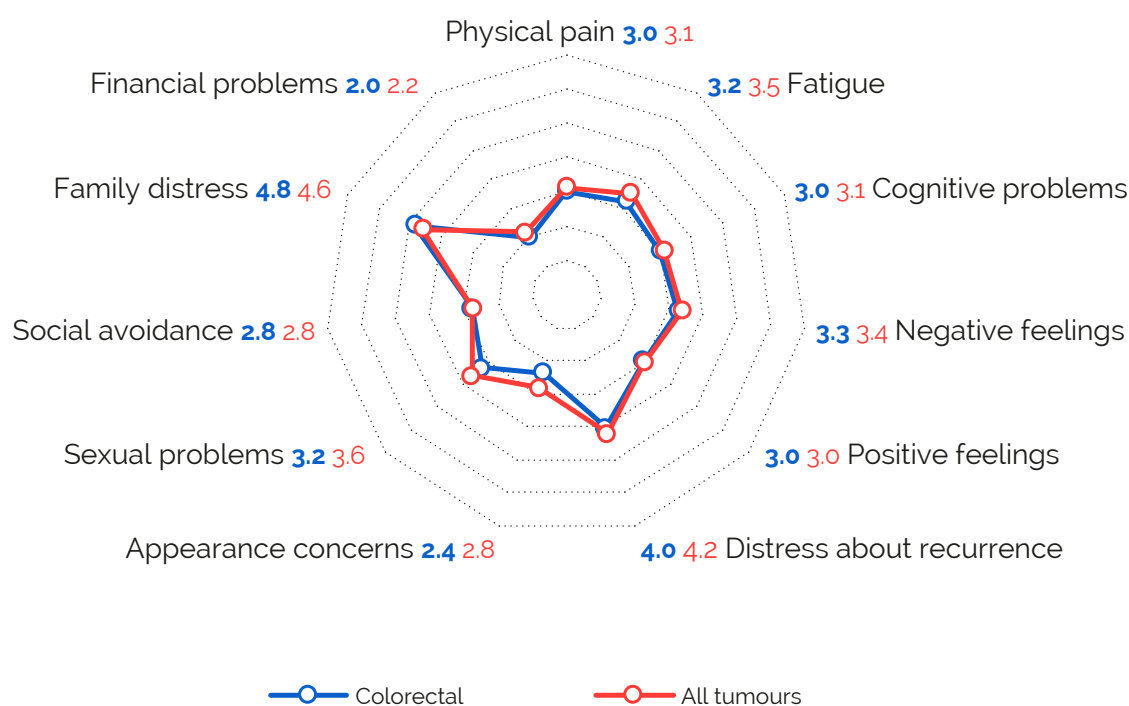
In the case of people diagnosed with **breast** cancer, we observed higher scores in all dimensions, except for positive feelings, meaning that female breast cancer survivors have a poorer quality-of-life and a higher frequency of needs and problems than the mean cancer survivor.

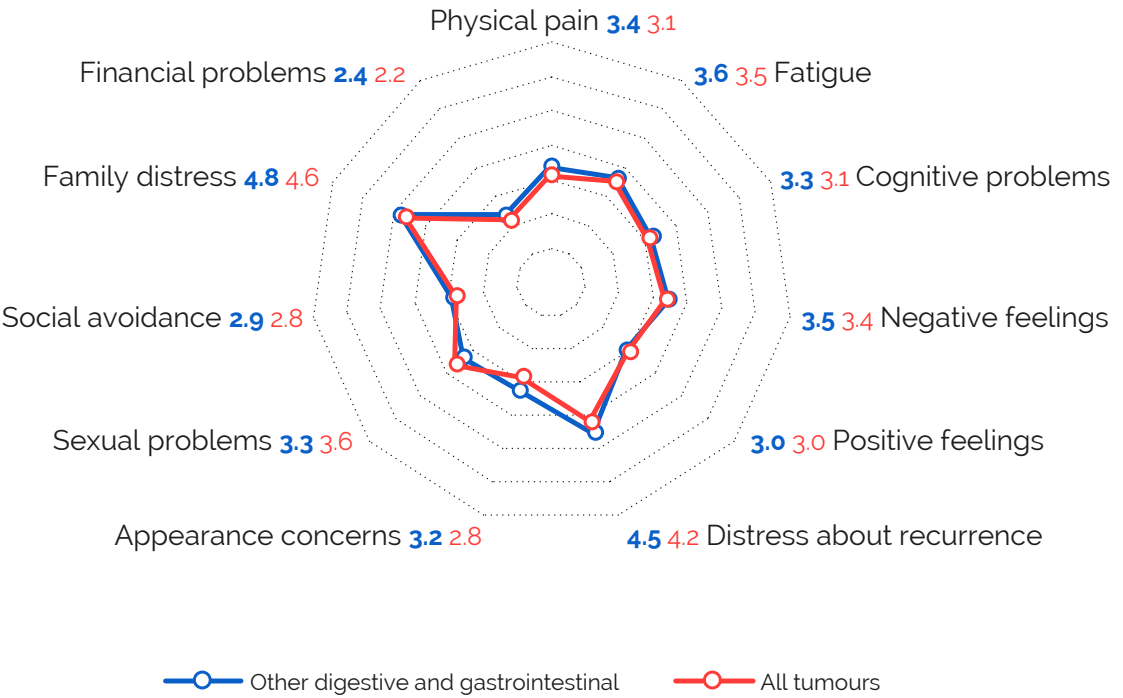
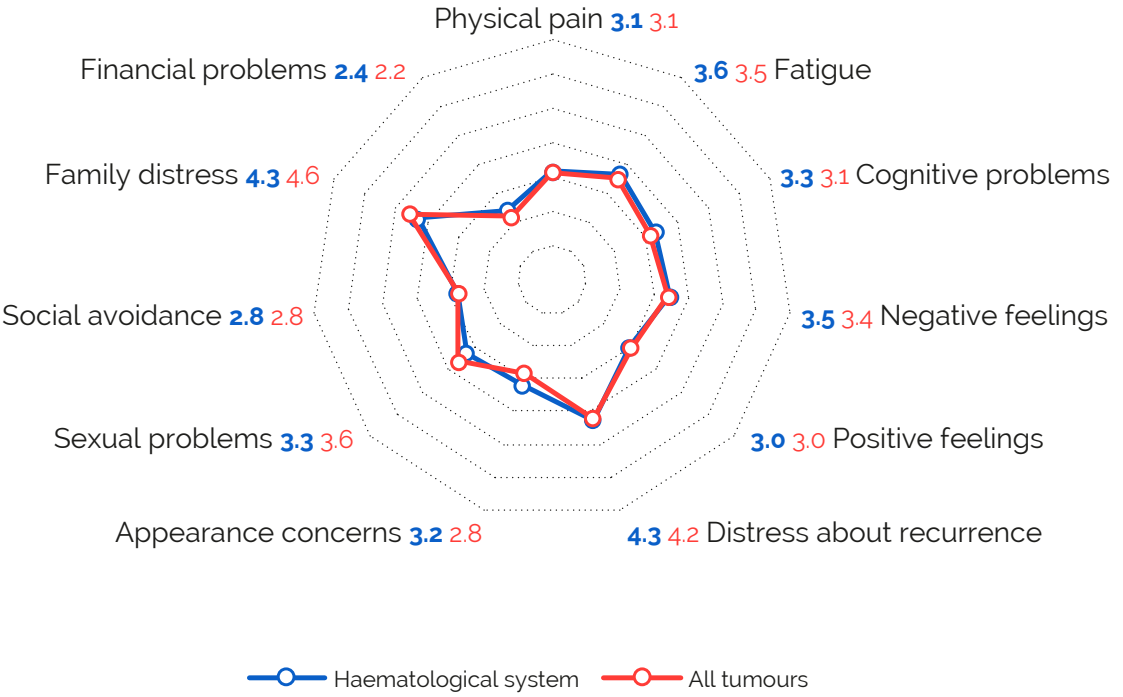


