A Study to Assess the Knowledge of Postnatal Mothers Regarding Breast Engorgement in Nerkundrum II

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ABSTRACT

AIM: the present study aims to assess the knowledge of postnatal mothers regarding breast engorgement in nerkundrum. METHODS AND MATERIALS: A quantitative research design was used for the present study. A total 30 samples were collected using convenience sampling technique. The demographic variable and clinical variables was assessed by structured questionarie, and data was gathered and analyzed. RESULTS: The results the study revealed that among postnatal mothers, 17(56.67%) had moderately adequate knowledge and 13(43.33%) had inadequate knowledge regarding breast engorgement among postnatal mothers. CONCLUSION: In this study the majority of postnatal mothers had average knowledge regarding breast engorgement. In demographic variables education was found to be significantly related and other factors were not found to be significantly related to knowledge of postnatal mothers. Major deficit area of study are factors leading to breast engorgement, complications of breast engorgement and management of breast engorgement.

KEYWORDS: breast engorgement, postnatal, knowledge

INTRODUCTION

Breast feeding is essential for the baby especially for new born baby it is very important for the growth and development of the baby Breast feed is essential aspect for infant for overall growth and wellbeing. Breastfeeding can help protect babies against some short and long term illness and diseases. Breastfed babies have a lower risk of asthma, obesity, type 1 diabetes, and sudden infant death syndrome (SIDS). Breastfed babies are also less likely to have ear infections and stomach bugs. In the breast milk colostrum prevents the hypertension, arteriosclerosis and obesity. Colostrum prevents a non-specific proteins, allergy and develops immunity. Early initiation of breastfeeding within a hour of birth. Exclusive breast feeding for the first six months of life; and introduction of nutritionally adequate and safe complementary foods at six month together with continued breastfeeding up to two years of age or beyond. For infant breast milk is easily available.

Breast feed contains antibodies and helps to promotes weight gain of baby. It maintains bond between mother and child. Breast feeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Hereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years of age or beyond. Overall breastfeeding have a strong immune system. The effective treatment of breast engorgement may provide an avenue for clinicians to improve postpartum care for women and promote breastfeeding. This case report presents one woman's

experience with breast engorgement in the early postpartum period. The etiology, evidence-based practices for treatment, clinical implications, and recommendations for practice are reviewed. The importance of inter professional care to minimize conflicting information a lactating woman receives is highlighted.

MATERIALS AND METHODS

A quantitative research approach withnon experimental descriptive designresearch design was used for the study. Before commencing the data collection, authorized setting permission was obtained from the higher authority of selected community area nerkundrum II, chennai the study was conducted. A total of 30postnatal mothers in nerkundrum II who met the inclusion criteria were selected as study participants by using convenient sampling technique.

The purpose of study was explained by the investigator to each of the study participants and a written informed consent was obtained from them. The demographic data and clinical variable was collected by structured questionarie was collected to evaluate the knowledge of postnatal mothers which includes following the given schedule and journalising and analyzed by using descriptive and inferential statistics.

RESULTS AND DISCUSSION
SECTION A: DESCRIPTION OF THE DEMOGRAPHIC VARIABLES OF PATIENTS WITH TYPE 2 DIABETES MELLITUS.

Table 1: Frequency and percentage distribution of demographic variables of patients with type 2 diabetes mellitus.

n = 30

Demographic Variables	F	%
Age (in years)		
40 to 45 years	6	20.0
45 to 50 years	7	23.3
Above 50 years	17	56.7
Sex		
Male	15	50.0
Female	15	50.0
Religion		
Hindu	22	73.3
Christian	8	26.7
Muslim	-	-
Others	-	-
Educational status		
Primary school	9	30.0
Higher secondary	10	33.3
Diploma / Graduate	9	30.0
Illiterate	2	6.7
Occupational status		
Government employee	1	3.3
Private employee	7	23.3
Self – employee	2	6.7
Unemployed	20	66.7
Monthly income		
5000 – 10000	16	53.3
10000 – 20000	14	46.7
20000 – 25000	-	-
Above 25000	-	-
Marital status		
Married	30	100.0
Unmarried	-	-
Widow	-	-
Others	-	-

