

Effectiveness of Instruction-oriented Intervention for Primipara Women upon Episiotomy and Self-perineal Care at Ibn Al-Baladi Hospital

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المستخلص

الهدف: تهدف الدراسة إلى التعرف على أثر تداخل تثقيفي ووجه للنساء البكرات على قص العجان والعناية بمنطقة العجان

المنهجية: دراسة شبه تجريبية استعملت للتعرف على أثر تداخل تثقيفي ووجه للنساء البكرات على قص العجان والعناية بمنطقة العجان. شملت العينة الغرضية "غير الاحتمالية" (60) أم بكرية اختن من مستشفى ابن البلدي للأطفال والنسائية في مدينة بغداد. قسّمت العينة إلى مجموعتين متساويتين (30) أم بكرية عدّت كمجموعة دراسة و(30) أخرى عدّت كمجموعة ضابطة. تمّ تعريض مجموعة الدراسة إلى تداخل تثقيفي ووجه، بينما لم تعرض المجموعة الضابطة إلى التداخل. تمّ تطوير استمارة استبيان كأداة لجمع البيانات تناسب الغرض من الدراسة، كما أجريت دراسة استطلاعية لاختبار ثبات ومصداقية الاستمارة للمدة من 13 آذار ولغاية 25 آذار 2009. تمّ تحليل البيانات باستعمال أسلوب تحليل البيانات الوصفي والاستنتاجي.

النتائج: أشارت نتائج الدراسة إلى أن المشاركات لمجموعة الدراسة حصلن على فوائد من تنفيذ البرنامج التثقيفي قص العجان والعناية بمنطقة العجان مع حدوث تغيير جوهري في معارفهن لعملية الفص والعناية بالمنطقة. استنتجت الدراسة أن معظم الأمهات قد لبّيت احتياجاتهن بشكل فعال بالنسبة للعناية بمنطقة العجان، ونظافة المنطقة - استعمال كمادات باردة، وحلم دافئ لتنظيف المنطقة، استعمال الحرارة الجافة، الامتناع عن العلاقة الزوجية خلال مدة النفاس، تغذية الأم لمنع الإمساك، استعمال الحمام والتواليت، تمارين عضلات الحوض والعجان والمتابعة.

التوصيات: أوصت الدراسة بإمكانية تقديم تداخل تثقيفي قص العجان والعناية بالمنطقة لجميع الأمهات الحوامل البكرات اللواتي يراجعن مراكز الرعاية الصحية الأولية وبناء وتطبيق التداخل التثقيفي الموجه للأمهات البكرات في المستشفى لزيادة معلوماتهن عن قص العجان والعناية به.

Abstract

Objective: To identify the effectiveness of instruction oriented intervention for primipara women upon episiotomy and self perineal care.

Methodology: A quasi-experimental study was carried out to determine the effectiveness of instruction-oriented intervention for primipara women upon episiotomy and self-perineal care. A purposive "non-probability" sample of (60) primipara mothers was selected from Ibn AL-Balady Pediatric and Maternity Hospital, Al-russafa, Baghdad. The sample has been divided into two groups; (30) primipara women who were considered as a study group, and another (30) primipara women who were considered as a control one. The study group was exposed to an instruction-oriented intervention. While, the control group was not exposed to the intervention. A questionnaire was developed as a tool of data collection for the purpose of the study. A pilot study was carried out to test the reliability of the questionnaire for the period from March 13th to March 25th, 2009. Data were analyzed through the application of descriptive and inferential statistical data analysis approach.

Results: The results have revealed that the study group participants had benefit from the implementation of instructional intervention and dramatic change had occurred in their episiotomy and self-perineal care knowledge. The study concluded that the majority of mothers had adequately met their needs of perineal care, cleanliness of the perineum, using ice pack, taking a soothing bath tube, dry heat, refrain from the marital relationship (coitus), mothers nutrition to prevent constipation, used bath room, pelvic muscle exercise, follow-up were adequately met.

