

‘The best thing for the baby’: mothers’ concepts and experiences related to promoting their infants’ health and development

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Abstract

Mothers and pregnant women in contemporary western societies are at the centre of a web of expert and lay discourses concerning the ways they should promote and protect the health and development of their foetuses and infants. This article reports the findings from an Australian study involving interviews with 60 mothers. The findings explore in detail four topics discussed in the interviews related to pregnancy and caring for young infants: disciplining the pregnant body; promoting infants' health; immunisation; and promoting infants' development. It is concluded that the mothers were highly aware of their responsibilities in protecting their foetuses and infants from harm and promoting their health and development. They conceptualised the infant body as highly vulnerable and requiring protection from contamination. They therefore generally supported the idea of vaccination as a way of protecting their babies' immature immune systems, but were also often ambivalent about it. The mothers were aware of the judgemental attitudes of others, including other mothers, towards their caring efforts and attempted to conform to the ideal of the 'good mother'. The emotional dimensions of caring for infants and protecting their health are discussed in relation to the voluntary participation of mothers in conforming to societal expectations.

Introduction

Motherhood in contemporary western societies takes place in a context in which there is a network of expert advice surrounding these experiences and heightened expectations of what is expected of women. The ideal of 'intensive mothering' is the dominant culturally approved model of motherhood, which expects mothers to expend intensive time, energy and money in raising and caring for their children and is characterised by a logic of 'unselfish nurturing' (Hays 1996, p. x). Ideas about childhood represent the child as vulnerable, that childhood should be a protected world and that children can only survive and develop successfully if intensely nurtured and protected by adults (Beck and Beck-Gernsheim 1995, Christensen 2000).

As the Foucauldian concept of governmentality argues, individuals' behaviours and subjectivities in relation to health, risk and embodiment are constructed through imperatives emerging from a diverse array of sites: the mass media, government agencies, medical, scientific and public health professionals, experts and institutions, educational institutions, the family and other personal relationships. People come to accept and act on certain beliefs about health, risk and embodiment as part of their participation in everyday life and their interaction with the institutions that structure society (Lupton 1995, Petersen and Lupton 1996, Rose 1997).

Recent years have witnessed a growing predominance of discourses in public and medical forums concerning the importance of pregnant women protecting the health of their foetuses and of mothers taking responsibility for the health status of their infants and young children. Motherhood, once taken-for-granted and relatively unreflective, has consequently

become imbued with the meanings of risk, danger, responsibility and constant reflexivity upon how well one cares for one's children. Mothers are expected to seek out information about the risks to which their children might be exposed and to take steps to manage and minimise these risks. They are now held accountable for many of the ills and misfortunes which affect children that once were considered bad luck or the result of fate (Beck and Beck-Gernsheim 1995, Lupton 1999, Reed 2009, Lee, Macvarish and Bristow 2010).

How are women who are mothers of infants and young children responding to these dominant discourses concerning their responsibility for managing the risks that are identified as affecting their children and promoting their health and development? Previous sociological studies employing indepth interviews with mothers of preschool and primary-school-age children have identified the ways in which mothers constantly observed their children for signs of illness, aware of subtle changes in their bodily habits or demeanor. They found that mothers were highly aware of their responsibility for managing and protecting their children's health and were concerned to conform to the norms of 'good motherhood' in doing so. The mothers privileged the importance of a 'healthy diet' and 'being active' as ways of ensuring good health in their children (Cunningham-Burley 1990, Irvine and Cunningham-Burley 1991, Backett-Milburn, 2000, Cunningham-Burley *et al.* 2006).

Women caring for tiny infants have somewhat different priorities and concerns, and as a result may conceptualise their children's bodies and health in different ways. Research undertaken by Murcott (1993) examined Welsh mothers' views on their infants' bodies, with a particular focus on their bodily management. Murcott noted that infants' bodies are held by their mothers to be especially delicate, essentially pure and subject to contamination by outside influences, such as the things babies put in their mouths and the cleanliness of their nappies. To protect their babies' health, mothers try to construct a cordon sanitaire around their infants by ensuring practices of sterilisation and hygiene.

