

The effect of Home Visit during the first six weeks of postpartum on the quality of life of primiparous women referred to Shiraz health centers of Shiraz University of Medical Sciences

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The effect of Home Visit during the first six weeks of postpartum on the quality of life of primiparous women referred to Shiraz health centers of Shiraz University of Medical Sciences

Abstract

Objective. To evaluate the effect of home visitation programs during the first six weeks of postpartum on the quality of life of primiparous women. **Methodology.** Controlled clinical trial. The 52 primiparous women who were referred to healthcare centers of the University of Shiraz (Iran) were randomly assigned to either an intervention group (n = 26) or a control group (n = 26). An instrument was applied including demographic information and the Specific Postnatal Quality of Life (SPQOL) scale (30 items with Likert-type response options ranging from 0 to 4, the higher the score the better the quality of life). The intervention conducted during the first six weeks of postpartum consisted of an educational program developed during four sessions from 30 minutes to one hour, dealing with topics of nutrition, physical support, ways of having appropriate relations with the spouse, and exercises for the postpartum. During weeks 0 and 6, the SPQOL was applied in both study groups. **Results.** Both groups were similar regarding the socio-demographic variables. The difference between SPQOL scores from the first and second evaluations was 39.6 in the intervention group versus 6.2 in the control group (p < 0.001). **Conclusion.** The results from this study indicate that the home visitation program was related to improved quality of life of primiparous women during the first six weeks of postpartum.

Key words: home visit; quality of life; parity; postpartum period.

Efecto de la visita domiciliaria en las seis primeras semanas de postparto en la calidad de vida de las mujeres primíparas

Resumen

Objetivo. Evaluar el efecto de la visita domiciliaria en las seis primeras semanas de postparto en la calidad de vida de mujeres

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primíparas. **Metodología.** Ensayo clínico controlado. Las 52 mujeres primíparas remitidas a los centros de salud de la Universidad de Shiraz (Irán) fueron asignadas en forma aleatoria al grupo de intervención (n=26) o al de control (n=26). Se aplicó un instrumento que incluía información demográfica y la escala Specific Postnatal Quality of Life –SPQOL- (30 ítems con opciones de respuesta tipo Lickert que van de 0 a 4, a mayor puntaje mayor calidad de vida). La intervención fue realizada durante las primeras seis semanas de posparto, la cual consistió en un programa educativo desarrollado en cuatro sesiones, de 30 minutos a una hora, en el que se trataron los temas de nutrición, apoyo físico, forma de tener una apropiada relación con su cónyuge y ejercicios para el posparto. En las semanas 0 y 6 se aplicó la SPQOL en los dos grupos de estudio. **Resultados.** Ambos grupos fueron similares con respecto a las variables sociodemográficas. La diferencia entre los puntajes de SPQOL de la primera y segunda evaluación fue 39.6 en el grupo de intervención versus 6.2 en el grupo control ($p < 0.001$). **Conclusion.** Los resultados de este estudio indican que el programa de visita domiciliar se relacionó con la mejoría en la calidad de vida de las mujeres primíparas en las primeras seis semanas de posparto.

Palabras clave: visita domiciliar; calidad de vida, paridad; periodo de posparto.

Efeito da visita domiciliar nas seis primeiras semanas de pós-parto na qualidade de vida das mulheres primíparas

Resumo

Objetivo. Avaliar o efeito da visita domiciliar nas seis primeiras semanas de pós-parto na qualidade de vida de mulheres primíparas. **Metodologia.** Ensaio clínico controlado. As 52 mulheres primíparas que foram remetidas aos centros de saúde da Universidade de Shiraz (Irã) foram atribuídas em forma aleatória ao grupo de intervenção (n=26) ou ao de controle (n=26). Aplicou-se um instrumento que incluía informação demográfica e a escala Specific Postnatal Quality of Life –SPQOL- (30 itens com opções de resposta tipo Lickert que vão de 0 a 4, a maior pontuação maior qualidade de vida). A intervenção foi realizada durante as primeiras seis semanas de pós-parto; consistiu num programa educativo desenvolvido em quatro sessões de 30 minutos a uma hora, no que se trataram os temas de nutrição, apoio físico, forma de ter uma apropriada relação com o esposo e exercícios para o pós-parto. Nas semanas 0 e 6 se aplicou a SPQOL nos dois grupos de estudo. **Resultados.** Ambos grupos foram similares com respeito às variáveis sócio-demográficas. A diferença entre as pontuações de SPQOL da primeira e segunda avaliação foi 39.6 no grupo de intervenção contra 6.2 no grupo controle ($p < 0.001$). **Conclusão.** Os resultados deste estudo indicam que o programa de visita domiciliar se relacionou com a melhoria na qualidade de vida das mulheres primíparas nas primeiras seis semanas de pós-parto.

