

Brief Introduction of Postnatal Care Guidebooks Abroad and Its Enlightenment to Postpartum Nursing in China

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[Abstract] This paper introduces the latest postnatal care guidebooks of the World Health Organization, the American College of Obstetricians and Gynecologists and the National Institute for Health and Care Excellence, and comparing with the puerperium health management standard in China, the paper puts forward four suggestions to optimize the puerperium health management service in China, including increasing the rate of postpartum interview, expanding the contents of puerperium health management, defining the qualification of puerperium health management practitioners and enhancing the continuity of medical information.

[Key words] Postnatal Care; Guidebooks; Nursing Services; Review

Puerperium refers to the period of time from the delivery of the placenta to the recovery of parturient organs (except mammary gland) to the normal state of non-pregnancy^[1], and mostly refers to 6 to 8 weeks after delivery. During this period, the parturient will have pain, mood fluctuation and other manifestations, and there are risks of infection, bleeding and postpartum depression^[1-2], which need scientific and systematic health care. Postnatal care refers to a series of health care work carried out to promote the health of mothers and infants in a period of time after the birth of a baby, especially during the puerperium, which plays an important role in parturient rehabilitation, infant growth and breastfeeding^[3]. At present, postnatal care in China is mostly carried out in the form of health management, including postpartum visit and physical examination on 42 days after delivery^[4], which has achieved a certain role in promoting mother and newborn health, but there are also some problems, such as the irrational composition of the visiting staff, low satisfaction of the parturient interviewed and so on^[5-8]. The development of postnatal care in the United States, the United Kingdom and other countries is earlier, and the system is more perfect, which has a good reference for the domestic postpartum health management services in China. Therefore, through reviewing the postnatal care guidebooks of these countries and comparing with the postpartum health management standards in China, this paper puts forward some suggestions on puerperium health management services in China, with a view to further optimizing postpartum nursing, improving parturient satisfaction and promoting the health of mother and newborn.

1 Guidebooks for Postnatal Care Abroad

1.1 WHO Recommendations on Postnatalcare of the Mother and Newborn

In October 2013, the World Health Organization (WHO) published the *Recommendations on Postnatalcare of the Mother and Newborn*, aiming to provide reference for practice, training and learning of health care personnel^[9]. This guidebook is aimed at low- and middle-income countries and regions, and is specifically adapted for different environmental applications. The

guidebook provides detailed recommendations on the main forms, timing, frequency and content of health care.

1.1.1 Requirements on the Time and Personnel of Postnatal Care
The puerperium is defined as 6 weeks after delivery in the *Recommendations on Postnatalcare of the Mother and Newborn*. It is recommended that all parturients should be hospitalized for more than 24 hours after delivery and start to receive postnatal care within 24 hours after delivery. After discharge from hospital, all mothers and newborns should be given 4 times of home visits at 24 hours, 3 days, 7-14 days and 6 weeks after delivery respectively. Visitors should be midwives, well-trained community medical personnel or other technical personnel.

1.1.2 Contents of Postnatal Care

For parturient, the health care personnel should assess the physical condition (wound healing, breast condition, etc.), breastfeeding condition, family and social support level, coping strategies, emotional state, whether there are signs of domestic violence, and provide parturient with the guidance on sexual life and contraception, diet and nutrition, post natal physical recovery, physical exercise, baby bathing and dressing, and mother - newborn communication, etc. For infants, the health care personnel should identify the risk signs (stop eating, breathe too fast, body temperature too high or too low, etc.) during the postpartum visit, and guide mothers in the methods of exclusive breastfeeding, umbilical cord care and neonatal care.

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The WHO defines newborn bathing, touching and immunization as the core of neonatal care. The guidebook also places special emphasis on the assessment and management of parturient mental health. Taking postpartum emotional state as a routine evaluation item, the parturient with postpartum depression tendency should be supported and guided by trained personnel. In addition, the guidebook clearly points out that targeted postpartum visit services should be carried out for the parturient with abortion and stillbirth.

1.2 Recommendations for Optimizing Postnatal Care of American College of Obstetricians and Gynecologists

The American College of Obstetricians and Gynecologists (ACOG) issued the *Recommendations for Optimizing Postpartum Health Care* (hereinafter referred to as the *Recommendations*) in June 2016 and updated them in May 2018^[10] to optimize the postnatal care of mother and newborn.

