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THE IMPACTS OF TRANSITIONING TO FATHERHOOD ON CHINESE MEN LIVING IN MAINLAND CHINA: A SCOPING REVIEW

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ABSTRACT

This review explores evidence on Chinese men's transitioning to fatherhood in mainland China to identify its impacts and related predictors. Due to the complex and broad nature of this topic, a scoping review was selected to carry on a search and explanation of the literature. The search returned 68 articles, and 10 met the inclusion criteria. This review demonstrated that for Chinese men living in mainland China, transitioning to fatherhood can have impacts on their self-feelings and mental health. The predictors were divided into three categories: personal (age, education level and planned pregnancy), environmental (gender of the child, partner's mental health status, family relationships and pre- and post-natal health education) and occupational (paternal leave). This review proposed suggestions for adapting Chinese men to fatherhood in mainland China.

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INTRODUCTION

From 2012 to 2018 in mainland China, averagely there were 7 million men becoming a new father each year (Ting *et al.*, 2018). The transition to parenthood for the first time can lead to more significant changes of lifestyle than any other stage of life (Cheung, 2002). This transition refers to the changes which new parents must adjust to (Bina, 2008). For mothers and fathers, the new role can affect their relationship dynamics, marital relationship and self-identity (Ryder *et al.*, 2008) (Ryder *et al.*, 2008). While during the transition to parenthood, it can be difficult for new parents to balance their new roles and responsibilities of child carer with that of continuing to earn a living (Bina, 2008). The increased responsibilities can lead to new parents developing anxiety and depression for the first time or exacerbating of pre-existing symptoms (L. Gao *et al.*, 2009). Generally, the impacts of transitioning to parenthood commence around the beginning of the pregnancy and can last up till years after childbirth (Hamilton & De Jonge, 2010). The focus of most research about the impacts of transitioning to parenthood has been on women's health (Ku & Chow, 2010). A review including 22 Asian countries (Withers *et al.*, 2018), revealed that new mothers tended to have physical health problems such as insomnia and weight-loss

during the first six months after childbirth, and experienced depression and anxiety in the first year of the postpartum period. In China, postpartum depression is identified as the most common mental health problem for new mothers after birthing as studies have indicated that 5% to 20% of new mothers are diagnosed as having postpartum depression (X. Zhang, 2012). In China, the impacts of transitioning to motherhood on women has been widely studied (Wang & Liu, 2014; Yang *et al.*, 2014; Liu & Wang, 2015; Lau, 2016). Many scholars have demonstrated that the risk factors for postpartum depression in Chinese women include low education level, advanced age, lack of prenatal education, poor couple relationship and dissatisfaction with the gender of the child (Lau, 2016; M. Wang *et al.*, 2016). In addition, studies have indicated the impact of the Chinese tradition of 'doing the month' and how it impacts on transitioning to motherhood (Lau, 2016; M. Wang *et al.*, 2016; T. Wang *et al.*, 2016; Y.-P. Zhang *et al.*, 2016). 'Doing the month' is a period of Chinese traditional health care helping mothers recover well from birthing (Chui, 2016). Being a father is an important life stage for a man (Kwan *et al.*, 2015). The arrival of a child brings happiness and warmth to the family. As a master of the family, fathers need to take responsibilities for taking care of mother and child (Koh, Lee, Chan, *et al.*, 2015). This is an important opportunity to improve couple relationship and deepen the interaction between father and child (Liu & Wang, 2015). Although fathers' insertion of the care can make them gain a sense of achievement, for men, adapting to the role as a new

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father can be a serious challenge that may have negative impacts on their health (Roubinov *et al.*, 2014). Currently, the global prevalence rate of postpartum depression in new fathers is 10.4% (Edward *et al.*, 2015). Scholars have illustrated that new fathers' depression can be related to their incorrect parenting behaviours (such as shouting at the infant to stop his/her excessive crying), unemployment status and poor marital relationship (Kwan *et al.*, 2015; Fisher & Garfield, 2016; Butler, 2017). Recently, a national research in America reported that among new fathers, 10% experienced postpartum depression as a mental disorder during the first two years after childbirth (Almeida *et al.*, 2015). This is similar to a Canadian study that compared to new mothers, new fathers usually received less attention from their family and health workers (Seidler *et al.*, 2016). Additionally, when fathers felt depressed and anxious, it was more difficult for them to seek timely medical treatments (Seidler *et al.*, 2016). If a man cannot adapt well to transitioning to fatherhood, it can negatively affect his family relationship and children's growth (Tohotoa *et al.*, 2009). It may provoke dissatisfaction of the marriage and worsen the stress of parenting, which can impair the family's well-being and functioning (Gage & Kirk, 2016). When the new father is unable to make a healthy transition to parenthood, it will not only adversely influence his child's development in their early stage, but also their further physical development and socio-emotional growth (Etheridge & Slade, 2017). This scoping review aimed to explore the impacts of transitioning to fatherhood on Chinese men which Song *et al.* (2018) argued that it is poorly researched. Therefore, it is necessary to investigate Chinese men's transition to fatherhood, in order to provide timely and effective interventions to protect their well-being and promote a healthy family unit.