Recommendations: The study recommended that the oriented instructional intervention can be presented to all pregnant mothers who are attending the primary health care centers. Moreover, an instructional intervention might be useful if it is constructed and implemented in the hospital for women with episiotomy.

Keywords: Primipara, Episiotomy, Self-perineal Care

Introduction:

Among the important duties of attending the vaginal birth is the management of the perineum. In current obstetric practice, incision of the perineal body and vagina to enlarge the vaginal opening and facilitate delivery is referred to as an Episiotomy. The term episiotomy actually refers to an incision into the external genitals. The more precise name for the obstetric incision is perineotomy, an incision made in the perineum⁽¹⁾. Episiotomy is one of the most common operations in obstetrics

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performed on women, with the exception of cutting and tying the umbilical ⁽²⁻³⁾. Perineal trauma during vaginal delivery is very common occurring in about 40% of primigravidae and 20% of multiparous women ⁽⁴⁾. Episiotomy is the surgical enlargement of the vaginal orifice by an incision of the perineum during the last part of the second stag of labor to facilitate vaginal delivery or just before delivery of baby. Episiotomies were performed on almost all women having their first delivery to prevent severe perineal tears and make repair easier. Another common routine episiotomy was the prevention of pelvic relaxation. A number of randomized trials showed that routine episiotomy is still associated with a sphincter and rectal tears ⁽⁵⁾. Episiotomy can affect a woman's sex life through the second year postpartum with more frequent pain and vaginal dryness during sexual intercourse ⁽⁶⁾. The infection and abscess rate are mostly a result of episiotomies that extend into rectal tissue which is 0.5-3.0% of all episiotomies ⁽⁷⁾.

Methodology:

A quasi-experimental design was carried out throughout the present study on primiparous women who having episiotomy with the application of a pre-post tests approach for the study group and control group to assess their knowledge and the application of the program (instructional intervention) for the study group. A purposive "non-probability" sample which consisted of (60) primiparous mothers who having episiotomy during their delivery was selected purposively from labor unit at Ibn Al-Balady Pediatric and Maternity Hospital and the sample has been divided into two groups; (30) primipara women who were considered as a study group, and another (30) primipara women who were considered as the control one. The study group was exposed to an instruction-oriented intervention. While, the control one was not exposed to the intervention. The study was carried out in labor ward at Ibn Al-Baladi Pediatric and Maternity Hospital in Baghdad city which is the source of the study, and control group. The instructional-oriented intervention was implemented in labor unit. A questionnaire was constructed through literature review and previous studies, and the use of information which had emerged of prior to the assessment. The questionnaire was used as a mean of data collection, it was comprised of (4) main parts: part 1: *Demographic Information*: This part present the demographic data which were as follows: women's age, educational level, occupation, socioeconomic status, residency, family types etc. Reproductive information: This part is comprised of gestational age, attendance to primary health care (PHC) centers, or private clinic, information regarding pregnancy, delivery, episiotomy, self-perineal care and Hemoglobin (Hb) percentage, etc. *Part 2: Women's Knowledge Regarding Episiotomy and Perineal Care*: An instrument was constructed through the use of (3) levels Likert scale for the assessment of women's knowledge. The rating of the score was (3) for I know, (2) for uncertain and (1) for I don't know with cut-off point = 2. This instrument was comprised of (52) items which were concerned with information of women episiotomy and perineal care knowledge. *Part3: Oriented Instructional Intervention Program*: An instrument was constructed through the use of (3) levels of Likert scale for implementation of the instructional intervention. The rating score of the program was (3) for implemented, (2) for sometimes, and (1) for not implemented with cut-off point= 2. The classification of categorical contingency was analyzed by table using the four grades of assessment (Low-Low; Low-High; High-Low; High-High) were done through the following: L.L: (1-1.4), L.H: (1.5-1.9), H.L: (2-2.4), H.H: (2.5-3). This instructional intervention was comprised of: Immediate care after episiotomy during (24) hours, implemented by the researcher, which consisted of (12) items. Home perineal care instruction, implemented by woman herself, which comprised of (49) items. *Part4: Assessment Tool*: This part was concerned with assessment of women during the pregnancy, which was comprised of (19) items. Assessment during labor and delivery, comprised of (13) items. Episiotomy wound healing assessment, comprised of (4) items. Pain severity assessment, which was comprised of (3) items. Data were analyzed through the application of descriptive and inferential data analysis approach.