Another study focusing on infants was conducted by Lauritzen (1997), who explored the health-related concerns and practices of Swedish and English mothers of newborn babies. She identified four main areas of mothers' concerns: worries about abnormality in their baby, threats to the baby's survival, worries that the child may not be thriving and threats from illness. These mothers described keenly watching their babies' behaviour and physical status as a means of detecting anything out of the ordinary. Lauritzen also reported that mothers felt they should stay as close as possible to the infant so they could understand its needs. They feared that if they failed to interpret the baby's signals properly, they could expose it to risk. The women in the study articulated three major discourse concerning health in their infants: that of health in the infant as a product of fate and luck; that of health in the infant as a state that was extremely vulnerable and required constant work and surveillance by the mothers on behalf of the baby; and that of health in the baby as a taken-for-granted resource. As this suggests, mothers' notions of health in infants may be contradictory or dynamic, depending on the context.

There are a range of studies that examine women's feeding practices in relation to their infants, with a particular emphasis on breastfeeding versus formula feeding. Breastfeeding tiny infants is highly promoted over formula feeding in medical and public health discourses as the best way to promote infants' health and development. Women who are not able or willing to engage in breastfeeding often articulate feelings of distress,

worthlessness, frustration and the belief that they do not conform to notions of the ‘good mother’ (see, for example, Murphy 1999, 2000, 2003, Schmied and Lupton 2001, Lee 2007, Knaak 2010). There is also evidence to suggest that many pregnant women are becoming very aware of the risk discourse surrounding pregnancy and experience anxiety about the risks of miscarriage or stillbirth, foetal abnormalities, abnormal development and other health problems in their unborn babies. As a result, they seek to contain and control risk as much as possible (Lupton 1999, Harpel 2008). Research has found that for women who engage in such proscribed activities as becoming obese from over-eating or smoking or drinking alcohol while pregnant, or smoking in the presence of infants or small children attract moral censure from others. Regardless of any personal compelling reason on the part of the mother to engage in such activities, she is represented at best as careless, irresponsible and a ‘bad mother’ and at worst as frankly abusive of her children (Coxhead and Rhodes 2006, Holdsworth and Robinson 2008, Keenan and Stapleton 2010, McNaughton 2011).

The present article reports findings from a study that builds on previous research by identifying how Australian mothers from various socioeconomic backgrounds conceptualised their infants’ and small children’s health, illness and embodiment. The study identified and explored which actions the mothers considered important in promoting and maintaining the optimal health and development of their children, how they went about putting this into practice, which risks they saw as potentially affecting their children’s health, upon which sources of information they drew and how they responded to illness in their children. Elsewhere I have discussed other aspects of the research, including analysis of the responsibility women felt for promoting their children’s health and development (Lupton 2008). The present article focuses on pregnancy and the early stages of caring for infants. It examines four aspects: disciplining the pregnant body; promoting infants’ health; immunisation; and promoting infants’ development.

The study

A total of 60 women living in Sydney with at least one child aged 5 or younger were recruited for the study. The participants were recruited using a research assistant who was experienced in recruiting and qualitative interviewing for market research and other researchers. She used a variety of methods to recruit participants, including drawing on contacts made in previous studies, snowballing from these contacts, advertising in places such as libraries and child health clinics and randomly approaching women with young children in shopping areas and day care centres. The research assistant deliberately sought participants in different areas of Sydney to include participants with differing education levels and income. As a result, the 60 women were a heterogeneous group, with half from socioeconomically advantaged and the other half from disadvantaged suburbs (based on the *Social Atlas of Sydney* classification of suburbs by the Australian Bureau of Statistics). They ranged in age from 19 to 48 and had between one and 11 children. Eleven of the interviewees were from a non-English-speaking background (including Chinese, Middle Eastern and Latin American) but were fluent in English and required no interpreters to take part.

