Abstract
Available literature concentrates on infertility concerns of young women with breast cancer, while attention to psychosocial issues related to maintained or regained fertility is scarce. As part of a longitudinal, qualitative study of experiences of young women with breast cancer (diagnosed at 40 years or younger); \( n = 13 \), concerns about fertility, contraception, pregnancy, and breastfeeding after breast cancer were expressed. Using semistructured, one-to-one interviews over three time phases, we explored these women's experiences. Perceptions of fertility changed over time. Contraception issues were raised together with recurrence fears related to pregnancy and breastfeeding after breast cancer. Decisions related to unplanned pregnancies and breastfeeding were described as particularly onerous.

BACKGROUND

The most frequently diagnosed cancer in Australian women is breast cancer, with 11,791 cases recorded in 2001 (Australian Institute of Health and Welfare [AIHW], & Australasian Association of Cancer Registries [AACR], 2004). Breast cancer is clearly an important women's health issue with public health implications. Approximately 6% (674 cases) of diagnoses were recorded for women aged 39 years or younger (AIHW & AACR, 2004). Younger women with breast cancer therefore compose a subgroup deserving special attention for a range of reasons.

Younger women report similar breast cancer-related issues as older women, although the literature suggests that they experience these more negatively and intensely (Mor, Malin, & Allen, 1994; Trief & Donohue-Smith, 1996). Some issues and concerns of young women with breast cancer are unique, however, such as those surrounding reproduction, including fertility, contraception, pregnancy, and breastfeeding.

Infertility is a major issue for some young women with cancer as they can be thrown into early menopause due to cancer treatment (Bloom & Kessler, 1994; Dunn &
Steginga, 2000; Schaefer, Ladd, Lammers, & Echenberg, 1999; Siegel, Gluhoski, & Gorey, 1999; Singer & Hunter, 1999). Approximately 50% of women under age 40 will retain their ovarian function following cancer treatments; hence future pregnancies remain a possibility (Reichman & Green, 1994). Despite this, information for these women regarding fertility and menopause is considered insufficient or unavailable (Thewes, Meiser, Rickard, & Friedlander, 2003). As more women delay childbearing (Dow, Harris, & Roy, 1994; Gemignani & Petrek, 2000), as indicated by the trend in Australia of increasing age at first birth (AIHW, 1997, 2001), so too does the possibility that more young female breast cancer survivors will desire children.

The literature advises that a pregnancy should not be attempted for 2 years following a breast cancer diagnosis, due to recurrences occurring most often in that period (Isaacs, 1995; Petrek, 1994b). According to a review of the breast cancer and pregnancy literature, avoiding pregnancy in the short term brings forth a "quagmire of issues related to contraceptive methods" (Puckridge, Saunders, Ives, & Semmens, 2003, p. 502). Despite availability of little concrete evidence, nonhormonal contraceptive methods are preferred (International Planned Parenthood Federation [IPPF], 1999).

The general consensus in the literature is that a pregnancy following a breast cancer diagnosis does not increase the risk of mortality from the disease or of recurrence (Blakely et al., 2004; Collichio, Agnello, & Staltzer, 1998; Kroman, Jensen, Wolfahrt, & Mouridsen, 1997; Mueller et al., 2003; Velentgas et al., 1999). There is evidence to suggest, however, that young women experience fear and anxiety regarding a pregnancy after breast cancer, in part related to the possibility of such recurrence and its consequences. Concerns regarding difficulty in finding important breast changes in a pregnant/lactating breast (Dow, 1994; Schover, Rybicki, Martin, & Bringelsen, 1999), fear and anxiety concerning passing on a breast cancer gene to an unborn child (Saunders & Baum, 1993; Siegel, Gorey, & Gluhoski, 1997) and possible abnormalities in the child due to treatment effects (Siegel et al., 1997) all have been noted. Stress due to caring for the child after breast cancer has been expressed as well; nevertheless, possible positive effects, such as the return to normalcy, also have been found (Siegel et al., 1997).