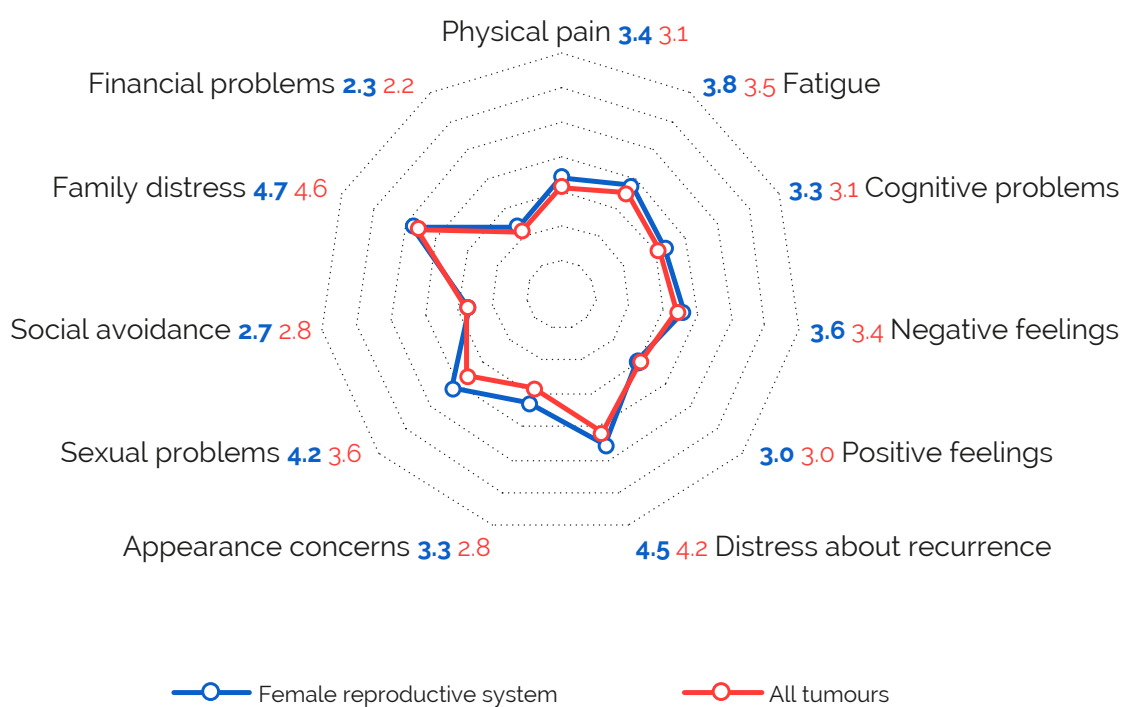
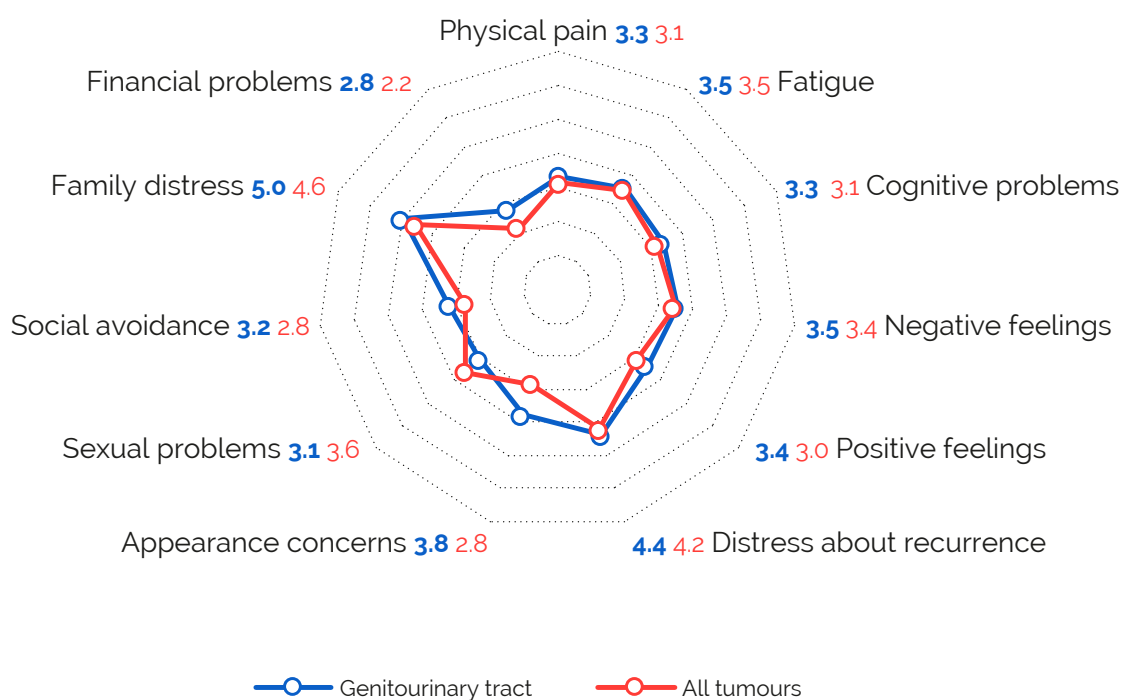
In the case of **prostate** cancer survivors, we find a better overall quality-of-life compared to other survivors. This can be seen in the fact that their mean scores in most dimensions are lower than the scores of all participants. Only in the "sexual problems" dimension are higher scores reported, which translates into a higher proportion of survivors who experience this problem quite frequently.