MATERIALS AND METHODS

A scope review was selected to search and collect literature that explores the impacts of transitioning to fatherhood on Chinese men living in mainland China, then to identify and analyse the factors that impact men's transitioning to parenthood. This review followed the six steps developed by Arksey and O'Malley (2005) to conduct this scope review including clarifying the research question, balancing the feasibility with breadth and comprehensiveness of the scoping process, selecting studies and extracting data, finally incorporating a numerical summary and qualitative thematic analysis.

Clarify the research question: The objectives of this review were: 1) to identify and classify the impacts of transitioning to fatherhood on Chinese men; 2) to analyse the predictors of these impacts.

Balance the feasibility with breadth and comprehensiveness: The population in this review was journal articles that studied Chinese new fathers living in mainland China. The concept was the impacts of transitioning to fatherhood from the start of the pregnancy to two years after birthing. This review included the relevant literature published from 2008 to now, and written in English or Chinese. The earliest study written in English was published in 2009, while the earliest study written in Chinese was published in 2008. Therefore, the year 2008 was set as the starting point. The first author conducted a literature search of 7 databases. Databases included: British Nursing Index (BNI), China National

Knowledge Infrastructure, Cumulative Index to Nursing and Allied Health literature (CINAHL), Maternity and infant care database (1985-), Medline (1946-), PubMed and Scopus with full text. According to the population, concept and context in this review, the key words for this literature search were: father* OR husband OR paternal OR men AND China OR Chinese AND pregnancy OR antenatal OR childbirth OR birthing OR postpartum OR postnatal OR perinatal.

Select studies and extract data: The inclusion criteria were: a) literature written in English or Chinese; b) the research sample focusing on Chinese men's transition to fatherhood in mainland China. The exclusion criteria were: a) articles not written in English nor Chinese; b) the research sample focuses on women; c) the research sample focuses on Chinese men not living in mainland China. Based on JBI Critical Appraisal Checklist for Systematic Reviews and Research Syntheses, the second and third author valued and selected these retrieved articles by reading their abstract in Covidence. Then the first author read and appraised the selected articles in full text.

Incorporate summary and analysis: According to JBI Data Extraction Form for Reviewer for Systematic Reviews and Research Syntheses, the first author extracted the data from selected literature into NVivo 12. Finally, the first author recognized the implications of the study results for policy, practice or research. See Figure 1 for the flow of methods.

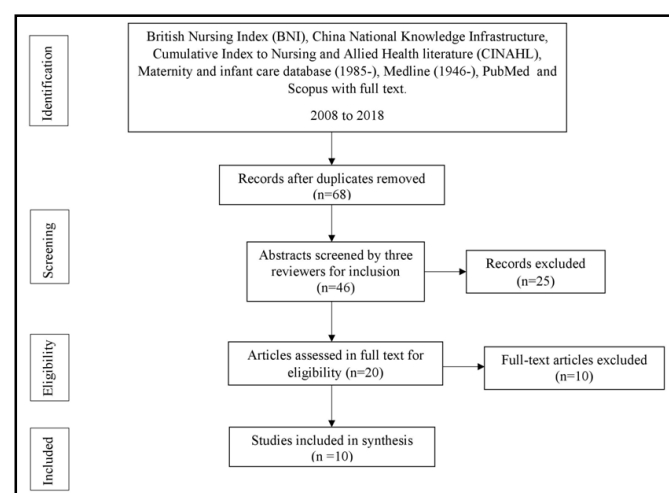


Figure 1. PRISMA (Page *et al.*, 2018) diagram: flow chart of processes and criteria used in the scope review selection of 10 studies on Chinese men's transitions to fatherhood in mainland China

RESULTS

A total of 11 studies met the inclusion and exclusion criteria. The details of these studies are presented in Table 1. From the review, studies included the following provinces in mainland China: Anhui (n=1), Beijing (n=2), Fujian (n=2), Guangdong (n=2), Hubei (n=1), Shanxi (n=1), Zhejiang (n=1). Study designs shown in the final sample involved cross-sectional studies (n=9) and longitudinal study (n=1).