Dietary habits		
Vegetarian	1	3.3
Non-vegetarian	29	96.7
Economic status		
Upper class	-	-
Middle class	21	70.0
Lower class	9	30.0
Life style		
Active	5	16.7
Limited Activity	13	43.3
Sedentary	12	40.0
How many years you are having diabetes?		
1 – 2 years	1	3.3
2 – 3 years	10	33.4
3 – 4 years	15	50.0
More than 5 years	4	13.3
Do you have interest in doing yoga?		
Yes	23	76.7
No	7	23.3
History of taking insulin		
Yes	30	100.0
No	-	-
Are you aware of yoga?		
Yes	19	63.3
No	11	36.7
Diet plan follow up		
Strictly follow	-	-
Moderately follow	12	40.0
Irregular	18	60.0
Type of diabetes mellitus		
Type 1 diabetes mellitus	-	-
Type 2 diabetes mellitus	30	100.0
History of type 2 diabetes mellitus		
0 – 3 years	10	33.3
3 – 5 years	16	53.4
5 – 7 years	1	3.3
Above 7 years	3	10.0
Family history of type 2 diabetes mellitus		
Yes	18	60.0
No	12	40.0
Are you under regular treatment?		
Yes	30	100.0
No	-	-
Are doing exercise regularly?		
Yes	8	26.7
No	22	73.3
Are you aware of HbA1c?		
Yes	23	76.7
No	7	23.3
Do you know the level of your HbA1c?		
Yes	21	70.0
No	9	30.0