Two issues have been identified as important for women who breastfeed after breast cancer: the mechanical ability to breastfeed after radiation treatment (Petrek, 1994a) and breast surgery (Neifert, 1992), and the risk of further breast cancer activation due to breastfeeding (Schover, 1991), despite literature indicating the contrary (Collaborative Group on Hormonal Factors in Breast Cancer, 2002; McTiernan & Thomas, 1986). Small case studies have documented women successfully breastfeeding from an affected breast while stating some difficulties were experienced, such as the infant favouring the nonaffected breast and low milk supply (Higgins & Haffty, 1994; Neifert, 1992; Tralins, 1995; Varsos & Yahalom, 1991; Wobbes, 1996).

PURPOSE AND SIGNIFICANCE OF STUDY

Much emphasis has been placed on infertility as a consequence of cancer treatment (Bloom & Kessler, 1994; Dunn & Steginga, 2000; Schaefer et al., 1999; Siegel et al.,
In contrast, literature relating to fertility among young women with breast cancer, dealing with personal experiences of contraception, pregnancy, and breastfeeding, is scarce. A longitudinal, qualitative study was conducted among women with breast cancer diagnosed before age 41 years, in order to better understand their concerns and needs. At each of the three interviews, infertility and maintained or regained fertility after breast cancer were highlighted as important issues, and this article focuses on the changing views of reproductive issues that were reported by the participants over a 12-18-month period.

THEORETICAL FRAMEWORK

This study was guided by constructionist epistemology, using an interpretative approach. Social constructionism, which is underpinned by the philosophy of phenomenology (Cheek, Shoebridge, Willis, & Zadoroznyj, 1996) and allows the everyday lived experiences of the participants to be captured, was the theoretical framework used. The interpretative approach encompasses "how people make sense of their lives; and how they define their situation" (Jackson, 1998, p. 9). Hence, as well as reporting on various psychosocial aspects of these women's experiences, this study also sought to interpret how the participants' experiences were constructed thus allowing the issues that shape the participants' reproduction-related perceptions and experiences to be explored.

STUDY PROCEDURES AND PARTICIPANTS

The overarching aim of this study was to explore the issues and concerns of young women with breast cancer over time. Recruitment for the baseline interview (first phase) was achieved via convenience sampling; that is, "requests for participants" flyers were placed at various breast cancer events and at venues where young women with breast cancer were likely to visit, such as at breast cancer support groups. Thirty-five eligible participants volunteered for the study. The inclusion criteria for the study were an adult female diagnosed with breast cancer at 40 years or younger and English speaking. The exclusion criteria were women diagnosed with breast cancer more than 4 years ago, suffering extreme distress, in palliative care, or all of these. The follow-up participants (n = 13) were selected, via purposeful sampling, from the 35 study participants on the basis that the greatest unmet need they reported was related to support, an issue that had the potential to change over the short term. Hence the criterion for participation in the follow-up interviews was not directly related to the theme of reproductive concerns.

Ethics

This study was given full ethical approval by the Queensland University of Technology University Human Research Ethics Committee. All participants signed a consent form after reading an information package prior to any data collection. Throughout the interview process ongoing consent was verified.

Data Collection
Data were collected three times over a 12-18-month period using one-to-one, semistructured interviews. The average time per interview was 1 hour, and interviews were conducted as close as possible to 6 months apart to capture changes over a short time frame. All interviews were conducted by a single interviewer (SC) either in participants' homes or by telephone where necessary. Due to relocation, one participant left the study prior to the final interview. The use of one-to-one interviews was considered a powerful way to acquire insights into the participants' experiences (Creswell, 1998; Seidman, 1991).

Some lines of inquiry initiated in the first interview were followed throughout the study, such as participants' greatest unmet needs, major present concerns, and how they were feeling about the breast cancer at each phase. As new issues emerged from the data, they too were followed. Questions about reproduction centred on perceptions of participants' fertility status, if that status had changed, together with any changes or issues that arose. Issues of contraception, pregnancy, termination, and breastfeeding after breast cancer, and the participants' feelings about related decisions and experiences, also were explored. Typical questions relating to pregnancy after breast cancer were, "What sort of breast changes did you experience during the pregnancy? How did you feel about that?" The full interview schedule is available upon request.

