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The perils of a vanishing cohort: A study of social comparisons by women with advanced ovarian cancer

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ABSTRACT

Objective: To examine the role social comparisons play in the experience of ovarian cancer patients and to consider the implications this may have for provision of supportive care services for ovarian cancer patients.

Methods: We conducted a longitudinal qualitative study of women with advanced ovarian cancer in Sydney, Australia. Semi-structured interviews were conducted with women with advanced ovarian cancer over a period of 2.5 years. Social comparisons made by 13 study participants in 33 interviews were extracted and analysed using coding categories based on social comparison theory.

Results: Participants favoured downward contrasts and lateral comparisons and avoided downward identifications, upward contrasts and upward identifications. Participants expressed a preference for avoiding contact with ovarian cancer patients, for the company of “normal” others, for normalizing information and information that facilitated upward identifications.

Conclusions: We suggest that social comparisons made by women with ovarian cancer are influenced by specific clinical factors associated with their diagnosis – in particular their status as a member of a “vanishing cohort” – and argue for further research examining the specific comparison needs and preferences of patients with advanced disease and types of cancer with poor prognoses.

Practice implications: These findings raise questions about uniform approaches to the provision of cancer care and suggest that further research may be required to ensure that interventions are appropriately tailored to the supportive care needs of patients with different types and stages of disease.

KEYWORDS

Cancer; Oncology; Ovarian neoplasms; Social comparison theory; Social support; Self-help groups

Introduction

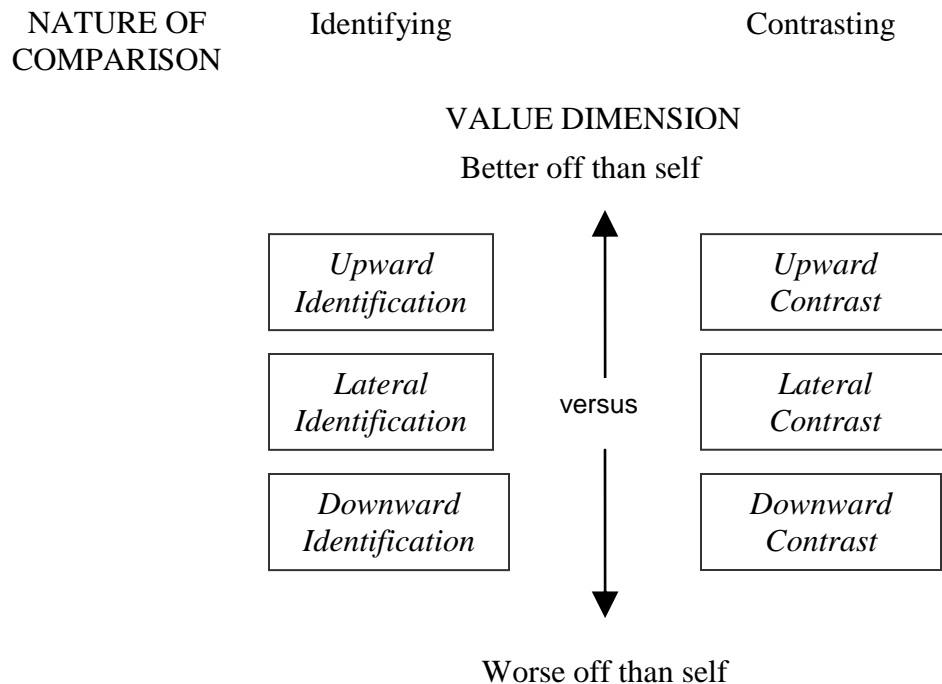
Ovarian cancer is the ninth most common cancer and the sixth most common cause of cancer death in Australian women. It is predicted that close to 1400 Australian women will be diagnosed with epithelial ovarian cancer in 2010 (approximately 0.006% of the Australian population) [1]. Ovarian cancer develops insidiously with no specific symptoms and as a consequence the majority of patients present with advanced disease (regional or distant metastases) [2]. Treatment of advanced disease generally requires extensive surgical resection, followed by multiple cycles of platinum-based chemotherapy [3]. If initial treatment is successful the patient may achieve a remission (no evidence of disease). Unfortunately only a small proportion of women experience prolonged remission or cure and the vast majority (>90%) of women with advanced disease will experience recurrence, on average 15 months after initial diagnosis [2]. Once the disease returns it is regarded as incurable, although second-line treatment can provide palliation and improve quality of life [4].

