Everyday life for children with a parent who has cancer

A systematic literature review

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Cancer is one of the most common long-term conditions for adults between 25 and 64 years, an age where it is probable to live with children under 18 years at home. This systematic literature review aims to describe children’s everyday life, when one parent has cancer, and the interventions these children need. Previous studies have already agreed on the importance of this field, although there is still limited research. Eleven articles have been extracted from four different databases, following inclusion criteria and a quality assessment procedure, designed by the author. A qualitative content analysis has been developed through categorisation of relevant findings. Results describe, on one hand, children’s everyday life when a parent has cancer, and on the other hand interventions to cover the new needs those children might experience. Children’s mental health can undergo negative emotions and behaviour modification, also a higher tendency of children’s social isolation, as well as financial issues that modify children’s everyday life leisure activities, and variations in family functioning with family distress. Interventions to support children’s new needs must focus on psychological, peer, financial and family supports. Coping skills and a fluent communication within the family functioning are indispensable to promote a positive children’s everyday life when a parent has cancer. Limited information about financial and school interventions need to be remedied in future researches.

Keywords: children, parents, cancer, everyday life, interventions, family
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List of abbreviations

**SLR**: Systematic Literature Review

**LTC**: Long-Term Conditions

**UNCRC**: United Nations Conventions on the Rights of the Child

**CASP**: Critical Appraisal Skills Programme

**EPHPP**: Effective Public Health Practice Project
1 Introduction

Children experience everyday life difficulties when a parent has a sickness (Syse, Aas, & Loge, 2012). One sickness and long-term condition that has increased in the last 20 years is cancer. Most of patients with cancer are between 25 and 64 years and live with children below 18 years in several cases (Gill, Sullivan, & Taylor, 2015). Domains within family functioning are distressed when one parent has cancer and some of them directly affect children’s everyday life (Wittenberg, Saada, & Prosser, 2013). Hence, children undergo new needs that professionals should cover through different interventions that manage children’s health, educational awareness, social supports, finances at home, and family functioning. Informal supports and resources might be considered to improve children’s everyday life outcomes (Wolery & Zigler, 2000).

Most likely, professionals and parents exclude children of a parent with cancer from their parent’s condition, although this situation affects children’s development. Previous researches agree on the limited available research identifying factors, affecting children’s everyday life of a parent with cancer. Therefore, this SLR focuses on how children’s everyday life is affected by the condition of one parent with cancer and the interventions these children need. This study might be relevant for future researchers to know what children of a parent with cancer need and plan interventions to satisfy these needs.
2 Background

Sickness impact its patients, their daily routines and in general their quality of life, at the same time modifying their children’s everyday life (Roddis, Holloway, Bond, & Galvin, 2016). This chapter provides information about the author’s starting point within the topic of children’s everyday life when a parent has cancer.

2.1 Long-term conditions

Long-Term Conditions (LTC), are defined as sickness that cannot be currently cured whilst they can be controlled with treatments (Department of Health, 2010). Depending on the sickness, patients are affected more positively or negatively. Generally, at the beginning patients with a LTC break out of their routine, experiencing an everyday life disruption (Bray, Kirk, & Callery, 2014). This situation involves every family member, distressing family functioning.

Around 25% of children with a parent who is ill undergo difficulties in their everyday life, such as higher level of anxiety, sleeping problems or complications at school (Syse, Aas, & Loge, 2012). These children might cope with an increase of responsibilities at home, the loss of a parent, new schedules that modify their routine, lack of financial resources and a decreased social life (Chen, 2014). Moreover, families with children younger than 18 years old have a bigger challenge to adapt family functioning to the illness, at the same time as facing and being involved in their children’s development. However, daily management of the sickness’ condition could become a new and normal routine for the patient, family and children, excluding ongoing difficulties related to the sickness that could complicate that new routine (Bray, Kirk, & Callery, 2014).

2.2 Parents with cancer

The main cause of death (82%) in all around the world during 2012 were LTC, and a 22% of those deaths were people with cancer (Niemelä et al., 2016). One-third of patients diagnosed with cancer may be caring for children (below 18 years) or young adults (19-25 years), as their age is between 25 and 64, age when families live together with their children (Syse, Aas, & Loge, 2012).
LTC like cancer affect the patient and its family, including children, in different life domains (Wittenberg, Saada, & Prosser, 2013). Family everyday life, referred as family functioning by Beierlein et al. (2017), is defined as “interrelatedness of the family members and the family system” (p.111). Hence, cancer modifies family functioning well-being and quality of life but also emotional and physical health (Wittenberg, Saada, & Prosser, 2013). Some of the family functioning domains that are affected by the LTC are represented in Table 1:

Table 1 Family functioning domains affected by cancer within the family (modified from Wittenberg, Saada, & Prosser, 2013)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s job &amp; partner’s job</td>
<td>Patient reducing its working hours or stopping working. Partner has same situation</td>
</tr>
<tr>
<td>Relationship between family members and the ill patient</td>
<td>Family spending more time together. Lacks sickness’ communication</td>
</tr>
<tr>
<td>Family members’ health condition</td>
<td>Mental health: fear and worry Physical health: Sleeping disturbance, loss of appetite or fatigue</td>
</tr>
<tr>
<td>Social relationships and activities with other people</td>
<td>Lack of enthusiasm to engage with non-family members. Lower income hinders social activities</td>
</tr>
<tr>
<td>Roles at home</td>
<td>Healthy partner has more responsibilities. Children have adults’ roles</td>
</tr>
<tr>
<td>Self-care</td>
<td>Extra care for patient with cancer: hindering partner’s self-care, or increasing motivation for partner self-care</td>
</tr>
</tbody>
</table>

2.3 Interventions

A recent study highlighted the low percentage (9%) of parents who receive support to deal with a family member with cancer, involving their children and at the same time encouraging a positive well-being (Niemelä et al., 2016). Trivette, Dunst, and Deal (1997) define interventions as “the provision of support to families of children, from members of informal and formal social support networks that impact both directly and indirectly upon parental, family, and child functioning” (pp.194).

Interventions to manage a LTC like a patient with cancer should be more family centred to cover all those new needs within family functioning (Niemelä et al., 2016). Furthermore, as children are dependent on their parents, a parent with cancer directly affects children’s everyday life, which makes child-centred interventions necessary (Krattenmacher et al., 2012). It is indispensable to include perspectives from diverse professionals to manage family health (not only the patient), educational awareness and social supports. Apart from these implications, informal resources and supports positively affect children’s development and family functioning (Wolery & Zigler, 2000). When a parent has cancer, these factors mentioned before can be an opportunity for parents to assist and promote a positive everyday life for their children.
2.4 Theoretical framework

According to children and the environment around them, which modifies their everyday life, the author has considered the following theoretical framework.