An interview schedule with open-ended questions was used that allowed the interviewees to explain their beliefs and opinions and recount experiences at length. The

questions included asking women how important good health in their children was to them, to discuss what role they saw themselves as having in promoting their children's health and development, to define what good health was in relation to their children, to explain what steps they undertook to promote good health and optimal development in their children (including during pregnancy as well as once their children were born), to discuss any concerns they may have about their children's health, what sources of information they found most useful in assisting them with caring for their children and to identify the main threats they saw to their children's health. Ethics approval for the research was granted by the institution [insert name] at which the author worked at the time of data collection.

The research assistant conducted the interviews, which were audiotaped and transcribed, and the author undertook the analysis of the transcripts. The names of the interviewees and their children were not kept in any records and any names of family members they mentioned in the interviews were substituted with pseudonyms to ensure confidentiality. The research took a discourse analysis approach, with a central focus upon identifying the broader sets of meanings that underpinned the women's explanations of their beliefs and experiences. Each interview transcript was carefully read and re-read by the author and compared with the others as emergent themes, topics and discourses were identified.

For the purposes of this research, 'discourse' is understood as a pattern of words, figures of speech, concepts, values and symbols that cohere to form a particular way of describing or categorising concepts, practices and experiences. Discourses are embedded in social, cultural and political settings, and used for certain purposes (Lupton 2003: 20). In the case of the data here analysed, the discourses that are identified in the interview transcripts give certain actions and ideas context and meaning. The interviewees drew on particular discourses emerging from their personal experiences and interactions with others and from popular media and expert sites to give meaning to and justify their experiences, practices and ideas.

Findings

Disciplining the pregnant body

The women were asked to describe what they did, if anything, while pregnant to promote the health and development of their babies while in utero. The majority of the women said that they did consciously take action to protect and promote their infants' health, and several mentioned multiple strategies. Table 1 demonstrates their answers to this question. As it shows, the most commonly mentioned practice, undertaken by almost half of the women (48%), was taking vitamins, especially folic acid, which has been universally recommended to women planning to become pregnant and during the first three months of pregnancy to avoid their infants developing the disabling condition spina bifida. This was followed by ensuring that one's diet was a 'healthy' one, including eating more fruit, vegetables and meat and reducing intake of 'junk food' (44%). Thirty per cent of the interviewees said that they made sure to engage in regular exercise while pregnant and 22% avoided alcohol consumption (with a further 8% reducing alcohol consumption). Sixteen per cent of the interviewees said that they took steps to avoid risky foods such as those known to potentially

contain listeria such as sushi, soft cheeses and pre-prepared salads, as well as fish with high levels of mercury. Fourteen per cent had reduced or limited their caffeine consumption from coffee, tea or cola drinks and 6% had given up cigarette smoking or reduced their consumption. Other strategies undertaken by only a small number of the women (less than 5%) included trying not to gain too much weight, drinking plenty of water, avoiding smoky places, having regular prenatal check-ups, ceasing aerobics lessons, making sure sleep on one's side rather than on one's back and trying to reduce stress.

Table 1: Actions taken during pregnancy to promote the health and development of the foetus (%) n=60

Took vitamins	48
Ate a healthy diet	44
Exercised regularly	30
Avoided alcohol consumption	22
Avoided risky foodstuffs	16
Reduce or cut out caffeine	14
Reduced or limited alcohol consumption	8
Reduced or ceased cigarette intake	6
Tried not to gain too much weight	4
Drank plenty of water	4
Avoided smoky places	4
Ceased vigorous exercise	2
Made sure to sleep on side, not back	2
Tried to reduce stress	2
Regular prenatal check-ups	2

As these findings demonstrate, the emphasis in contemporary culture on women's lifestyle choices during their pregnancy and the effects of these choices upon their babies led, in many cases, to women becoming extremely vigilant about what they ate and drank. Reference to wanting the 'best' for their babies and ensuring their health and normal development were common in the interviews. These women's accounts were typical in their detail of how they attempted to ensure the health and normal development of their babies while pregnant:

I avoided coffee for quite a while -- I avoided having too much caffeine generally. I took a pregnancy and breastfeeding vitamin supplement. I really made a focus on having lots of leafy green vegetables, made it a real priority. I also made sure I ate meat, I went off being a vegetarian and I ate a lot of organic meat and just regular meat as well. Even before I got pregnant I took the vitamins a month beforehand, actually it was three months, 'cause that's how long I was trying for. And I didn't drink at all either, not even a glass.