Ovarian cancer patients experience a range of disease-related symptoms and treatment-related side-effects which reduce quality of life [QoL] and psychosocial functioning, and cause considerable physical and psychosocial morbidity [5]. Furthermore, each woman must cope with

both the certainty of a poor prognosis and uncertainty about what the experience will be like for her and precisely how long she will survive [6]. Consequently, existential concerns, including difficulties with self-concept and fear of metastasis, recurrence and second cancers are common and significantly impact on QoL and psychosocial functioning [5]. It is hardly surprising then, that a number of studies have found higher than average levels of psychological distress in this group of patients [7,8]. However, not all women with ovarian cancer experience significant psychological distress [7], suggesting additional factors including psychological characteristics and coping strategies may mediate patient experience.

When faced with threatening and uncertain circumstances people adopt a range of coping strategies. One strategy which can provide information to facilitate problem solving and assist in regulating emotional states [9,10], may be to compare oneself to others, a process called *social comparison*. According to social comparison theory, human beings have a drive to compare themselves to similar others [11], especially when faced with novel, threatening and uncertain circumstances [12]. Researchers have developed a typology of comparisons based on two key distinctions (see figure 1). Individuals may compare themselves to others whom they perceive as *better-off* (upward comparisons) or *worse-off* (downward comparisons) than themselves, or *doing similarly as well* (lateral comparisons) as themselves [13]. Furthermore, individuals may *identify* (overestimate similarities) or *contrast* (underestimate similarities) themselves with “others” [14,15]. These others may be “real” people or fictional individuals [14].

Figure 1. Typology of Social Comparisons



Previous studies indicate that social comparisons have both desirable and undesirable affects [14]. Upward identifications may provide inspiration and hope that one will attain the same level as a better-off other; while upward contrasts may leave people feeling depressed that they are unable to attain the level of a better-off other. Downward identifications may be ominous and threatening because they suggest we may sink to the level of a worse-off other. However, contrasting ourselves with a worse-off other may allow us to feel better about ourselves [16,17,18]. Whether a given comparison makes us feel better or worse may be determined not only by our own situation and by the target of our comparison, but by a range of other factors, such as the degree of control we feel we have over our situation and the extent to which we perceive we are likely to improve or decline [14]. Despite the risk of harm associated with social comparisons, under certain circumstances, such as when one is faced with a threat to one's health or wellbeing, particularly when that threat is associated with an uncertain outcome and psychological distress, the drive to compare oneself with others remains strong [19,20].

Being diagnosed with cancer is an example of a novel and threatening situation which may strongly motivate social comparisons to similar others. Previous research has therefore used social comparison theory to investigate the experience of cancer patients. The results of these studies have generally concluded that cancer patients most frequently make downward contrasts, and yet they do so, where possible, without coming into direct contact with such worse-off others. It seems, that although making downward contrasts may allow patients to view their situation in a better light [9,14,21], coming into direct contact with the objects of these comparisons may be too frightening, presumably because such encounters provide a glimpse of a possible undesirable future [9,22,23,24]. Thus, patients tend to avoid direct contact with others who are worse-off, and instead seek direct contact with and information about others who share their disease (in-group others) but who are doing better than they are [23,25,26,27].

Given the highly threatening and uncertain nature of ovarian cancer one would anticipate that social comparisons may be an important coping strategy for this group of patients. We report here findings from a qualitative study of patients with advanced ovarian cancer with a view to answering the following questions:

1. What role do social comparisons play in the experience of a patient population with an extremely poor prognosis – in this case advanced ovarian cancer?
2. How do theoretical and empirical understandings of the social comparisons made by unselected cancer populations translate in the context of advanced ovarian cancer?
3. What might be the implications of these findings for the provision of supportive care services for patients with advanced ovarian cancer?

Methods

The dataset presented here is a subset drawn from a qualitative study of women with advanced ovarian cancer conducted in Sydney, Australia. The aim of the project was to investigate the experience of advanced ovarian cancer, with a view to informing the education of patients, carers and clinicians, and the organisation and delivery of care and services. A longitudinal study design was implemented to capture the range of experiences and often sudden changes that patients face throughout the natural history of ovarian cancer. Ethics approval was granted by Sydney West Area Health Service and the University of Sydney.

