Life after unsuccessful IVF treatment in an assisted reproduction unit: a qualitative analysis of gains through loss among Chinese persons in Hong Kong

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BACKGROUND: Previous studies examining experiences of infertility focused mainly on the aspect of loss but neglected the possible gains realized through surviving the experience of infertility. The success rate of IVF remains relatively low, and we used the strengths perspective to examine adjustment after unsuccessful treatment. This study aims to provide an in-depth description of the gains perceived by Chinese men and women and how they re-constructed their lives after unsuccessful IVF treatment.

METHODS: Four couples and another six women who experienced unsuccessful IVF treatment were recruited from an assisted reproduction clinic. Data were collected through in-depth interviews, using a grounded theory constructivist approach.

RESULTS: Of the 10 women and 4 men interviewed, 9 remained childless, 3 had adopted a child and 2 had conceived naturally. They reported gains on a personal level, interpersonal level and transpersonal level through surviving the experience of infertility. All, regardless of the eventual outcome, reported at least one form of personal gain: in personality or knowledge gain. Interpersonal gains were perceived in relationships with their spouses, children, parents, friends, colleagues and fellow IVF service users. More than half of them reported spiritual growth and a change in identity through integrating their experiences and offering help to others.

CONCLUSION: Despite the small sample size, this study makes a significant contribution by suggesting that while negative feelings provoked by the failure to conceive should be acknowledged, people in this situation should also be enabled to consolidate their negative experiences of IVF constructively, helping them to move on with their lives.

Key words: infertility / IVF / growth / meaning making / counselling

Introduction

The inability to conceive naturally signifies a symbolic loss (of future dreams), a physical loss (e.g. loss of control over bodies) (Hooyman and Kramer, 2006) and a developmental loss (of parenthood and consequently, grandchildren) (Wirtberg et al., 2007). The inability to become a parent is felt particularly profoundly in the Chinese community because continuity of the family has always been the core cultural value. Common terms used by the Chinese informants in the present study to describe their situation included ‘incomplete person’, ‘imperfect family’ and ‘life with regrets’. On the other hand, there is also a Chinese saying, ‘behind every gain is a loss; behind every loss is a gain’. The objective of this study was to provide an in-depth account of how individuals made sense of and attributed gains to their infertility experience.

Previous studies examining the consequences of infertility focused mainly on loss (Daniluk, 1996; Leiblum, 1997; Lukse and Vacc, 1999; Bergart, 2000). Respondents in research undertaken in Western countries link infertility with bad luck (Diamond et al., 1999). Chinese people tend to interpret it as retribution for moral wrongdoing (Qiu, 2001). However, there is agreement that, at least until recently, a childless marriage was universally perceived as non-normative, whether for religious, cultural or social reasons (Johansson and Berg, 2005). Negative emotions were the most frequently
mentioned psychological response to involuntary infertility, including grief, depression, hopelessness, anger, frustration, guilt, shock, denial and anxiety (Demyttenaere et al., 1998; Volgsten et al., 2008). One plausible reason for such reactions is a strong presumption of fertility among individuals generally as they enter adulthood, marriage and plan for children. Infertility thus comes as an unexpected loss, which gives rise to difficulties in coping with and adjusting to a life without children. Their firmly held assumptions about themselves and their worldviews may be challenged as a consequence (Diamond et al., 1999). Infertility is also said to create a compound impact on the self-image of individuals, their sense of control and emotional adjustment (Gretchen, 1999). This is made worse when the sophisticated and complicated nature of IVF treatment procedures require much expertise from the medical personnel but little from the couple. This further reduces the women’s sense of control over their bodies and some women choose to end the treatment to re-gain their control (Peddie et al., 2005). It also poses a threat to the couples’ sense of control over their sexual relationship and privacy.

Much of the literature describes the experience of infertility treatment as an emotional roller coaster ride (Leiblum and Greenfeld, 1997; Gilbert and Kulkarni, 2008). Mainly, stress (Boivin and Takefman, 1996; Ardenti et al., 1999; Lee and Ow, 2000; Wong, 2000; Klonoff-Cohen et al., 2001; Ow et al., 2002), anxiety (Slade et al., 1997; Ardenti et al., 1999; Salvatore et al., 2001; Verhaak et al., 2001), tension (Salvatore et al., 2001) and depression (Slade et al., 1997; Lukske and Vacc, 1999; Verhaak et al., 2001) were reported as common psychological reactions experienced by service users over the course of infertility treatment. Psychological factors such as a sense of emotional burden, psychological stress, anxiety and depression were frequently cited as reasons for discontinuing IVF treatment after a cycle of unsuccessful treatment (Domar, 2004; Olivius et al., 2004; Smeenk et al., 2004). Peddie et al. (2005) reported that women tried to exert control over their lives in making the decision to end treatment.