Self-feelings: A cross-sectional study in Fujian, China focused on new fathers' feelings in relation to their partner's birthing (He *et al.*, 2015). He *et al.* (2015) assessed 403 new fathers by using the Kuopio Instrument for Fathers (KFI). KFI was designed by Vehviläinen-Julkunen and Liukkonen (1998) and consists of two parts.

Table 1. The reviewed fatherhood studies

Authors (year)	Language	Place (Province in mainland China)	Study design	Time	Total sample	Sample related to this review	Instruments
Gao et al. (2009)	English	Guangdong	Cross-sectional	6 to 8 weeks postpartum	130 new parents	130 new fathers	•EPDS (12/13) • PSS • SSRS
He et al. (2015)	English	Fujian	Cross-sectional	1 or 2 days postpartum	403 new fathers	403 new fathers	• KIF
Lai et al. (2015)	Chinese	Beijing	Cross-sectional	40 to 60 days postpartum	501 new fathers	501 new fathers	• EPDS (12/13) • SSRS
Li et al. (2009)	Chinese	Anhui	Cross-sectional	3 to 6 weeks postpartum	160 new parents	160 new fathers	• EPDS (12/13)
Lu & Yuan (2009)	Chinese	Beijing	Cross-sectional	6 to 8 weeks postpartum	232 new parents	232 new fathers	• EPDS (12/13)
Luo et al. (2017)	Chinese	Hubei	Cross-sectional	40 to 60 days postpartum	200 new parents	200 new fathers	• EPDS (12/13)
Mao et al. (2008)	Chinese	Guangdong	Cross-sectional	6 to 8 weeks postpartum	150 new parents	150 new fathers	• EPDS (12/13) • SSRS
Mao et al. (2011)	English	Fujian	Cross-sectional	6 to 8 weeks postpartum	376 new parents	376 new fathers	• EPDS (12/13) • PSS • SSRS
Xu et al. (2014)	Chinese	Zhejiang	Cross-sectional	1 to 4 weeks postpartum	362 new parents	362 new fathers	• EPDS (12/13) • SSRS
Zhang et al. (2016)	English	Shanxi	longitudinal	3 days, 2 weeks and 6 weeks postpartum	108 new parents	108 new fathers	• EPDS (9/10) • KMSS • PSCS

Notes: Abbreviations: EPDS (9/10): the Edinburgh Postnatal Depression Scale (9/10); EPDS (12/13): the Edinburgh Postnatal Depression Scale (12/13); KIF: the Kuopio Instrument for Fathers; KMSS: Kansas Marital Satisfaction Scale; PSCS: the Parenting Sense of Competence Scale; PSS: the Perceived Stress Scale; SSRS: the Social Support Rating Scale.

Table 2. The reviewed predictors of fatherhood

Factors	Impacts of transitioning to fatherhood	Positively affect (p) / Negatively affect (n)	Authors (year)
Personal factors			
Age	Self-feelings	p	He et al. (2015)
Education level	Self-feelings	p	He et al. (2015)
Planned pregnancy	Mental health	yes-p, no-n	Gao et al. (2009)
Environmental factors			
Gender of the child	Mental health	boy-p, girl-n	Gao et al. (2009) Lu & Yuan (2009) Mao et al. (2008) Mao et al. (2011) Zhang et al. (2016)
Partner's mental health	Mental health	p	Gao et al. (2009) Li et al. (2009) Luo et al. (2017) Zhang et al. (2016)
Family relationship	Mental health	p	Lu & Yuan (2009)
Pre- and post-natal health education	Mental health	p	Zhang et al. (2016) Gao et al. (2009) Lai et al. (2015) Mao et al. (2008) Mao et al. (2011) Xu et al. (2014)
Political factors			
Paternal leave	Mental health	p	Gao et al. (2009)

The first part queries the father's sociodemographic details and their partner's clinical information. The second part asks about the father's feelings related to himself, his partner, his child, and maternity services provided by health care professionals. The results showed that over 80% of participants took pride and confidence in being a new father, they experienced feelings of love towards their partner and infant and felt satisfied with maternity treatments and grateful to the staff. These new fathers considered their attendance at the birthing room particularly useful as they could improve their partner's confidence during birthing; help her physically and reduce her nervousness; lessen her feelings of loneliness, helplessness, tension, fear and anxiety; provide her with a feeling of safety and ease her birthing pain. Despite the perceived positive aspects experienced, half of the participants felt worried about the health of their partner and child with 30% of participants being frightened that their partner would die during birth.