Data Analysis

All data analyses were conducted by the principal investigator (SC), unless otherwise stated. All audiotape recorded interviews were transcribed verbatim, most by an independent transcriber and the remainder by the principal investigator (SC). A quality check was performed on the first two transcripts against audiotapes, a face-to-face interview, and a telephone interview, before the independent transcriber continued. Analyses of the data were performed in accordance with basic analytical principles of data reduction, data display, and drawing conclusions (Miles & Huberman, 1994).

Data reduction. A summary of each participant's story was developed. Following the first data collection, the data were coded into literature-derived themes, and further categorisation was undertaken where appropriate. Subsequent data collected were divided first into themes derived from the interview phase, and then subdivided and categorised where appropriate.

Data display. A table of major issues and concerns was developed documenting major concerns, greatest unmet needs, and perceptions of the illness over time. Additional tables were developed for specific emerging themes, such as issues related to infertility, fertility, contraception, and pregnancy.

Drawing conclusions. The data in these tables were compared and contrasted across time phases for each participant and then across all participants. As this study was longitudinal, movement backward and forward between data reduction, data display, and drawing conclusions was constant.
Further data reduction. Further subdivision and deeper analysis of the data were assisted by the use of NUD*IST (N6) qualitative software. The data were subdivided into three levels: that is, first level main categories, to second level sub categories, and so on. Two layers of summaries for each of these categories were formulated, deepening the analysis.

Further data display. Additional tables were developed and previous tables updated.

Further conclusions drawn. Deeper levels of conclusions then emerged.

Quality Assurance

The rigour of data analysis and the trustworthiness of the study's findings were enhanced by attending to a number of recommendations made by qualitative researchers (Guba & Lincoln, 1989; Miles & Huberman, 1994). Data dependability was achieved in each subsequent interview by confirming details and verifying the principal investigator's (SC) understanding of participants' descriptions of previously reported experiences. In addition, field notes recorded the interviewer's perceptions of the interview process, noting any specific elements that may have influenced the responses given by participants, for example, a partner within hearing distance throughout the interview. Analysis steps were documented to provide an audit trail, including sufficient data to allow readers to judge the interpretation presented (Guba & Lincoln, 1985; Mays & Pope, 2000; Miles & Huberman, 1994).

Investigator triangulation was established with the use of coding checks performed on portions of the raw data by an independent, experienced researcher (TG), with an inter-rater reliability of 90% for the first level of codes and 82.5% for the subsequent levels (Miles & Huberman, 1994). Credibility was further enhanced as participants and experts in the breast cancer field provided feedback on the study's findings (Guba & Lincoln, 1989; Patton, 1999). This validated, to a point, the conclusions drawn. Due to the nature of the illness, and the design of the study, changes did occur in how the participants perceived their illness trajectories. Theoretical validity, with regards to the use of a theoretical framework suitable to the task, enhanced the findings' validity (Miles & Huberman, 1994). Moreover, several findings from this study are consistent with those found in the literature; hence transferability/fittingness added to this credibility. Many new insights evolved, however, due to the focus on young women and the longitudinal nature of the study.

Participants

Participants resided in various states and territories of Australia. The median age at diagnosis of the 13 follow-up participants was 37 years (range 29-40 years). By design, women were eligible if they had been diagnosed within the previous 4 years to gain insight into the wide range of experiences following breast cancer; the median time lag since diagnosis was 26 months (range 5-37 months) at first interview. The self-reported nature of the data did not allow the severity of participants' cancer to be checked against medical records. Two of the follow-up participants reported being diagnosed with metastatic cancer, however, one prior to the first phase and one by the
second phase. Along with other relevant demographic details, the education level and occupation of the participants are displayed in Table 1, giving an indication of their socioeconomic status. Although ethnicity was not specifically recorded, the women in the participant pool were representative of mainstream Australia; that is, 80% of the Australian population's ancestry is Australian, English, and Irish (Australian Bureau of Statistics, 2001).

