



Review

# Cancer patients' and professional caregivers' needs, preferences and factors associated with receiving and providing fertility-related information: A mixed-methods systematic review



Joline Goossens<sup>a,\*</sup>, Ilse Delbaere<sup>a</sup>, Aurélie Van Lancker<sup>a</sup>, Dimitri Beeckman<sup>a</sup>, Sofie Verhaeghe<sup>a</sup>, Ann Van Hecke<sup>a,b</sup>

<sup>a</sup> Nursing Science and Midwifery, Department of Public Health, Faculty of Medicine and Health Sciences, Ghent University, Ghent, Belgium

<sup>b</sup> Nursing Science, University Hospital Ghent, Ghent, Belgium

## ARTICLE INFO

### Article history:

Received 20 November 2012

Received in revised form 12 June 2013

Accepted 12 June 2013

### Keywords:

Cancer patients

Caregivers

Fertility

Fertility preservation

Information services

Systematic review

## ABSTRACT

**Objectives:** Cancer treatment can impair fertility. The aim of this review was to investigate (1) fertility information needs, receipt and provision, (2) fertility information preferences, and (3) factors associated with receiving/providing fertility information. Cancer patients' and professional caregivers' perspectives were considered.

**Design:** Mixed-methods systematic review.

**Data sources:** Six electronic databases (PubMed, Web of Science, CINAHL, CRD, Embase) were systematically screened to retrieve articles published between January 2001 and March 2012. Reference lists and conference abstracts were checked for additional publications.

**Review methods:** The principles outlined in the Cochrane Handbook for Systematic Reviews of Intervention were applied. Publications were included if they explored fertility-related information/communication in cancer patients/survivors of reproductive age or professional caregivers. The Critical Appraisal Skills Programme for Qualitative Studies and the Quality Assessment Tool for Quantitative Studies were used to assess the methodological quality. A standardised form based on the Cochrane guidelines for systematic reviews was used to extract the data. Two independent reviewers performed all methodological steps.

**Results:** Of the 1872 papers found, 27 were included in this review. The majority (66–100%) of the cancer patients wanted information about the impact of cancer therapy on fertility. The need and importance were higher in younger and childless patients, and in patients having childbearing plans. The number of patients receiving this information ranged from 0% to 85%. Several factors were associated with the lack of information receipt, including female gender and age 35 years or older. Patients preferred information via an individual consultation. In the diagnostic phase patients needed information about the impact of the treatment on fertility and preservation options. At the end or after the treatment, information needs shifted towards long term effects. Professional caregivers experienced several barriers in providing fertility information, including caregiver-, patient- and institutional-related factors. Nurses in particular, perceived difficulty in providing fertility-related information due to

\* Corresponding author at: Nursing Science and Midwifery, Ghent University, UZ-2 Block A, De Pintelaan 185, B-9000 Ghent, Belgium.  
Tel.: +32 9 3320589.

E-mail addresses: [Jolgooss.Goossens@ugent.be](mailto:Jolgooss.Goossens@ugent.be), [Joline001@hotmail.com](mailto:Joline001@hotmail.com) (J. Goossens).

additional barriers associated with limited responsibility and opportunity in fertility information provision.

**Conclusion:** Professional caregivers experienced multiple barriers that hinder information provision. Further exploration of the role of Advanced Nurse Practitioners/Midwives and the development of an evidence based intervention to overcome caregiver-related barriers are recommended to improve information provision.

© 2013 Elsevier Ltd. All rights reserved.

### What is already known about the topic?

- A cancer treatment can impair the patient's fertility.
- Options for fertility preservation are numerous and vary according to cancer- and patient-related factors.
- Despite several international recommendations regarding fertility and fertility preservation in cancer patients, many patients do not recall infertility discussions.

### What this paper adds?

- Multiple factors are related to patients' information receipt and professional caregivers' information provision regarding fertility and preservation options.
- The methodology of existing studies is suboptimal and there is little information related to factors associated with information provision by professional caregivers.

## 1. Background

In Europe, an estimated 130,500 new cancer diagnoses (non-melanoma skin cancers being excluded) are made per year in adolescents and young adults between 15 and 39 years old (Ferlay et al., 2012). Cancer prevention, screening and treatment improved the past three decades, leading to a 5-year relative survival of 80% for patients diagnosed before the age of 45 (Herbst et al., 2006; Howlader et al., 2012). As a result, a large proportion of young cancer survivors will transit into a post-treatment life, a life similar to their peers. Therefore, cancer survival cannot be the only focus after a diagnosis and should be expanded to long term quality of life issues such as fertility and future parenthood (Valdivieso et al., 2012).