Sampling and recruitment

A sequential sample of 20 women was recruited through [censored for deidentification purposes]. Patients were eligible for the study if they had been diagnosed with advanced (Stage III or IV) epithelial ovarian cancer; if they were 18-79 years of age and if they spoke enough English to participate in the interviews. Patients were excluded from the study if they lived outside Sydney's greater metropolitan area, if they had significant psychiatric morbidity, or if they were unlikely to survive long enough to complete two interviews. In order to ensure the data was spread across the disease trajectory and thus captured the full range of patient experience, participants were recruited at diagnosis, first recurrence, subsequent recurrence and when judged to have refractory or progressive disease.

Data collection

Participants were interviewed at approximately four month intervals over a period of 2.5 years or until lost to follow-up. This follow-up period was chosen to reflect the median survival time for patients with ovarian cancer. Upon completion of data collection 10 of the 20 participants were deceased and 2 lost to follow-up. In the initial interview, participants were invited to tell the story of their illness and were asked to update their story at the beginning of subsequent interviews. The interviewer also drew on a list of pre-formulated questions regarding participants' concerns, hopes, expectations and plans for the future and was free to ask spontaneous questions at any point. The interview schedule did not include questions designed to elicit social comparisons as the team's research interest in social comparisons only emerged during the later stages of the project. At the end of each interview the participants completed questionnaires including socio-demographic factors, quality-of-life measures (FACT-O and HADS) and additional indicators of psycho-social support, including whether participants had a spouse/partner and/or carer, were taking medication or receiving therapy for mental health issues, or had attended a support group. The interviews were digitally recorded, transcribed and anonymised.

Inductive Coding and Analysis

Analysis of the interviews was inductive and informed by Morse's description of the generic cognitive underpinnings of qualitative research [28]. As the interviews were completed, members of the research team read the interviews and identified emergent themes warranting further in-depth analysis. These themes were then abstracted into categories and concepts and coded using code-and-retrieve software.

A Study of Social Comparisons in Advanced Ovarian Cancer

As data collection and recruitment progressed we observed that all participants recruited thus far had been utilising social comparisons. We therefore decide to systematically re-analyse (reread) all interviews that had been conducted to date for social comparisons.

Dataset

At the time of analysis 13 participants had been recruited. All 13 participants had been treated with extensive abdominal surgery and platinum-based chemotherapy after initial diagnosis. Those with recurrent disease (9) were treated with further chemotherapy. Treatment ceased (2) when patients were no longer well enough to tolerate chemotherapy (1) or when their cancer

was judged to be chemotherapy resistant (1). The median age at diagnosis was 51 years (range 37-68 years). Interviews with all 13 participants were ongoing at the time our interest in social comparisons arose and we chose to only include those interviews conducted prior to commencement of the social comparison analysis. The dataset thus contained a total of 33 interviews, with an average of 2.5 per participant (range 1 to 4). All phases of the cancer continuum were captured by the dataset. For further information about participants and timing of interviews see Tables 1 and 2. Thematic saturation was reached on the basis of the 33 interviews included in this initial sample and therefore later interviews with these 13 participants and from the 7 participants subsequently recruited were not incorporated into the social comparison analysis.

Table 1. Characteristics of Participants

Characteristics of participants						
Stage of disease	Stage III			Stage IV		
	10			3		
Disease point at recruitment	Diagnosis	1st Recurrence		Subsequent recurrence/refractory		
	7	3		3		
Ethnic background	Anglo-Australian	UK		Non-English speaking		
	7	3		3		
Employment status	Unemployed			Employed		
	5			8		
Children (average 2.6)	0	1	2	3	4	5
	3	1	4	4	0	1

Table 2. Characteristics of Interviews

Characteristics of interviews						
Disease point of interview	Initial diagnosis	1st Remission	1st Recurrence	Subsequent Remission	Subsequent Recurrence	Refractory/ progressive disease
	5	8	8	3	3	6
Treatment status at time of interview	Undergoing treatment			Not undergoing treatment		
	18			15		

Deductive Coding and Analysis

Coding categories for the analysis were based on the typology of upward/downward/lateral and identifying/contrasting described in the existing social comparison literature, as well as the type of comparison target. The interviews were examined for social comparisons and coded using a code-and-retrieve software program with a view to answering the following specific questions:

1. Did social comparisons occur, unprompted, in the interviews?
2. What types of comparisons were made?
3. What were the affective consequences of the different comparison types?
4. What were the most common types of comparison made?
5. Did the participants display preferences for avoiding interaction with worse-off others and for contact with those faring better?
6. Did participants display a preference for information regarding those faring better?
7. Did participants show a preference for making comparisons to other ovarian cancer patients?
8. Did participants compare themselves with 'real' or 'fictional' others?