2.4.1 Children’s Rights

There is an international recognition of children’s vulnerability, thus, adults must ensure that their needs are fulfilled (Brown & Guralnick, 2012). Children are directly dependent on their parents, therefore when a parent has a LTC like cancer, their everyday life could undergo modifications (Krattenmacher et al., 2012). United Nations Conventions on the Rights of the Child (UNCRC) is a treaty focused on children’s everyday life that includes three dimensions under children’s rights (United Nations General Assembly, 1989). These dimensions are called the three P’s: provision of necessary goods and services, protection against any threat and participation, including physically and actively engaging.

Although there is evidence about the new needs families undergo when one of the parents has cancer, health care providers mainly focus on the treatment of the patient with cancer (Kasuya, Polgar-Bailey, & Takeuchi, 2000). Health care providers are in contact with the patients or their partners, but this connection is focused on the patient’s sickness and treatment (Niemelä et al., 2016). Moreover, children and adolescents mentioned the lack of access to information and professionals, when one parent has cancer. Children have the right to participate and this includes participating in their parents’ welfare. In some countries like Sweden, where this literature review is developed, the national law reflects that healthcare professionals must consider children’s need to get information, support and advice when one adult living with children becomes grievously ill or dies (Svensk författningssamling, 1982).

2.4.2 Bronfenbrenner’s bio-ecological theory

This theory is developed according to four concepts: Process, Person, Context and Time (Tudge, Mokrova, Hatfield, & Karnik, 2009). A child’s development is based on proximal processes, that are interactions over time between the child and people, objects and symbols, in the immediate environment (Bronfenbrenner, & Morris, 1998). When environments are disorganised, like a parent’s sickness at home, children’s everyday life is affected with a weaker result on their proximal processes (Bronfenbrenner, & Ceci, 1994). Hence, proximal processes have a more positive impact on good environments. This study is going to focus on the Context concept, to describe how a specific situation in the immediate environment of children (a parent
with cancer) affects children’s everyday life. Hence, the bio-ecological theory examines interactions between the systems around an individual in four layers.

In the *Macrosystem* cultural values, social conditions and the laws indirectly influence the child. Depending on the country these conditions could empower the child to face its parent condition or it could be a barrier to overcome it. When a parent has cancer, their children experience new needs, and professionals, based on the national policies, must make sure that those needs are covered (Huizinga et al., 2011). In the *Exosystem* the child is not positioned but his/her development is still influenced by factors around. For example, supports from the health sector or an institution in the neighbourhood to promote cancer awareness within the family (Gill, Sullivan, & Taylor, 2015). In the *Mesosystem*, connections between the different individuals around the child take place. When a parent has cancer, children need to reduce feelings of isolation and keep close to the “normal” life they had before their parents’ cancer (Ellis, Wakefield, Antill, Burns, & Patterson, 2017). School plays a key role to empower children’s social life with peers. Besides, children of a parent with cancer have a higher risk for lower concentration, poor academic performance or problems with peers (Fasciano et al., 2007). Thus, a constant communication between parents and teachers must exist to avoid possible negative outcomes. *Microsystem* is the closest system to the child, consisting of its direct environment, relationships, and health. The *Microsystem* directly affects the child. A broad group of parents with cancer suffer depression, and this mental health directly impacts school-aged children empowering emotional problems (Huizinga et al., 2011).

Hence, children of a parent with cancer have higher probabilities to experience a general distress due to the circumstances around them and their environment must be considered to explain their everyday life and find possible barriers.

### 2.4.3 Guralnick’s Developmental Systems model

Children influence their environment at the same time they are affected by it. Guralnick’s model connects factors that influence childhood development, including family and child’s characteristics stressors, to the response of early intervention programs with the aim to reduce those stressors (Guralnick, 1998). Thus, this model links child and family characteristics, program features and good outcomes, when planning interventions. As it was previously explained in the background section, family and child centred interventions, like the ones Guralnick (2001) proposes, are necessary to cover family and children needs that appear when one parent has cancer. It requires high levels of commitment and cooperation by every part involved in the
intervention, from professionals to the parents. Although this model has been created for children with disabilities, the author of this study has considered it relevant to highlight the influence that families have on their children and the importance to include children in their parent’s condition. Guralnick (1998) emphasises the following factors as indispensable for interventions programs: resource supports, social supports and information and services.

Guralnick’s Developmental Systems model (2001) provides an understanding of factors that influence vulnerable children, in this case it is referred to children of a parent with cancer. Therefore, three major components are examined to provide this understanding (Guralnick, 1998; Guralnick, 2001). Family patterns, the proximal factors to the children, are directly responsible for children’s outcomes. They describe the quality of parents-child transactions, the family orchestrated child experiences and the environments promoting child’s health and safety. Family and child characteristics stressors are distal factors to the child, which influence how family patterns affect child’s development outcomes directly.

![Image of Guralnick's Developmental Systems Model](image)

**Figure 1** Guralnick’s Developmental Systems Model (modified from Guralnick, 1998)

### 2.5 Rationale

When a parent has cancer, the whole family is implicated in this sickness. Although parents tend to protect their children and therefore exclude them from the sickness’ process,
children have the right to participate and professionals must make sure they do. Previous studies discuss that there is a limited research to identify factors affecting children’s development when one parent has cancer, as studies focus on the patient and not on the family. Looking for these factors within different everyday life domains and existing interventions, this SLR closes the gap in research for children’s everyday life when a parent has cancer. With the understanding of the new needs arising for children of a parent with cancer and the existing interventions, a clearer picture for professionals to improve children’s everyday life is created, within their parent’s condition.

Hence, this literature review informs about children’s everyday life of a parent with cancer and the interventions to encourage good outcomes for the children.
3 Aim and research questions

Describe children’s everyday life, when one parent has cancer, and the interventions these children need.

The research questions designed by the author of this study are the following ones:

- (1) In what domains children who have one parent with cancer are affected in their everyday life?
- (2) What interventions would children, with one parent with cancer, require to cover the new needs they experience in their everyday life?
4 Method

This study follows a systematic literature review (SLR) to provide an overview of previous studies, about children who have a parent with cancer, conducted throughout a reproducible methodology. According to the research questions mentioned before, this kind of studies examine and synthesise relevant information already found on primary research to answer the questions (Davis, 2016). As they provide an overview of previous studies on the field, a SLR contribute to critical perspective about what is already known about the topic and what it is needed (University of York. Centre for Reviews and Dissemination, 2009).

4.1 Search strategy

The search was performed in the end of February and beginning of March 2018 through the following databases: CINAHL, ERIC, ScienceDirect and PsycINFO. These databases were chosen because of the fields they cover: health sector within nurses, behavioural, social sciences, pedagogy and psychology. During this search process several concepts were used, focusing on the aim, suggestions from articles keywords and thesaurus in the databases. The final search string in the four databases mentioned before was (“Parents with cancer”) AND (“Family Members”) AND (“Child*”). First, the search string was instead of child*, “Only Children”, however the number of hits was too limited in databases like ScienceDirect and CINAHL so the broader concept child* was used instead.