Daniluk (2001) investigated the impact of infertility on a person’s subjective sense of well-being including the possible gains and benefits as a result of the experience. Research findings on the impact of infertility on marital relationships were mixed. Some indicated that the experience of infertility had an adverse effect on marital interaction, marital satisfaction and sexual functioning (Leiblum, 1997; Leiblum et al., 1998; Salvatore et al., 2001). Other researchers have found marital benefits (Meyers, 1997; Pasch et al., 2002; Schmidt et al., 2005). This difference is possibly due to pre-existing issues in the marital relationship that are exacerbated by unsuccessful infertility treatment (Steuber and Solomon, 2007).

Little is known about how people make sense and attribute meaning to their infertility, either as a person or as a couple. A sense of ‘life-grief’ has been found among participants (Johansson and Berg, 2005) as well as a sense of abandonment when they ended their treatment (Boden, 2005). Daniluk (2001) identified the changing process of meaning making over time. Striving to find meaning in one’s life is the primary human motivational force (Frankl, 1992; original work published in 1963); his search for meaning helped Frankl to survive his years in German concentration camps.

The objective of this study was to provide an in-depth account of their infertility experience, their losses and gains, and how they re-constructed their lives after unsuccessful IVF treatments. The theoretical and empirical approach is based on qualitative, in-depth, constructivist grounded theory (Charmaz, 2000, 2006). This approach was chosen because constructivist inquiry fits the empowerment tradition of social work (Rodwell, 1998). The informants were perceived as active agents who construed their own realities, within social and cultural considerations (Neimeyer and Neimeyer, 1993; Neimeyer, 2000). This paper is focused solely on a sub-cohort (four couples and six women) who experienced unsuccessful treatment, and on the theme related to gains that were realized through survival of the experience of infertility.

**Materials and Methods**

**Procedure**

**Study population**

After obtaining institutional review board approval, female informants were invited to participate from an earlier large-scale randomized, controlled study (Chan et al., 2006). Letters were written to them inviting them to participate in a follow-up study, which included responding to a demographic data sheet and accepting face-to-face, in-depth interview(s). Individuals were included in the study if they met the following criteria: (i) they did not have biological children prior to receiving treatment involving assisted conception, (ii) had received at least one IVF cycle without success and (iii) their last treatment was between 6 months and 3 years prior to the commencement of the study. Choosing informants who had ended their treatment more than 6 months ago allowed the informants to view their grief at some distance. Similarly, choosing those who had ended their treatment within the last 3 years helped to minimize recollection inaccuracy. More importantly, the purpose of choosing this group of informants was to minimize harm or injury as compared with interviewing those who had a more recent IVF treatment failure.

**Identification of informants**

A total of 377 potential female informants were invited to participate, with contact details accessed from the earlier study (Chan et al., 2006). Forty-nine declined to participate (13.0%), 35 were excluded because they did not undergo IVF eventually (9.3%), 165 letters were undelivered due to a change of address (43.8%) and 128 responded (34.0%). Of the 128 respondents, 84 of them initially consented to participate in a face-to-face interview, but eventually only 25 of them remained in the sampling pool; 47 were excluded because their last treatment was more than 3 years ago, eight declined to be interviewed when contacted later, three could not be reached despite three phone calls made at different times on different days and one had moved. The interviews were brought to an end after nine couples and 10 women were interviewed. Among the 19 women, 9 of them had conceived via IVF while the other 10 had not. This paper focuses solely on the latter group of women and four of their spouses. The analysis of the former group, together with a comparative analysis of both groups will be reported elsewhere.

**Research interview**

In this study, the semi-structured interviews focused on exploring the women’s and men’s lived experiences of infertility after unsuccessful IVF treatment, as individuals and as couples, to gain insight into how they made sense of their experience and psychologically integrated it into their lives and relationships with others. All the interviews were conducted by the first author, either on campus or at a place convenient to the
informants. Informants were encouraged to narrate their experiences as a means to make sense of and find benefit in them, as well as identifying identity change (Neimeyer and Anderson, 2002). The following questions were asked in each interview:

(i) ‘When you look back over the last few years, what have you gone through in dealing with infertility, how would you describe those few years? How do you make sense of it’
(ii) ‘Having gone through this significant life event, what are the changes you see in yourself as a result, as a person and as a couple?’