Initially the coding exercise was practiced by both qualitative researchers on the team (BM and CJ). Coding of social comparisons was compared and discussed in order to clarify any areas of nonconcordance, until it was deemed that social comparisons were being identified and coded in a consistent manner and in accordance with the research questions. Once this consistency had been established the first author (BM) continued the coding exercise independently. The results of this analysis were then presented to the entire team for discussion and final decision-making.

Results

Frequency and Affects of Comparison Types

All comparison types occurred frequently and without prompting in participants' talk. Consistent with other studies of cancer populations, downward contrasts were the most common comparison type made by the participants (33.4%)¹(see Table 1) and were the preferred comparison type for 38% of participants. Somewhat surprisingly, given their latency in the literature, lateral comparisons were also very common (31.1%) and were the preferred comparison type for 46% of participants. Lateral comparisons were also the only comparison type used by all participants. Also surprising given the results of previous studies, upward identifications were the most infrequent comparison type (5.9%), followed by downward identifications (8.8%) and upward contrasts (16.8%).

¹ Percentages were calculated by dividing the total number of a specific comparison type by the total number of social comparisons.

Table 3. Frequency of Comparison Types

		Comparison Direction		
		Downward	Lateral	Upward
Nature of Comparison	Identifying	8.8% (range 0-37%)	31.1% (range 9.5-62.5%)	5.9% (range 0-15.2%)
	Contrasting	33.4% (range 0-75%)		16.8% (range 0-52%)
Total		42.2%	31.1%	22.7%

The affects associated with each of the comparison types were largely as reported previously in the social comparison literature. Upward identifications were inspiring and hopeful.

That nurse, you wouldn't think she was in the same boat as I am, she goes, "For eleven years now, I'm still fighting, I'm still working", things like that you hear are very inspirational.

Upward contrasts had a deflating effect on participants and often involved negative evaluations of their own coping:

After the second recurrence I'm shaken ... I don't know whether one can really prevent it from happening, and then I think about people ... who's getting much more years and I think, do they do something different?

Downward contrasts were used to enhance participants' sense of self and were frequently used to frame the participant as "the lucky one", contributing to optimistic and even exceptional predictions of prognosis

I was saying how lucky I'd been because I know a couple of other ladies who're really sick with the treatment, one of them has since passed away, but she couldn't tolerate the treatment and I've been so fortunate.

Consistent with results of previous studies, downward identifications were the most frightening, anxiety provoking comparisons, often indicating threatening predictions for the future:

My sister died, and I don't think I was ready to take it. I look in the mirror and I look like her. That's enough on its own. She's not here anymore. What frightens me most is I know what it's going to be like at the other end. That's really scary.

Lateral comparisons, in which participants identified or contrasted themselves with others who were no better or worse off than themselves, functioned to normalize experience, particularly in relation to the symptoms and side-effects of the disease and treatment:

Reading that form made me realize, 'This is a normal thing', going to chemotherapy, hear people talking, I think, 'Has that happened to her? It happens to me.' It's normal again. A lot of things are turning out to be normal.

At times these lateral comparisons were used to mitigate the portentousness of severe or unique symptoms or test results:

When she was first diagnosed I think her CA125² was only about 400, whereas mine was 2900 ... I think we're all unique in that regard, so I'm hoping that although I have a very high count my body reacts like, 'Oh it's here, woah!' ... I don't know, I think maybe my number goes up very high.

An examination of comparisons types made at different time points (interview number and clinical status) found no significant changes. Participants continued to draw from the range of comparison types and targets throughout their participation in the study.

