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# Assessing the Influence of the New Advanced Nursing Role Services on Postpartum Women

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## To cite this article:

Wenchan Feng, Xinke Huang, Linping Huang. Assessing the Influence of the New Advanced Nursing Role Services on Postpartum Women *Journal of Gynecology and Obstetrics*. Vol. 8, No. 2, 2020, pp. 48-50. doi: 10.11648/j.jgo.20200802.14

**Received:** March 18, 2020; **Accepted:** April 8, 2020; **Published:** April 23, 2020

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**Abstract:** Objective: To assess the influence of the new advanced nursing role services on postpartum women. Methods: 162 patients to join our study, who undergoing spontaneous labor or cesarean in the First Affiliated Hospital of Jinan University. Their time of spontaneous labor or cesarean is from February 2017 to January 2020. They were randomly assigned to the control group (n=81) and an intervention group (n=81), that control group receive traditional nursing services and intervention group receive the new advanced nursing role services. Our researchers collect the data from participants by Self-Rating Anxiety Scale (SAS), Self-rating depression scale (SDS) and the questionnaire which patients reported access to supportive care resources, the data include supportive care resources status, satisfaction status, anxiety status and depression status. Result: In supportive care resources report, more patients of intervention group think their receive nursing service from the health care provider outside office time [44 (54.3%) vs 56 (69.1%)]. In satisfaction report, intervention group had more assessing of very well than that of control group (n=67 vs n=44). In Self-Rating Anxiety Scale, Self-rating depression scale, the intervention group had greater improvement in anxiety status than that of control group (from 62.4±7.7 to 51.8±6.1 vs from 63.4±7.2 to 57.4±6.9). Conclusion: The new advanced nursing role services provide great improvement of mental health in postpartum. However, the new advanced nursing role services need more expensive cost, but most Chinese patients are not able to afford this new nursing services.

**Keywords:** New Advanced Nursing Role, Postpartum Women, Mental Health

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## 1. Introduction

Pregnant women are known as high-risk populations to infectious disease including foodborne illnesses. Significant physiological changes, both immunological and hormonal, occur during pregnancy to accommodate developing fetuses [1]. Base on some reports, sleep disturbance is quite common in pregnant women. About 76% of pregnant women experienced poor sleep quality throughout all trimesters, and 57.3% of pregnant women experience subthreshold insomnia throughout all trimesters [2, 3]. In addition, different feelings emerge during pregnancy, mainly those related to expectations about the type of delivery to be performed and the changes that will occur after childbirth in the life of the whole family [4, 5].

Pregnant women's expectations may be related to feelings of fear, anxiety and insecurity, worries and fantasies, not only about the type and duration of delivery, but also about other aspects of maternity, such as the expectations of the idealized baby and breastfeeding [6, 7].

In a health care system that other professionals hold the base of power, Keyzer believed that Australian nurses with access to tertiary education have increased self-esteem, are no longer content with a lack of autonomy and are seeking to expand their roles to provide cost effective services [8, 9]. The new advanced nursing role services programmes emerged because of the need for countries to improve access to quality and cost-effective healthcare services [10, 11]. The Aim of our study is evaluating the influence of the new advanced nursing role services on postpartum women.

## 2. Methods

### 2.1. Participants Enrollment and Survey Methods

We invited 162 patients to join our study, who undergoing spontaneous labor or cesarean in the First Affiliated Hospital of Jinan University. Their time of spontaneous labor or cesarean is from February 2017 to January 2020. All participants were randomly assigned to the control group (n=81) and an intervention group (n=81). The different two groups receive different nursing services after childbirth. On the one hand, control group receive traditional nursing services after childbirth, the traditional nursing services was built from past hospital rule. On another hand, the intervention group receive the new advanced nursing role services. All participants provide their information to us, the information included supportive care resources status, satisfaction status, anxiety status and depression status. Additionally, we collected data using the following questionnaires: Self-Rating Anxiety Scale (SAS), Self-rating depression scale (SDS) and the questionnaire which patients reported access to supportive care resources [12, 13].

Their inclusion criteria were: (1) The patient successfully

complete the childbirth; (2) Patients volunteered to participate in follow-up; (3) They did not suffer from severe postpartum complications. Their withdraw criteria were: (1) The patient was hospitalized at another medical facility after childbirth; (2) Poor mental health.