‘Are there any other significant issues that you think deserve attention, but we have yet to talk about?’ During the inquiry process, the interviewer’s relationship with the informants was mainly interactive and dialectical, through which meaningful data were created. Open-ended questions were used in the interview process, as well as empathic responding to elicit rich description of informants’ infertility experience. According to constructivist theorists, individuals are in a continuous process of development and change, thus their construction of reality may change over time (Neimeyer and Neimeyer, 1993). Hence, member check with the informants was conducted during the interview to ensure that meaning was understood clearly and accurately. This in turn inspired the informants to add and ‘thicken’ their stories, which sometimes introduced new perspectives on the same material.

Interviews were conducted in the informants’ native language (i.e. Cantonese or Mandarin, with some English). Three separate interview sessions were conducted with couples (i.e. two individual interview sessions and one joint interview session). The length of the joint interview session was generally longer than individual interview sessions, with the latter interview aimed to cover issues that were not discussed in the joint session or issues pertaining to the individual (such as the meaning of having a child to him/her personally). This resulted in a wide variation in the length of interview (range 14–120 min), with an average of 61 min. When the woman was the sole informant only one interview was held, lasting on average 98 min (range 59–140). All the interviews were voice recorded and a total of 18 interviews were completed. The interview began with a brief introduction about the purpose of the study and the interview protocol. Then the informants were shown the interview guide. All of this was to allow the informants to feel comfortable and secure, be familiar with the content of the interview, and to have their thoughts organized when they narrated their personal experience. The interview guide served mainly as a framework for the interview and probes pertinent to each area of questions were used when necessary.

The sensitivity of the topic was taken into account. At the beginning, the informants were told that they could choose to end the interview at any point of time if they did not feel like continuing. When informants clearly displayed their sadness (reddened eyes or tearful) during the interviews, questions (e.g. ‘What do the tears mean?’) and comments (e.g. ‘The impact of the infertility experience seems so powerful that it still remains vivid even when you are talking about it now.’) were made to help them regain their emotional balance (Rodwell, 1998). None of them chose to end the interview prematurely. Informants were also asked at the end of the interview if they were alright or if they need to see a counsellor but none of them made use of the opportunity. A follow-up call was made within a week to check how they were since the interview and to ensure there were no after-reactions to the interview that needed to be taken care of.

Analysis

The qualitative interview data were transcribed verbatim and verified for accuracy. The transcripts were then analyzed using strategies advised by Charmaz (2006), which included initial coding (i.e. word-by-word coding and line-by-line coding), focused coding (i.e. categorization of significant and/or frequent initial codes) and axial coding (i.e. synthesis and re-assemblage of the data to give coherence to emerging analysis). Data management included the development of a case profile for each participant, which consisted of themes identified from the participant’s transcript, a demographic data sheet, and reflexive and field journals recorded by the first author. Attempts were made to ensure trustworthiness and authenticity of the findings by taking care over the quality of the inquiry process (Rodwell, 1998; Lincoln and Guba, 1999). Trustworthiness of the findings was achieved through peer reviews to check coding and translation of a sample of transcripts for any discrepancies and to compare the salient themes identified in each profile; by conducting member checks with the informants during interviews to assess if they agreed with the interpretations made; properly documenting the research process to improve dependability of the findings; and returning repeatedly to the verbatim record and journals. Authenticity of the data was ensured by being reflective about personal perspectives, appreciating others’ perspectives and remaining fair in depicting constructions with the values that underpinned them. In cases where only women were interviewed, the impact of infertility on the marital relationship was analyzed based on their perspectives alone.

Results

Profile of informants

Refer to Table I for the demographic details of the informants. The infertility cause of the women was as follows: five female factor, three unexplained factor and one each for male factor and combined factor. Overall, the women had spent an average of slightly less than 6 years (range 2–11) of their lives actively involved in infertility investigation and treatment. In the early stages they had resorted to traditional Chinese medicine (TCM) and less intrusive medical treatment [such as ovulation pills and intrauterine insemination (IUI)] before turning to IVF. In addition, the women had also undergone operations for female-related disorders (such as endometriosis, uterine fibroids and cysts) and diagnostic procedures (such as laparoscopy). All of them had received IVF treatment: one had one IVF cycle, five had two cycles, two had three cycles and two had more than three. Apart from that, two women had medical termination of pregnancy after they conceived through IVF; one due to an ectopic pregnancy and the other because of stagnant fetal growth. The third woman had experienced a miscarriage.