Contact and Information Preferences

Previous research suggests that cancer patients will seek contact with others who share their disease (in-group others) but will prefer that such contact involves others who are better-off than themselves (see above). Indeed, a few participants in this study did speak of the desirability of contact with in-group others due to the opportunity it provided for understanding and normalizing their experience. However, while all 13 participants in our study were invited to attend a disease-specific support group as part of the standard care provided by their specialist unit, 8 had never attended. Of the remaining 5, 3 ceased attendance after one or more sessions and only 1 was a regular attendee. Participants were not routinely questioned about these decisions. However, throughout the course of the interviews a clear preference emerged for avoiding contact with *all* in-group others, whether faring better or worse than themselves, because such encounters held the potential for providing them with frightening examples of worse-off others with whom they might identify. When asked whether she had found the support group helpful one participant explained that:

It can scare you when you talk to people. They say, "I went and took this treatment, then I got it again". It can negatively affect you. So it's not good, unless you hear positive stories which most of the time is not the case when you go to the support group. Of course some people are there, but then you hear from someone and that can really shake you. ... The effect [the good news] has on you can be overridden by someone's negative experience.

Instead, participants most frequently sought fun and distraction through interactions with what they considered to be "normal" others, that is, out-group others. Such interactions avoided the painful reminders of their disease and reinforced the speaker's identity as "normal" person rather than as a cancer patient.

When I feel well and I'm out with my friends I'm just me, I'm not someone living with cancer ... I think a healthier thing for me is to be around normal, healthy, positive, all the good things in life, not sitting around, 'We've all got something in common: ovarian cancer. Isn't that great?'

When it came to information, participants, as in previous studies of cancer patients, expressed a clear desire for information about others who were faring better than themselves. In particular, they commented on the hope they were able to gain from stories of survivors who had beaten the odds, and the guidance this gave them in attempting to follow this path.

² The tumour marker, or CA125, referred to is used as an indicator of the presence and, at times, the severity of disease. However, as this participant is indicating, individuals vary greatly in the extent to which their 'number' increases or decreases in response to disease and therefore a significantly higher CA125 reading may not mean that the individual has more severe disease than a patient with a lower reading.

I've been reading about people who are survivors, where the doctors have given up hope and told them to go home because they can't treat them but those people have survived. Of course they've done a lot of other things in their life. So at this point I'm trying to think that I must do much more than being complacent.

Information that normalized symptoms and side-effects, as well as emotional responses to cancer, was also considered desirable.

I've been talking to the clinical psychologist about survivorship, about feelings of guilt. I've talked to the social worker because this is quite normal ...

However, general statistical information about ovarian cancer patients was unanimously regarded as depressing and frightening and participants often spoke of deliberately not reading such information.

In the newspapers they wrote about what I had ... I fell to pieces for quite awhile over this, "1,000 people in this area are going to get ovarian cancer this year, out of that 1,000 people 800 are going to die" ... I won't read a newspaper anymore ... That was just wrong. If they want to write about it do it in a nice way, not to scare people ... Some people could give up hope reading that. I did.

Choice of Comparison Others

Less than half (39%) of the observed comparisons involved in-group others. In other words, participants frequently chose to compare themselves with patients who had other forms of cancer that differ considerably from ovarian cancer in terms of symptoms, treatment and prognosis (such as breast cancer). They also frequently chose to compare themselves to patients with illnesses other than cancer, and to healthy others such as family and friends.

Overall, the majority of comparisons did not involve tangible others with whom participants had actual contact or about whom they have received information. Rather, the majority of comparisons involved fictional or hypothetical others (62%)(see Table 2) including hypothetical ovarian cancer patients or chemotherapy patients and references to very generalized groups such as 'other cancer patients' and often simply 'other people'. This tendency was particularly strong for downward contrasts (72%).

Table 4. Choice of Comparison Others

		Comparison Other	
		Real	Fictional/Hypothetical
Comparison Type	Downward identification	70%	30%
	Downward contrast	28%	72%
	Lateral comparison	39%	61%
	Upward identification	53.3%	46.7%
	Upward contrast	37%	63%
Total		38%	62%

Discussion and conclusion

Discussion

Our results are consistent with research indicating that social comparisons are commonly made by cancer patients, that these comparisons vary in type and target, that they confer both subjective benefits and harms of the kind described by social comparison theory and that cancer patients favour downward contrasts and prefer to avoid downward identifications and upward contrasts. Participants' choice of fictional/hypothetical others for the majority of their downward contrasts and their desire for inspiring information is also consistent with research suggesting that while they may wish to make downward contrasts, cancer patients will generally avoid direct contact with and information regarding worse-off others [9,16,22,23,24].