<table>
<thead>
<tr>
<th>Code</th>
<th>Age at diagnosis (Years)</th>
<th>Time since diagnosis (Months)</th>
<th>Education level</th>
<th>Occupation</th>
<th>Main surgery</th>
<th>Number of children</th>
<th>Ages of children</th>
</tr>
</thead>
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<tr>
<td>P1</td>
<td>32</td>
<td>24</td>
<td>No reply</td>
<td>Business owner/manager</td>
<td>Mastectomy</td>
<td>1</td>
<td>21 months</td>
</tr>
<tr>
<td>P4</td>
<td>34</td>
<td>11</td>
<td>Collage¹</td>
<td>Professional</td>
<td>Mastectomy</td>
<td>2</td>
<td>4 and 7 years</td>
</tr>
<tr>
<td>P8</td>
<td>39</td>
<td>27</td>
<td>College</td>
<td>Business owner/manager</td>
<td>Mastectomy</td>
<td>2</td>
<td>12 and 14 years</td>
</tr>
<tr>
<td>P9</td>
<td>34</td>
<td>21</td>
<td>Collage</td>
<td>Other therapists</td>
<td>Mastectomy</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>P10</td>
<td>40</td>
<td>6</td>
<td>Up to year 12</td>
<td>Physical job</td>
<td>Mastectomy</td>
<td>2</td>
<td>16 and 17 years</td>
</tr>
<tr>
<td>P11</td>
<td>38</td>
<td>12</td>
<td>College</td>
<td>Professional</td>
<td>Mastectomy</td>
<td>1</td>
<td>18 months</td>
</tr>
<tr>
<td>P15</td>
<td>33</td>
<td>30</td>
<td>College</td>
<td>Professional</td>
<td>Mastectomy</td>
<td>0</td>
<td></td>
</tr>
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<td>31</td>
<td>College¹</td>
<td>Professional</td>
<td>Mastectomy</td>
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</tr>
<tr>
<td>P18</td>
<td>33</td>
<td>26</td>
<td>Up to year 12</td>
<td>Administrations/healthcare</td>
<td>Mastectomy</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>P27</td>
<td>37</td>
<td>26</td>
<td>Technical school</td>
<td>Trade</td>
<td>Mastectomy</td>
<td>2</td>
<td>13 and 14 years</td>
</tr>
<tr>
<td>P34</td>
<td>37</td>
<td>33</td>
<td>Technical school</td>
<td>Home duties</td>
<td>Mastectomy</td>
<td>2</td>
<td>6 and 7 years</td>
</tr>
<tr>
<td>P35</td>
<td>37</td>
<td>28</td>
<td>College¹</td>
<td>Professional</td>
<td>Mastectomy</td>
<td>1</td>
<td>3 years</td>
</tr>
<tr>
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<td>5</td>
<td>Up to year 12</td>
<td>Business owner/manager</td>
<td>Mastectomy</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

¹Time since diagnosis at first interview.
²Number of children at first interview.
³Postgraduate education (i.e., master's or doctorate degree).

FINDINGS

Reproduction as a crucial issue for young women with breast cancer not only hinges on potential infertility caused by treatment but also on uncertainty of fertility status; suitable, safe, and reliable contraception; and pregnancy and subsequent breastfeeding.

Fertility

Over time not only did changes occur in fertility status of various participants but also in their perceptions of infertility as an issue. For some participants, infertility concerns remained constant, while other participants, who had in earlier interviews stated infertility was not an issue for them, had a change in perspective by the last interview. Such changes were centred around regret that fertility-preserving choices in early diagnosis had not been utilized. The quote below depicts a participant's deepened level of regret by the last interview. (Participant code in parentheses.)

Time 3: You don't think that further out that's my biggest regret because I could've had eggs frozen. It's as time goes by and as life becomes a little bit more back to normal, as it can be, and you see the holes, big holes that are left. (P15, age 32)
Other participants, who thought they were not fertile, found out they were when unexpected, and in some cases unwanted, pregnancies occurred. Unpartnered participants held a different view over time, as expressed below:

Time 3: My periods came back to normal, and as far as I understand, I have as much chance of conceiving as anyone else. You don't know until you try and I haven't tried. That would be a big deal to me if I couldn't conceive. (P38, age 29)