Meta-themes

Qualitative analysis yielded many common themes in the lives of both women and men. It is the gains that unsuccessful IVF treatment brought them that will be focused on here. Three meta-themes emerged as most representative of their phenomenological experiences: (i) personal gain, (ii) interpersonal gain and (iii) transpersonal gain. Non-identifying details such as study number ‘2xxx’, ‘F’ for female and ‘M’ for male have been added after the quotations when used.

Personal gain

Personal gain is defined here as growth as a person through survival of the experience of infertility. The sub-themes that characterized this component of the informants’ experience of infertility included
recognition of personal inner strength; a sense of being a survivor rather than a victim of infertility; a sense of personal normalcy and restored equilibrium; knowledge gain associated with infertility; and a sense of humility. Each sub-theme was described in detail while Table II gives a summary of the frequency of the sub-themes.

Recognizing personal inner strength

All the women and men were able to recognize and appreciate their inner strength demonstrated in the process of surviving the infertility experience. Words such as ‘resilience’, ‘persistence’ and adopting a ‘never-give-up attitude’ were generally used by the women when they described what they appreciated about themselves most. Simultaneously, the men described themselves as ‘supportive’ or ‘resilient’. The essence could be felt in the words of two women:

I appreciate myself for never giving up. Yes, I appreciate this. Hmm, I showed a lot of will-power; that is, [I] can do this [IVF and electric acupuncture]. I feel that not many people can make it, ha, so it was quite a difficult time. That is, in between, I had actually done many things (2167, F).

Persistence; persisted to do so many times, and yet still wish to do, ha ha . . . because thinking back, the process was actually difficult, with so many cycles. But, I could still persist, so I feel okay (2150, F).

Being survivor not a victim

The sense of survivorship was manifested by a change in life goals. Three informants had made a choice to stop all the medical treatment and seek adoption. One couple put it thus:

My usual way of doing things is ah, I come out with many alternatives. Since we failed in the first IVF treatment, actually inside my heart, I knew for a long time that it hadn’t worked; the chance should be very slim. Thus my thinking then was to let it be if we couldn’t bear children; it’s not a must to be biologically ours, so we searched for another method. We only want to have a baby; baby is not necessarily biologically ours, so we chose to go down another path, adoption (2327, M).

So, personally speaking, when the second IVF treatment was changed into IUI [there was only one follicle], the impact on me was not that great. After that, we didn’t try anymore; we decided to go for adoption (2327, F).

Another woman had diverted her energy from her reproductive ability to personal development and career planning, and completed a postgraduate degree:

I had already given up doing many things since two years ago because I only had two more chances of oocyte transfer. During that time, I registered for a Master’s degree and finished it. That is, I kept myself very busy. Hmm, I have to plan for my path [career]. . . . I work in a hospital, and I have many colleagues. As you know, you need to upgrade yourself to secure your rice bowl. I wanted to make sure that if there is a chance for promotion, that must be me, or at least I am one of the first two candidates for consideration (2239, F).

A sense of personal normalcy and restored equilibrium

All the women and men commented that they were able to restore their sense of personal normalcy and equilibrium, though not immediately. This was portrayed in the excerpts below:

I have actually already accepted it [having no child] in this one, two years; my own state of mind. Eh . . . yes, already accepted it. There is nothing much to it, no problem, no big deal (2163, F).

Compared with others, our kind of experience is not that easy; it’s difficult. However, we will let it go because you need to continue with your life (2368, F).

Their newly restored equilibrium was reflected in their future plans. Among the nine informants who remained childless, seven of them started a savings plan so that they could enjoy their retirement and the other two had career plans:

If I have a child, I need to work many more years, wow. If I remain at my current status, I estimate maybe ten years later I can retire. . . . Yes, so,
both of us still can tour around the world to see what this world is about (2136, F).

Actually, I have already shifted my life goal to somewhere else, because I have already felt that there is not much hope to rely solely on a child. After all, I still need to rely on myself. After that, I thought that I cannot lose my job, can only get promoted. Thus, I have already actually channelled my goal; my whole focus has already shifted (2239, F).

The other five informants with children, through adoption or natural conception, resumed their lives like ‘normal families with children’. Their children were given top priorities and attention, and family plans made children the central focus of their lives. This was portrayed in the words of one woman:

Currently we feel that ah, that is, we will follow the [pattern of] normal people with a child; that is, the lifestyle of middle-income families with children. That’s it. [What about] the education of the child when she grows up? What interest class to take her to? What does she want to join? After that, she may go elsewhere for study when she grows up. That’s it, yes. That is, the family’s focus is on the baby (2327, F).