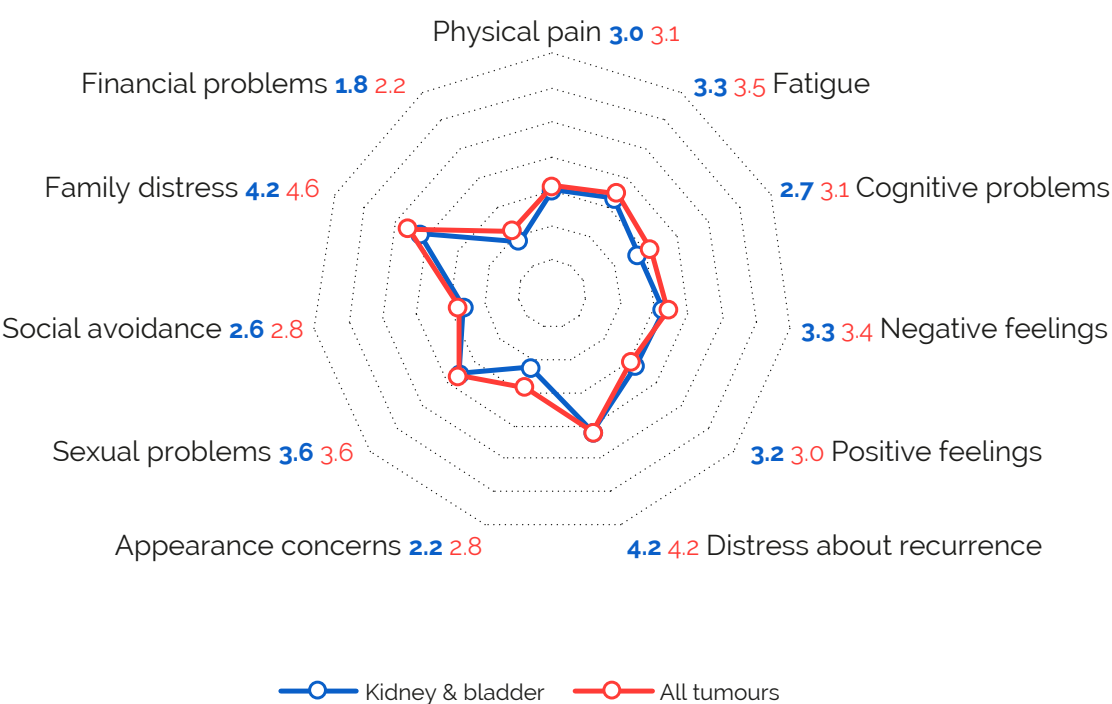
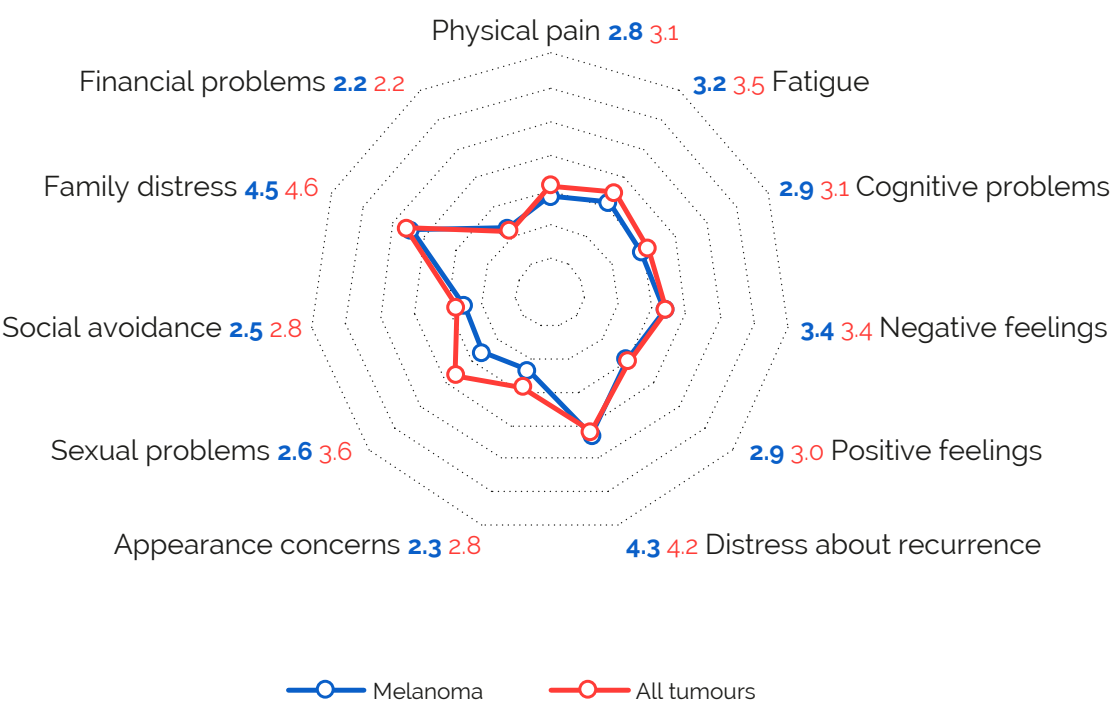