### 2.2. Statistical Analysis

Our data analyzer performed the statistical analysis by SPSS 22.0. The P value, t-test and chi-square test were associated with collection result were analyzed. Besides, the mean standard deviation for statistical description.

## 3. Result

The Table 1 shown the assessing is associated with supportive care resources, the assessing from patient report. The result included 4 domains, that the patients need to answer 4 questions in this research. Base on Table 1, only the result of second question had a lot of gap, which is 'Did you get information about how to contact the health care provider outside office time?' [44 (54.3%) vs 56 (69.1%)].

Table 1. Patients reported access to supportive care resources, n (%).

Projects	How do you experience the access to contact nurse when you needed one? <sup>a</sup>	Did you get information about how to contact the health care provider outside office time? <sup>b</sup>	Did you get the support you wanted in your parental role? <sup>b</sup>	Do you know why you had a referral to palliative care? <sup>b</sup>
Control Group (n=81)	68 (84.0%)	44 (54.3%)	17 (21.0%)	66 (81.5%)
Intervention Group (n=81)	71 (87.7%)	56 (69.1%)	19 (23.5%)	72 (88.9%)
P-value	0.451	0.027	0.774	< 0.001

<sup>a</sup>Very good and Good.

<sup>b</sup>Yes.

In Table 2, most patients think their satisfaction is very well level, and satisfaction rates of two groups are 95.1% and 87.7%. Only few patient reports are another level in the result.

In between intervention group and control group, intervention group had more assessing of very well than that of control group (n=67 vs n=44).

Table 2. Patient satisfaction [n (%)].

Projects	Satisfaction rate	Very well	good	normal	Bad
Intervention group (n=81)	77 (95.1%)*	67*	6	5	3*
Control group (n=81)	71 (87.7%)	44	7	11	9

\*P < 0.05.

The Table 3 shown the mental health of patient in the result. The total patients had the improvement after nursing services. Furthermore, the intervention group had greater improvement in anxiety status than that of control group (from 62.4±7.7 to 51.8±6.1 vs from 63.4±7.2 to 57.4±6.9).

Table 3. The score of anxiety and depression from SDS and SAS (Mean ± SD).

Projects	Cases	SAS	SDS	
Intervention group (n=81)	BN	81	62.4±7.7	58.4±7.3
	FN	81	51.8±6.1	50.5±5.7
Control group (n=81)	BN	81	63.4±7.2	61.8±6.2
	FN	81	57.4±6.9	51.5±6.9

BN=before the nursing.

FN=after the nursing.

## 4. Discussion

The postpartum period is a special, though often challenging, time for a mother and her new family as significant physical, psychological and social changes occur [14]. Although serious postpartum medical problems, such as haemorrhage, thromboembolic disease, infection and eclampsia are well described, many other medical and behavioral issues are not acknowledged. Additionally, many of these maternal and infant issues are under recognised, under reported and inappropriately managed, leading to suboptimal health for the mother/infant dyad and additional expenditure for overburdened health systems [15]. Hospital postpartum care has become more important. Its main goals are to: provide a safety net for important postpartum conditions; to

identify and manage other physical or mental health problems; to build maternal confidence in parenting skills and to support breastfeeding, thereby increasing family well-being and satisfaction [16]. Base on some reports, different models of care resulted in maternal satisfaction, differing hospital readmission rates and changes in the use of primary care services [17]. In 2018, Chinese governments and health services in many countries are increasing the amount of money spent to facilitate hospital health professional contact for postpartum women, regardless of need or length of hospital stay [18].

Base on the above survey data, the new advanced nursing role services provide great improvement of mental health in postpartum. In particular, the patients think they receive more supportive care resources than before and the patient's anxiety status has significant improvement in intervention group patients. In supportive care resources report, more patients of intervention group think they receive nursing service from the health care provider outside office time, because our health care provider provide a small amount of outside office time to service to patient in the new advanced nursing role services. The traditional nursing services only relies solely on health care provider's autonomy to provide care in outside office time. In satisfaction result, the most assessment of intervention group focus on very well level. On the other hand, the most assessment of intervention group focus on good level. So the intervention group has better assessment in patient satisfaction result, it indicate the new advanced nursing role services provide more satisfying service to patients. In research of anxiety and depression, the improvements of control group and intervention group are similar, there is not much difference between them. In anxiety research, intervention group has better performance after nursing services, in spite of control group also has improvement in result. In limit, the new advanced nursing role services need more expensive cost, but most Chinese patients are not able to afford this new nursing services.

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