Mental health: Nine studies utilised the Edinburgh Postnatal Depression Scale (the EPDS) as the measurement tool to examine Chinese men's mental health. Cox *et al.* (1987) developed this scale to evaluate depression after birthing.

This scale includes 10 items, marking on a 4-point scale from 0 to 3, so the total score is from 0 to 30. In each item, there are four choices for participants to measure how they were feeling during the past seven days: never, not at all, most of time and as much as I ever felt. Originally, this instrument was established for postpartum women to concentrate on their depressive symptoms that can be analysed by the demands of becoming a new mother. However, Matthey *et al.* (2000) demonstrated that the EPDS is valid and reliable for fathers as well. To identify the prevalence of depression, the majority of researchers set 13 or above as a cut-off point. In this review, nine studies used this recommended cut-off point, while one employed the cut-off point of 9/10. The cross-sectional study, undertaken by Xu *et al.* (2014) reported that 11% of Chinese new men experience depression during the transition to fatherhood, which is similar to that reported in western males. During the first to fourth week after childbirth, Xu *et al.* (2014) tested 362 new fathers in Zhejiang, China and found that 11.9% of them had postpartum depression. Later during the third to sixth week after birthing, Li *et al.* (2009) reported that 12.1% (n=19) of new fathers in Anhui were tested as positive for depression.

Mao *et al.* (2008) assessed 150 new fathers in Guangdong, China and revealed that 11.3% experienced significant depression at six to eight weeks after childbirth. This finding is supported by L.-L. Gao *et al.* (2009), who found that 10.8% of fathers (n=130) in Guangdong, China experienced depression at six to eight weeks after their partner birthed; Lu and Yuan (2009), who reported that 11.3% (n=26) of new fathers were screened as having depression in Beijing; and (Mao *et al.*, 2011) who found that 11.5% (n=43) of new fathers were diagnosed as having depression in a study undertaken in Fujian, China. More recently, a study by Lai *et al.* (2015) with 501 new fathers in Beijing, China showed that the prevalence of depression was 11.4% during the period 40 to 60 days postpartum. This result is supported by Luo *et al.* (2017)'s work in Hubei, China that revealed 11.2% (n=22) of men felt depressed when becoming a parent during the same period. Thus, according to these studies, it can be surmised that the prevalence of depression among Chinese new fathers is approximately 11% from the first to second month after birthing. However, a longitudinal research conducted by Y.-P. Zhang *et al.* (2016) revealed different outcomes. Y.-P. Zhang *et al.* (2016) tested 108 new fathers in Shanxi, China at three days, two weeks and six weeks after birthing, and found that the prevalence of depression was 21.1%, 20.4% and 13.6% respectively.

DISCUSSION

Based on the reviewed literature (Table 2), researchers have demonstrated the factors impacting on the transition to fatherhood can be classified into three aspects: personal factors (age, education level and planned pregnancy), environmental factors (gender of the child, partner's mental health and family relationship, pre-and post-natal health education) and occupational factors (paternal leave).

Personal factors

Age: He *et al.* (2015)'s work discovered that younger fathers felt more anxious and nervous, at day one and two following the birth of their child, compared to older fathers. It may be that younger fathers feel less confident than older fathers in looking after their partner and child since generally they earn less money, also they have less life experience as well and less coping mechanisms therefore (Lam *et al.*, 2010).

Education level: Meanwhile, He *et al.* (2015)'s research revealed that compared to men who had a higher education level, men with a lower education level felt more tired and stressed being a new father. Traditional Chinese parents regard their child as prosperity in the family, thus it is expensive to raise a child in China (Liu & Wang, 2015). Fathers who have a lower education level are less likely to be employed, so possibly it is more challenging for them to afford the expenses related to caring for their baby (Koh, Lee, Chan, *et al.*, 2015).