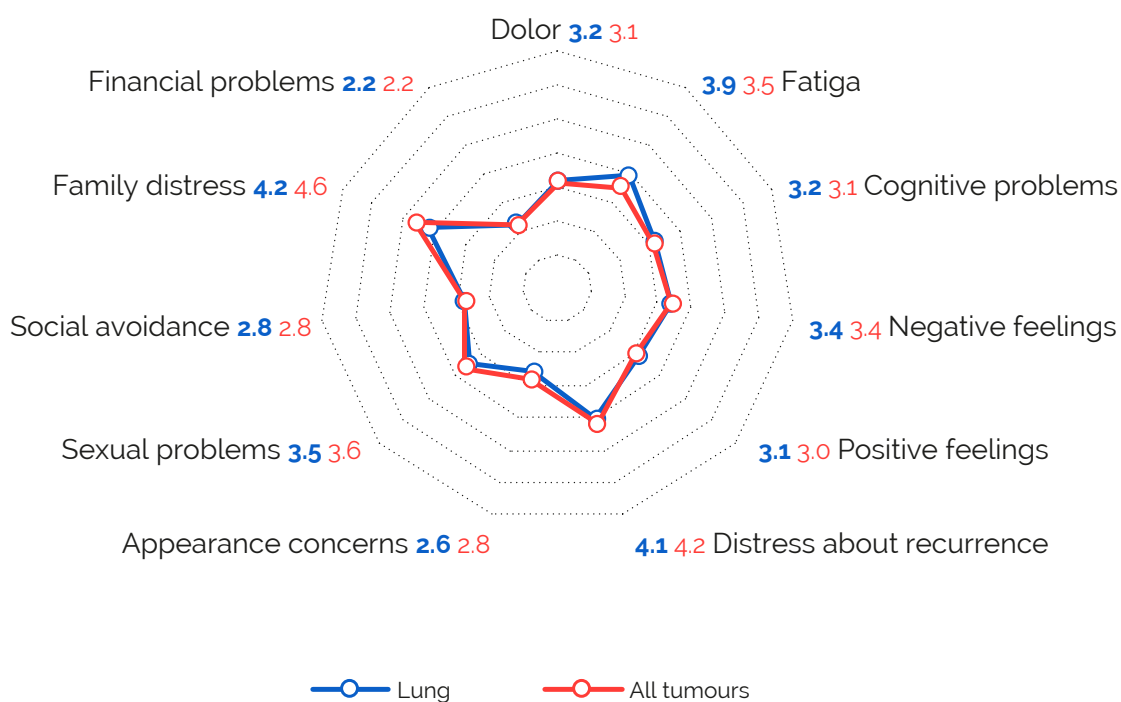
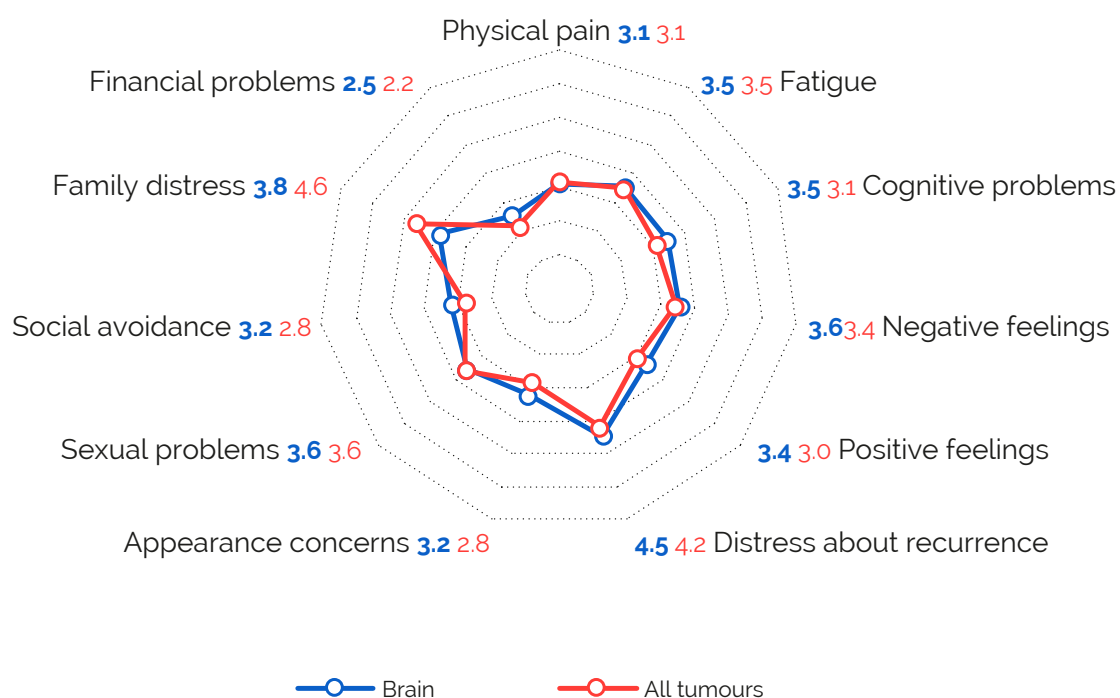
In the other tumour groups analysed, the mean scores obtained in the quality-of-life dimensions are very similar to the mean scores for all survivors (see remaining graphs). Only a few exceptions are observed in specific dimensions closely associated with side effects derived from the type of cancer or the treatments received. Examples of this are the higher scores in the "appearance concerns" dimension in the locations referring to the genitourinary tract and female reproductive system.