Snowball effect articles were included by handsearching from the reference list of included articles. 135 articles were screened on title-abstract level and 17 articles, which fitted the inclusion criteria, were screened on a full text level. All this process is described in detail in a flow chart (Flowchart 1). The search process was limited to peer-reviewed articles, published between January 2010 and March 2018, written in English.

4.2 Selection Criteria

Selection criteria was based on the research questions, considering an inclusion and exclusion criteria, which is described in Table 2.
### Table 2. Exclusion and inclusion criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
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<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
</tr>
<tr>
<td>Children/ Adolescents aged 3-18years</td>
<td>Parents with other long-term condition</td>
</tr>
<tr>
<td>With one parent with cancer</td>
<td>Parents who died from cancer</td>
</tr>
<tr>
<td>Typical developmental functioning children</td>
<td></td>
</tr>
<tr>
<td>Health, social care and education professionals</td>
<td></td>
</tr>
<tr>
<td>From Europe, North America or Australia</td>
<td></td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td></td>
</tr>
<tr>
<td>Children as relatives</td>
<td></td>
</tr>
<tr>
<td>Everyday life / functioning</td>
<td></td>
</tr>
<tr>
<td><strong>Publication type</strong></td>
<td></td>
</tr>
<tr>
<td>Article</td>
<td>Book, chapters, study protocols, abstracts, conference papers, and other literature</td>
</tr>
<tr>
<td>Peer reviewed</td>
<td></td>
</tr>
<tr>
<td>Published from January 2010 until March 2018</td>
<td></td>
</tr>
<tr>
<td>In English</td>
<td></td>
</tr>
<tr>
<td>Full text available for free</td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td></td>
</tr>
<tr>
<td>Empirical studies</td>
<td>Systematic literature review</td>
</tr>
<tr>
<td>Quantitative</td>
<td></td>
</tr>
<tr>
<td>Qualitative</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

Articles which focused on family or children and adolescents everyday functioning are included in the title and abstract screening, as they answered the aim. Only typically functioning children and adolescents with at least one parent with cancer are included, as the author does not want to focus on children with disabilities who might require a specific support not related to the parent’s condition. The author wanted to include professionals from health care, social service and educational settings to provide a broader perspective to the study. However only nurses have been included as articles have not mention professionals from other fields. For more information about the participants in the included articles see Appendix C The timeframe in this study, from 2010 to 2018, aims to avoid outdated articles that could lead to non-relevant information. As cancer is a LTC that has increased in the last 20 years (Gill et al., 2015), the author has only considered studies within this timeframe. European, North America and Australian articles were considered due to similarities when it comes to resources and organisation within western countries (Huntington, 1996).
Excluded articles were focused on children with cancer or any other health condition, the probability for children to have cancer and the effects on families when one of the members had died from cancer.

4.3 Selection Process

The whole selection process is available in the following flowchart (Flowchart 1).

Flowchart 1: Selection process

During the selection process, the web-based tool Covidence (Elliott et al., 2014) was used to import every article from the four databases, exclude duplicate articles and for title-abstract screening. The purpose of using Covidence was to make the study selection process more accurate. Thus, 162 articles from ERIC, PsycINFO, CINAHL and ScienceDirect were imported to Covidence, of which 27 articles were directly excluded since they were duplicated.
4.3.1 Title and abstract
Articles (n=135) were analysed for the title and abstract screening process. The articles that fulfilled every inclusion criteria, were marked with “Yes” in Covidence. The rest of the articles were marked with “No” and directly excluded for further analyses.

4.3.2 Full-text
Then, articles that fulfilled the inclusion/exclusion criteria (n=17) were left for the full-text screening. An extraction protocol was used at this stage to describe the considered full-text articles. Table 3 includes the headings used during the full-text screening. During this review four articles were excluded due to their study design and two articles because of the country where they were carried out.

Table 3 Headings for extraction protocol

<table>
<thead>
<tr>
<th></th>
<th>Authors, title, year, journal</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Articles information</td>
</tr>
<tr>
<td>2</td>
<td>Country</td>
</tr>
<tr>
<td>3</td>
<td>Aim</td>
</tr>
<tr>
<td>4</td>
<td>Method</td>
</tr>
<tr>
<td>5</td>
<td>Participants</td>
</tr>
<tr>
<td>6</td>
<td>Ethical Considerations</td>
</tr>
<tr>
<td>7</td>
<td>Inclusion/Exclusion</td>
</tr>
<tr>
<td>8</td>
<td>Results (Structured Analysis Matrix)</td>
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<tr>
<td>9</td>
<td>Quality</td>
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The extraction protocol was fulfilled while reading and gathering information from the included articles. Articles that were excluded during full-text assessment were not totally fulfilled in the extraction protocol, only until country’ section (n=2) and methods’ section (n=4). Two articles that did not come up in the databases, were included in the full-text assessment by snowball effect (hand search). Therefore, thirteen articles were included in total for quality assessment.

4.4 Quality assessment
For the quality assessment, a checklist with 14 questions based on CASP (Critical Appraisal Skills Programme [CASP], 2017) was used, considering the topic of this systematic literature review and its structure (available in Appendix A). As CASP is a tool for qualititative studies and quantitative and mixed method studies are included in this study, Quality Assessment Tool for Quantitative Studies, by Effective Public Health Practice Project (EPHPP), has been considered to design the quality assessment tool (Effective Public Health Practice Project (EPHPP), 1998).
Quality is rated on high (H), medium (M) and low (L) quality. High quality articles fulfilled at least the 70% of the assessment criteria with a positive answer (Yes), medium covered from 40% to 70% and low quality were the articles that did not cover more than 30%. Articles with a low quality were excluded from this SLR (n=2), and medium (n=4) and high (n=7) were included. Finally, nine articles were included from the four databases and two more from snow-ball effect making a total of eleven articles included in this SLR.

4.5 Data analysis

When data extraction was finished, data analysis was performed to define an area with limited researches: children’s everyday life of a parent has cancer, and the interventions these children need (Hsieh & Shannon, 2005). This study carries out a qualitative content analysis to interpret the data collection from the included articles (Graneheim & Lundman, 2004). Thus, final data analysed consisted of findings from every included article (n=11). Each article received an identification number to be referred onwards in the study. Identification numbers and information about the included articles can be found in Appendix B.