A sense of humility

Two women recognized that through surviving the experience of infertility, they understood themselves better and had learned to be humble:

Yes, snobbish. If I do not have such a problem and can have children normally, I will be a snob because I can raise a kid well. A person will be proud if she has never experienced any failure (2239, F).

In the past, I used to be self-centered, very egoistic. Everything is ‘I’. In many ways, I see myself as powerful; I feel that many things are mine to grasp. However, I realized that it’s not true. That is, since I have experienced [infertility], I realized that it’s not true (2215, F).

Interpersonal gain

Interpersonal gain is defined here as growth in interpersonal relationships through survival of the experience of infertility. The sub-themes that portrayed this component of the informants’ experience included stronger marital relationships, better relationships with children, parents/parents-in-law, friends, colleagues and fellow IVF service users. These are discussed further in subsequent sections and Table II gives a summary of the frequency of the sub-themes.

Marital relationship

Twelve informants, regardless of having or not having children eventually, commented that the period of time when they were seeking medical treatment had created an opportunity for them to strengthen

### Table II Summary of the gains (●) identified by individual informants

<table>
<thead>
<tr>
<th>Types of gains</th>
<th>Informants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FMFMFFMFMFFFFF</td>
<td></td>
</tr>
<tr>
<td>Personal Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognizing personal inner strength</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>14</td>
</tr>
<tr>
<td>Being survivor not a victim</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>4</td>
</tr>
<tr>
<td>Change of life goals</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>4</td>
</tr>
<tr>
<td>Sense of personal normalcy &amp; restored equilibrium</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>14</td>
</tr>
<tr>
<td>Knowledge gain</td>
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<td>4</td>
</tr>
<tr>
<td>Sense of humility</td>
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<td>2</td>
</tr>
<tr>
<td>Interpersonal Gain</td>
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<td></td>
</tr>
<tr>
<td>Relationship with spouse</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>12</td>
</tr>
<tr>
<td>Relationship with child</td>
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<td>5</td>
</tr>
<tr>
<td>Relationship with parents/parents-in-law</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>11</td>
</tr>
<tr>
<td>Relationship with colleagues/friends</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>11</td>
</tr>
<tr>
<td>Relationship with fellow female IVF service users</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>5</td>
</tr>
<tr>
<td>Transpersonal Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual growth</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>14</td>
</tr>
<tr>
<td>Acceptance of childlessness</td>
<td>● ● ● ● ● ● ● ● ● ●</td>
<td>13</td>
</tr>
<tr>
<td>Life learning</td>
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</tr>
<tr>
<td>Identity change: helper role</td>
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</tr>
<tr>
<td>Total</td>
<td>8 6 9 9 10 7 11 9 5 9 10 10</td>
<td>118</td>
</tr>
</tbody>
</table>
their marital relationship and appreciate their spouses. This was captured in the following excerpts:

Personally, I will feel that my husband and I share a closer relationship. I feel that we have had a common event, which was such a frightening and unhappy experience, yes. Although it was an unhappy experience, sometimes I feel that he and I had at least experienced a hard time together (2327, F).

He did not talk about wanting to bear a child the whole day long; wanting to bear a child like that. However, he tried his best to arrange his schedule if I were to go for treatment so that he could accompany me for whatever thing, like that. So… yes, that is, he will not ask me the whole day long or whatever (2136, F).

The main thing is actually, when we learnt about her having some physical problem, she was willing to try. She would try despite she needed to go through such a painful process. So, I really appreciate that she made this attempt for me (2327, M).

In fact, two couples were able to add the infertility experience to the history of their lives and joked about it. For example, a couple talked about finding another woman to bear them a ‘preferred’ biological child:

I even joked with her, ‘Perhaps I will go and find a second woman to try [giving birth]…’ (2290, M).

I even helped him to search for a partner (2290, F).

Relationship with child

All the five informants with children claimed that going through the infertility experience had made them learn not to take their child for granted, but to treasure him/her. The child was said to have provided direction to their lives and colour to their family life, as captured in the quotes below:

Now when I go to work and earn an income, I will think the purpose of my income is for her study in the future; for her overseas education. That is, there is a sense of direction and I’m moving towards that direction (2327, F).

There were more conversational topics, and our life became more colourful. For example, [we would tell our adopted daughter:] ‘Ah, where shall we take you during the holiday?’ (2272, F).

