

Observations on the Effectiveness of Internet+ Nursing Practice in Promoting Exclusive Breastfeeding

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Abstract: *Objective:* To analyze the effect of Internet+ nursing practice to promote exclusive breastfeeding. *Methods:* 60 new mothers were selected from our hospital between February 2021 and February 2022, randomly divided into two groups, the control group and the observation group. Conventional care was given to the control group and the Internet+ care was given to the observation group. The healing of perineal wounds, breastfeeding rate as well as the nursing satisfaction of both groups were compared with each other. *Results:* The perineal wound healing rate was 100.00% in the observation group and 83.33% in the control group, the healing rate was higher in the observation group ($P < 0.05$). 80.00%, with higher nursing satisfaction in the observation group ($P < 0.05$). *Conclusion:* Internet+ nursing guidance during the perinatal care of mothers can improve the success rate of breastfeeding and achieve higher nursing satisfaction.

Keywords: Internet+ nursing; Exclusive breastfeeding; Nursing outcomes

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1. Introduction

After the birth of a newborn, the ideal method is breastfeeding, which helps to meet the needs of productive development. At present, breastfeeding is advocated in various countries, and newborns from 0-6 months are fed only breast milk, which cannot be replaced by other complementary foods, although they can be supplemented with appropriate fat-soluble vitamins, such as vitamin D and vitamin K [1-4]. In actual situations of breastfeeding, the postnatal recovery is affected by many factors, many mothers are unable to breastfeed successfully after delivery and the overall breastfeeding rate is not high. Because of this, exclusive breastfeeding has received high attention [5-6]. In order to promote exclusive breastfeeding, good nursing care is needed. Internet+ nursing practice helps in encouraging exclusive breastfeeding. In this study, 60 new mothers were selected and different nursing practices were performed on them, with the following results.

2. Materials and methods

2.1. General Information

60 mothers were selected from Shaanxi Provincial People's Hospital between February 2021 and February 2022 and were randomly divided into two groups. The control group having a maternal age of 21-35 years with a mean of (27.31 ± 1.79) pairs. In the observation group, the maternal age ranged from 22-36 years, with a mean of (27.25 ± 1.30) years. There was no statistical significance in comparing the maternal and

infant data of the two groups ($P > 0.05$).

2.2. Methods

The control group adopts conventional nursing methods, and the observation group applies will Internet+ nursing services on the basis of conventional nursing, the content is as follows: (1) Form a health education group. The head nurse will be the leader of the group and will be responsible for the unified deployment of health education work, while other nursing staff will establish a WeChat group to implement health education. (2) Produce “317 nursing” pushing courseware, and produce corresponding health education manuals and videos from prenatal, perinatal and postnatal periods, and apply them to obstetric nursing work to guide breastfeeding. (3) Use the courseware in combination with internet software to spread knowledge about exclusive breastfeeding to mothers, and conduct health education in a face-to-face manner after patients are admitted to the hospital. This is done by firstly providing health education to mothers according to the relevant contents of the health education manual, explaining preparations for labor and breastfeeding to any relevant content about ensuring a smooth delivery [7-9]. After delivery, when the patient enters the labor ward, nursing staff should carry out postnatal health education, guide the mother on breastfeeding techniques and provide relevant health education through software. Secondly is the outcome assessment where questions are asked of the patient in relation to breastfeeding, allowing the patient to talk about what they have learned and demonstrate breastfeeding positions as well as milking techniques. The third step is to correct any errors that the patient makes. If the patient demonstrates an incorrect posture, correct the patient so that the patient can master the correct movements, and the nursing staff should allow the mother repeat the exercise and then evaluate her learnings. Lastly is to ensure that the mother has mastered every aspect that are required. After it is clear that the mother has mastered the relevant health education content, she should be urged to adhere to breastfeeding. When the mother is discharged from hospital, information can be obtained through the “Cloud Follow-up” or telephone follow-ups can be made [10].

2.3. Effectiveness observation

The healing of the patients’ perineal wounds were observed: Grade A healing—good wound healing without local infection; Grade B healing— inflammation in the wound; Grade C healing— local abscess in the wound, requiring local debridement and drainage. The rate of exclusive breastfeeding was calculated and satisfaction with care was investigated.

2.4. Statistical methods

The results and data were statistically analyzed using SPSS software version 20.0, with percentages expressed in the form of (%) and chi-squared values used to test the count data [n (%)], with $P < 0.05$ indicating the presence of statistical significance.