The *Recommendations* are intended to provide guidance for health care personnel, emphasizing that the application of the guidance should be adjusted according to the situation of mother and newborn. It also regards postpartum visit as the main form, and recommends that all levels of medical institutions should be closely connected and cooperated from the beginning of antenatal period, so as to provide comprehensive postnatal care services centered on parturient needs.

1.2.1 Requirements on the Time and Personnel of Postnatal Care

The *Recommendations* recommend that the duration of the puerperium and postpartum visit should be defined according to the situation of the parturient, generally, the parturient should be contacted and evaluated within three weeks after the delivery to solve the early postpartum problems. In the 12 weeks after delivery (mostly 4-6 weeks after delivery), the parturient should receive comprehensive and individualized postpartum visit services.

The postnatal care team is composed of family members, friends, parturient health care workers, baby health care workers, lactation consultants, coordinators, postpartum visitors and other professional consultants, among which the parturient health care workers are gynecologists, certified nurses or midwives, family doctors or women's health practitioners. Infant health workers are pediatricians, family doctors and pediatric nurses.

1.2.2 Contents of Postnatal Care

The *Recommendations* suggest that comprehensive evaluation should be made on the physiological, psychological and social adaptation of the parturient. It mainly includes seven aspects. ① Emotion and feeling: adopt professional postpartum depression screening tools to evaluate the parturient mood; provide relevant guidance on the use of local medical resources; identify smoking parturient, monitor the use of tobacco; identify drug dependent parturient and timely referral; monitor the parturient with psychological disorders before delivery and give them timely medication. ② Infant feeding and health care: evaluate the effectiveness of child-rearing, including infant feeding, parenting strategies after returning to work, accessibility of infant medical homes and immunization status of caregivers; assess the effectiveness of feeding, including breastfeeding related pain, breastfeeding methods after returning to work, and contraceptive measures during breastfeeding; assess material needs, such as housing, utilities, food and diapers, and refer resources as needed. ③ Contraception and childbirth: provide sexual life-related guidance; inquire about the future pregnancy plan; inform and explain that the interval of the second pregnancy should be more than 6 months; guide the parturient to prevent the possible complications of the next pregnancy, such as placenta previa; recommend contraceptive methods according to the living habits of the parturient. ④ Sleep and fatigue: formulate the response plan of postpartum fatigue and sleep interruption; and mobilize

the support of family and social. ⑤ Postpartum physical recovery: evaluate the wound healing of delivery, provide guidance for wound recovery; ask if there is incontinence of urine and stool, and give referral advice; provide guidance for physical strength and weight recovery. ⑥ Chronic disease management: discuss the impact of pregnancy complications on future childbirth and long-term health of parturient; monitor the blood glucose of parturient with gestational diabetes; inquire about the use of drugs in pregnancy, and consider the use of drugs in lactation; ask primary or specialized medical and health care personnel to provide follow-up guidance. ⑦ Health maintenance: review the history of parturient immunization, make an immunization plan, and carry out cervical exfoliated cell smear screening and pelvic screening. Specific guidance should be provided for the parturients with special conditions. Postpartum visits should be arranged as soon as possible to ensure that parturient with diabetes, hypertension, changes in thyroid function and other diseases have access to continuous health care services. For the parturient with abortion, stillbirth and newborn death, the medical staff should provide spiritual support and bereavement consultation, find out the reasons for the failure of this pregnancy, predict the risk of recurrence and make plans for the next pregnancy.

1.3 Guidebook on Postnatalcare in Postpartum 8 Weeks of National Institute for Health and Clinical Excellence

In 2014, the National Institute for Health and Clinical Excellence (NICE) updated the *Guidebook on Postnatalcare in Postpartum 8 Weeks*^[11]. The guidebook, first published in 2006, aims to determine the routine health care for mothers and newborns within 6-8 weeks after delivery based on the best available evidence. The guidebook, which is structured around mother and newborn health, not only involves the content of mother and newborn postnatal care, but also includes the management of common or serious problems of breastfeeding and puerperium, the application tools and guidance attached with the guidebook are clear, comprehensive and easy to practice^[12].