Relationship with parents/parents-in-law

Three informants reported that they had kept their infertility a secret from both their parents and parents-in-law. The other I I were selective in disclosing their condition. While some women only disclosed their condition to their own mothers, other informants made it known to both sets of parents, some even to their husband’s siblings, and understanding, support (emotional and practical), and absence of pressure was commonly reported by the latter group of informants:

I think I am very lucky because people around me do not give me any pressure… my father-in-law is also very supportive. That is, he would say, ‘It can’t be helped if it didn’t work after you had tried. You have to take it naturally.’ That is, he is very supportive (2136, F).

I begin to feel more and more how good my family and my wife are because I have seen many colleagues who had difficult times with their families. I don’t have such an experience, so I feel my family is good. That is, I have personally experienced it and I know about my colleague’s experience. When we talked to each other about [our infertility treatment experiences], I felt that her family had given her a lot of pressure. She said that her mother-in-law called her two to three times a week to check on their progress (2290, M).

In fact, one woman said that her husband’s extended family members appreciated all the effort she had made to become pregnant after their situation was made known to them:

Whenever my sister-in-law asked when we would have a baby, I always gave the same answer, saying that we were working hard and would continue to work hard. After we succeeded, I told her the truth about the efforts we had made; not just simply a ‘throwaway’ response to her. When she realized it, she really appreciated my efforts. All along, they actually thought that I was just playing with them, and that I did not want children. That is, their view suddenly changed (2215, F).

Relationships with friends/colleagues

Friends and colleagues provided emotional support for nine women, though the degree of openness varied among them. Three women reported that they were very open about their infertility treatment and had informed multiple friends and colleagues, while six were selective in who to disclose to (such as colleagues with whom they had close working relationships and close friends). This was mainly because the women realized that infertility was a common difficulty and faced by many of their colleagues and friends too. Besides providing emotional support, friends and colleagues also served as information sources and provided instrumental support (such as sharing workload or shift work). This was captured by one of the women, who echoed the perceptions of most of the female informants:

Perhaps because I saw many cases that were pretty similar as mine, they are also unsuccessful, so we can console each other. [It’s a good experience] because we have a lot of information to share. Also, we form an emotional support group or something like that. That is, in my company, there are many people in a similar position (2136, F).

Relationship with fellow female IVF service users

Half of the women reported that fellow female IVF service users provided emotional support, that reduced their feeling of loneliness, and information about treatment alternatives:

I don’t meet [them] daily, just sometimes. That is, we will talk a little, and I will feel relieved. Sometimes, I will feel inside my heart that, ‘Ah, so you actually also have similar thoughts.’ You will feel then [you are not alone] because after all, she is also a woman, and after all she is also experiencing a similar stage as you are. She enters the same office to see the same doctor, listens to the same speech, except that the result could be that she has more eggs, and I don’t (2327, F).

As you know when we went for embryo transfer, there were many other women sitting there, thus we began to talk. I was actually recommended by them to try [TCM]. It was because many of them had tried both [IVF and TCM] simultaneously, so I also gave it a try (2167, F).

Transpersonal gain

Transpersonal gain is defined here as transformational growth found in a person as a result of surviving the experience of infertility. The sub-themes that depicted this component of the informants’ experiences of infertility included spiritual growth (such as changed worldviews, acceptance of childlessness and life learning) and positive self-identity.
change (Refer to Table II for a summary of the frequency of the sub-themes).

Spiritual growth
Foremost was a change in the worldviews of the informants after their experiences with infertility, regardless of whether they remained childless, conceived naturally or adopted. This was captured well by the following quotes:

Sui-yuan [let it be]. So, you can’t force it if you are meant not to have. . . . That is, from natural conception, to semi-natural conception, to artificial conception, we still don’t have. . . . There are many things which you mou-qiang-jiu [cannot force] (2290, M).

Actually, after going through this infertility experience, at this life stage, I have already [learned to] kan-hua [not to overemphasize] many things (2272, F).

My attitude towards IVF is that success and failure are pin-chang [common occurrences]. . . . Comparatively, I was more anxious during the first attempt. I was still anxious at the second attempt, but after that, I personally felt not so anxious, not much difference. That is, I treated IVF as a very, very normal event, nothing special. I feel that it was useless to over-emphasize success and failure. It only increased personal anxiety, and added pressure (2368, M).

In life, there must be ups and lows, things that are against your wishes and ‘cannot-be-helped’ (2163, F).

Spiritual growth was also found in 13 informants faced with the acceptance of childlessness or having no biological child. They acknowledged that life had to go on, even though their cherished dream had not been realized. This was shown by the words of four women:

Have to look to tian-yi [the will of heaven]. That is, after I have tried, if I have means I have; if I don’t have means I don’t have. Sometimes, it [no child] may not necessarily be a bad thing, truly (2136, F).