Every article focused on the effects of having a parent with cancer in one or more aspect from children’s everyday life, which has been used inductively to base the results of this study. The analysis is based on abstraction throughout data gathering according everyday life aspects described in the articles’ results (Graneheim & Lundman, 2004). Hence, aspects have been coded, according to a categorisation matrix (structured analysis matrix), and four categories have emerged for the results description. The content from every article has been reviewed several times to ensure a proper findings information on each category. These findings have answered the first research question focused on children’s everyday life domains affected when a parent has cancer. Hence, a description of children’s everyday life of a parent with cancer is provided

In every included article, there is a discussion about interventions to cover the children’s needs affected by having one parent with cancer. All this information has been gathered from every included article and organised according to the category that the interventions were referred to. This information has answered the second research question about interventions for these children to cover the new needs they experience in their everyday life. Within the second
research question, there is a description of existing interventions and, according to the children’s everyday life domains affected when a parent has cancer (obtained within the first research question), the interventions these children need.

4.6 Ethical considerations

Rights and needs of children who have a parent with cancer are the main criteria to develop in this study. The author tries to exclude its individual preunderstanding in the study. This preunderstanding highlights a teacher’s perspective with knowledge on children in need of special support and planning interventions. Furthermore, the following ethical principles are considered in this literature review:

Justice, as children have the right to participate in their parents’ welfare when there is a long-term condition like cancer. Non-maleficence, since the focus is towards improving children everyday life, avoiding any kind of harm. Beneficence is clear within the aim “Describe children’s everyday life, when one parent has cancer, and the interventions these children need”. Information with a follow up methodology section provides the possibility to duplicate this literature review. Moreover, only one article (Götze, Ernst, Brähler, Romer, & Klitzing, 2015) included in this study does not consider ethical considerations and all of them are peer-reviewed.
5 Results

All the eleven articles describe heterogeneously how children with a parent who has cancer are affected by this indirectly LTC in their everyday life. To measure the quality of life of those children, this study examines information from the included articles and gathers the relevant information in categories and sub-categories.

5.1 Description of the results

An overview of the content of the articles can be found in Table 4 and information such as country, method, topic and quality can be found in more detail in Appendix B.

The data analyse has emerged in four coded categories: Mental health; Social; Financial; and the final category, Family functioning. In the category Mental health, there are several and diverse findings. Thus, this broad category is divided into two subcategories, according to the content of the articles: Emotions and Behaviour. This information answers the first research question: “In what domains children who have one parent with cancer are affected in their everyday life?”

As every included article mentioned interventions about the category it was focused on, at the end of every category, there is a section called “Interventions for (name of the category)”. These sections answer the second research question: “what interventions would children, with one parent with cancer, require to cover the new needs they experience in their everyday life?”
Table 4. Categories and subcategories according to children’s everyday life domains

<table>
<thead>
<tr>
<th>Categories</th>
<th>Mental health</th>
<th>Social</th>
<th>Financial</th>
<th>Family functioning</th>
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<tbody>
<tr>
<td><strong>Sub-categories</strong></td>
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<tr>
<td><strong>Articles (ID)</strong></td>
<td>Emotions</td>
<td>Behaviour</td>
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The numbering of the articles (ID) is according to Appendix B. The “X” represents the category which each article focuses on.

5.1.1 Mental health

Parent’s LTC modifies their children’s lives, which increases their vulnerability to mental disorders (6). Furthermore, a low socioeconomic status and single parents likewise have a high impact on children’s mental health. Examples of these mental disorders are: anxiety, depression, lack of concentration and sleeping problems (7). When one parent has cancer the probability to undergo family dysfunction or parental depression is fairly high, moreover these are predictors to both emotional and behavioural problems affecting children (10).

Thus, due to parent’s new condition, children’s mental health is affected. As information about mental health is broad in the included articles, this category is divided in two subcategories: emotions and behaviours.
5.1.1.1 Emotions

Emotional problems are reasonably probable for children who have a parent with cancer (4). Communication between parents and their children is not that up-to-date when there is a life-threatening condition like cancer, overshadowing the family relationship. There is a tendency to avoid the sharing of emotions about the disease (2). Adolescents between 13 and 19 years show loneliness feelings in the experience of having a parent with cancer (5). Anger and sadness are also observed as other children’s emotional responses to their parent’s diagnosis (1). Family caregivers have higher levels of anxiety than the patient, and children are aware of their family situation and their emotional difficulties (11; 1). Thus, parent’s new condition causes negative emotions on their children’s everyday life, and those negative emotions are considered to be barriers for a good family functioning and are linked to behaviour problems (3).

5.1.1.2 Behaviour

Children affirm that they cope with the demands from their parent with cancer and thus, they have to modify their cognitive and behavioural efforts (3). Some children undergo this situation as stressful and they show aggressive behaviour, anxiety or concentration problems (5). Younger children’s cognitive development leads to a delay in comprehension from the severity of some events. This answers why younger children who have a parent with cancer present a higher quality of life than older ones (4). In families where one of the parent suffers from cancer, mostly adolescents (more affected than younger children) present better problem solving skills and a less dysfunctional affective involvement (2). However, parents report internalizing problems in their sons and daughters, especially in adolescents and even more when the father is the parent with cancer (10). Thus, parent’s new condition provokes behaviour modification on their children’s everyday life.

Interventions for children’s mental health: Children feel that it is indispensable to get information about their parent’s care to be secure and safe (9). In some families, parents do not share all the information about the treatment, excluding children from the care involvement. Other families, include their children when the health professionals encourage them to do it, and some parents involve their children from the beginning to the end of the treatment (7). Nevertheless, in every study previously reviewed, children are eager to create a natural environment in which fluent conversations take place to open talks about parent’s status and their feelings.
From the professionals’ perspective, concretely nurses, they express the lack of time they can dedicate to their patients’ family and also the challenge they have connecting with children since they do not have enough knowledge (7). Hence, nurses are aware about the essentiality of involving children in their parent’s cancer care, which is important for children to face reality, leaving apart children’s misconceptions that in almost every case linked cancer with death and fear (11).

Parents express a positive response to include their children in psychological interventions (11). The main reason is the opportunity for their children to share their experience with other children in the same situation. Findings on how psychological interventions support children’s with a parent with cancer, improve children’s understanding of cancer and also increase coping strategies with positive results in children’s behaviour and emotions (11). Nevertheless, parents express the difficulty to manage the time for these interventions.

5.1.2 Social
Children who have a parent with cancer express how they spend more time with their families than with their friends or practising leisure activities (2).

These children claim that they do not invite their friends to their home because the parent with cancer is at home almost all day and several times feeling weak or sick (1). Children also refuse going with their friends because they think the parent with cancer could die when they are not there. Besides, children cannot always spend time together with their friends as they cannot afford many expenses (1). Many of these children declared to stay at home because they had to take care of their sick parent. Nevertheless, all of them considered their friendships as an important support for them to share their emotions with or only to continue with their normal life (1). Thus, due to parent’s new condition, children undergo social isolation.