Results:**Table 1.** Distribution of women's socio-demographic characteristic for both study and control groups

List	Variables	Study group		Control group	
		Frequency	Percent	Frequency	Percent
1.	Mother age (Years)				
	Less than 20	19	<u>63.3</u>	19	<u>63.3</u>
	20-24	7	23.3	6	20.0
	25-29	3	10	4	13.3
	30-34	1	3.3	1	3.3
	Total	30	100.0	30	100.0
2.	Mother's education				
	Unable to read and write	4	13.3	9	30.0
	Primary school graduate	17	<u>56.7</u>	13	<u>43.3</u>
	Intermediate school graduate	6	20.0	5	16.7
	Secondary school graduate	2	6.7	2	6.7
	College graduate	1	3.3	1	3.3
	Total	30	100.0	30	100.0
3.	Women's occupation				
	Housewife	28	<u>93.3</u>	29	<u>96.7</u>
	Officer	2	6.7	1	3.3
	Total	30	100.0	30	100.0
4.	Type of family				
	Nuclear	4	13.3	6	20.0
	Extended	26	<u>86.8</u>	24	<u>77.4</u>
	Total	30	100.0	30	100.0
5.	Residency				
	Urban	24	<u>80.0</u>	22	<u>73.3</u>
	Rural	6	20.0	8	26.7
	Total	30	100.0	30	100.0
6.	Socioeconomic status				
	High	1	3.3	0	0
	Middle	7	23.3	8	26.7
	Low	22	<u>73.3</u>	22	<u>73.3</u>
	Total	30	100.0	30	100.0

Table (1) demonstrates that the highest percentage of both group (study and control) (63.3%) was in age group of less than 20 years, (56.71) versus (43.31%) was primary school graduate, (93.3%) versus (96.7%) was housewife, (86.8%) versus (77.4%) live in extended families, (80.0%) versus (73.3%) of families were from urban area, (73.3%) for both groups were of low Socioeconomic statuses.

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Table 2. Association between women's knowledge regarding episiotomy and self-perineal care and socio-demographic characteristics for the study group in (pre-post-test)

List	Variables	Study group (n=30) (pre-test)				χ^2	d.f	P-value	study group (n=30) (post-test)				χ^2	d.f	P-value
		L.L n	L.H n	H.L n	H.H n				L.L n	L.H n	H.L n	H.H n			
1	Mother age					7.823	9	.002					0.282	3	.102
	Less than 20	9	7	3	.				.	.	13	6			
	20-24	2	4	1	.				.	.	0	2			
	25-29	2	1	.	.				.	.	3	.
	30-34	0	1	.	.				.	.	1	.
2	Mother education					3.823	12	.002					2.09	4	.720
	Unable to read & write	3	.	1	.				.	.	2	2			
	Primary school graduate	8	7	2	.				.	.	13	4			
	Intermediate school graduate	1	4	1	.				.	.	3	3			
	Secondary school graduate	.	1	1	.				.	.	2	.			
	College graduate	.	1	.	.	.	.	1	.			
3	Women occupation					3.336	3	.033					0.036	1	.864
	Housewife	13	11	4	.				.	.	20	8			
	Officer	.	2	.	.	.	.	1	1			
4	Type of family					10.642	3	.001					1.104	1	.283
	Nuclear	.	3	1	.				.	.	3	1			
	Extended	13	9	4	.	.	.	19	7						
5	Residency					3.864	3	.027					6.161	2	.016
	Urban	11	9	4	.				.	.	16	8			
	Rural	2	4	.	.	.	.	0	1			
6	Socioeconomic status					10.997	6	.010					0.490	2	.481
	High	.	1	.	.				.	.	.	1
	Middle	2	4	1	.				.	.	7	.			
	Low	11	8	3	.	.	.	10	7						