Are you following diabetic diet?		
Yes	25	83.3
No	5	16.7

The table 1 shows that most of the patients with type 2 diabetes mellitus, 17(56.7%) were aged above 50 years, 15(50%) were male and female respectively, 22(73.3%) were Hindus, 10(33.3%) had higher secondary education, 20(66.7%) were unemployed, 16(53.3%) had monthly income of 5000 – 10000, 30(100%) were married, 29(96.7%) were non-vegetarian, 21(70%) belonged to middle class, 13(43.3%) involved in limited activity, 15(50%) had diabetes for 3 – 4 years, 23(76.7%) were interested in yoga, 30(100%) had history of taking insulin, 19(63.3%) were aware of yoga, 18(60%) had irregular diet plan follow up, 30(100%) had type 2 diabetes mellitus, 16(53.4%) had history of type 2 diabetes mellitus for 3 – 5 years, 18(60%) had family history of type 2 diabetes mellitus, 30(100%) were under regular treatment, 22(73.3%) were not doing exercise regularly, 23(76.7%) were aware of HbA1c, 21(70%) were known about the level of their HbA1c and 25(83.3%) were following diabetic diet.
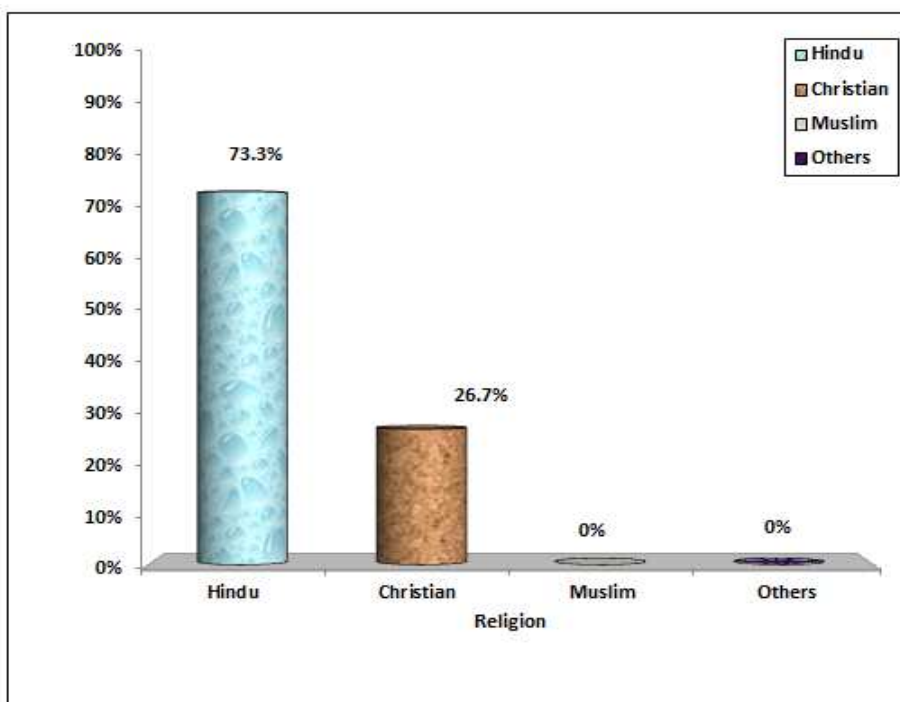
Percentage distribution of religion of patients with type 2 diabetes mellitus
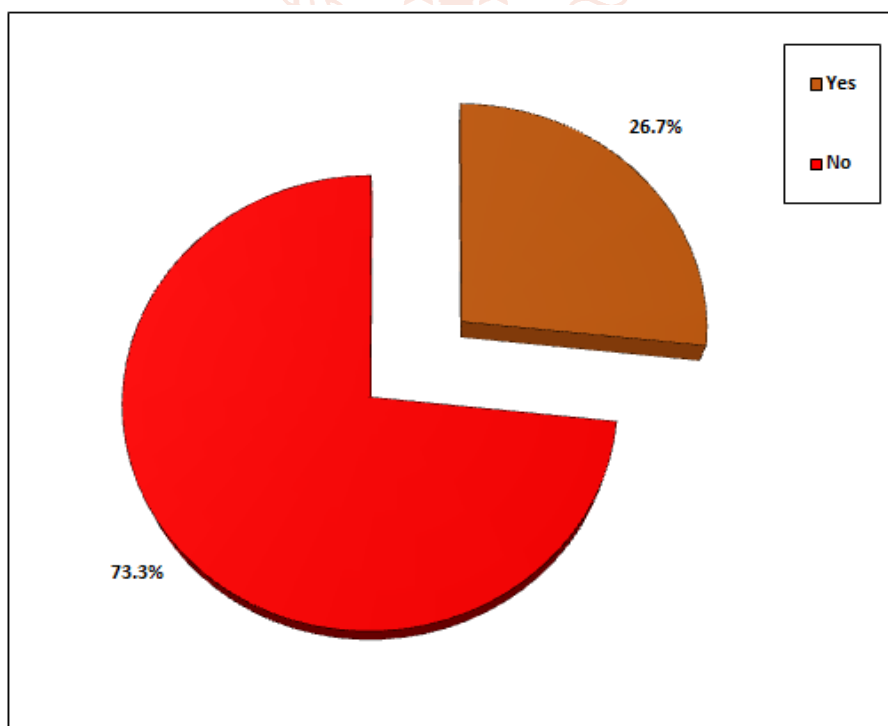
Percentage distribution of doing exercise regularly by the patients with type 2 diabetes mellitus
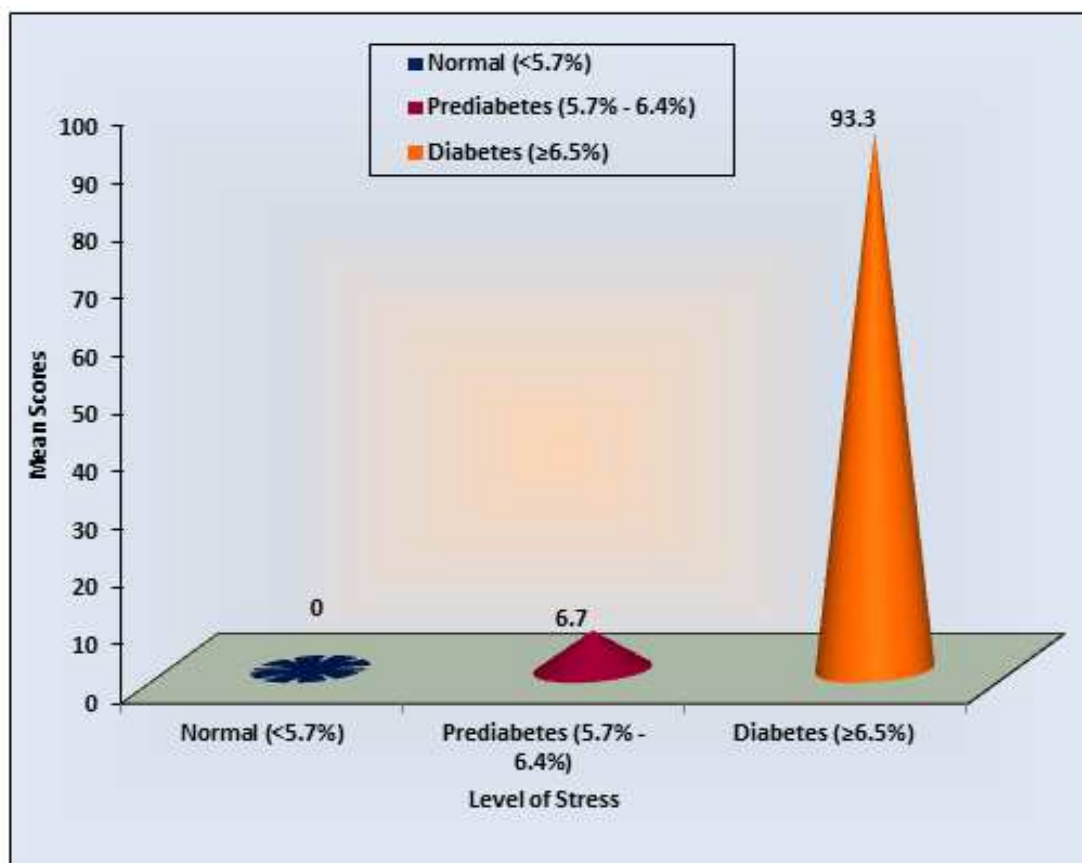
SECTION B: ASSESSMENT OF LEVEL OF HBA1C AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS.