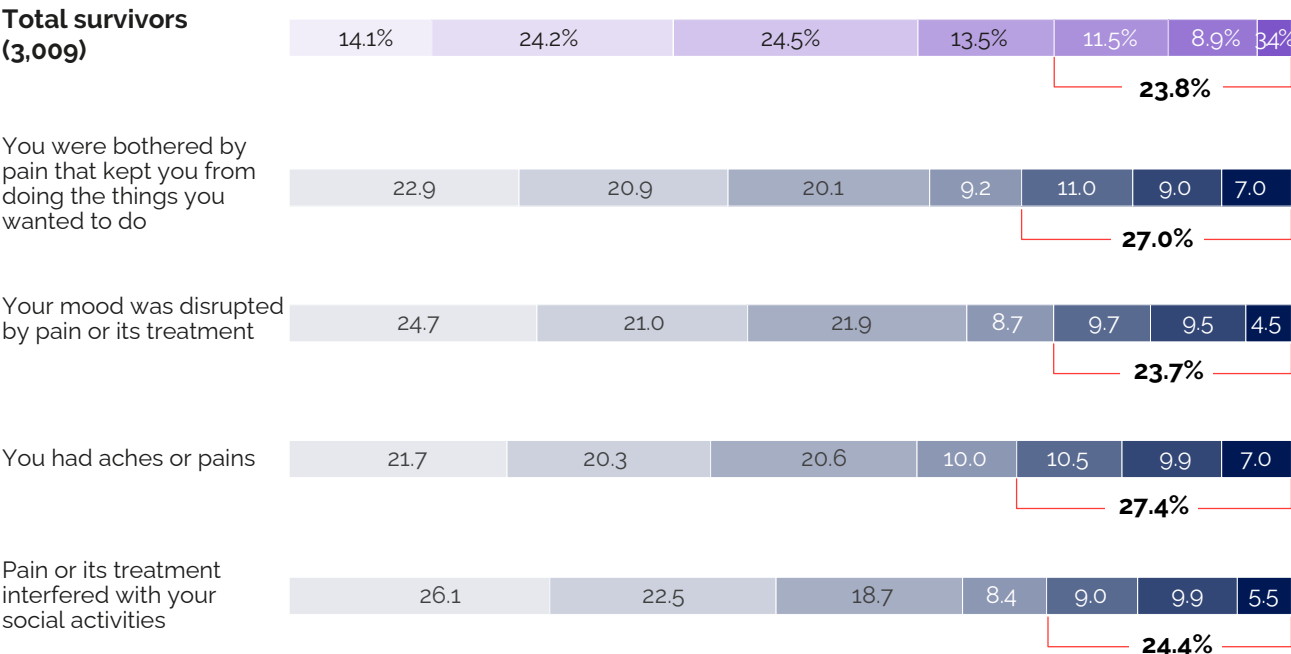




Appendix 2. QLACS dimensions and variables

In this appendix, we can see the scores for the different dimensions together with the scores for the variables or questions comprising them.