Contraception

Safe, reliable contraception became a concern for some participants as they did not want more children nor did they want their partners to have a vasectomy in case the participants were to die. Permanent sterilization on the part of some participants was a consideration, although with reservation. When participants became pregnant, hence their fertility confirmed, contraception after delivery became an issue. Below is a quote from such a participant:

Time 2: It really is incredibly difficult. You don't want your husband to go and have a vasectomy because if you're going to die [laughs] anyway and so there's no way you'll force them to go and have one. You go and have a tubal ligation because it's a nonhormonal form of contraception and you're going to die anyway [laughs], but you're menopausal anyway, why go through a tubal ligation which has some inherent risks. (P35, age 37)

These participants did not wish to take any hormone-based contraception regardless of how safe professionals may say it is. Below is a quote from a participant who was pregnant at the second interview:

Time 2: Well, it's risky, isn't it. It's just my personal belief, I suppose, it won't matter what people in the medical field say to me, like they say that you can take certain types of pills and things like that, and I just don't want to have anything that's hormone altering and I mean, that's why it was a risk to get pregnant because there's nothing more hormone altering than pregnancy. So I have the belief that anything like that is tempting fate. (P1, age 32)

It should be noted that some participants were surprised to become pregnant, due to contraceptive use together with not expecting to be fertile as a consequence of treatment. Failed contraception for this group of women is about more than the possibility of an unwanted pregnancy, it is also about their fear and anxiety of possible recurrence. Below is a quote from a participant who experienced failed contraception prior to the last interview:

Time 3: I was horrified at the thought of being pregnant, really didn't want to be pregnant because of the breast cancer. I really just thought that being pregnant would be a very bad idea. (P4, age 34)
Pregnancies occurred among participants during the study. Most participants were elated they were pregnant, whereas some participants encountered initial trepidation, debating whether to terminate the pregnancy. Below is a quote from a participant who was pregnant at the first interview although did not disclose this as she was deciding if she would terminate:

Time 2: I probably was in the early stages [of pregnancy at first interview], but it was very difficult for me because I really didn't know what I was going to do, or whether it was going to be something that I was going to keep. It [the pregnancy] wasn't something that was planned or was supposed to happen. I really didn't know if I was going to go through with it. (P35, age 37)

Not only were fears of recurrence expressed in relation to the mortality of the participants, but also of being selfish having another child when their lifespan may be compromised:

Time 2: Not being alive in five year's time, having a child are you being selfish bringing a child into the world when you have got this cloud? (p35, page 37)

All participants who became pregnant reported fears that a pregnancy could either cause or accelerate further cancer although professionally informed otherwise:

Time 2: I don't think I'd want to risk it again [pregnancy] even though I felt that I would take that risk to have a second child, I don't think I would again. I mean, two is lucky. (P1, age 32)

A specific concern of the participants was the inability to detect any significant breast changes during pregnancy:

Time 2: Checks don't really help. As your breast gets bigger and fuller and everything, it's harder to find stuff. When I found this lump [original diagnosis] I went off and had a mammogram and that didn't see anything and then I had an ultrasound, and that didn't see it. I could feel it. It was like a bloody olive in my breast but they couldn't see it on the ultrasound because I was breastfeeding. So, I mean, that's a bit of a worry, so if they're trying to find something little, the chances are they're not going to find it. (P11, age 38)

Such fears carried across all interview phases once participants became pregnant. Even so, balancing out the negative emotions associated with a pregnancy after breast cancer were positive emotions, including closing the book on the breast cancer as well as having something positive to focus on and look forward to:
Time 2: That's one thing pregnancy does, it makes you think more about living than the other. Really that's been the rock, that it just all of a sudden shocks you into, listen, you can't dwell on it, you've got to go forward. You've really got to live and plan. (P35, age 37)

Breastfeeding

All participants who had viable pregnancies during the course of the interviews wanted to breastfeed their new babies. Yet participants did not want lactation to occur/continue in their affected breasts:

Time 2: I spoke to a lactation consultant and she said that she has known some people who will get, even after radiation, they will have some milk come in. I said I do not want anything happening at all on that side [forced laugh]. I just have an aversion to it. I just wouldn't feel comfortable breastfeeding from that affected breast. (P1, age 32)