I just sort of felt like drinking fruit juices and nibbling on nuts and dried apricots. It was physiological, but mentally I was also thinking I shouldn't be nibbling on chips and chocolates. Because I'd read stuff that you shouldn't be eating, you know, chocolate's got caffeine. I suppose just so that I didn't have a baby addicted to caffeine and just conscious that my baby was getting all the nutrition it should be getting. If I was having a balanced diet, then it would be getting a balanced diet as well.

Several women's accounts gave reference to news media coverage of how certain actions taken by a pregnant woman may negatively affect her foetus and discussed how this coverage had affected their own decisions. One woman, for example, referenced a New York Times article she had read which described the results of a study demonstrating the difference in IQ between children whose mothers avoided alcohol in pregnancy and those who did not. Another woman, a former smoker, could remember as far back as when she was 16 years old (12 years prior to the interview) and had viewed a television documentary showing how a woman's cigarette smoking affected the heart rate of her foetus. This documentary had had a strong impact on her, leading to her deciding, years later, that she would not smoke while pregnant:

I remember saying I would never smoke if I was pregnant. It just stuck in my head, I remember seeing this baby's heart going – boom boom boom.

For some women, a corollary of this intense focus on maintaining healthy eating habits was experiencing feelings of worry, shame and guilt if they felt they had not conformed to expectations. One example was a woman who talked about the intense guilt she had felt during pregnancy about her intake of ice cream:

Yeah, I had this craving for ice cream throughout my entire pregnancy, and I felt really guilty about eating it all the time, 'cause I thought this isn't really doing the baby any good. Because you feel so responsible, and you're very aware of everything that you're doing. You're very aware of everything that you're eating and everything that you're doing to your body because you know that one way or another it's going to affect the baby. So I suppose you start to feel guilty.

There was a noticeable social class difference in the way that women responded to questions about their habits in pregnancy. Women with high levels of education and income, living in well-off suburbs, tended to be more vigilant in ensuring that they conformed to guidelines concerning diet, exercise, vitamin supplementation and avoidance of drugs such as alcohol and tobacco. Women from working-class backgrounds, with lower levels of education and income, were more likely not to change their lifestyle and to continue to smoke cigarettes and drink alcohol while pregnant, although they often did try to cut down their consumption of these drugs. This was evident in the account of the following women, both of whom live in socioeconomically disadvantaged areas in Sydney:

I knew I should give up smoking when I was pregnant, or at least cut down, and I really tried. It was hard – I was just so used to [smoking] – I started when I was 15. My Mum and my

friends kept telling me to stop. But it's a habit, you know, that's hard to break. I didn't completely stop, but I didn't smoke as much – that's something. But I did feel bad about not stopping altogether, for the baby's sake.

I changed some things when I found out that I was pregnant. I tried to eat better food and drink more milk. The doctor told me that I shouldn't drink [alcohol] anymore because it wouldn't be good for the baby. I didn't drink every day, but every so often I would have a glass of wine, because I just felt like it.

As previous research has found (Coxhead and Rhodes 2006, Holdsworth and Robinson 2008, Keenan and Stapleton 2010), women from disadvantaged backgrounds in particular often do struggle with giving up habits such as smoking, drinking alcohol and over-eating that are deemed harmful to their foetuses or young children. Although they are usually highly aware that such habits are proscribed in expert and lay discourses, dealing with socioeconomic disadvantage, social isolation and other problems render it difficult for them to give these habits up.