1.3.1 Requirements on the Time and Personnel of Postnatal Care

In the guidebook, the puerperium is defined as 6-8 weeks after delivery, and special mothers and newborns should be prolonged. It is recommended that postnatal care should be carried out as early as possible, preferably from the beginning of pregnancy or postpartum, and the specific time should be determined according to the wishes of the parturients. The persons in charge of postnatal care recommended in the guidebook should have the ability of physical examination, recognition of abnormal symptoms of mother and newborn, breastfeeding guidance, recognition of domestic violence and signs of child abuse.

1.3.2 Contents of Postnatal Care

The guidebook recommends that the contents of postnatal care should follow the principles of individuation, comprehensiveness and continuity. ① Individuation: The health plan should be formulated together with the parturient, and the choice of health care measures should respect the needs and wishes of the parturient. ② Comprehensiveness: It is necessary to assess the health status of the mother and newborn, answer the parturient questions in detail, inquire about the family, physical, mental, social and emotional status of the parturient, and make follow-up plans at every time when contacting with the parturient. ③ Continuity: The medical staff of the delivery hospital should use the mother and newborn health records to hand over to the health care personnel. The health care personnel should record the parturient health status, infant health status and postpartum nursing plan in detail to ensure the continuity of postnatal care. Try to ensure that every parturient has a fixed and responsible health care personnel to cope with the different needs of mother and newborn. Health care personnel shall give health guidance to the parturient, evaluate their physical and mental health status, recognize their signs of disease and domestic violence, and

evaluate their infant feeding, parent-child attachment, growth and development at every contact with the puerperium mother and newborn. In addition, the guidebook also describes in detail the measures to deal with the possible complications of puerperium women and the methods to monitor the health status during infant feeding, growth and development.

2 China Maternal Health Management Service Specification

In 2009, the former National Health and Family Planning Commission of PRC issued the *National Basic Public Health Service Regulations (Third Edition)* [4], which was updated in 2011 and 2017. Among them, the *Maternal Health Management Service Specification* (hereinafter referred to as "specification") introduces the health management service for puerperium women.

2.1 Requirements on the Time and Personnel of Postnatal Care

The *Specification* stipulates that postpartum health management services include postpartum visit and 42 days postpartum reexamination, the parturient should receive a family visit within 7 days after delivery, and return to the delivery hospital for reexamination at 42 days after delivery. Health management personnel should obtain appropriate qualifications and receive professional and technical training in maternal health care.

2.2 Contents of Postnatal Care

For parturient, general conditions, blood pressure, breast, lochia, uterus and wound recovery should be assessed, and problems such as breastfeeding difficulties, postpartum constipation, hemorrhoids, perineal or abdominal wounds should be addressed. Identify puerperium complications, such as puerperal infection, late postpartum hemorrhage, and timely referral. For infants, health management personnel should inquire about the general situation, vaccination and screening of congenital diseases of infants, with emphasis on infant feeding, sleep, defecation, jaundice, umbilical conditions, oral development and other conditions, and carry out physical examination of infants. Observe the home environment and guide the parturient to carry out newborn care and breast-feeding.

3 Inspiration to Puerperium Health Management in China

The three guidebooks of WHO, ACOG and NICE all emphasize that postnatal care should follow the principle of comprehensive and individualized. The guidebooks of WHO and ACOG focus on routine mother and newborn health care after delivery, while NICE focuses on the management of common mother and newborn diseases and health problems during puerperium. The WHO guidebook recommends four visits, and the ACOG and NICE guidebooks recommend that the visit time be based on the postpartum situation of mother and newborn; for health care personnel, WHO and ACOG guidebooks require postpartum visits to be undertaken by professionals such as midwives, practising nurses and obstetricians, while NICE guidebook specify the competencies of postnatal care personnel. The three guidebooks are of great significance to the puerperium health management service in China. Therefore, based on the situation in China, the following suggestions are put forward.

3.1 Increase the Frequency of Postpartum Visit

WHO recommends that the time of postpartum visit should be 24 hours (only for those out of hospital delivery), 3 days, 7-14 days and 6 weeks after delivery [9]. However, according to the *Specification*, the time of puerperium health management in China is that a home visit within 7 days after discharge from the hospital and a return visit to the hospital at 42 days after delivery, there is still a gap in the frequency. At present, hospital delivery has been popularized in China, and most of the parturient can get professional help and guidance 24 hours after delivery without visiting [13]. However, due to the influence of traditional culture, the parturient in our country should "sitting the month" after delivery, during which they will be taken care of by their family members or their postpartum doula. At 30 days after deliver, when the parturient "finish sitting the month", she began to undertake

independent care tasks, and it is not known whether her self-care and baby care skills meet the needs. Moreover, research [14] shows that 30 days after delivery is the high incidence period of parturient depression. Therefore, it is suggested that a family visit should be added about 30 days after delivery to evaluate the effectiveness and emotional state of parturient and provide professional guidance.