df= Degree of freedom; {High-High (HH)= above cut-off-point in pre and post-periods, (2.5-3)}; {High-Low (HL)= above cut-off-point in pre and post-periods, (2-2.4)}; {Low-High (LH)= under cut-off-point in pre and post-periods, (1.5-1.9)}; {Low-Low (LL)= under cut-off-point in pre and post-periods, (1-1.4)}; n= Number; P-value = Level of probability at $p \leq 0.05$; χ^2 = Chi-square test score

Table (2) presented a significant association between women's knowledge, regarding episiotomy and self-perineal care and their level of education, type of the family, socioeconomic status in the pretest for the study group, and there was a significant statistical association between women's residency and their knowledge in the post-test.

Table 3. Association between women's oriented instructional intervention regarding episiotomy and self-perineal care and episiotomy wound assessment

List	Variables	χ^2	d.f	P-Value
1-	Cleanliness of the perineum	0.238	1	0.626
2-	Using ice pack	0.238	1	0.626
3-	Take a soothing sitz bath	6.063	2	0.038
4-	Dry heat	19.286	2	0.000
5-	To refrain from the marital relationship (coitus)	0.408	1	0.523
6-	Maternal nutrition to prevent constipation	21.964	3	0.000
7-	Used bath room	14.024	2	0.001
8-	Pelvic muscle exercises and the perineum (kegel exercise)	0.918	3	0.821
9-	Follow-up	2.493	1	0.114

df= Degree of freedom; P-value = Level of probability at $p \leq 0.05$; χ^2 = Chi-square test score

This table presented significant difference between women's oriented instructional intervention regarding episiotomy and self-perineal care and episiotomy wound assessment in items (3-4-6-7) for the study group and the other were not significant.

Table 4. Association between women's oriented instructional intervention regarding episiotomy and self-perineal care and assessment of pain

List	Variables	χ^2	d.f	P-Value
1-	Cleanliness of the perineum	12.22	3	0.007
2-	Using ice pack	12.22	3	0.007
3-	Take a soothing sitz bath	24.00	6	0.000
4-	Dry heat	9.19	6	0.163
5-	To refrain from the marital relationship (ciotus)	3.33	3	0.343
6-	Maternal nutrition to prevent constipation	4.63	9	0.870
7-	Used bath room	10.86	6	0.093
8-	Pelvic muscle exercises and the perineum (kegel exercise)	4.806	9	0.801
9-	Follow up	2.692	3	0.442

df= Degree of freedom; P-value = Level of probability at $p \leq 0.05$; χ^2 = Chi-square test score

Table (4) revealed that there were significant difference between oriented instructional intervention of women in the study group and assessment of pain in items (1-2-3), and others were not significant.

Table 5. Association between episiotomy wound assessment and the variables (duration of first and second stage, condition of membrane, visiting midwife, frequency of vaginal exam during first and second stage, conduction of episiotomy, repair of episiotomy)