3. Results

3.1. Perineal wound healing in both groups

The perineal wound healing rate was 100.00% in the observation group and 83.33% in the control group, with a higher healing rate in the observation group ($P < 0.05$), as shown in **Table 1**.

Table 1. Comparison of perineal wound healing rates between the two groups [n (%)].

Group	Number	Grade A Healing	Grade B Healing	Grade C Healing	Healing Rate
Observation group	30	30	0	0	30 (100.00)
Control group	30	25	4	1	25 (83.33)
χ^2					5.455
P-value					0.02

3.2. Comparison of the success rate of exclusive breastfeeding between the two groups

The success rate of exclusive breastfeeding was 60.00% in the observation group and 33.33% in the control group. The success rate of exclusive breastfeeding was higher in the observation group ($P < 0.05$), as detailed in **Table 2**.

Table 2. Comparison of the success rate of exclusive breastfeeding in the two groups [n (%)].

Group	Number	Breastfeeding	Mixed feeding	Success rate
Observation group	30	18	12	18 (60.00)
Control group	30	10	20	10 (33.33)
χ^2				4.2857
P-value				0.038

3.3. Comparing maternity care satisfaction between the two groups

Nursing satisfaction was 100.00% in the observation group and 80.00% in the control group, with higher satisfaction in the observation group ($P < 0.05$), as detailed in **Table 3**.

Table 3. Comparison of maternal care satisfaction between the two groups [n (%)].

Group	Number	Very satisfied	Satisfied	Unsatisfied	Overall satisfaction
Observation group	30	28	12	0	30 (100.0)
Control group	30	11	13	6	24 (80.00)
χ^2					6.6667
P-value					0.010

4. Discussion

Breast milk is more nutritious and can meet the growth needs of the newborn, so postnatal breastfeeding is vital. To promote breastfeeding, clinical care is needed. However, conventional care can only provide general services and is not comprehensive enough to guide the mother and provide limited care for the newborn, which is not significant enough to promote exclusive breastfeeding^[11-12]. In the "Internet+" care model, it is possible to provide continuity of care for mothers and newborns, with guidance and assistance from the hospital to the family, and this care model can also maintain a good interchangeable relationship, especially in the years when the technology of perinatal care services is constantly improving, for the "Internet+" model of care is on the rise^[13-14]. With the application of this model, nursing staff are able to implement an integrated approach to patient management, grasping all aspects of maternal and neonatal

conditions in a comprehensive manner, allowing for more targeted nursing care, which can significantly improve nursing satisfaction [15-18]. Nursing staff are able to self-manage and improve their professional knowledge and service. By actively communicating with patients to provide health education, knowledge can be imparted to mothers so that they can master the right way of taking care of their newborns. In this way, the quality of obstetric care can also be greatly improved, further enhancing the reputation of the hospital [4]. The follow-up visits allowed for information on perineal wound healing and breastfeeding, and the nursing staff were able to provide personalized guidance. In this way, maternal health behaviors could be regulated and complications related to the puerperium could be prevented, thus enhancing the quality of care [19-22].

In this study, the perineal wound healing rate was 100.00% in the observation group and 83.33% in the control group, with a higher healing rate in the observation group ($P < 0.05$), the success rate of breastfeeding was 60.00% in the observation group and 33.33% in the control group, with a higher success rate of breastfeeding in the observation group ($P < 0.05$), and the satisfaction rate of nursing care was 100.00% in the observation group and 80.00%, the observation group had higher nursing satisfaction ($P < 0.05$).