Cancer treatment (including chemo- and radiotherapy) can impair the patient's fertility (Ajala et al., 2010; Diedrich et al., 2011; Dohle, 2010; Lee et al., 2006; Matthews et al., 2012; Rodriguez-Wallberg and Oktay, 2010). The gonadotoxic effects of chemotherapy depend on the type of drug, dose, single vs. combination of agents, and radical vs. adjuvant therapy (Ajala et al., 2010; Dohle, 2010; Lee et al., 2006; Matthews et al., 2012; Rodriguez-Wallberg and Oktay, 2010). The extent of damage of radiotherapy is determined by the total dose, fractionation schedule and irradiation field (Ajala et al., 2010; Diedrich et al., 2011; Dohle, 2010; Lee et al., 2006; Rodriguez-Wallberg and Oktay, 2010). Options for fertility preservation are numerous (Ajala et al., 2010; Diedrich et al., 2011; Dohle, 2010; Ethics Committee of the American Society for Reproductive Medicine, 2005; Lee et al., 2006; Matthews et al., 2012; McLaren and Bates, 2012; Rodriguez-Wallberg and Oktay, 2010). For men, sperm banking is an

uncomplicated and relatively low-cost option to preserve future fertility (Diedrich et al., 2011). In case of ejaculation failure, epididymal aspiration or testicular biopsy is recommended (Ajala et al., 2010; Diedrich et al., 2011). Although still experimental, cryopreservation of testicular tissue can be an alternative solution for prepuberal boys (Dohle, 2010). For women, fertility preservation procedures are more complicated (Ethics Committee of the American Society for Reproductive Medicine, 2005). Their options vary according to age, diagnosis, type of treatment, available time to delay treatment, partner status and medical condition (Rodriguez-Wallberg and Oktay, 2010). If there is enough time available, embryo and oocyte cryopreservation are two options to preserve fertility for women (Diedrich et al., 2011). Although embryo cryopreservation is well-established and the first option (Ajala et al., 2010; Diedrich et al., 2011; Ethics Committee of the American Society for Reproductive Medicine, 2005; Lee et al., 2006; Rodriguez-Wallberg and Oktay, 2010), nowadays the technique is being abandoned as oocyte cryopreservation is more advantageous (Domingo et al., 2009; Matthews et al., 2012; McLaren and Bates, 2012). Vitrified oocytes have a high survival rate (97%) and are comparable with fresh oocytes in terms of embryo quality, fertilisation-, pregnancy- and implantation rate (Cobo et al., 2008). Additionally, partner or donor sperm is not required in contrast to embryo preservation (Ajala et al., 2010; Diedrich et al., 2011; Domingo et al., 2009; Ethics Committee of the American Society for Reproductive Medicine, 2005; Lee et al., 2006; Matthews et al., 2012; McLaren and Bates, 2012; Rodriguez-Wallberg and Oktay, 2010). More controversial or experimental options for women are ovarian tissue cryopreservation, the use of gonadotropin-releasing hormone (GnRH) agonists, and transposition of ovaries (Ajala et al., 2010; Domingo et al., 2009). Because of a range of options for both men and women, fertility preservation can be an opportunity to fulfil further childbearing plans in patients undergoing a gonadotoxic cancer treatment (Lee et al., 2006).

Fertility is an important topic for many cancer patients in their reproductive age and especially for those patients with a desire to have (more) children (Lee et al., 2006; Peate et al., 2011; Penrose et al., 2012). Previous studies indicated that cancer-related infertility has a negative influence on the quality of life in cancer survivors. The psychosocial impact of fertility loss comprised psychosocial concerns, distress and poor sexual functioning (Canada and Schover, 2012; Carter et al., 2010; Howard-Anderson et al., 2012; Wenzel et al., 2005). Moreover, research suggested that most cancer survivors prefer to have a biological child, even if there are concerns about long-term

Download English Version:

<https://daneshyari.com/en/article/7516132>

Download Persian Version:

<https://daneshyari.com/article/7516132>

[Daneshyari.com](https://daneshyari.com)