Table 2: Frequency and percentage distribution of pretest and posttest level of HbA1c among patients with type 2 diabetes mellitus.

n = 30

Level of HbA1c	Pretest		Post-test	
	Frequency	Percentage	Frequency	Percentage
Normal (<5.7%)	-	-	3	10.0
Prediabetes (5.7% - 6.4%)	2	6.7	5	16.7
Diabetes (≥6.5%)	28	93.3	22	73.3

The above table 2 shows that among patients with type 2 diabetes mellitus, 28(93.3%) had diabetes and 2(6.7%) had prediabtes in the pretest whereas in the post-test 22(73.3%) had diabetes, 5(16.7%) had prediabetes and 3(10%) were normal.

Percentage distribution of pretest and post-test level of HbA1c among patients with type 2 diabetes mellitus

SECTION C: EFFECTIVENESS OF YOGA ON HBA1C AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS.

Table 4: Comparison of pretest and post-test level of HbA1c among patients with type 2 diabetes mellitus.

n = 30

Test	Mean	S.D	Mean Difference	Paired 't' test Value
Pretest	10.61	2.72	2.01	t = 10.610
Post-test	8.60	2.37		p=0.0001, S***

***p<0.001, S – Significant

The table 4 depicts that the mean score of HbA1c among patients with type 2 diabetes mellitus was 10.61±2.72 and the post-test mean score was 8.60±2.37. The mean difference score was 2.01. The calculated paired 't' test value of t = 10.610 was found to be statistically significant at p<0.001 level. This clearly shows that there was significant difference in the level of the HbA1c between the pretest and post-test which clearly infers that administration of yoga on HbA1c among patients in type 2 diabetes mellitus was found to be effective in reducing the level of HbA1c in the post-test.

SECTION D: ASSOCIATION OF LEVEL OF HBA1C WITH SELECTED DEMOGRAPHIC VARIABLES.

Table 5: Association of post level of HbA1c among patients with type 2 diabetes melltius with their selected demographic variables.

n = 30

Demographic Variables	Normal		Prediabetes		Diabetes		Chi-Square Test & p-value
	F	%	F	%	F	%	
Age (in years)							χ^2 = 3.158 d.f=4 p=0.532 N.S
40 to 45 years	0	0	2	6.7	4	13.3	
45 to 50 years	1	3.3	0	0	6	20.0	
Above 50 years	2	6.7	3	10.0	12	40.0	
Sex							χ^2 = 3.811 d.f=2 p=0.149 N.S
Male	3	10.0	2	6.7	9	30.0	
Female	0	0	3	10.0	13	43.3	
Religion							**χ^2 = 6.316 d.f=2 p=0.043 S*****
Hindu	3	10.0	5	16.7	11	36.7	
Christian	0	0	0	0	11	36.7	
Muslim	-	-	-	-	-	-	
Others	-	-	-	-	-	-	
Educational status							χ^2 = 5.243 d.f=6 p=0.513 N.S
Primary school	1	3.3	2	6.7	6	20.0	
Higher secondary	0	0	2	6.7	8	26.7	
Diploma / Graduate	1	3.3	1	3.3	7	23.3	
Illiterate	1	3.3	0	0	1	3.3	
Occupational status							χ^2 = 3.479 d.f=6 p=0.747 N.S
Government employee	0	0	0	0	1	3.3	
Private employee	0	0	1	3.3	6	20.0	
Self – employee	0	0	1	3.3	1	3.3	
Unemployed	3	10.0	3	10.0	14	46.7	
Monthly income							χ^2 = 2.009 d.f=2 p=0.366 N.S
5000 – 10000	1	3.3	4	13.3	11	36.7	
10000 – 20000	2	6.7	1	3.3	11	36.7	
20000 – 25000	-	-	-	-	-	-	
Above 25000	-	-	-	-	-	-	
Marital status							-
Married	3	10.0	5	16.7	22	73.3	
Unmarried	-	-	-	-	-	-	
Widow	-	-	-	-	-	-	
Others	-	-	-	-	-	-	
Dietary habits							χ^2 = 5.172 d.f=2 p=0.075 N.S
Vegetarian	0	0	1	3.3	0	0	
Non-vegetarian	3	10.0	4	13.3	22	73.3	