List	Variable	χ^2	d.f	P-value
1-	Duration of first stage			
	> 12 hr	10.168	2	0.006
	< 12 hr			
2-	Duration of second stage			
	Less than 1hr	1.978	1	0.160
	More than 1hr			
3-	Condition of membrane			
	Rupture	9.231	2	0.010
	Intact			
	Meconium fluid			
4-	Visiting midwife before hospital admission			
	Yes	7.923	1	0.009
	No			
5-	Frequency of vaginal exam during first stage			
	5 times	0.007	1	0.930
	10 times			
	> 10 times			
6-	Frequency of vaginal exam during second stage			
	1 time	3.707	2	0.160
	2 times			
	> 3 times			
7-	Conduction of episiotomy by:			
	Resident doctor	4.401	1	0.030
	Nurse			
	Midwife			
8-	Repair of episiotomy			
	Sinner	4.038	2	0.133
	Resident doctor			
	Nurse			
	Midwife			

df= Degree of freedom; P-value = Level of probability at $p \leq 0.05$; χ^2 = Chi-square test score

Table (5) indicated that there were significant association between these variable in items (1, 3, 4, 7), and not significant for the remaining items.

Discussion

Analysis of demographic characteristics indicated that the majority of the studied primipara women was young who was less than 20 years old for both groups, and housewives with low educational level (primary school graduates) (Table I). The findings had emerged due to the nature of the culture in which these women had lived. In this culture, most predominant female issues were marriage and have low opportunity to complete their education, most of these women's husbands had low level of education (primary school graduates) (Table I), few of them were intermediate school graduate, such educational status reflects the nature of their culture in which these individual had lived whereby low opportunity to seek out-home work. So, they remain housewives with no any other alternatives. This is something due to the reality of their culture. Most of primipara women for both groups live in extended family with low socioeconomic status (Table1). These results reflect the nature of the social and economic reality of their families by which families were willing to increase their members, because they do believe that these members were the bread winners for them. Gokce and others found that socioeconomic status is a risk factor for first birth at age 19 or younger in married women in an urban area⁽⁸⁾. Sabonye and others supported that in, only one-third of all the women age (20) had completed primary school, less education is associated with a higher early childbearing⁽⁹⁾, Knollmueler supported that the primipara women who had lower educational status and lower income increased dependence on government support programs⁽¹⁰⁾. Association between women's knowledge regarding episiotomy and self-perineal care and socio-demographic characteristic for the study group in (pre-post test). The study indicated that there was a significant association between women's knowledge regarding episiotomy and self-perineal care and mother education, type of family, socioeconomic status in (pretest) period. While, there was a significant association between the women's residency and their knowledge at post-test period (Table 2). This means that all age groups in the study group were affected after implementation of the instructional program regardless of their age. Improvements were noticed in mothers' knowledge at post-test in all educational levels in study group. This indicates that all mothers from different educational levels had gained knowledge concerning their episiotomy and self-perineal care after the implementation of the education. This refers, for the researchers using simple and clear language with suitable teaching aids in session for better understanding. In respect to residential area, there was a significant change in mothers' knowledge at post-test for the rural and urban area for the study group that mean the mothers' knowledge of the urban and rural area for the study group was improved after implementation of educational program. The result of this study was in agreement with Fatihalla who reported that there was no association between working women and knowledge of the mother⁽¹¹⁾. While, AL-Baroadi has emphasized on the level of education and its positive effect on knowledge of the mother. In this study, most of the mothers were of low education and their knowledge regarding episiotomy and self-perineal care was poor⁽¹²⁾. Al-Eqeel was in agreement with this result that the sanctions imposed on Iraq, for the last decade affect the financial aspect of people which may be reflected on the educational level⁽¹³⁾. Nuraini and Parker supported that, the improvement of knowledge was significantly influenced by the respondent's educational background and socioeconomic status⁽¹⁴⁾. National institute of population Research and Training supported that the use of postnatal care is strongly associated with the level of education of the mother and household economic status⁽¹⁵⁾. Association between women's instruction program regarding episiotomy and self-perineal care and episiotomy wound assessment. The study present significant difference between women's instructional intervention regarding episiotomy and self-perineal care with episiotomy wound assessment in (take a soothing sitz bath, dry heat, mothers nutrition to prevent constipation, used bathroom) (Table 3). Most of mothers in study group had performed the instructional program, this had approved positively the influence of instructional program regarding episiotomy and self-perineal care and indicated a significant improvement in participants' knowledge, promotes wound healing and reduces surface contaminate so helping in the prevention of infection. That supported by Nichols and Zwelling, "The standard of care", changes as health care and nursing research determine the effectiveness or ineffectiveness of approaches to care⁽¹⁶⁾.