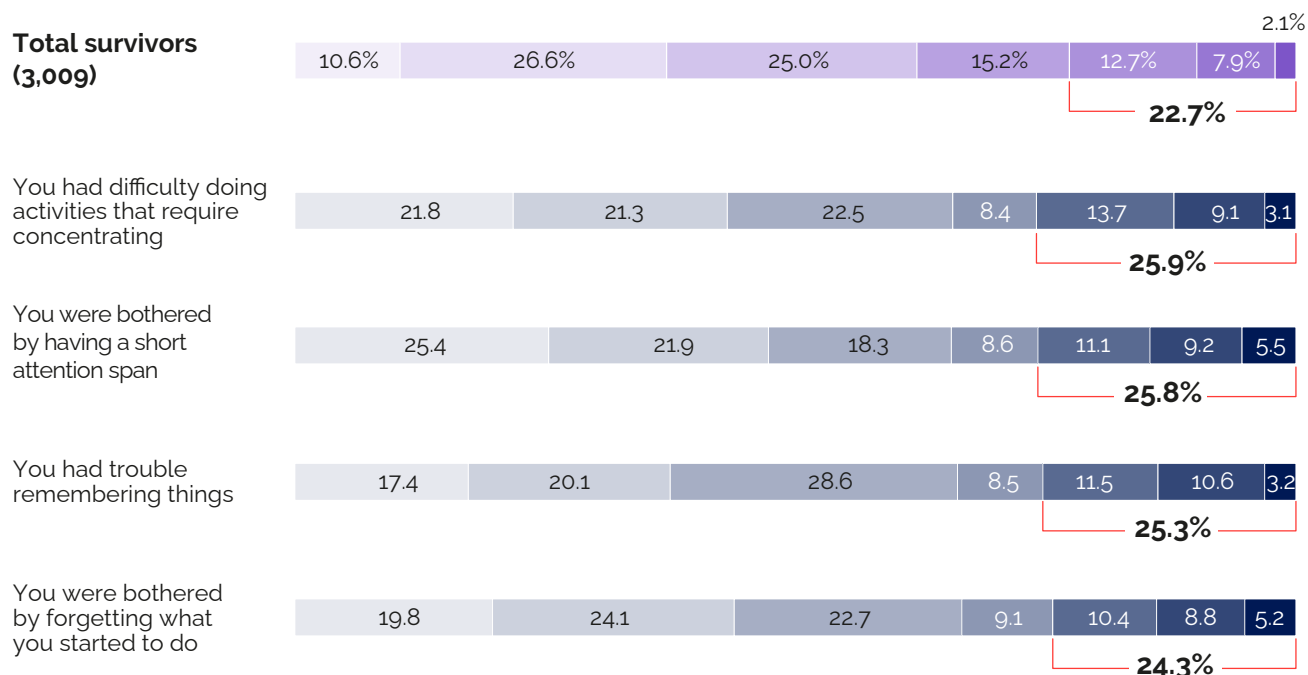
Physical pain



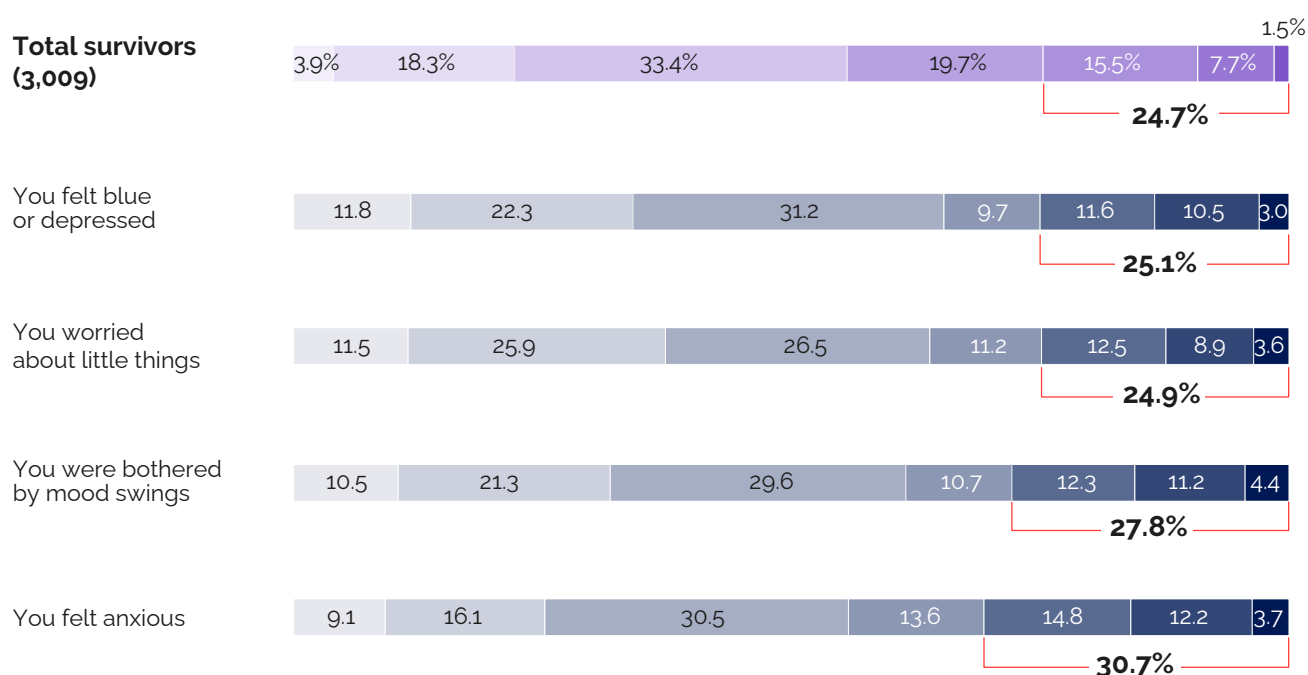
Fatigue



Cognitive problems

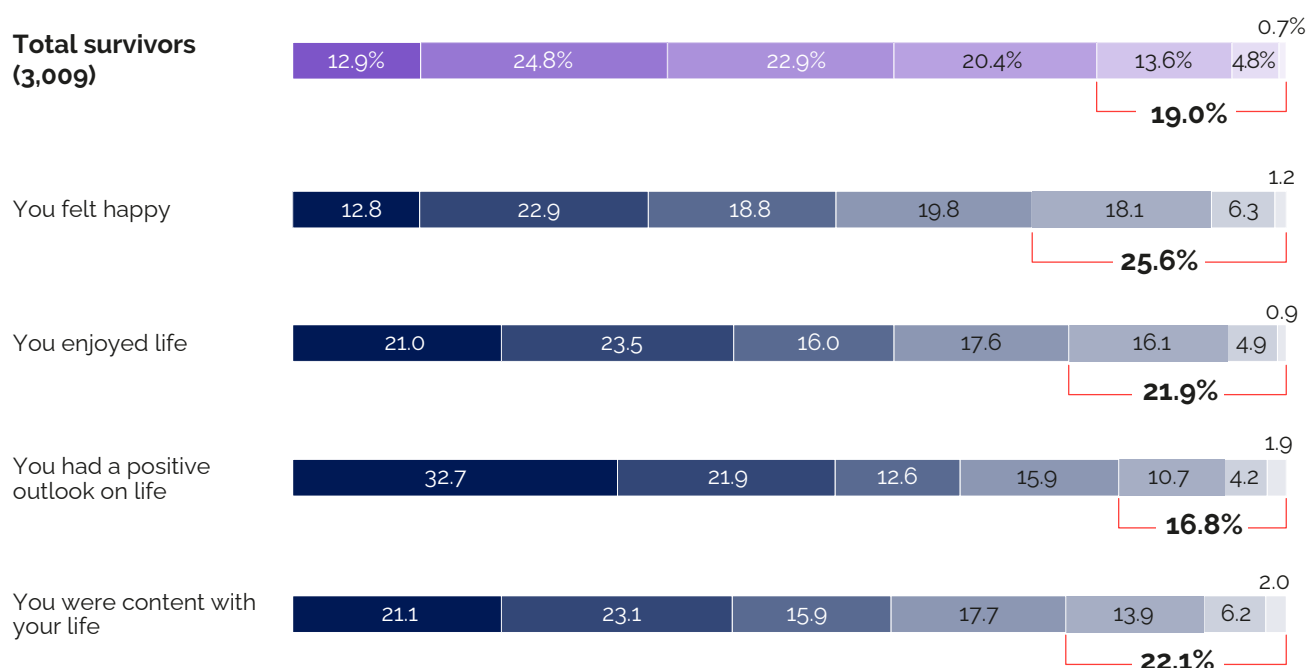


Negative feelings

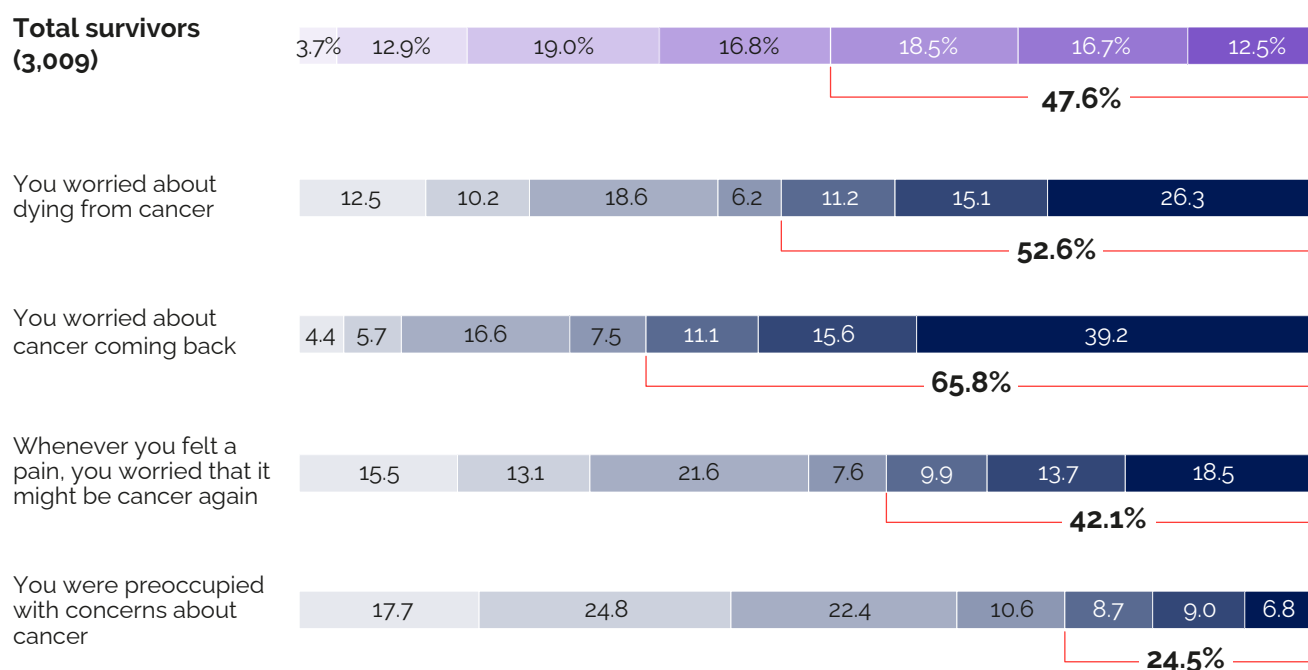


Never Seldom Sometimes About as often as not Frequently Very often Always

Positive feelings



Distress about recurrence



Never
Seldom
Sometimes
About as often as not
Frequently
Very often
Always

Appearance concerns

Total survivors (3,009)