Palavras chave: visita domiciliar; qualidade de vida; paridade; período pós-parto.

Introduction

Quality of life (QOL) encompasses a wide concept, which consists of all aspects of life including health.¹ The World Health Organization (WHO) has defined the QOL as “conditions of life which are obtained from putting together the effects of a wide spectra of factors related with health, freshness, education, mental and social successes, liberty of action and justice”.²

Considering the definition, QOL is a powerful force in the direction of preserving “health” at different periods of life of both sexes.¹ There are specific vital stages during the lifetime of women, which influence largely on their QOL. Pregnancy, specially the “first pregnancy”, and delivery are among such stages.³ Several changes occurring in physical, psychological, and social health

dimensions during pregnancy influence the QOL of pregnant women at different ages. Researchers have shown that pregnancy and the postpartum period are accompanied by considerable changes in physical, as well as psychological health conditions of women that lower their QOL.⁴

In this regard, Warten⁵ states that, in spite of the sensitivity of postpartum period, in many countries where care programs exist during the pregnancy period, limitations still persist in presenting postpartum care and application of home visit programs, while this period is an ideal time to carry out interventions and introduce programs to promote health and permanency of the mother and neonate, as well as to reduce their mortality and disability rates. Support of exclusive breastfeeding, caring for the breasts, nutrition promotion, completing the vaccination program, referring in case of bleeding and infection, and home visits are among the most important programs to be observed for mothers after delivery.⁶ At present, considering expenses and time used for referrals to healthcare clinics, home visit is the best strategy to promote health and prevent diseases.⁷ Because of several advantages of home visit, it is being performed in many developed countries, especially in the USA and – in this regard, one of the important programs of the health-treatment system is to offer special care for women during the pregnancy and postpartum periods.

Studies in Iran show that practically no home visits take place by healthcare providers following the postpartum discharge from the hospital, while this is the period in which mothers and families need the highest care and support.⁸ But these postpartum services and care are performed in most developing countries⁹ because home-visit programs can reduce expenses resulting from nursing care, unwanted pregnancies, hospitalization, referral to emergency services, and other interventions. Such programs offer the possibility to healthcare providers to observe families in their homes where they feel comfortable and where they can all meet all the family members.¹⁰ Home visitation accounts for the main part of postpartum health system programs in the USA and families who have recently gained a new baby are their main focus.¹¹

Nursing as a profession and nurses as main performers are responsible for being aware and sensitive with primary emphasis on diagnosis and treatment to prevent and improve healthcare situations. Paying attention to present healthcare services at home is one of such measures.⁸ Observing society health to reduce health risks and to promote health and QOL are among the main duties of community health nurses.¹² Promoting QOL is recognized among the important aims of health in the 21st century for everybody. The social supporting measures are among the many factors that influence the QOL of mothers and its presentation can vary from daily care facilities at home to healthcare networks.¹³ The aim of this study was to evaluate the effects of home visitation during the first six weeks of postpartum on the QOL of primiparous women.

Methodology

This was an interventional research. The population included primiparous women referred to the Shiraz health centers. The inclusion criteria included: research units (mother-neonate) living in Shiraz throughout the research period, being primiparous, having the minimum literacy, not participating in educational classes, giving birth to a healthy and mature neonate weighing from 2500 to 4000 grams, and having been discharged within one to two days after delivery. Exclusion criteria consisted of psychological or physical disease of the mother and neonate, divorce, changing domicile without informing the researchers or Shiraz immigration, refusal of individuals to participate in the study, not breastfeeding the neonate, having postpartum complications (infection, bleeding, etc.), and visitation by other organizations.