Some breastfeeding decisions changed over time. Reasons to breastfeed were numerous, such as convenience factors and various benefits for the infant; social expectations, such as beliefs about what they should do; and wanting to experience breastfeeding. The two quotes below display how one participant's desire to breastfeed her infant changed over time:

Time 2: I'd like to breastfeed. I mean it's very good to breastfeed obviously. There are a lot of reasons why I should be doing it. I don't know about supply and all that sort of stuff, whether I'd have to complementary feed or whatever. (P11, age 38)

Time 3: I was very positive about it [breastfeeding], but I'm going to try and feed for the first couple of weeks, do the colostrum business but, no, I think, I've discussed it with my husband and as much as I feel that I should, I think, it's important to get past that and go off and have a mammogram. (P11, age 38)

Pregnant and breastfeeding participants also reported major concerns related to the difficulty of detecting a breast cancer in a lactating breast, and that usual breast checks could not continue until the breasts were back to the nonlactating state. The fear of recurrence was so great in one participant she decided, very late in her pregnancy, to only breastfeed her baby for a few weeks so she could get her breast tissue back to the nonlactating state to continue usual breast checks. The quote below carries on from the quote presented above by Participant 11 at time 3 interview:

Time 3: If I breastfeed for another 6 months, that's going to be a period of time that I won't be able to [have regular breast checks], I mean you can have mammograms but they don't show anything. (P11, age 38)
The decision to breastfeed was straightforward for one participant although with elements of caution, while for others the decision was onerous. Having to make a decision about whether to breastfeed or not was difficult for some participants as their pre-breast cancer attitudes toward breastfeeding were often in conflict with post-breast cancer fears.

Time 2: I'll probably be a one-sided feeder. I'm not sure whether I want to take that risk since I developed breast cancer feeding last time, but I haven't quite decided on that because I'm a staunch follower of nursing mothers. I mean I was one of the real converts, so it's going to be difficult. (P35, age 37)

Even so, the decision to breastfeed was not as great a stressor to participants as the decision whether to terminate a pregnancy.

DISCUSSION

The life-changing experience of breast cancer encroaches on postdiagnosis events of fertility, pregnancy, and breastfeeding. As fertility status can change over time, due to treatment routines, so too can fertility concerns (Thewes et al., 2003). Confusion over fertility status is evident. The discussions regarding possible ovarian failure may contribute to this, particularly for those who do not ultimately experience premature menopause. Young women may not deem subsequent fertility a priority during life-saving treatments and surgeries; however, as life returns to normal, infertility can become a major concern (Thewes et al., 2003). Conversely, too much fertility also generates anxiety, raising interest in suitable, safe, and reliable contraception. Permanent sterilization of the couple may be a viable option for some, although other participants did not want their partners to undergo a vasectomy, and do not themselves want to undergo any further surgery. Social acceptability of permanent sterilization may be an issue here, but also personal concerns about a partner's future happiness and the participant's own physical well-being were evident. Trust in, and desirability of, hormonal and nonhormonal methods of contraception appear to be minimal, producing additional anxiety regarding the management of fertility. Furthermore, consistent with the findings of others (Dow, 1994; Ives, Semmens, Saunders, & Pickridge, 2002; Schover et al., 1999), concern about what hormonal changes of pregnancy and lactation could do to the risk of breast cancer recurrence was expressed by participants, despite no firm evidence in the literature that would endorse such fears (Collichio et al., 1998; McTiernan & Thomas, 1986; Mueller et al., 2003). This suggests that health professionals need to communicate such findings clearly to help quash unnecessary concerns of young women with breast cancer.

Some participants perceive the experience of having a child as closing the door on the cancer and of having a future to look forward to, a finding confirmed by Dow (1994) and Siegel et al. (1997). However participants' interpretations of the news of a pregnancy were influenced by their fears of breast cancer recurrence or metastasis, as suggested by others (Ives et al., 2002; Schover et al., 1999). A diagnosis of breast cancer during pregnancy is usually coincidental (rather than caused by the pregnancy) (Collichio et al., 1998; McTiernan & Thomas, 1986; Mueller et al., 2003), hence it tends to occur at a later stage when prognosis is worse. This is due in part to
pregnancy/lactation-related physiologic changes in the breast, reducing sensitivity of imaging modalities, such as mammography (Talele, Slanetz, Edmister, Yeh, & Kopans, 2003). Participants were acutely aware of this.