To summarise, the discourses of 'maternal responsibility' and 'protecting the vulnerable foetus' were central in these accounts. Linking these two discourses is that expressing the notion of 'the interembodied maternal/foetal subject'. According to the logic of this discourse, what substances pregnant women allow into their bodies will have a direct effect upon their foetuses, for their bodies are conjoined. As such, pregnant women need to regulate and police their bodies for the sake of their foetuses, even if this involves denying themselves pleasures such as chocolate, coffee, ice cream or alcohol or giving up long-held practices such as vegetarianism or cigarette smoking. The moral dimensions of attempting to conform to these expectations were also evident in women's accounts of their feelings of guilt, shame and worry about their foetus' health if they had transgressed dominant expectations about regulating the maternal body. As this suggests, while the maternal/foetal body is commonly conceptualised as conjoined in its material, fleshly dimension, women may experience their own needs and desires as very separate from, and in some cases, in direct opposition to those of their foetuses.

Promoting infants' health

Many of the women found that once their baby was born that they experienced heightened feelings of worry and anxiety about the baby's health and wellbeing. The discourse of the vulnerability of the foetal body was extended to that of the infant's body, as was that of the importance of maternal responsibility for protecting the infant. Some mothers were so anxious about their babies' wellbeing that they regularly felt fear about their babies dying:

I guess her health is about her survival -- ultimately to me that's what her health is about. When you're a new parent, every time you go to bed you find yourself checking them to see that they're not dead. Really what you're saying to your partner when you leave the house is 'Don't kill the baby!' You know, there are days that you really become hyper – 'What if they die?' You feel very responsible.

Part of this discourse of infants' bodies as highly vulnerable was the idea that their immune systems were undeveloped and immature and that therefore they were far more open to infection than older children or adults. For some women, indeed, the notion of 'good health' in their children equated with the ideal of a strong immune system. As one mother noted:

I think for me, [good health] would just be a strong immune system. I think good health is a lack of sickness, regular illness. I think that's where food and stuff comes in; you want to give the child the best possible ability to fight any potential viruses or whatever might be floating around.

The women discussed the importance of 'building up' children's immune systems and protecting them from too much exposure to infection before their immunity had time to develop. Some mothers, therefore, tried to protect their babies from contact with people who may harbour infectious illness, and were vigilant about keeping their homes clean to avoid their babies touching 'dirty' things. A mother of a six-week-old baby, for example, said that she did not allow people with a cold or cough to nurse her daughter if they came to visit.

In terms of strategies of infant feeding, breastfeeding was identified by the mothers as the most beneficial to their babies. This is not surprising given the weight of medical and popular advice recommending breastfeeding over formula feeding for optimal health and development in young infants. Several women mentioned the importance of breastfeeding to develop infants' immune systems:

I'm breastfeeding full-time and I find that that's of benefit to [my baby]. She's getting all the nutrients she needs; everyone says that breastfeeding builds up their immune system and everything like that.

As found in previous research on breastfeeding (reviewed in the Introduction), the weight of expectation of women that they do so, and their own acceptance of its importance, can be crushing for mothers who are unable or unwilling to breastfeed. Some women who had struggled with breastfeeding successfully persisted because of their strong conviction that it was vital for the good health and optimal development of their babies. Women who had had difficulties discussed the guilt and sadness they felt over not being able to provide breast milk successfully to their babies. One mother described in detail the story of how she had struggled to breastfeed and failed, dwelling on her feelings of guilt and the negative reactions she received from others about her decision to stop:

People would say 'Are you still breastfeeding?' and I'd feel really guilty about saying 'No'. And I found I'd start telling the whole story about why I had to stop, almost like I felt I had to justify myself. So you do feel really guilty because people expect you to be breastfeeding -- I mean that's the best thing for the baby.

One woman had breastfed for 12 months and was so convinced of its protective properties that she was then surprised and disappointed that her daughter still became ill:

All the research, all the information, the longer you breastfeed the better it is, the stronger their immune system will be. And I think what's happening, why is she still getting these little things?