Interventions for children’s social life: Many children are able to accept the situation that one of their parents had cancer (3) and they have their own coping strategies. Approach-oriented strategies, focused on the problem, encourage a better everyday life while avoidance-oriented strategies do not have that positive outcomes (3). Social support encourages higher levels of quality of live within the family when a parent has cancer (1). Females in the family, children and adults, accept social support better than males (3).

Psychological and social interventions where peer support is provided, have positive outcomes for children whose parent have cancer (11). Encouraging these interventions, children
could normalize their everyday life meeting other children and at the same time they reduce their loneliness feelings sharing their experiences with other children in similar situations (3).

5.1.3 Financial
Family’s finances when a parent has cancer are affected by the sickness. The two main reasons are the increase of expenses due to the cancer treatment and a reduced income because of the work limitations the cancer treatment requires for the patient and the partner (1; 6). These limitations directly affect the children in the family. For example, children report how they must quit leisure activities or stop meeting with their friends because they could not afford going to the cinema, a theme park or buying some candies. When children are older they try to find a job in order to cover those expenses that their “normal” life required (1). Thus, due to parent’s new condition, children have financial issues to cover their everyday life expenses.

Interventions for children’s financial conditions: Studies considering financial conditions on parents with cancer, point out the substantial impact of these financial issues on children’s everyday life (1; 6). Nevertheless, none of the articles includes information about any kind of intervention to support the new needs that family’s finances undergo when one of the parent has cancer.

5.1.4 Family functioning
The concept of family functioning, according to the included articles, refers to the day-to-day family lives processes where they engage to support individual member’s health and development while achieving goals and addressing challenges (2; 3).

Those processes within the family could be modified by an illness in a more positive or negative way. Roles change and relationships between family members tend to become stronger when there is a risk in their functioning, like having a disease. However, it depends on the illness and the stage in which the patient is. Talking about cancer, a family functioning is quite positive during the early stages but there is the risk that it becomes weaker within the sickness process and later stages (2).

The perspective of every family member also influences the family functioning. Patients present a better functioning than their partners, and regarding children, the youngest also represent a better functioning and girls perceived more dysfunction than boys (2). When coping with stressors, girls use a more emotion-focused coping, looking for social support, and older
children have a tendency for distractions with a problem-focused coping and emotion-focused strategies (3). Anxiety or depression are emotional distresses that partners experience when one of the parents has cancer. This distress induces parenting concerns that directly affect the family functioning (8). When parents feel more confident these concerns are reduced. Thus, due to parent’s new condition, family functioning have variations and lack of communication, affecting children.

**Interventions for family functioning:** Well family functioning are families that communicate with each other about the cancer and its treatment (8). They feel confident to talk about the diagnosis and this better psychological family functioning encourages less mental health problems in children and other members of the family. Following *Predictors of quality of life of cancer patients, their children, and partners* (2015) female gender, younger age, weak family cohesion and quality of couple’s relationship, and discontent with the social support, are more vulnerable factors for the quality of life of children. To strengthen those vulnerable factors and promote a positive family functioning, families need to develop coping skills against the cancer condition (2). Preventive psychosocial supports provide the demand of these skills within cancer in families, but even more for those that indicate family dysfunction (2).

Healthcare professionals must consider more than their patients’ health and include family needs to support the whole family functioning (7). Providing social support within interventions, families improve their confidence leading to a more positive family functioning (9).
6 Discussion

This SLR focuses on how children’s everyday life is affected by the condition of one parent with cancer and the interventions these children could need. The study includes 11 articles according to the author’s criteria, and the results of those articles are gathered to answer the two research questions: (1) In what domains children who have one parent with cancer are affected in their everyday life? and (2) What interventions would children, with one parent with cancer, require to cover the new needs they experience in their everyday life?

6.1 Cancer effects on children’s everyday life

A sickness like cancer is a LTC that impacts not only the patient but also the rest of the family, including children (Roddis, Holloway, Bond, & Galvin, 2016). When this happens, new needs appear in the family, so the family functioning is modified and thus children’s everyday life (Wittenberg, Saada, & Prosser, 2013).

As a summary of the results, children’s everyday life is affected in different domains, within various systems around them. Children’s mental health is more likely to undergo negative emotions, and behaviour modification (1; 2; 3; 4; 5; 6; 7; 9; 10; 11). Children experience loneliness in their social life, while spending more time with their parents and less with their friends (1; 2; 3; 11). The financial situation of a family where a parent has cancer leads to possible economic issues that change the everyday life of children, primarily their leisure activities (1; 6). Family interactions vary depending on the stage of the sickness. Moreover, communication is a weakness among family members, professionals, and children. Hence, a lack of communication is also a barrier for a positive children’s everyday life (2; 3; 7; 8; 9).

According to Guralnick’s Developmental Systems model, family patterns are the proximal factors that directly affect children’s outcomes (Guralnick, 2001; Guralnick 1998). When a parent has cancer, parents-child transactions are modified; and parents tend to avoid communication about the sickness with the children in order to protect them (2). These family patterns directly affect children’s development, modifying children’s Microsystem, in which parents and children interact (Bronfenbrenner, & Morris, 1998; Guralnick, 2001). Children are aware about their parents’ situation and they cope with the new demands, although the way they cope with this situation is not always appropriate. Thus, children tend to keep their problems and feelings to themselves, so they experience negative emotions such as anger, fear or sadness (3). These modifications could affect children’s relationship with others, for example with peers who
could feel uncomfortable with these new behaviours or learning difficulties at school A fluent communication in which feelings are told between children and family could encourage the quality of parent-child transactions, reducing vulnerability to mental disorders. Generally, at the beginning of a diagnoses there is a break out of the family routine (Bray, Kirk, & Callery, 2014). In this situation, children decrease their social life (Chen, 2014). Children tend to spend more time at home, stop practising the same leisure activities they did before and reduce their time to meet friends (1). Furthermore, within family patterns, family orchestrated child experiences are modified, as they spend more time in the hospital and frequently the parent with cancer cannot do the same activities due to health conditions (Guralnick, 1998; Wittenberg, Saada, & Prosser, 2013). This new situation modifies children’s Microsystem and increases their loneliness feelings, not only with their friends but also with their family. A more fluent communication within the family could improve children’s knowledge about their parent’s condition, and a better organisation of household activities to encourage children to spend more time with their friends.

Children are directly dependent on their parents and thus their family finances (Kratennacher et al., 2012). When a parent is diagnosed with cancer, its working time is often reduced or even stopped (Wittenberg, Saada, & Prosser, 2013). Since salaries are decreased and spending is increased because of treatment requirements, children tend to do less leisure activities, due to financial constraints (1). And this situation, emerging loneliness feelings, increases vulnerability to mental health disorders. Therefore, considering Bronfenbrenner’s systems in the children’s context, working limitations within the Exosystem modify children’s everyday life, including Microsystem changes in which children’s social life undergo barriers.