Participants who had fertility concerns or pregnancies reported mixed feelings about wanting a child. The thought of bringing a child into the world with a mother who may have a compromised lifespan was equated with feelings of guilt and selfishness, further supporting the findings of Siegel and Colleagues (1997). The socially prescribed role of motherhood may be responsible for the anxiety these women experienced (Hartrick, 1997); hence this may be an issue that needs addressing by counsellors, helping these women come to terms with their new life as a breast cancer survivor rather than fretting over their pre-breast cancer life expectations and beliefs.

The literature neglects perceptions of young women with breast cancer related to breastfeeding experiences following diagnosis and treatment, concentrating instead on the physiological ability to breastfeed from an affected breast (Higgins & Haffty, 1994; Neifert, 1992; Tralins, 1995; Varsos & Yahalom, 1991; Wobbes, 1996). The decision to breastfeed, for this group of young women, was fringed with fear and anxiety of further breast cancer activation and difficulty in detecting breast cancer, as noted above for pregnancy. Furthermore, breastfeeding firmly is entrenched within current Western culture as the most desirable method of infant feeding (Murphy, 1999; Van Esterik, 1997). Hence it is not surprising that the participants’ fears of recurrence being caused or accelerated by breastfeeding conflicts with wanting to be a good mother and doing the right thing, which is largely a social construction (Hartrick, 1997) and is consistent with Schmied and Lupton's (2001) findings. Regardless of how young women feel about breastfeeding after breast cancer, it is obvious from these findings and others (Neifert, 1992) that they are in need of support, encouragement, and relevant information.

IMPLICATIONS

More psychosocial and psychological information on all topics related to reproduction after breast cancer, including breastfeeding, is needed not only by the young women who are diagnosed with breast cancer but also by the medical and allied health professionals who interact with these women, including nurses, lactation consultants, counsellors, and social workers. Such information could ultimately benefit breast cancer survivors by increasing their ability to make informed decisions.

The anxiety and fear these women experience also need specific attention; hence a broader understanding of these women's experiences and reproductive issues could raise the awareness of various health professionals, specifically those who work in the fields of breast cancer, reproduction, assisted fertility, and child health. Such awareness may help these professionals to be better equipped to assist and advise such young women of their reproductive and breastfeeding options. Concurrently, appropriate referrals to trained counsellors may be important for the subset of women experiencing extreme fear and anxiety. Support services and networks, including those focused on breast cancer as well as more general cancer organisations, also could benefit from raised awareness of reproductive and breastfeeding issues and concerns of young women with breast cancer. In addition, breast cancer and
breastfeeding-related websites could contain information, or links to information, regarding these reproductive matters. Young women with breast cancer who decide not to breastfeed also need support.

LIMITATIONS

As this participant pool was small, Australian, and well educated, some results may not be generalisable to other groups of young women with breast cancer, such as those who have different cultural norms, beliefs, and practices related to fertility, contraception, pregnancy, and breastfeeding, and those who are less educated. The findings provide other researchers and medical and allied health professionals, however, with some deeper understanding of the needs of this group of women. Findings, in part, may be transferable to other groups of young women who suffer from life-threatening illnesses but who retain their fertility.

CONCLUSION

As fertility status can change over time for young women with breast cancer, so too can their perspectives on fertility. With the continuance, or return, of fertility after breast cancer treatment comes the issue of safe, effective, and reliable contraception as the occurrence of failed contraception raises serious issues, not only that of bearing an unplanned (or unwanted) child, but also the fear of further breast cancer. Rather than concentrating solely on the biological possibilities of the affected breast to lactate, important psychosocial issues need to be explored further. These include the social expectation that breastfeeding equates to good mothering, as well as the breasts again being a focal point amplifying mortality fears. This study extends understanding of the reproductive issues of young women with breast cancer, in particular concerns related to contraception and breastfeeding after diagnosis and treatment.

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