In this one, two years I have already accepted having no children. I feel that I have to ren-ming [accept life] (2163, F).

I really feel it’s zhu-ding [predestined]; having or not having children is zhu-ding. That is, you have gone as far as you can, you should feel there is nothing to regret. You have already completed your life stage; you have already put in your utmost effort, there is nothing regrettable. It’s zhu-ding. This is how I think [laughter]. Just that (2272, F).

That is, one must be willing to face and acknowledge the problem . . . . and I feel that you must be willing to face your own problem, to jump out of your usual way of thinking. If not, you will feel that it is an illness or a burden. So, I feel you will not live happily. . . . I feel that if you are willing to face the problem, if you are willing to accept your problem, you will not be afraid to share your experience with others (2290, F).

In fact, one woman indicated that being biologically childless was still a better option when compared with others’ experiences:

Actually, I always feel that my life has been smooth sailing. Actually, I am also very scared what if suddenly one day, something undesirable happens to me. I am very scared. Therefore, now that I have such an undesirable thing [infertility], it is a good thing for me. That is, you are not perfect. In addition, I have a young colleague, who had just given birth to two kids. When the baby was just two-months old, her husband died. This reinforces my feelings that everything is not perfect. Yah, so I now just have this [infertility] to overcome, it is not a big deal (2136, F).

The importance of life learning was another area of spiritual growth highlighted by one woman. She emphasized that every difficulty encountered and overcome had benefitted her as a person:

Frankly speaking, I have learned a lot. For example, why should I feel failure is so painful? There are so many others; what happens to those who suffer from cancer? Those who are disabled but still help others? In this manner, I console myself and then I do not feel so bad (2368, F).

Identity change: a helper role rather than a service recipient role
Eight informants experienced a fundamental change in their identity, from a service recipient to a helper. They began to be proactive in encouraging their friends not to delay childbearing by quoting themselves as an example, providing information to those in need of help, and being a listener to friends. The words of two informants depicted a common feeling found among the others:

We feel that if your experience is helpful to others, you should be happy to share with them. That is, today if someone is considering the same road, we hope that by sharing whatever we have personally experienced could at least help her to be mentally prepared (2290, M).

I will always tell my friends, who are slightly younger than me, to plan for baby fast as you may not have one when you want to. That is, I always quote myself as a case example. . . . There is actually only one reason [to remind them]: that is, I really wish my friends well (2327, F).

In summary, growth was reported by the informants regardless of whether they remained childless, adopted or conceived naturally eventually. At the personal level, developing a more mature personality, building a character, changing life goals and increased knowledge were all seen. At the interpersonal level, relationships with spouses were strengthened and grew, as they did with other family members, friends and colleagues, thus resulting in stronger marital relationships, better social relationships and richer family lives. At the transpersonal level, there was a self-transcendence, with changed worldviews and re-construction of a positive self-identity.

Our study showed that informants recognized infertility as a form of loss, however, Fig. I summarizes how the infertility experience had resulted in the identification and recognition of gains.

Limitations of study
Limitations were faced in this study which must be addressed first, before an attempt is made to discuss the findings. There is no doubt that the major limitation of this study was the small sample size. The findings, based on the 14 informants, might only reflect the experiences of a certain group of patients. The second limitation was that the informants’ profile did not match the general profile of couples with infertility. There was a disproportionately low percentage of informants with male factor infertility (10%) in the study which is found in 35–40% of the general population facing infertility (Danulik, 1997; Diamond et al., 1999). The high percentage of informants with female factor infertility (50%) in our study is not representative of the general infertile population, where it is estimated at 35–40% (Danulik, 1997; Diamond et al., 1999). Henceforth, the struggles faced by our informants to reconcile themselves and adjust to infertility and biological childlessness might not reflect the experiences of other involuntarily childless couples. Finally, the low participation rate among the husbands was the third limitation in our study. The two main cited reasons by the female informants were firstly, their husbands were reluctant to be interviewed because they felt infertility was a personal and private issue and secondly, it was already an issue in the past. The findings were mainly based on the female informants’ experiences.
Discussion