According to Guralnick Developmental Systems Model, family characteristics, like a parent with cancer, do not directly affect the child but impact family patterns which are responsible for children’s development (Guralnick, 2001). However, family functioning well-being is directly affected, being more challenging when there are children younger than 18 years old within the family (Chen, 2014). Frequently parents have difficulties to attend and understand all their children’s needs. Thus, when there is an extra need that requires changes in the family functioning, like a parent’s cancer, supporting children’s development becomes a bigger challenge. Domains that affect family functioning according to (Wittenberg, Saada, & Prosser, 2013) are new roles within the family members, social isolation and job reduction. Moreover, as LTCs like cancer increase vulnerability to mental disorders (6), families whose socio-economic status is a barrier with limitations, are even more vulnerable to these disorders. Hence,
following Bronfenbrenner’s bio-ecological theory, within the Exosystem, professionals should identify and support families of a parent with cancer, especially when they are already a vulnerable population. A more positive Mesosystem should be encouraged, in which roles at home are well distributed, and family distresses are reduced, especially for partners and older children, who experience more concerns when a parent has cancer. This could promote strong proximal processes within the children Microsystem, reducing vulnerability to mental disorders and encouraging a better family functioning.

A fluent communication about the cancer condition reduces family distress and mental health problems, and encourages a better social life resulting on a more positive family functioning.

6.2 Interventions

Children are eager to have more information about their parent’s sickness to feel more secure and safe (9), and at the same time being involved in their parent’s condition, which is one of children’s rights. Professionals must be aware of all changes in children’s everyday life of a parent with cancer, and within collaboration, integrate them and their families to promote a positive functioning for every member in the family.

Young children have a delayed comprehension about the situation (4), thus they are not affected by the situation in the same way. Nevertheless, contrary to many parents’ perspective, children need supports to be aware of the situation to reduce possible mental disorders when they are older. Professionals must intervene to strengthen family patterns and encourage a better child development (Guralnick, 1998). Nevertheless, nurses declare a lack of knowledge to work with children and the unfavourable situation they experience at work, to take care of their patients’ children (7; 11). To overcome this challenge, it is necessary to provide professionals, not only nurses, with suitable situations to get to know and take care of their patients’ children, persuading parents to engage children in their treatment. Once there is an Exosystem with favourable conditions for professionals, interventions directed to children must be developed (Bronfenbrenner, & Ceci, 1994). Psychological interventions give the opportunity to improve children’s cancer understanding, and increase their coping skills, resulting on a better behaviour and emotion domains (11) Moreover those interventions must not forget to work on the communication within the family, to avoid emotions internalisation for children and include children in their parent’s condition. Professionals should acquire skills to persuade parents to
include their children in the parent’s condition. Hence, interventions considering Exosystem and Microsystem might improve children’s mental health of a parent with cancer.

Children of a parent with cancer could experience low concentration at school, what influences their learning process (Fasciano et al., 2007). However, in this SLR there are no interventions to support children within this condition at school. A lack of communication between teachers and parents might be the answer, thus, one more time it is necessary to provoke communication among the different individuals in the child’s Mesosystem (Bronfenbrenner, & Morris, 1998).

Social supports encourage higher levels of family functioning and thus increase children’s everyday life quality (9). With interventions focused on communication between family members, children’s fear could be reduced, and household activities could be better organised to empower children’s social life. Thus, children could feel more secure to share their feelings, and free to hang out with their friends, what positively affects not only their social life but also their mental health. Moreover, children are aware of the importance to meet their friends and practice activities they did before (1). Another example of interventions is focused on peer support to normalise children’s lives and encourage them to share emotions, meet peers with different or similar perspectives and reduce their loneliness (11). In interventions, informal supports may positively impact children’s development supporting stronger proximal processes (Bronfenbrenner, & Ceci, 1994). For example, informal supports in the neighbourhood can be used to support children’s social life of a parent with cancer (Gill et al., 2015).

According to the included articles, there is a limitation of financial supports for families when a parent has cancer. In the Macrosystem, results have not found any regulation to protect family’s finances in this condition, although parents undergo job modifications, within changes in the Exosystem of the children. Financial supports might cover treatment expenses for the patient and family expenses they had before, but they cannot afford anymore, for example leisure activities for children. Nevertheless, some of the articles highlighted the need to help coping with financial issues of children’s everyday life, but none of them mentioned any kind of existent support. These decisions are from a Macrosystem level, in which professionals and families do not usually have influence (Bronfenbrenner, & Ceci, 1994). National policies should be modified to make sure that family and children’s needs are covered (Huizinga et al., 2011).
Implications from several professionals in the Exosystem, and also informal resources and supports are more favourable to manage family functioning including every member, educational awareness and social supports (Wolery & Zigler, 2000). Nevertheless, as Niemelä et al., (2016) expounded, generally parents still do not receive support to cope with a family member with cancer. This lack of supports to copy with the situation is applicable for children as well, and at the same time it is a barrier for a positive family functioning. Interventions from a family-child centred perspective, within cooperation among every member involved (Guralnick, 2001), could promote confidence within the family to avoid concerns, and cover those new needs for family functioning that appear when a parent has cancer. Hence, communication among parents, professionals from various fields and children is the first step to involve more than the patient in the sickness process, and keep every member informed to accomplish a positive family functioning when one parent has cancer.

Concluding, children’s development of a parent with cancer must be examined to intervene in the everyday life domains that are affected by the sickness. Family-child centred interventions must be developed, including different professionals within favourable working conditions to be in contact with families and children. Interventions must provide psychological support for children to avoid negative emotions and cope with this condition. As well as social support promoting peer interactions and other informal supports from the environment to reduce loneliness, and family communication and cohesion to reduce concerns and improve family functioning. Financial supports are relevant for a positive children’s everyday life and this is why policies should shape a Macrosystem in which necessary supports are provided for families of a parent with cancer.

6.3 Discussion of quality assessment

According to the quality assessment used to examine every included article in the study, the quality of the included articles is high and medium. However, all those articles contribute with relevant information to this literature review, independent of their quality. None of the articles has been emphasised during the data analysis.

The author of this SLR has based the quality assessment on CASP (CASP, 2017), selecting the questions that were more relevant for the study according author’s perception. CASP is designed for qualitative studies, although quantitative and mixed studies are included in this SLR. To face that issue the author has modified the CASP protocol considering the
Quality Assessment Tool for Quantitative Studies (EPHPP, 1998). The quality assessment tool could have been answered subjectively, as the author has been the only reviewer for every article. This assessment considers two articles as low-quality ones, so they have been excluded from the study, although they meet the inclusion criteria. Hence, the author could be biased, and this could be a barrier towards trustworthiness (Petticrew & Roberts, 2006).

6.4 Methodological issues

The method used in this study, a SLR, has strengths and weakness. It examines studies according to one specific topic, identifies, appraises and synthesises the relevant information from them (Davis, 2016).