The sample included 52 primiparous women referred to the Shiraz health centers of the Shiraz University of Medical Sciences who were selected through convenience sampling method. The sample was divided into two groups: intervention (n = 26) and control (n = 26). Research tools included a questionnaire of demographic

information and allocated Specific Postnatal Quality of Life¹. The questionnaire of demographic information contained questions regarding the surveying social, economic, occupational, family, education, and income status, and the Specific Postnatal Quality of Life questionnaire in the present study contained 30 items. Within this framework, patients' perceptions of SPQOL may be considered from eight dimensions: health status, mother's feelings about herself, mother's feelings about her baby, mother's feelings about her spouse and relatives, sexual activities, choosing this method of delivery, relationship with the delivery of economic status, relationship between type of delivery and economic status, and maternal satisfaction with the delivery.

A five-point Likert scale ranging from 0 ("do not agree at all" or "of little importance") to 4 ("fully agree" or "of very great importance") was used. Measurement of these domains generates a 0–120 score, where a higher mean score indicates better QOL. The validity and reliability of the questionnaire was approved per content and face validity and Cronbach's alpha coefficient of 0.73.

Intervention: after appointing the education units, a four-session complied program of home visits for a period of 30 minutes to one hour was performed for the experimental group. Forms were filled out during the first session after communicating with the family. Education related to nutrition, psychical support, and the way of having appropriate relations with the spouse and postpartum exercises were given during the second, third, and fourth sessions, respectively. The intervention was carried out for a period of six weeks. In the intervention group, QOL information was taken in the first and sixth sessions via interview after the educational activity. In the control group, QOL information was taken with six weeks of difference. The two groups were evaluated between the first and sixth weeks of postpartum.

The mean QOL scores before and after the interventions were compared. Data collected were analyzed via SPSS software by using independent t-test, chi square, paired t-test, and univariate analysis of variance, and – if necessary – their equivalent non-parametric test (Mann-Whitney).

Results

Significant differences were not found between the groups for the socio-demographic variables studied (Table 1). Based on the results obtained, 61.5% of the subjects had a high school diploma, 50.0% lived in a rented house, 48.0% earned an income of 200-300 thousand Toman, 86.5% had no history of abortion, 69.2% had had natural delivery and 30.8% by cesarean, 59.6% of the neonates were girls and the remaining were boys.

Regarding the research objective, these results indicated that the home visitation program has been effective in promoting the mean score of postpartum QOL in such a way that, after finishing home visitations, a statistically significant difference was established between the mean QOL score for the intervention group who received education via home visitation and the control group who had received usual education from the health-treatment centers (Table 2).

The results show that, significant difference was established among score mean difference for each of the dimensions (mother's feelings about herself, her child, her husband and others, sexual activities, and psychical health status) before and after the home visit between the intervention and control groups (Table 3).

Discussion

This research studied the effect of the home visitation program during the first six weeks postpartum on the QOL of primiparous women. The results obtained from this research indicate that, after carrying out the home visit and presenting required education to the intervention group at home, the mean QOL score of the research samples in the two groups showed significant differences ($P < 0.001$). These results agree with other results of primiparous women from west of Tehran that have increased self-care among women by conducting home visit care programs ($P < 0.001$).¹⁴