A number of our results however, did not align with previous theoretical and empirical work and thus warrant further discussion. Upward identifications, despite generating positive affect, were expressed least frequently. Lateral comparisons, which have received little attention in empirical studies of cancer patients, were made almost as frequently as downward contrasts and were the only comparison type made by all participants. Furthermore, unlike those in other studies, our participants made most of their comparisons to others who did not share their disease (out-group others). Finally, and perhaps most importantly, a clear majority of participants in this research did not seek contact with other patients with ovarian cancer but instead expressed a preference for avoiding such encounters. This was captured by their aversion to support group attendance and the apparent appeal held by the company of "normal" others. Although previous research has indicated a tendency for cancer patients to avoid direct contact with others who are worse-off than themselves, a preference for avoiding *all* contact with in-group others has not previously been reported and stands in opposition to something of the accepted wisdom regarding the benefits of peer support for cancer patients.

We suggest that social comparison needs and preferences may differ according to type and stage of disease [29,30]. In particular, we would argue that specific "clinical" characteristics of one's disease, such as natural history, life-time risk, prognosis, mortality rate and average five year survival, alter the balance of risks and benefits associated with in-group comparisons and consequently the type and target of comparisons one will favour. Consequently, patients with advanced disease or poor/terminal prognoses – those who belong to what we have termed a "vanishing cohort" (a cohort in which a bad outcome is almost a certainty) - may evidence particular patterns of social comparison preferences. The possible variability of comparison needs and preferences across cancer populations is not something that has been adequately captured by previous research as the majority of social comparison studies have not sought to distinguish their participants by type or stage of disease or have been weighted toward the views of those with early stage disease or good prognoses. Previous studies have commonly included participants with a range of cancer types [10,14,23,26,27,29,30,31,32] and have either included a range of disease stages [14,25,26] or have not reported the disease stage of their participants [9,14,25,26]. Studies that have focused on more specific patient populations have predominantly or exclusively included those with early stage disease [22,24,33,34], those with a good prognosis [14,26] or patients who were no longer under active treatment [23,27,35,31] or have excluded patients who were thought to have less than twelve months to live [10,30,32]. This study, therefore, provides information about a specific and understudied population – women with advanced disease from a cohort with a poor prognosis.

Furthermore, as a number of theorists have argued, it is important to strengthen the results of conventional fixed-response studies by capturing the comparison preferences of

patients in more naturalistic settings [22,27,33] – an approach exemplified by studies incorporating Ecological Momentary Assessment [36,37]. In their use of fixed response methods, the majority of studies of social comparisons amongst cancer patients have limited the comparison preferences participants were able to report – frequently by excluding out-group comparisons and/or lateral comparisons – and thus the pattern of comparison needs and preferences that emerged. However, participants in our study were free to make as many or as few comparisons as they desired and to shape these comparisons to meet their needs and preferences. Participants were able to express comparisons to and preferences for contact with whomsoever they chose, be they in-group or out-group others, and others doing better, worse or similarly as well as themselves. Thus, we were able to gain more in-depth insight into ovarian cancer patients’ comparison needs and preferences.

Due to the qualitative nature of our data, drawn as it is from interviews with a small number of participants, our results are not generalisable to a wider population and remain tentative. The nature of our study also precludes us from presenting any insights into whether the types of comparisons participants made varied according to individual demographic and psychosocial characteristics or how social comparisons change with disease progression. Importantly, as this study describes a specific cancer population our results need confirmation in studies involving larger numbers of participants and in different populations of cancer patients. While our results provide an important contribution to existing research as they capture the experiences of an understudied population and illuminate the ways in which patients’ comparison needs and preferences may vary according to the types and stages of disease, they demonstrate also that further research is needed into the social comparisons made by patients with cancer and with serious and terminal illness. This research should not simply reproduce existing methods but should include understudied cancer populations; should adopt longitudinal designs in order to track comparisons across the disease trajectory; and should go beyond conventional fixed response methods and laboratory studies by utilising free response methods and ethnographic approaches, and thus take into account an unlimited range of comparison types and targets thereby allowing the full range of needs and preferences of different cancer populations to emerge.

