Appetite 105 (2016) 375–384

Contents lists available at ScienceDirect

Appetite

journal homepage: www.elsevier.com/locate/appet

The infant feeding practices of Chinese immigrant mothers in Australia: A qualitative exploration

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ARTICLE INFO

Article history:
Received 3 June 2015
Received in revised form
6 June 2016
Accepted 7 June 2016
Available online 11 June 2016

Keywords:
Chinese immigrant
Breastfeeding
Infant formula
Infant growth
Grandparents
Beliefs

ABSTRACT

Background: The Australian Infant Feeding Guidelines recommend exclusive breastfeeding until about six months of age when solid foods should be gradually introduced. Evidence indicates that Chinese immigrant mothers in Australia are more likely to use infant formula in combination with breastfeeding and to introduce solids earlier than the general Australian population. This study aimed to explore Chinese immigrant mother's experiences of feeding their infant to gain an insight into the factors shaping their feeding decisions and perceptions of infant growth.

Methods: Semi structured interviews were conducted with 36 Chinese immigrant mothers with children aged 0–12 months, living in Melbourne, Australia. Interviews were conducted either in Chinese, using an interpreter, or in English. All were audio recorded. Recordings were transcribed verbatim and thematically analysed.

Results: Eight themes were identified. Chinese immigrant mothers were supportive of exclusive breastfeeding, however breastfeeding problems and conflicting views about infant feeding and infant growth from grandparents reduced many mothers' confidence to breastfeed exclusively. For many new mothers, anxiety that exclusive breastfeeding provided insufficient nourishment led to the introduction of formula before six months of age. Most mothers delayed introducing solid food to five to six months to prevent development of allergic diseases and gastrointestinal problems. Chinese immigrant mothers obtained information and support related to infant feeding from a combination of health professionals, online resources, friends and grandparents.

Conclusions: Chinese immigrant mothers in Australia need support to breastfeed exclusively. In particular maternal confidence to breastfeed exclusively needs to be increased. To achieve this, culturally sensitive guidance is needed and the contradictions in advice given by Chinese grandparents and health professionals on infant feeding practices and healthy infant growth need to be recognised and addressed.

1. Background

The current Australian Infant Feeding Guidelines (National Health and Medical Research Council, 2012) recommend that infants should be exclusively breastfed until around six months of age. When solid foods are introduced, breastfeeding is encouraged to be continued until 12 months or longer as desired. Exclusive breastfeeding offers complete nutrients for the healthy growth and development of infants for the first six months of life (Butte, Lopez-Alarcon, & Garza, 2002). Breastfed infants have reduced risks of respiratory and gastrointestinal infections, and these benefits are

List of abbreviations: C(#), interviews conducted in Chinese; E(#), interview conducted in English; MF, mix Feeding (breastfeeding and infant formula); EBF, exclusive breastfeeding; FF, formula feeding.

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http://dx.doi.org/10.1016/j.appet.2016.06.008
0195-6663/

considered to be dose and duration dependent (Duijts, Ramadhani, & Moll, 2009; Forman et al., 1984; Kramer & Kakuma, 2012). Current evidence also suggests that breastfeeding in infancy is associated with lower prevalence of chronic diseases such as overweight and obesity, high blood pressure and diabetes (Cope & Allison, 2008; Horta & Victora, 2013). Recent reviews regarding the introduction of solids before four months of age (Gibbs & Forste, 2014; Pearce, Taylor, & Langley-Evans, 2013; Tarini, Carroll, Sox, & Christakis, 2006) reported that there is no growth or health advantage to supplementing breastfeeding, but this practice has been linked to increased risks of childhood overweight and obesity (Gibbs & Forste, 2014; Pearce et al., 2013), and to eczema (Tarini et al., 2006). The general consensus among health authorities globally is that solid foods should not be introduced earlier than four months and not later than six months of age (Agostoni et al., 2008; National Health and Medical Research Council, 2012; World Health Organisation, 2002). Given this, understanding the predictors of the early introduction of solids is important and will inform strategies for interventions.

Breastfeeding initiation rates in Australia are high at around 96%, but the number of infants exclusively breastfed drops to 39% at four months and 15% at six months (Australian Institute of Health and Welfare, 2011). An Australian study in 2002 showed that, compared to English speaking mothers, Chinese-speaking mothers had lower breastfeeding intention (88% vs. 73%) and initiation rates (91% vs. 79%) (Homer, Sheehan, & Cooke, 2002). There is also some evidence suggesting that Asian (including Chinese) born mothers in Australia are more likely to combine breast and formula feeding in the first 12 weeks postpartum than the general Australian population (Dahlen & Homer, 2010). Li et al., in a 2005 study of 313 Chinese-speaking women reported that just 6% of these women exclusively breastfed to six months of age in comparison to nearly 22% of the general Western Australian population. These authors also reported that Chinese speaking mothers were more likely to introduce solids earlier (Li, Zhang, Scott, & Binns, 2005).