One strength is the transparency within the methodology. The author documents systematically every step during the study, to make it replicable for someone else to find comparable results following the same method.

One weakness is that, it gathers information that already exists from published researches and does not include a practical part interacting with humans to generate new data. A SLR identifies gaps within one research field, however these gaps found in this study could be resolved on different articles from databases that were not used here. This study has used four databases that cover the fields of health, behavioural and social sciences, psychology and pedagogy. Because of the databases’ fields, results have not covered financial findings like AMADEUS database might provide. “Parents with cancer” AND “family members” AND “child*” have been the concepts used in the four databases. However, another SLR, with the same aim but using distinct terminology during the search process, might lead to other articles that contribute to extended findings. Handsearching could be a solution to include articles out of the databases, however at the same time they must clearly meet the selection criteria to keep the quality of the study, and the author must be objective to consider the right moment to finish with the search. Thus, articles by snowball effect were included.

6.5 Limitations

One large limitation is that only the author reviews this study. A second reviewer is desirable to supervise and follow up the entire process. Peer-review to control the study might improve the reliability of the study, to guarantee the consistency of the analytical procedure. Databases
and terminology used during the search must be proper to the topic to avoid a subjective study where relevant articles are excluded. When full-screening the articles, the author has realised that articles used different concepts to refer to children with a parent with cancer. For example, the author used “parents with cancer” while other articles mentioned “parental cancer” instead. Besides, the author used the same search in the four databases, thus terminology has not been adapted to the databases’ field. This is a risk of exclusion for those articles that cover the same aim but using different terminology. Not every article provides a clear number and description of participants. Most of the articles use more than one group of participants, and not all of them specify their genders or the type of cancer (see Appendix C). Nevertheless, it was difficult for the author of this paper to distinguish between these groups when analysing their results, as information was not always clear. This has limited the results, as there could be variations according to the gender of the parent with cancer and the type of cancer. Moreover, only full-text studies, available for free, peer-reviewed and published after 2010 have been included, which next to the author’s perspective when searching for articles, increases the bias of the search procedure and selection process.

This study was based on a western countries’ perspective. However, results about how a parent with cancer affects children’s everyday life could vary with a different background. Multicultural competences must be considered when choosing terminology and discussing the results, as they can restrict the results. Various groups of participants have been examined in several included articles to improve the validity of the study within precision to reflex the results. Nonetheless, this participants’ diversity has meant to be an unclear number of participants for the reader in some of the articles. For example, when articles interview children on one side and use questionnaires with adults on the other side (1; 2; 4). Although the aim was not a comparison between two sickness, one article that compares cancer with mental disorders (6) has been included as its results have been relevant according to the aim. Nevertheless, this could be a boundary when considering trustworthiness.

Describing the results, categories were difficult to label. Some results were connected to more than one category, which has made it more difficult to categorise in order to clearly reflect the results. An example of this limitation is social loneliness, which is connected to financial issues within children’s everyday life activities, in which social activities like hanging out with friends are included. This promotes a risk of bias and misunderstanding while interpreting and categorising the results.
6.6 Future research

Studies have demonstrated the need to advice, support and provide information to children of a parent with cancer to encourage a better everyday life. Contrary to this, in several cases parents are not strong enough to include their children in the sickness process.

Every article agrees on the limited research on this field and some articles start to mention some interventions to support this situation for children. The available data included in this SLR has focused on domains for children’s everyday life of a parent with cancer, and mostly results among domains have been connected.

Results described the most vulnerable individuals of a parent with cancer (adolescents and partners), and differences according to these individuals’ gender, in domains like mental health. Furthermore, there might be dissimilarity between how the gender of the parent with cancer affects the child, although the included articles have not mentioned it. Nevertheless, there are no variances when it comes to providing supports to diverse individuals. It is therefore essential to address the necessary variances for interventions to provide more meaningful interventions.

Articles from nurses’ perspective state the struggle to engage children in their parent’s condition when parents do not agree with it. Furthermore, nurses admit that this difficulty, to work with their patients’ children, is due to a lack of knowledge and their working conditions. It could be interesting for future researches to improve this challenging situation for nurses and other professionals, that indirectly affects children.

The domain with the highest limitation in research is in financial supports for families when one of the parents has cancer. Articles have mentioned children’s financial issues to cover their expenses when a parent has cancer, but none of them has referenced any kind of intervention, support or legislation to cover that need. On a different field, this study has not looked at educational interventions that children could need at school. Hence further studies would be interesting to examine these two fields.

Future researches might use this study as a source to understand those new needs children of a parent with cancer undergo and, within the existent supports, work on interventions to cover those needs.
7 Conclusion

When a parent has a sickness like cancer, new needs appear within the family, however, mostly professionals focus on the patient and the treatment, without considering partners and children (Kasuya, Polgar-Bailey, & Takeuchi, 2000). Participation is one of the rights of children, independent of family situation (United Nations General Assembly, 1989). Hence children should be able to engage in their parent’s cancer treatment.

A parent with cancer affects the whole family, including children’s everyday life. Nevertheless, parents try to protect them and commonly avoid communication about the sickness. Which results in a modification of relationships within the family, provoking feelings and problems internalization, and negative emotions that might lead to problems with children’s mental health. Therefore, social life is reduced according to the new circumstances and feelings that drive children to stay at home. Besides, it is common to have financial limitations to cover the same expenses they had before, which further limits children’s leisure activities. Hence variations within the family interactions generate concerns that affect the family functioning well-being and thus children’s everyday life.

Interventions focused on communication might reduce children’s and family’s mental health problems, encouraging everyone to share their emotions; providing information about the sickness process and a better organisation of family roles at home. Professionals need to be prepared for these interventions and working conditions must be favourable to it. Social interventions, with peer supports might reduce the children’s loneliness feelings. It is necessary to provide financial supports to cover new expenses and those which families cannot afford anymore since the cancer diagnosis. This could normalise children’s everyday life and avoid the need to reduce their social life. Family interventions to support coping skills when a parent has cancer are needed, examining relationships within the family and keeping in mind children’s everyday life.