Practice Implications

The importance of supportive care for patients with cancer has been clearly demonstrated (for a review see [16]), however much work remains in identifying and implementing the most effective forms of care. In recent years disease-specific support groups have, whether out of preference or necessity, become the predominant, and at some health facilities the only, form of supportive care provided to cancer patients [38]. These groups are convened on the premise that interactions with “similar others” may benefit patients by providing them with an opportunity to share common experiences and thereby find mutual support and understanding (see for example, [38]; [39]). The opportunity to make social comparisons has also been touted as one of the many benefits of these groups [40]. Evidence that disease-specific support groups benefit cancer patients is considerable and although some studies have indicated that the support group environment may not be suitable for all cancer patients [41], in both the empirical and theoretical literature, there is an overriding assumption that increasing attendance at support groups is a good thing [42]. However, research examining the benefits of such groups has been heavily weighted towards the experiences of patients with early stage disease and patients who choose to attend the groups [43,39,44,45,46]. The study reported here thus adds to the existing literature on supportive care in cancer in two important ways.

First, it adds to research examining the experiences of patients with advanced disease, and so assists in illuminating the limits at which disease-specific support groups can be assumed to be of benefit to cancer patients. Second, it examines the experiences of a group of patients who predominantly chose not to attend a group, and whose lack of attendance can not be explained by lack of awareness or availability of such groups.

While this study is consistent with previous research indicating that social comparisons can be of benefit to the psychosocial wellbeing of cancer patients and that, therefore, facilitating these comparisons should be a central consideration in the provision of supportive care, our results also suggest that for patients with different types and stages of disease, the risks and benefits of social comparisons may differ, and consequently so may the benefits and harms of different forms of supportive care. We suggest that a tailored approach to supportive care in cancer, that takes into account the specific characteristics and experiences of each disease group, may be necessary. In particular we would argue, that it is important to take seriously the contention that some groups of patients may not benefit from and may even be harmed by participation in disease-specific support groups, that a uniform approach to supportive care in cancer is not satisfactory and that alternative forms of care ought to be made available [47,48,49,50]. Disease-specific support groups clearly benefit many patients by facilitating positive social comparisons, and the growth of these groups has certainly been of benefit to the cancer community. However, we believe further research is needed to establish which groups of patients benefit most from disease-specific support groups and how supportive care interventions can be tailored to the supportive care needs of patients with different types and stages of disease.

While further research will be necessary to establish which forms of supportive care will be of greatest benefit for ovarian cancer patients, on the basis of this study we would suggest that appropriate services are likely to be those that facilitate normalising lateral comparisons, whilst at the same time avoiding the harms associated with comparisons to better- or worse-off in-group others. In other words, for ovarian cancer patients supportive care interventions that provide interactions with and information regarding others who are doing similarly as well, rather than seeking to provide patients with better-off 'inspirational' in-group others may be of most benefit. Interventions such as one-to-one psychosocial care; provision of comparison information that is appropriately tailored to specific phases of the disease trajectory; facilitation of contact between patients who are at similar stages in the disease trajectory (i.e. recently diagnosed, remission, recurrence, progressive/refractory disease); online patient networks and peer support groups that are convened on the basis of commonalities other than diagnostic category and which may provide opportunities to make social comparisons on a less threatening pretext [43], would usefully be the subject of future research. Furthermore, we feel that it would be inappropriate on the basis of this study to exclude the possibility that for some ovarian cancer patients disease-specific support groups may be beneficial. However, further research is needed to assist in identifying which individuals may benefit from these groups and to establish methods for recruiting and maintaining such groups in order to maximise their benefits for patients. Ultimately, health professionals involved in cancer care will need to consider the role that they play and the role that the design and delivery of care services plays in mediating the experience of patients with advanced ovarian cancer and the comparisons that each woman will make along her cancer trajectory [51].

Conclusion

The experience of ovarian cancer is characterized by the dynamic interplay of both certainty and uncertainty, and patients' efforts to adapt to extreme circumstances can be both helped and hindered by social comparisons with similar others. The findings presented here suggest that further research may be required to understand the ways in which comparison needs and preferences may vary for cancer patients with different types and stages of disease and to ensure that psycho-social interventions are appropriately tailored to the supportive care needs of individual patients.

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