The lack of exclusive breastfeeding associated with infant formula and early introduction of solid foods was estimated to add around $1–2 million annually to infections-related hospitalisation costs in the Australian Capital Territory in 2002 (Smith, Thompson, & Ellwood, 2002). This premature weaning appears likely to contribute to an increased incidence of a range of chronic diseases in later life, which, at the population level will translate into significant cost burden to the health care system (Smith & Harvey, 2011). Given that the numbers of Chinese immigrants are increasing rapidly and that they are currently the third largest migrant community in Australia (Australian Bureau of Statistics, 2014), suboptimal infant feeding practices in this population group presents as a potential public health concern.

Social and cultural factors, as well as individual knowledge, beliefs and attitudes play important roles in mother's infant feeding choices. Several older studies have reported that Chinese immigrant mothers in Australia believe that breastfeeding is good for the baby. However, in that study, a large proportion also used infant formula due to a perception of inadequate breast milk supply, that infant formula in Australia was superior to breast milk and that formula feeding was more convenient (Diong, Johnson, & Langdon, 2000; Homer et al., 2002; Li, Zhang, Scott, & Binns, 2004). In addition, Diong's study conducted in 2000, identified a number of important misconceptions around feeding amongst Chinese immigrant mothers in Australia, including: beliefs that a fat baby is a healthy baby; that formula feeding results in reduced neonatal infections; and that breastfed babies become too emotionally attached to the mother (Diong et al., 2000). Chinese culture believed that there was a direct relationship between the mother's health and breast milk quality and quantity. Studies of Chinese immigrants in Canada and the US showed that mothers were encouraged to combine breastfeeding with infant formula so that they could rest and produce more breast milk (Chen, 2002; Donaldson, Kratzer, Okutoro-Ketter, & Tung, 2010). The practice of early introduction of solids is likely to be culturally linked, with contemporary studies showing that introducing solids and other non-milk liquids to infants younger than three to four months is common in some parts of China (Inoue & Binns, 2014; Xu, Binns, Lee, Wang, & Xu, 2007).

The evidence regarding factors influencing Chinese immigrant mothers' infant feeding practices in Australia is now 10–15 years old. These data arose from quantitative studies that do not provide in-depth descriptions of infant feeding experiences and the factors informing decision making. There are no current Australian studies that describe Chinese immigrant mothers' infant feeding experiences or explore the factors influencing their infant feeding practices. Likewise, there are no interventions to increase exclusive breastfeeding rates among this population group.

This study aims to describe the current infant feeding practices of Chinese immigrant mothers in Australia. It will also explore the factors influencing their early feeding choices and mothers' perceptions of infant growth to identify barriers and facilitators to the adoption of optimal infant feeding practices. In this study, a Chinese immigrant mother is defined as a mother who was born in China and had immigrated to Australia. An understanding of barriers and promoters of breastfeeding and delayed introduction of solids will inform the design of targeted health promotion strategies while taking into account predominant beliefs and attitudes held by Chinese immigrant mothers in Australia.

2. Methods

2.1. Study design

A qualitative interview method was used to explore Chinese immigrant mother's beliefs and attitudes around infant feeding and infant growth. This method is appropriate since the intent of the study is exploratory and has capacity to generate hypotheses for further studies (Neergaard, Olesen, Andersen, & Sondergaard, 2009).

2.2. Sampling and recruitment

Participants were mothers who were born in China and migrated to Australia. Two inclusion criteria were adopted. Mothers must have been born in China (excluding Taiwan and Hong Kong) and have lived in Australia for at least six months (ensuring that mothers were more likely to be settled). It was also required that the youngest baby be aged 0–12 months, be full term and have no medical complications. A purposeful sampling strategy (Neergaard et al., 2009) was used to gain an in-depth understanding of the experiences across a variety of demographic backgrounds including socioeconomic status, parity, method of infant feeding (breast/formula/mixed), and length of stay in Australia. Sample recruitment was guided by demographic variation and the goal of data saturation.

Two local government areas (LGA), Whitehorse and Monash in Melbourne, Australia, were selected based on their high population of Chinese immigrants. Participants were recruited via flyers written in English and Chinese. These flyers were distributed in local health facilities, such as maternal and child health clinics, immunisation clinics, community health centres and a public hospital antenatal clinical ward. Interested participants contacted the researchers by phone or email and were screened for eligibility. A researcher (KK) also visited a number of immunisation clinics in