Table 1. General characteristics of the study groups

Variable	Intervention group	Control group
Educational background of the women		
Primary education	30.8%	30.8%
High school diploma	53.8%	69.2%
Other	10.4%	0.0%
Educational background of the spouse		
Primary education	19.2%	19.2%
high school diploma	69.2%	65.4%
Other	11.5%	15.4%
Spouse's working status		
businessman	50.0%	46.2%
Laborer	34.6%	34.6%
Employee	15.4%	19.2%
Farmer	0.0%	0.0%
Type of delivery		
Normal	73.1%	65.4%
Caesarean	26.6%	34%
Sex of new born		
Girl	65.4%	53.8
Boy	34.9%	46.2%
Type of pregnancy		
Expected	84.6%	84.6%
Unexpected	15.4%	15.4%
House ownership		
Owns the house	26.9%	7.7%
Rents house	46.2%	53.8%
Other	26.9%	38.5%
Economic status		
Low	38.5%	11.5%
Middle	42.3%	53.8%
High	19.2%	34.6%
Age in weeks (Mean ± Standard deviation)	23.9 ± 4.2	22.4 ± 3.2
Neonatal weight (Mean ± Standard deviation)	3 110 ± 383.1	3 092.6 ± 259.8

Table 2. Mean of the QOL score according to the moment of evaluation

Moment	Group	
	Intervention(n = 26)	Control(n = 26)
Before	54.1 ± 11.7	62.8 ± 15.9
After	93.7 ± 7.1	69.04 ± 9.5
Mann-Whitney test p-value	<0.001	0.22

Table 3. Score mean differences for QOL dimensions before and after the home visit between intervention and control groups

Dimensions	Intervention group Mean ± SD	Control group Mean ± SD	Independent t- test p-value
Feelings of the mother regarding:			
Herself	8.7±3.9	0.8±2.37	<0.001
Her child	3.5±1.3	0.3±1.0	<0.001
The husband	6.4±3.2	0.5±2.1	<0.001
Sexual activities	3.3±2.0	0.3±2.4	<0.001
Health status	16.4±3.9	4.5±4.3	<0.001

The mean QOL score after the home visit has also shown significant differences in any of the dimensions between the control and intervention groups ($P < 0.001$). In this study, we observe a notable increase by carrying out the home visit in the physical dimension (physical health status) between the intervention group ($P < 0.001$). This result is similar to that reported by Fen Wick *et al.*, who concluded that women who received postpartum care at home were more satisfied compared to those who received such care at the hospital in relation to education in neonate care, physical situation improvement, psychical support, psychical needs, vaccination, and family planning ($P < 0.002$).¹⁵

In the psychological dimension (mother's feelings about herself and her child), it is similar to the study by Tamaki Autoski from Japan, which specified that home visitation by a psychiatric nurse can create psychologically positive health and social changes in women exposed to postpartum depression ($P < 0.05$).¹⁶ In the social dimension (mother's feelings about her husband and others), the results obtained in this research are similar to the results by Azimi Aghdam from Esfahan in which there is direct relation between total social support (social support of husband, family and health-treatment personnel) and physical health ($P < 0.001$).¹⁷

As an evaluation of this research, it can be said that by transferring the required education of individuals (education about breast care, perineum care, nutrition, the way of having relations with the husband, psychical support of

the mother and engaging in suitable exercises) from health-treatment centers in their homes, the QOL of mothers can be promoted. We may say that presenting such education at home will increase the self-confidence of mothers receiving a type of social support.

Therefore, supporting mothers after discharging them from the hospital and during the first six weeks of postpartum and introducing continuous education at their homes is necessary to keep their QOL at a high level, but the important point is that education is before and after delivery in the hospital is insufficient. The results of this research showed that, though mothers had received some care during the pregnancy period from health-treatment centers, they have not been properly educated regarding postpartum care or had forgotten the education, while the postpartum period is the best time to receive required postpartum education. Presenting such education will help mothers to take care of themselves and their children correctly.

Considering the results obtained from this research, it seems that education during pregnancy and the baby-friendly hospitals in promoting the QOL of mothers are insufficient and helping and supporting mothers after discharge from the hospital, especially during the first weeks of postpartum during which the problems of mother and neonate are at their peak is very necessary. Considering that, currently, developed countries have been led towards community-based nursing, it is necessary for nurses to be encouraged as members of the medical team to conduct

postpartum care at home and help mothers and neonates to promote their health and QOL and reduce possible postpartum complications resulting in reduced mortality of mothers and neonates during this critical period. It is also suggested that, while educating mothers during pregnancy, a person who will be responsible for the mother's postpartum care be present.

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