You were self-conscious about the way you look because of your cancer or its treatment



You felt unattractive because of your cancer or its treatment



You were bothered by hair loss from cancer treatment



You felt people treated you differently because of changes to your appearance due to your cancer or its treatment



Sexual problems

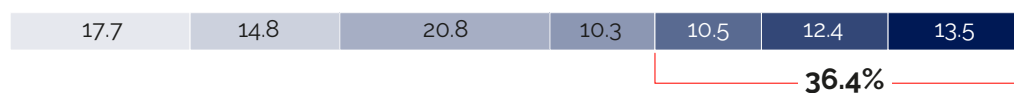
Total survivors (3,009)



You were bothered by being unable to function sexually



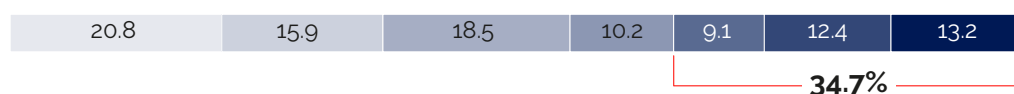
You were dissatisfied with your sex life



You lacked interest in sex

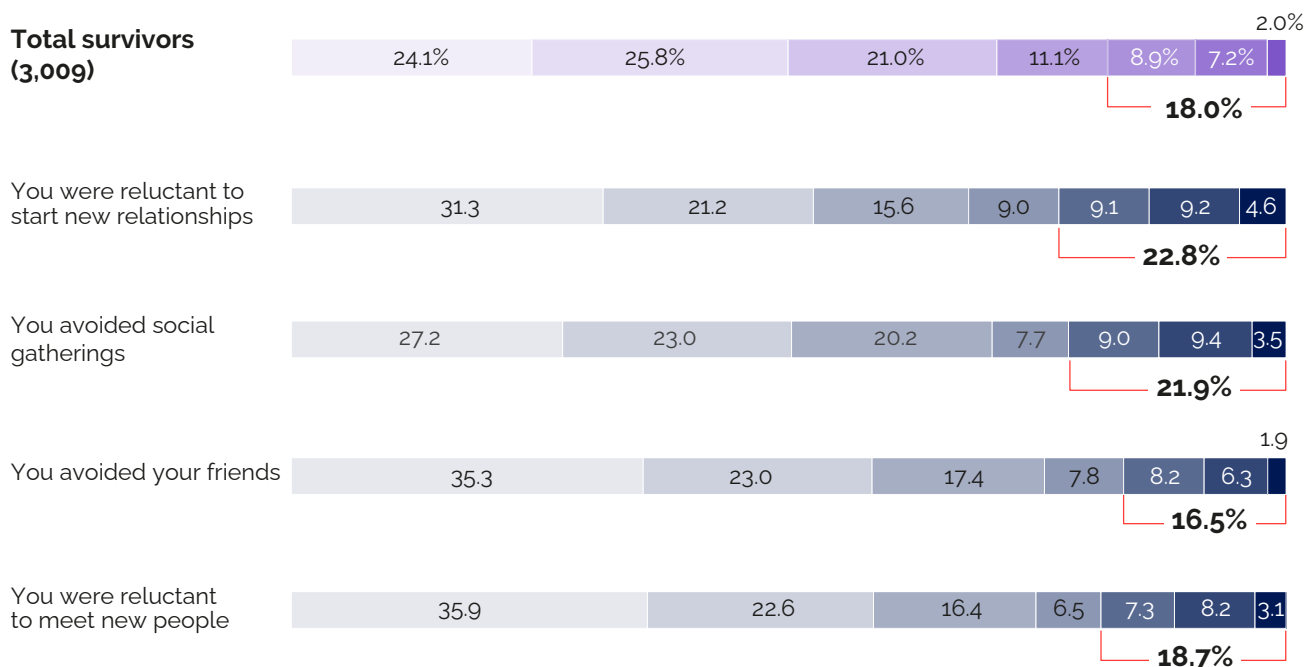


You avoided sexual activity

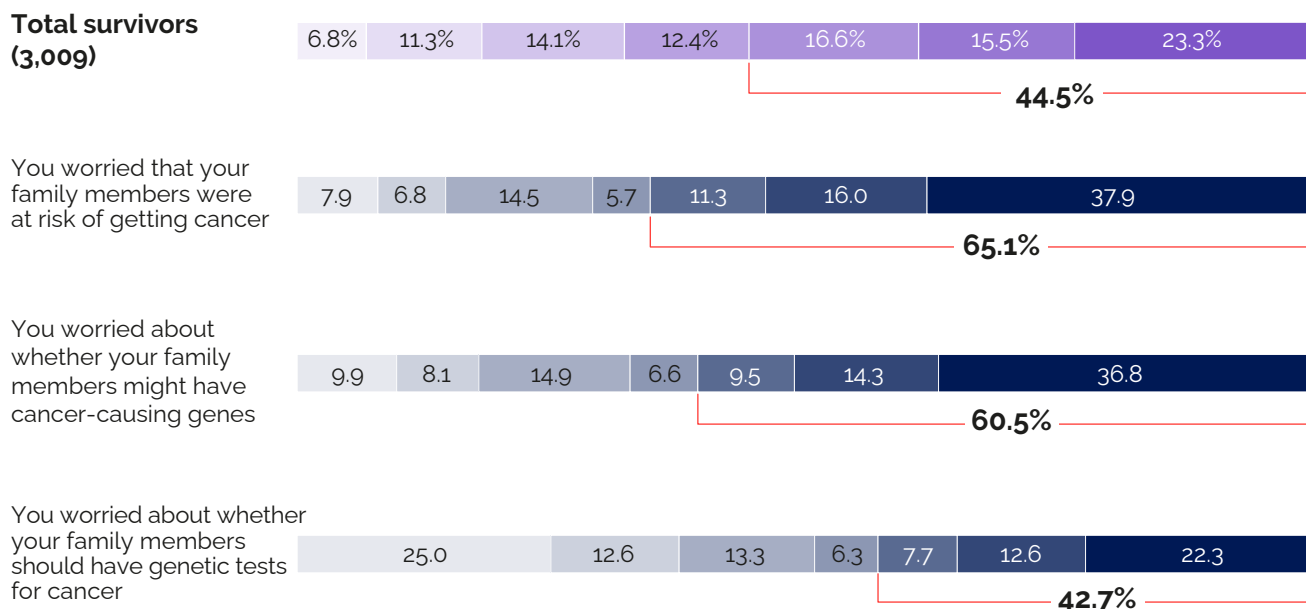


Never
 Seldom
 Sometimes
 About as often as not
 Frequently
 Very often
 Always

Social avoidance

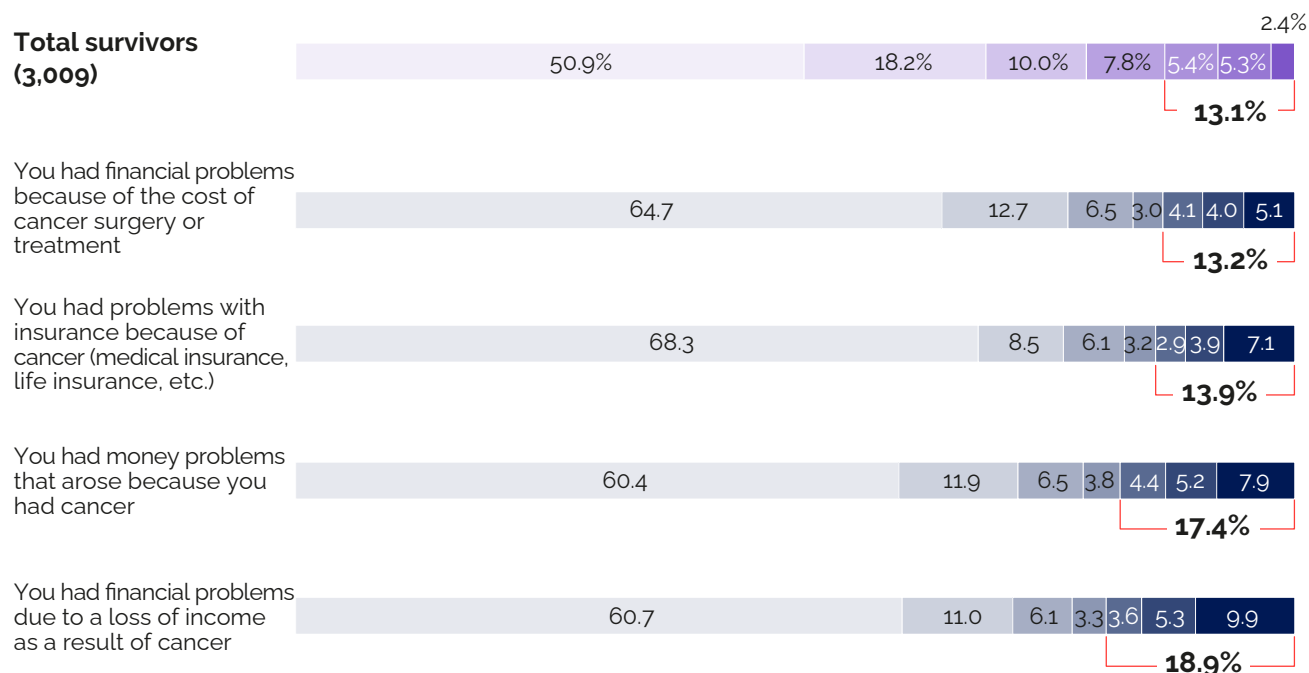


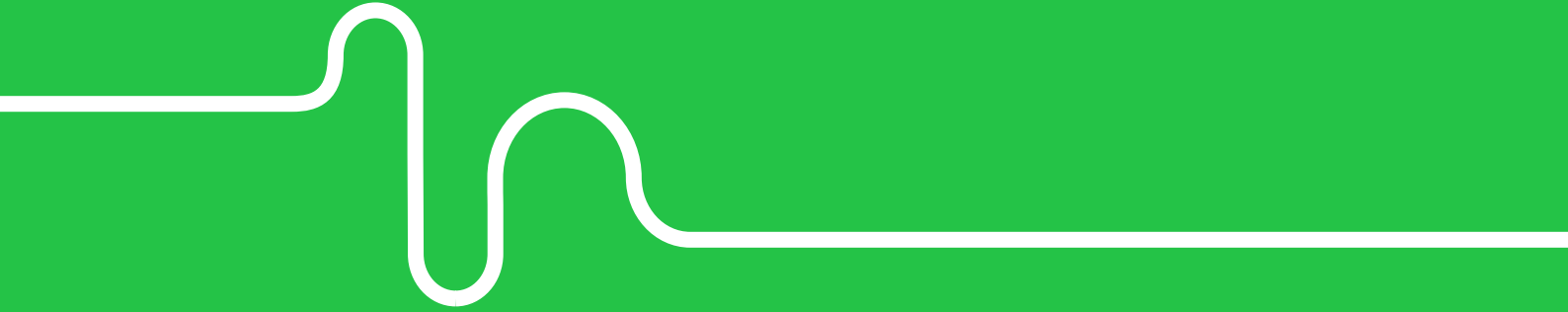
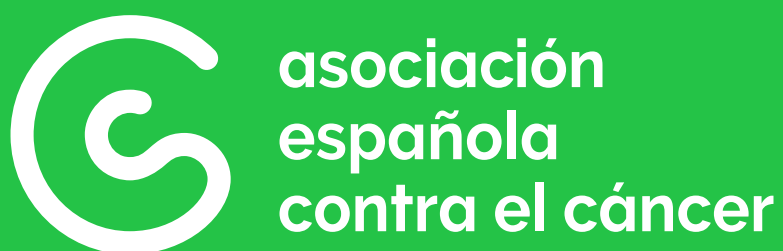
Family distress



Never
 Seldom
 Sometimes
 About as often as not
 Frequently
 Very often
 Always

Financial problems





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