5. Conclusion

In conclusion, results show that Internet+ nursing practice in maternity care can promote exclusive breastfeeding as well as help in perineal healing, and enhance nursing satisfaction.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Liu XZ, Huang SY, Long PH, et al., 2021, Effectiveness of the Application of Internet+ Nursing Diversified Services to Promote Exclusive Breastfeeding Under Medical Group Management. *Chinese Contemporary Medicine*, 28(19): 267–269 + 273.
- [2] Jia L, 2021, The Effect of “Internet+” Postpartum Extended Care Service Model on the Knowledge And Belief Behavior of Puerperal Breastfeeding Among Primiparous Mothers. *Chinese and Foreign Women's Health Research*, 2021(24):3–4 + 7
- [3] Zhang J, Shi X, Zheng Y, et al., 2022, Practice and Evaluation of the Internet+ Home Postnatal Care Service Mode. *Nursing Research*, 36(3): 507–510.
- [4] Du M, Nie X, Ouyang Y, 2018, Meta-Analysis of the Impact of an Internet+-based Intervention Model on Breastfeeding Outcomes. *Journal of PLA Nursing*, 35(21): 32–37.
- [5] Li M, Li B, Zhong Y, 2022, Study on the Impact of Hospital Community Linkage Applying Internet+ to Promote Biological Parenting Method on Maternal Breastfeeding. *Health Care*, 2022(1): 279–281.
- [6] Chi C-X, Tan B-Q, Zeng J-F, et al., 2021, Effect of Family Participation in the Use of Internet+ for Continuity of Care on the Growth and Development of Preterm Infants and Family Satisfaction. *Journal of Qilu Nursing*, 27(21): 46–49.
- [7] Xu XL, Xie H, Qian YY, et al., 2021, Application of Multidisciplinary Collaboration + Internet in Mother-Infant Continuity of Care. *China Rural Medicine*, 20(20): 77–78.
- [8] Guo J, Li Z, Li X, et al., 2021, Effectiveness of an Internet-based Quality Care Improvement Project in Health Education for Primiparous Mothers. *General Practice Nursing*, 19(3):367–370.
- [9] Xiao Y, 2021, Effect of a Total Quality Care Model on Maternal Breastfeeding Skills and Exclusive

Breastfeeding After Delivery. *Dietary Health*, 2021(25): 225.

- [10] Wang L, 2021, Analysis of the Impact of Continuity of Care on Postpartum Exclusive Breastfeeding. *Mother and Baby World*, 2021(6): 198.
- [11] Li B, Liu L, 2021, The Impact of Extended Care Services Under the Network Platform on the Postpartum Exclusive Breastfeeding Rate of Primiparous Mothers with Natural Delivery. *Heilongjiang Medicine*, 45(8): 885–886.
- [12] Hu H, Huang XL, 2021, Effect of Extended Exclusive Breastfeeding Nursing Intervention Combined with Psychological Care on Maternal Outcomes. *Mother And Baby World*, 2021(13): 144.
- [13] Lu K, 2021, Investigation of the Reasons Affecting Exclusive Breastfeeding of Newborns and Nursing Countermeasures. *The Family has a Pregnant Baby*, 3(11): 17.
- [14] Yang Y, 2021, The Effect of a Total Quality Care Model on Postpartum Breastfeeding Skills and Exclusive Breastfeeding. *Mother and Child World*, 2021(5): 203.
- [15] Yang W, 2021, Exclusive Breastfeeding Care After Cesarean Delivery and the Effect of Implementation. *Special Health*, 2021(19):211.
- [16] Liu Y, 2020, Effect of a Total Quality Care Model on Maternal Breastfeeding Skills and Exclusive Breastfeeding After Delivery. *Health Perspectives*, 2020(1): 8.
- [17] Zhang M, 2021, Analysis of the Impact of Systematic Care on Exclusive Postpartum Breastfeeding. *Health Care Guide*, 2021(30): 126.
- [18] Wen Y, 2020, Effect of Family Participatory Care Intervention on The Rate of Exclusive Breastfeeding and Role Transition Adaptation After Cesarean Section in Primiparous Women. *Clinical Research*, 28(2): 174–175.
- [19] Wang L, 2020, Effect of a Total Quality Care Model on Maternal Breastfeeding Skills and Exclusive Breastfeeding After Delivery. *China Medical Guide*, 18(7): 28–29.
- [20] Huo YF, Liu YM, 2020, Impact of Extended Care Services on the Mobile Phone App Platform on the Rate of Exclusive Breastfeeding After Cesarean Delivery in Primiparous Women. *Clinical Medicine Research and Practice*, 5(1): 189–190.
- [21] Ma P, 2020, Effect of Early Mother-infant Skin-to-skin Contact Combined with Continuity of Care on Exclusive Postpartum Breastfeeding. *Medical Food Therapy and Health*, 18(14): 167–168.
- [22] Cui H, 2020, The Impact of Extended Care on an Online Interactive Platform on the Rate of Exclusive Breastfeeding and Quality of Life of Women in The Puerperium. *Capital Food and Medicine*, 27(3): 166.

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