The discourse of immunity, therefore, was dominant in the women's accounts of their infants' health. The women were particularly concerned about their babies catching serious viral illnesses such as meningococcal and pneumococcal diseases, which have received frequent media attention about how quickly they can kill infants and young children if undetected and untreated. On the other hand, they also recognised that some exposure to infection was important for their infants' immune system to develop. They were pulled, therefore, between wanting to allow their babies to strengthen their immune system by some contact with germs and also experiencing a strong desire to protect them from illness via such contact (see Lauritzen 1997 and Brownlie and Leith 2011 for similar findings).

Immunisation

Immunisation is a strategy that is strongly recommended by government and medical agencies to promote infants' and children's health. However it has been the focus of controversy, particularly in the UK, in relation to the alleged side effects of some vaccines (Polterak *et al.* 2005, Hobson-West 2007, Brownlie and Leith 2011). While there has been less public debate over the risks of vaccination in Australia, it was clear from the women's accounts that many were aware of certain controversies and other issues concerning the value and safety of vaccinating infants. Due to their concern about 'strengthening' their infants' immune systems and protecting them from infectious diseases, for the most part the mothers were positive about immunisation. Nonetheless, many still harboured concerns about immunisation and felt uneasy about the large number of injections required of tiny babies, including inflicting pain from injecting vaccines and the notion of 'chemicals' going into their bodies:

I think it's because of in the first year of life they have a lot of vaccinations and I just worry about all those chemicals going into their little body.

If there was an alternative [to immunisation] that was not chemicals and injections and the rest of it that was proven to be safe I would certainly jump at it.

Some mothers had conducted research and sought out differing views on immunisation and had only then decided to go ahead. In a context in which new vaccines had been recently added to the recommended immunisation schedule for Australian infants, other mothers had allowed their infants to have some of the vaccines, but were hesitating about others because they were unsure about whether or not they were necessary or whether they might have side effects if combined that had not yet been identified. This uncertainty was evident in the following account:

My children are immunised but there is a lot of new immunisation out at the moment. It's very hard to decide do you immunise? You know, there's chicken pox, pneumococcal, meningococcal. I worry that in ten years time they're going to say 'All the children who have had chicken pox with pneumococcal are going to be sterile', because they weren't tested together. That's a worry. They've had meningococcal vaccination, but the other two, I've got the scripts in my bag waiting, they've been in there for five months as I find that decision very hard to make, when do you stop vaccinating?

Despite their misgivings, the vast majority of the women viewed immunisation in general as a beneficial strategy that would protect their children from infectious diseases, particularly given their views on the prevalence of germs in the environment and fears about their babies' vulnerability:

I think the polio all that sort of stuff and the hepatitis, things like that, hepatitis you can pick up quite easily. And I think babies are always touching things, putting things in their mouth as toddlers and that sort of thing, especially in shopping centres and places like that. And I think if you can do anything that you can to prevent them getting it, well why not do it [immunise]?

Here again, immunisation was seen as a responsibility which women should manage to protect the health of their babies and which could have a severe outcome if not taken up:

I don't think I could forgive myself if I didn't give it [vaccines] to him and he got sick. The guilt if I didn't do it, the responsibility as a parent for not doing all you could to prevent something that is preventable.

Just because there are too many diseases. Something like chicken pox, if they don't get a needle for that they could die over something so small.

The women's discussions of immunisation, therefore, revealed a degree of ambivalence, particularly based on concerns about subjecting their tiny infants to possibly painful injections and to 'chemicals' with possible side-effects. The discourse of the pure, delicate baby's body is evident in these accounts. Nonetheless, women's reasonings also acknowledged that the purity of the baby's body must be challenged by vaccines for its eventual good health. This suggests that mothers have a strong desire to protect their infants and be responsible in the face of competing, counter-intuitive imperatives: on the one hand attempting to protect the delicate, vulnerable body of the baby, on the other doing so by deliberately breaching its purity with a strategy that promises to protect and strengthen this body (see also Brownlie and Leith's 2011 findings).