3.2 Expand the Contents of Puerperium Health Management

Foreign guidebooks all emphasize the importance of psychological care for puerperium women, while China's domestic puerperium health management service focuses on the health of mother and newborn, and pays less attention to parturient mental health [15]. In 2017, Yan et al. [16] showed that the prevalence of postpartum depression in China was as high as 29.4%. Most of the parturients in our country live with their elders after delivery and are taken care of by them [17]. Parturients who live with their elders are more likely to suffer from postpartum depression [18] due to differences in parenting beliefs and a lack of effective communication. Therefore, screening and guidance of postpartum depression should be increased in puerperium health management of China. In addition, the *Recommendations on Postnatalcare of the Mother and Newborn* and the *Opinions on Optimizing Postnatal Care* both recommend the health management of abortion and stillbirth. Studies [19] have shown that the stillbirth rate in China is 8.8 %, and the number of induced abortions per year is over 13 million. Stillbirth or termination of pregnancy will lead to bad emotions such as shame and affect parturient health [20]. Medical staff should pay attention to the health status of this population, strengthen its health management, and include the parturient of abortion and stillbirth into the health management population.

3.3 Clarify the Admittance Qualification of the Domestic Practitioners of Puerperium Health Management

The above guidebooks all point out the requirements for postnatal care personnel, and NICE guidebook is more clear about the ability requirements of postnatal care personnel. However, at present, China's *Specification* only mentions "obtaining the appropriate qualifications and receiving professional technical training in parturient health care" for puerperium health management personnel, but it does not clearly state the access qualification of the health management practitioners, which leads to the uneven educational background and ability of the health management personnel and affects the quality of puerperium health management [21-23]. Therefore, it is necessary to make clear the qualification requirements of the domestic practitioners of puerperium health management, improve the quality of health management, and play the most important role of health management.

3.4 Enhance the Continuity of Medical Information

The community is responsible for the management of the parturient after discharge in China. The medical staff in the community understand the situation of parturient before and during delivery through the *Mother and Newborn Health Records*. Due to the lack of hospital inspection, treatment and other detailed records in the *Mother and Newborn Health Records*, as well as the non-standard records and other reasons, the information communication between the hospital and the community is insufficient, the community medical staff is difficult to fully grasp the situation of the parturient to implement targeted continuous management, and the puerperium mother and newborn health management service appears fault. Continuous postpartum health management plays an important role in improving mother and newborn health and parturient satisfaction [24-25]. The guidebooks of WHO, ACOG and NICE are all emphasize the importance of continuing management. The continuation of medical services shall be based on the continuation of medical information [26]. Therefore, the continuity of women's health information in

perinatal women should be enhanced. On the one hand, the system of special person in charge of mother and newborn shall be implemented, and the special person shall be responsible for the connection and communication between the hospital and the community. At the same time, the contents of various record forms during pregnancy and childbirth shall be supplemented, and the detailed data of diagnosis and treatment shall be added, so as to increase the information of mother and newborn that can be mastered by the community medical staff. On the other hand, data sharing between hospitals and communities should be implemented, and a data sharing platform should be established to enable the community or hospital to fully and timely grasp the mother and newborn health conditions, conduct targeted health management, and improve management quality.

4 Summary

In summary, the development of postnatal care abroad is more comprehensive, which can provide reference for optimizing health management services during the puerperium in China. Using these guidebooks for reference, the domestic puerperium health management service can be optimized and improved from the following four aspects: increasing the rate of postpartum visit, expanding the contents of puerperium health management, defining the qualification of puerperium health management practitioners and enhancing the continuity of medical information. In addition, as the service object and service provider of puerperium health management, the medical staff of both mother and newborn as well as the community should take their opinions into consideration to optimize puerperium health management services. In the later study, the medical staff of both mother and newborn as well as the community can be taken as the research objects to verify the applicability and operability of the above optimization suggestions.

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