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Mcculloch has reported that warm water cleansing therapy gently debride loosely attached devitalized tissues, reduce surface contaminants such as residual blood, urine and fecal matter; and provide a surfactant⁽¹⁷⁾. Shafik had stated that warm sitz bath and cleansing warm water can be used for reduce discomfort⁽¹⁸⁾. Regarding association between women's instructional program regarding episiotomy and self-perineal care and assessment of pain, the study revealed that there were significant differences between instructional intervention of women in the study groups and assessment of pain (Immediate care of perineum first 24 hours past birth, cleanliness of the perineum, using ice pack, take a soothing sitz bath) (Table 4). The instructional intervention was found to be positively affected women's performance. The present study findings had indicated that mothers' practices toward item (cleanliness of the perineum, using ice pack, take a soothing sitz bath) was adequately performed, which was in agreement with Shafik who stated that, by providing a gentle, therapeutic cleansing and soak, as well as local hyperthermia to the perineal wound, the patient will feel with relaxation of the internal anal sphincter muscle thus, decreasing pain due to perineal trauma⁽¹⁸⁾. According to Karlstrom patient's experience their worst pain level during the first 24hr postpartum and during second day, after delivery, nurse should implement appropriate intervention if patients experience levels of pain they find un acceptable.⁽¹⁹⁾ Lifer in the case of small hematoma, observation and application of ice or cold application may be all that is required⁽²⁰⁾. Association between episiotomy wound assessment and the variable (Duration of First and Second Stags of Labor, Condition of Membrane, Visiting Midwife, Frequency of Vaginal Examination During First and Second Stage of Labor, Conduction of Episiotomy, Repair of Episiotomy), the study indicated that there were significant association between duration of first stage, condition of membrane, visiting midwife before hospital admission, conduction of episiotomy (Table 5). This is supported by Casey and Cox, who stated that the factor increase the risk of infection following delivery include duration of labor, rupture of the membrane, and the number of vaginal examinations⁽²¹⁾. Nancy reported that premature rupture of membranes (PROM) duration and length of first stage were associated with lower risk for almost all infection indices⁽²²⁾. Bell and others stated that, these findings are similar to those of other studies in the maternal health literature over 30% of women with births at facility reported that premature rupture of membranes these complications may have influenced outcome⁽²³⁾. Franczak reported in Dhaka Bangladesh, large proportion of women's deliveries is at home and reporting of delivery-related complications and subsequent postpartum morbidity most women go to dais, harmful home-based delivery practices, such as multiple vaginal examinations and used of injectable oxytocic medication to augment labor⁽²⁴⁾.

Conclusion:

1. Women's knowledge is significantly associated in pre-test with mother education, type of family and socioeconomic status, and in post test associated significantly with residency.
2. All mothers in instruction program have adequately preformed (sitz bath and used bath room, dry heat and hand washing before and after procedures and used clean peri-pad every 3-4 time, and taken liquids, and vegetable and fruit, used soft pillow in sitting and all mother had an orientation towards that.
3. Episiotomy wound healing is significantly associated with duration of first stage, rupture membrane, visiting midwife before hospital admission, and conduction of episiotomy. Significant association also was found between episiotomy wound assessment and take a soothing sitz bath using dry heat and used bath room.
4. Significant associations were also found between pain assessment and cleanliness of the perineum, and the use of ice pack.

Recommendations:

The study recommends that a follow-up system can be created, initiated and presented through the primary health care sector of the health care delivery system during the postpartum period, and booklet of the instructional program should be published and distributed to all mothers having normal vaginal delivery with episiotomy to control the infection and reduce morbidity.

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