Promoting infants' development

As well as discussing strategies for promoting good health in their infants, the mothers talked about the importance of helping their children develop normally. They mentioned such strategies as exposing their babies to educational resources and the importance of 'stimulation' to encourage optimal intellectual and physical development. This was

particularly the case with women from a socioeconomically advantaged background, who commonly discussed a range of strategies they employed to help their child develop mentally, as in the following example:

My daughter's at an age now where she gets bored really quickly. So if you're at home all the time not really doing anything, she gets really bored and starts whingeing. So you've got to take her out a lot, take her out to the park, take her for walks down to the beach, take her out into the backyard, show her things, talk to her a lot, read her a lot of books, and I go and visit other people so she's in different environments.

The women's accounts suggest that mothers often tend to engage in judgemental comparisons of other mothers' maternal behaviours. Mothers are highly aware that their infants' health status and level of development are subjected to appraisal not only from health experts but from other mothers, friends and family members. Many women discussed how they felt as if their babies were being constantly compared with other infants and assessed as to whether they were normal, advanced or backward in their development – achieving their 'milestones' at the appropriate age. They mentioned mothers' groups meetings, in particular, as a place where competitiveness among mothers concerning their babies' stages of development could become quite overt. One woman said about her mothers' group that:

I found that there was a lot of competition, a lot of 'My child does this and why isn't yours doing that?' and very, very, very child and baby focused.

Another woman commented that:

It's not a direct comment, mothers talk in conversation – 'Oh my child toilet trained at this age, has yours yet?' It's not directly out there but I think there is a lot of pressure put on, especially first-time mums. Are they walking yet, do they have teeth yet?

These comparisons can lead to anxiety and uncertainty on the part of women, particularly with their first baby, who may worry about whether their child is normal or backward. These feelings were evident in the following account:

You're looking at other parents and other babies, just to try to collect the evidence to say 'OK, where is she on this?', 'Is there something I'm missing?' I guess it's what you don't know that you don't know that's the really terrifying thing, you could just miss something. You could be missing something that you're supposed to be doing, if you didn't read up on it you could be missing something critical -- whether I'm talking to her enough, or talking to her clearly enough, just things like that, so you know that she's developing appropriately.

It is not only infants' physical health and wellbeing, therefore, that is identified in lay accounts as part of the realm of maternal responsibility. Promotion and stimulation of their intellectual development has also become incorporated as one of the imperatives to which mothers are expected to respond. Here the risks of not taking up this imperative are

conceptualised as related to one's child falling behind the others, not achieving their full potential. Conforming to this expectation requires women to acquire the appropriate knowledge and techniques. As one of the women quoted above noted, mothers are expected to 'read up' on infant development so that they do not 'miss something critical' which they should be doing to stimulate their infants. The discourse of the 'malleable infant' is evident in these understandings of promoting optimal development: the infant whose intellectual and physical development is open to improvement and enhancement, as long as the correct strategies are followed by its caregivers. This discourse, and its associated practices, is a particularly middle-class phenomenon, as it accords with bourgeois ideals of self-improvement, competitiveness and intellectual achievement (Vincent and Ball 2006).

Discussion

To return to the valuable insights offered by Murcott (1993) and Lauritzen (1997) (outlined in the Introduction), the findings of the present study revealed similar discourses and concepts related to infants' embodiment and health. As was also found in Murcott's study, the women's accounts revealed that they regarded their infants' bodies as pure and highly vulnerable to infection, requiring continual protection from contamination. The notion of vulnerability in children has become a key conceptual feature in medical, educational and social policy documents on children, commonly used to analyse the problems of children and childhood (Frankenberg *et al.* 2000). In concert with the concept of the 'sacred' or 'precious child' requiring the very best of care (Nippert-Eng 1996), this notion represents children as easily damaged or hurt, fragile, requiring constant protection from adults. Vulnerability in children suggests 'both an embodied innocence and an embodied openness' (Frankenberg *et al.* 2000, p. 589). Babies as the youngest, most innocent, adorable and helpless of all children, are viewed as requiring the most protection of all, and their bodies are conceptualised as the most 'open' to contamination.