Planned Pregnancy: L.-L. Gao *et al.* (2009)'s study found that, fathers with a planned child had fewer symptoms of depression than those whose child was unplanned. To be a new father, men who desire to have a child usually have made better preparations because they are more socioeconomically stable (Koh, Lee, Chan, *et al.*, 2015). When having an unplanned child, men have to deal with the unexpected expenses, changing roles and responsibilities (X. Zhang, 2012).

Environmental factors

Gender of the child: Based on the reviewed research, compared to new fathers with a son, new fathers who had a daughter were more likely to experience postpartum depression (Y.-P. Zhang *et al.*, 2016; Mao *et al.*, 2011; Lu & Yuan, 2009; L.-L. Gao, S. W.-C. Chan, & Q. Mao, 2009; Mao *et al.*, 2008). Additionally, new fathers who had a daughter felt more anxiety when their parents desired a grandson (Y.-P. Zhang *et al.*, 2016; Mao *et al.*, 2011; Lu & Yuan, 2009). There is a traditional Chinese cultural norm of preferring boys over girls because only male children can continue the family name (B. P. Y. Lai *et al.*, 2010). Also, when the parents age, it is the boys who are responsible for caring for parents. It is because girls are expected to marry and have children to continue their husband's family line, along with taking care of their parents-in-law (Chang *et al.*, 2016). Additionally, the results of pre-2014 research into transitioning to parenthood research from mainland China must be considered in the context of the one-child birth policy on the parents (L. Huang *et al.*, 2015). This policy mandated couples to have one child only, therefore, new fathers with a son, usually felt less stressed or depressed (L.-L. Gao *et al.*, 2009). As a male family member, ceasing the family line, by having a girl child is considered disrespectful of the ancestral line, and brings humiliation to the whole family (Chang *et al.*, 2016).

Partner's mental health and family relationships: Scholars have demonstrated that during the transition to parenthood, if new mothers were diagnosed as having postpartum depression, new fathers were more likely to experience depression as well (Luo *et al.*, 2017; Y.-P. Zhang *et al.*, 2016; L.-L. Gao *et al.*, 2009; Li *et al.*, 2009). Furthermore, when having the symptoms of depression, new fathers perceived a poor family relationship at the same time (Y.-P. Zhang *et al.*, 2016; Lu & Yuan, 2009). To analyse the issues that Chinese new fathers may experience, when compared to non-Chinese new fathers, a traditional Chinese practice of 'doing the month' ('Zuo-yuezi') should be considered. 'Doing the month' is a culturally accepted postpartum care practice for new mothers in China (including Hong Kong, Macau and Taiwan) for the first four to six weeks after birthing (Ngai & Ngu, 2013; Koh *et al.*, 2014). It consists of a structured set of postpartum self-caring behaviours that involve social seclusion (such as totally rest at home instead of attending social activities), dietary modification (such as eat food containing rich vitamin and protein) and protective rituals (such as cannot wash hair in case of getting cold) (Koh, Lee, Chuil, *et al.*, 2015). 'Doing the month' can provide mothers with social support with care normally provided by the woman's mother and mother-in-law and the husband (Liu & Wang, 2015). Following the 'Doing the month' period, traditionally the grandparents are the first choice for childcare (Kwan *et al.*, 2015). As a result, 'doing the month' practices can supply maternal nutrition support and mental health care at the early stage of postpartum, which can help women feel confident to adapt themselves to motherhood (Yu *et al.*, 2017). However, new mothers can experience depression and anxiety during 'doing the month' when conflicts arise with their mother-in-law (Lai *et al.*, 2015; Xu *et al.*, 2014). The mother-in-law has significant power in a Chinese family, therefore, the new mother may feel obliged to follow advice and directions provided by the mother-in-law during 'doing the month' (Lu, 2006). New mothers may feel stressed when they have different views from their mother-in-law regarding some self-care practices such as whether they

can take a bath in the first postpartum month (B. P. Lai *et al.*, 2010). New mothers can speak freely to their mother when coping with existing quarrels, however, they are hesitant to share their true feelings and thoughts with their mother-in-law (Holroyd *et al.*, 2011). Consequently for men, their partner's emotional and mental health, as well as in-law conflicts can lead to distress during 'doing the month' (Ngai & Ngu, 2016). These additional stressors can impact on the development of paternal postpartum depression as new fathers can feel anxious and depressed because they experience internal conflict between their role as an obedient son and their role as a loving husband (Yu *et al.*, 2017).