Concluding, it can be argued that interventions to cover children’s everyday life needs, of a parent with cancer might focus on: a fluent communication between family members, peer support to reduce loneliness, financial support to normalise children’s everyday life and family functioning interventions to generate coping skills that promote children’s well-being.
8 References


9 Appendices

9.1 Appendix A. Quality assessment tool

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Article</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1. Is the theoretical perspective clear?</td>
<td>Yes/No</td>
</tr>
<tr>
<td><strong>Research questions</strong></td>
<td>2. Is the research question stated clearly?</td>
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</tr>
<tr>
<td><strong>Participants</strong></td>
<td>3. Are the participants described?</td>
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</tr>
<tr>
<td></td>
<td>4. Are ethical considerations discussed?</td>
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</tr>
<tr>
<td><strong>Method</strong></td>
<td>5. Is the method clearly described?</td>
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<tr>
<td></td>
<td>6. Is the data analysed properly?</td>
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</tr>
<tr>
<td><strong>Results</strong></td>
<td>7. Are the results precise?</td>
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<tr>
<td></td>
<td>8. Do the results describe any aspect from children’s everyday life when a parent has cancer?</td>
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<tr>
<td></td>
<td>9. Is there a connection between the results and aim?</td>
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<tr>
<td><strong>Discussion</strong></td>
<td>10. Is the discussion clear according to results?</td>
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</tr>
<tr>
<td></td>
<td>11. Are limitations of the article mentioned?</td>
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<tr>
<td></td>
<td>12. Do findings contribute to future research?</td>
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</tr>
<tr>
<td></td>
<td>13. Is trustworthiness mentioned? (validity and reliability)</td>
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<tr>
<td><strong>Conclusion</strong></td>
<td>14. Is the conclusion consistent according to the findings?</td>
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*Quality assessment tool designed by the author based on CASP and EPHPP to suit studies with different approaches*
### 9.2 Appendix B. Articles information

<table>
<thead>
<tr>
<th>Article</th>
<th>Authors</th>
<th>ID</th>
<th>Country</th>
<th>Topic</th>
<th>Method</th>
<th>Ethical Considerations</th>
<th>Quality</th>
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<tbody>
<tr>
<td>Financial and social effects on children and adolescents when a parent is diagnosed with cancer (2013).</td>
<td>Torp, S.; Thoresen, L.; Gronningsæter, A.B.; Grov, E.K.; Gustavsen, K.</td>
<td>1</td>
<td>Norway</td>
<td>It examines possible financial effects on families when a parent has cancer and lives with children.</td>
<td>Mixed-method (quantitative, qualitative)</td>
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<td>“There Is Still So Much Ahead of Us” Family Functioning in Families of Palliative Cancer Patients (2013).</td>
<td>Kühne, F., Krattennacher, T., Bergelt, C., Beierlein, V., Herzog, W., V Klitzing, K., Weschenfelder-Stachwitz, H., Romer, G., &amp; Möller, B.</td>
<td>2</td>
<td>Germany</td>
<td>It investigates family functioning when there is a parental disease, focused on cancer, from the family perspective (including children’s perspective).</td>
<td>Quantitative</td>
<td>YES</td>
<td>High</td>
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<tr>
<td>Coping skills and mental health status in adolescents when a parent has cancer (2013).</td>
<td>Krattennacher, T., Kühne, F., Führer, D., Beierlein, V., Brähler E., Resch, F., Klitzing, K., Flechtner, H., Bergelt, C., Romer, G., Möller, B.</td>
<td>3</td>
<td>Germany</td>
<td>It describes adolescent coping and mental health when one of the parents has cancer.</td>
<td>Quantitative</td>
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<td>High</td>
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<td>Predictors of quality of life of cancer patients, their children, and partners (2015).</td>
<td>Götze, H., Ernst, J., Brähler, E., Romer, G., Klitzing, K.</td>
<td>4</td>
<td>Germany</td>
<td>It reviews the QOL, focused on sociodemographic and psychosocial factors, of patients with cancer, their partners and their children.</td>
<td>Qualitative</td>
<td>NO</td>
<td>Medium</td>
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<tr>
<td>Loneliness despite the presence of others: Adolescents’ experiences of having a parent who becomes ill with cancer (2013).</td>
<td>Karlsson, E., Andersson, K., Ahlström, B.</td>
<td>5</td>
<td>Sweden</td>
<td>It gathers young adults’ perspectives from their adolescence with a parent who had cancer.</td>
<td>Qualitative</td>
<td>YES</td>
<td>Medium</td>
</tr>
<tr>
<td>A comparison of the emotional and behavioural problems of children of patients with cancer or a mental disorder and their</td>
<td>Krattennacher, T., Kühne, F., Halverscheid, S., Wiegand-Grefe, S., Bergelt, C., Romer, G., Möller, B.</td>
<td>6</td>
<td>Germany</td>
<td>It compares family with parental cancer and family with parental mental disorders, focusing on children’s ability.</td>
<td>Quantitative</td>
<td>YES</td>
<td>Medium</td>
</tr>
<tr>
<td>ID</td>
<td>Title</td>
<td>Authors</td>
<td>Country</td>
<td>Methodology</td>
<td>Quality</td>
<td>Score</td>
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<tr>
<td>7</td>
<td>A gap between the intention of the Swedish law and interactions between nurses and children of patients in the field of palliative oncology (2016).</td>
<td>Karidar, H., Akesson, H., Glasdam, S.</td>
<td>Sweden</td>
<td>Qualitative</td>
<td>YES</td>
<td>High</td>
<td></td>
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<tr>
<td>8</td>
<td>Understanding parenting concerns in cancer survivors with minor and young-adult children (2016).</td>
<td>Inhestern, L.; Bultmann, J.; Beierlein, V.; Möller, B.; Romer, C.; Koch, U.; Bergelt, C.</td>
<td>Germany</td>
<td>Quantitative</td>
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<td>9</td>
<td>Are children as relatives our responsibility? How nurses perceive their role in caring for children as relatives of seriously ill patients (2016).</td>
<td>Golsäter, M., Henricson, M., Enskär, K., Knutsson, S.</td>
<td>Sweden</td>
<td>Qualitative</td>
<td>YES</td>
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<td>11</td>
<td>Family life when a parent is diagnosed with cancer: impact of a psychosocial intervention for young children (2013).</td>
<td>Semple, C. J.; McCaughan, E.</td>
<td>UK</td>
<td>Qualitative</td>
<td>YES</td>
<td>High</td>
<td></td>
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</tbody>
</table>

ID= Identification Number for every article, chosen by the author of this study, to be used in this systematic literature review.
QOL: Quality of Life
### 9.3 Appendix C. Participants description

<table>
<thead>
<tr>
<th>Article</th>
<th>Number of participants</th>
<th>Gender of the patient with cancer</th>
<th>Gender of the child</th>
<th>Type of cancer</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Children (10) &amp; patients (386)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>2</td>
<td>Adolescent (64), partners (124) &amp; patients (135)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>3</td>
<td>Adolescents (214)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>4</td>
<td>Children (115), partners (110) &amp; patients (161)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>5</td>
<td>Adolescents (6)</td>
<td>No</td>
<td>Yes</td>
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<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Children (123), adolescents (100), partners (160)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Nurses (9)</td>
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<td>No</td>
<td>No</td>
<td>Yes</td>
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<td>8</td>
<td>Patients (1416)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<td>9</td>
<td>Nurses (22)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<td>10</td>
<td>Children (352), partners (250), patients (250)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>Children (7), partner (2), patients (4)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
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</table>

The number of the articles is according Appendix B (ID column)