As stated in the 'Introduction', there is a Chinese saying that 'behind every loss is a gain' and the findings in this study have lent support to the saying. Self-reported growth at the personal, interpersonal and transpersonal levels, as a result of the re-constructed meaning, were found among men and women even though they were unable to have a child via IVF. Growth was reported regardless of whether they remained childless, adopted or naturally conceived after repeated unsuccessful IVF treatments. The findings concurred with earlier research (Daniluk, 2001; Johannson and Berg, 2005; Verhaak et al., 2002). The growth was experienced most vividly during the time when they were undergoing IVF treatment. This finding supported the earlier research which reported that marital benefits were reaped as a result of the experience of infertility (Meyers, 1997; Pasch et al., 2002; Schmidt et al., 2005). Similarly, our findings also concurred with Sydsjö et al. (2005) who found that couples who experienced unsuccessful IVF treatment had a stable relationship both at the beginning and after their treatment. More interestingly, the findings suggest that despite modernization, it remains much emphasized in the Chinese culture that 'birth is the meaning of human existence and the purpose of marriage is to produce new life' (Lee and Kuo, 2000, p. 54). Children have a special place in a Chinese family; a complete family should consist of a pair of parents and children. Moreover, filial piety has been practised as a principle governing the Chinese patterns of socialization (Ho, 1996). Having no offspring is considered the biggest violation of the principle of filial piety in the teachings of Confucius (Qiu, 2001). The occurrence of infertility and process of resolving infertility thus provided a valuable opportunity for the couples in the study to work together, especially when they perceived it as a common challenge and shared a clear, commonly agreed goal.

Finally, transpersonal gain was found in most of the informants, when they reported spiritual growth in the form of changed worldviews and acceptance of childlessness. Chinese spiritual/cultural values and beliefs were vividly present in their worldviews and attitudes. These included: 'sui-yuan' (i.e. let it be); 'mou-qiang-qiu' (i.e. to accept things as they come because they cannot be forced); 'pin-chang-xin' (i.e. a form of attitude to take life as it unfolds, without excess happiness, sadness or anger); 'kan-hua-le' (i.e. not to over emphasize a particular issue); 'zhu-ding' (predestined); 'ren-ming' (i.e. accept their life); and 'tian-ji' (i.e. the will of heaven). All these values and beliefs, which are mainly influenced by the Buddhist and Daoist traditions, entail a connotation of surrender to a higher power. Different from the Western traditions which generally emphasize control, mastery and comprehensibility (Chen and Swartzman, 2001), Chinese traditions accentuate relinquishing control, living harmoniously with the Do, and experiencing the events as they unfold (Tsuei, 1992). More than half of the informants also adopted a new positive, social identity. Instead of viewing themselves as service recipients, they saw themselves as a bridge that helped to prepare and pave an easier route for their friends in resolving infertility. The fact that they were willing to participate in the present study and be interviewed demonstrated that they wanted to help. The commitment to help others, as suggested by Chan et al. (2005), is a way of 'reinforcing and sustaining long-term developments in personal growth and transformation' (p. 426). By helping others, they could transform self-love outwardly and turn suffering into positive experiences (such as benefiting others while bringing happiness to themselves).

As summarized in Fig. 1, infertility was recognized among the informants as a form of loss, making their life and family 'incomplete'.

Figure 1 Realizing gains through loss via positive meaning re-construction.
However, positive meaning making concerning the infertility experience had aided them in making an easier transition to life after unsuccessful IVF treatments by identifying and recognizing their gains. The influence of Chinese spiritual/cultural values and beliefs was inevitable in the process of meaning re-construction and was reflected in the gains recognized. Future studies could look into the relationships between positive meaning makings, adjustment to infertility and life satisfaction from a longitudinal perspective.

To conclude, this study makes an empirical contribution to understanding the lived experiences of people with fertility difficulties after medically unsuccessful treatment, focusing particularly on the possibility of gain through loss. This may alert clinical practitioners to the need to consider a strengths-oriented approach, tapping on the patients’ existing spiritual/cultural values and beliefs. Counselling should not stop at grief work but should expand to explore the positive aspects of their experiences, and to mobilize their inner and external resources to appreciate these circumstances constructively. The grieving journey is perceived as learning to accept and live with loss, as well as finding growth through a loss. Through this journey, these people could reallocate their loss, and re-construct and progress with life positively, beyond infertility.

Acknowledgements

This project is a follow-up study to an RCT initiated by the collaborative efforts of the Centre on Behavioural Health and the Department of Obstetrics and Gynaecology, The University of Hong Kong in 2000. We would like to express our appreciation to Ms Yuen Mei Ching Joyce, Project Nurse, for her assistance in providing informational support throughout the project.

References


Submitted on November 1, 2008; resubmitted on March 18, 2009; accepted on March 24, 2009