Pre- and post-natal health education: Compared to new mothers, new fathers attended less prenatal and postnatal health education, which hinders the healthcare professionals ability to examine and treat fathers' mental health issues (Mao *et al.*, 2008; L.-L. Gao *et al.*, 2009; Mao *et al.*, 2011; Xu *et al.*, 2014; Lai *et al.*, 2015). In mainland China, a maternal health education program has been developed and involves three parts (Ministry of Health, 2011): the first part is pre-pregnancy education which women can attend before three months of pregnancy; then during the pregnancy, women can receive the second part called prenatal education consisting of at least five medical consultations; after childbirth, the third part called postnatal education will provide maternal and baby-caring knowledge to protect women and their child from health problems. However, in mainland China, little pre-and post-natal health education is available for men. Thus, despite some new fathers having realised they have mental health issues, it is difficult for them to seek healthcare support services specific to their needs (Y. W. Huang *et al.*, 2018).

Occupational factors: paternal leave: New fathers without paid paternity leave felt more depressed and stressed than those who were provided paid leave (L.-L. Gao *et al.*, 2009). Generally in mainland China, women have five months of paid maternal leave that can assist them to recover from birthing, whereas men only have two weeks of paid leave (Chung *et al.*, 2011). Furthermore, if fathers apply for more leave than regulated, their employers will deduct their salary, as a result, fathers will face greater financial burden for looking after their partner and child (Koh, Lee, Chan, *et al.*, 2015). When not having sufficient paid leave, it is difficult for men to keep a balance between their work and family (Song *et al.*, 2018). Also, they are not able to spare time to receive prenatal and postnatal health education that can help them to adapt to their new role of father (Y. W. Huang *et al.*, 2018).

Limitations and further research

Since the search was limited to research focused on Chinese men living in mainland China, other ethnic populations were not considered (such as Chinese men living in Hong Kong, Macau, Taiwan and other countries). As a result, the findings are limited in that they are not generalizable to all ethnicities. Therefore, further studies on Chinese men living in these regions and others countries are required that explore broader issues that may impact transitioning to fatherhood for Chinese men. Furthermore, there may be other factors that impact the transitioning to fatherhood (such as fathers' physical health) and relevant predictors (such as fathers' history of illness before pregnancy) beyond what this review has found.

Conclusion

According to the reviewed literature, for Chinese men living in mainland China, the factors impacting on transitioning to fatherhood were self-feelings and mental health. Most of new fathers felt proud and confident in having a child (especially having a son). Although one study reported the prevalence of depression at 21.1% amongst Chinese men at three days postpartum and 13.6% during the following six weeks, the general prevalence of depression among Chinese new fathers is 11% during the first two months after childbirth. The difference in these findings may be due to the different cut-off points for outcomes measured. The predictors of new fathers' self-feelings and mental health were their age, education level, planned pregnancy, gender of their child, their partner's mental health status, family relationship status, pre- and post-natal health education, as well as paternal leave provisions. Fathers need health service programs, support and education provided to alleviate the additional stressors that result from the lack of culturally appropriate supports such as 'Doing the month'. Any health service program, support or education provided must be delivered in Chinese and culturally sensitive.

Implications for clinical and political practice: In mainland China, the current perinatal health education and services are restricted by concentrating only on women and children. Healthcare professionals should consider that men be included in the parenting services (Lu & Yuan, 2009). During pregnancy and childbirth, health care professionals should engage with fathers and provide information about supporting their partner and childcare (Lai *et al.*, 2015). When developing perinatal health education, it is important to realise some cultural factors such as in-law conflicts that can impair men's adaptation to fatherhood (Almeida *et al.*, 2015). Thus, stress-coping and problem-solving skills should be added to the health education program to support the fathers' in family relationship dynamics during pregnancy and post-childbirth (Darwin *et al.*, 2017). Policy-makers should provide more paid leave for fathers in China (Xu *et al.*, 2014). If so, fathers will feel less stressed regarding financial issues and have more time to take care of their partner and child (Lai *et al.*, 2015). It is necessary for men to access parental paid leave and spend time with their partner after childbirth because the presence of a well transitioned father is beneficial to their child's growth and development as well as a healthy family unit (Luo *et al.*, 2017).

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