Also interesting was the dominance of a discourse of immunity that emerged in the interviews in my research but which was not so evident in Murcott's study. When discussing notions of 'good health', the infant's body and vaccination issues, notions of the baby's immune system as immature, requiring protection from contaminants such as dirt and germs but also needing 'building up' or 'strengthening' by exposure to such contaminants or to vaccines were expressed. Discourses of the immune system have increasingly become dominant in contemporary ways of conceptualising the body. The immune system is commonly portrayed as engaging in a type of hostile warfare: as 'defending' our bodies from 'invasion' by potentially harmful pathogens, allergens and viruses. These accounts of vaccination and the immune system draw upon wider discourses on immunity which represent the immune system as requiring work or training to make it stronger and vaccines as part of this process of educating and training (Martin 1990, Lupton 2003, Cohen 2009). They also draw upon similar concepts to those identified by Murcott (1993) in relation to the purity of the baby's body and the 'dirtiness' of that which lies outside this body. In these women's accounts, 'dirtiness' could be in the home, if not properly cleaned or managed, or from infected others coming into the home, or it could be outside the home, from areas where infectious people (particularly other babies or young children) might congregate. Vaccines,

for these women, were a means by which the vulnerable and pure infant's body could be protected from serious illness caused by contaminating Others.

Of the three dominant discourses identified by Lauritzen, the mothers in the present study were far more likely to employ that of health in the infant as a state that was extremely vulnerable, requiring constant work and surveillance by the mothers on behalf of the baby, rather than good health as a product of luck or fate or as a natural inherent resource of the infant's body. It is likely that the intensification of expert and popular representations of 'good motherhood' as involving protecting foetuses, infants and young children from risk emerging since Lauritzen's study has contributed to the increasing dominance of this concept of health in babies.

The women in the present study, indeed, expressed high levels of anxiety and concern about the welfare of their babies, and positioned their own caring behaviour as virtually the sole means by which their infants could thrive. The words 'responsibility' and 'guilt' recurred often in the interviews. Feelings of guilt emerged from women assessing their caring behaviours and deciding that they had fallen short of expectations concerning their primary responsibility for their foetuses or babies' health and development. They felt that they had let their children down by not protecting them enough (even if this meant the comparatively minor sin of eating 'too much' ice cream during pregnancy) and by not achieving the ideal of the 'good mother'. Guilt is an emotion intimately linked to morality: having 'done wrong' in some way, or flouted a social convention. As this suggests, and as I noted in the Introduction, there are strong moral meanings underpinning women's accounts of caring for their children, meanings which in turn are drawn from the dominant discourses reproduced in the network of expert and lay advice and opinion in which mothers undertake their caring. Women are very aware of this system of morality, and feel shame and guilt when they see themselves as flouting it or others as making this judgement.

The lack of resistance to dominant discourses expressed by the mothers in this study, indeed, is evidence of the strong societal pressures exerted upon women to conform to the ideal of the 'responsible mother' who puts the needs of her foetus or infant before her own. It is difficult for a pregnant woman to flout such expectations because of her very visible status as the 'conjoined maternal/foetal body', just as it is challenging for women to bottle-feed their infants instead of breastfeeding, or to refuse to vaccinate them, fail to stimulate their brain development appropriately or in any other way not take up the recommended actions to protect their infants from harm. Constraints on women's behaviour, however, are not simply exerted 'from above'. For the large part, women voluntarily discipline their bodies and regulate their own behaviours in the quest to create healthy and developmentally normal infants. They also police the actions of the other mothers with whom they interact. They are, therefore, both the subject of surveillance – from other mothers, medical professionals, friends and family members – who regularly assess their efforts to promote and protect the health and wellbeing of their infants, and the instigators of surveillance over their infants and other mothers. At the heart of this reproduction of health imperatives lies the emotional dimension of caring for babies and children: the desire to protect the precious, pure and vulnerable body of one's beloved child, to ensure one's baby develops optimally to receive the best chances in life, to avoid the distress caused by illness and to view oneself and to be recognised by others as being a 'good mother'.

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