Economic status							$\chi^2 = 3.506$ d.f=2 p=0.173 N.S
Upper class	-	-	-	-	-	-	
Middle class	3	10.0	2	6.7	16	53.3	
Lower class	0	0	3	10.0	6	20.0	
Life style							$\chi^2 = 1.021$ d.f=4 p=0.907 N.S
Active	0	0	1	3.3	4	3.3	
Limited Activity	2	6.7	2	6.7	9	30.0	
Sedentary	1	3.3	2	6.7	9	30.0	
Years having diabetes							$\chi^2 = 2.598$ d.f=6 p=0.857 N.S
1 – 2 years	0	0	0	0	1	3.3	
2 – 3 years	2	6.7	2	6.7	6	20.0	
3 – 4 years	1	3.3	2	6.7	12	40.0	
More than 5 years	0	0	1	3.3	3	10.0	
Interest in doing yoga?							$\chi^2 = 1.880$ d.f=2 p=0.391 N.S
Yes	2	6.7	5	16.7	16	53.3	
No	1	3.3	0	0	6	20.0	
History of taking insulin							$\chi^2 = 3.158$ d.f=4 p=0.532 N.S
Yes	3	10.0	5	16.7	22	73.3	
No	-	-	-	-	-	-	
Are you aware of yoga?							$\chi^2 = 1.409$ d.f=2 p=0.494 N.S
Yes	1	3.3	3	10.0	15	50.0	
No	2	6.7	2	6.7	7	23.3	
Diet plan follow up							$\chi^2 = 1.010$ d.f=2 p=0.603 N.S
Strictly follow	-	-	-	-	-	-	
Moderately follow	2	6.7	2	6.7	8	26.7	
Irregular	1	3.3	3	10.0	14	46.7	
Type of diabetes mellitus							-
Type 1 diabetes mellitus	-	-	-	-	-	-	
Type 2 diabetes mellitus	3	10.0	5	16.7	22	73.3	
History of type 2 DM							$\chi^2 = 3.019$ d.f=6 p=0.806 N.S
0 – 3 years	2	10.0	2	6.7	6	20.0	
3 – 5 years	1	3.3	2	6.7	13	43.3	
5 – 7 years	0	0	0	0	1	3.3	
Above 7 years	0	0	1	3.3	2	6.7	
Family history of type 2 diabetes mellitus							$\chi^2 = 2.336$ d.f=2 p=0.311 N.S
Yes	1	3.3	2	6.7	15	50.0	
No	2	10.0	3	10.0	7	23.3	
Are you under regular treatment?							-
Yes	3	10.0	5	16.7	22	73.3	
No	-	-	-	-	-	-	

Are doing exercise regularly?							χ^2 = 6.316 d.f=2 p=0.043 S*
Yes	0	0	0	0	11	36.7	
No	3	10.0	5	16.6	11	36.7	
Are you aware of HbA1c?							χ^2 = 0.203 d.f=2 p=0.903 N.S
Yes	2	6.7	4	13.3	17	56.7	
No	1	3.3	1	3.3	5	16.7	
Do you know the level of your HbA1c?							χ^2 = 0.289 d.f=2 p=0.866 N.S
Yes	2	6.7	4	13.3	15	50.0	
No	1	3.3	1	3.3	7	23.3	
Are you following diabetic diet?							χ^2 = 0.676 d.f=2 p=0.713 N.S
Yes	3	10.0	4	13.3	18	60.0	
No	0	0	1	3.4	4	13.3	

*$p<0.05$, S – Significant, N.S – Not Significant

The table 5 shows that the demographic variables religion (χ^2=6.316, p=0.043) and doing exercise regularly (χ^2=6.316, p=0.043)had statistically significant association with post-test level of HbA1c among patients with type 2 diabetes mellitus at p<0.05 level respectively and the other demographic variables had not shown statistically significant association with post-test level of HbA1c among patients with type 2 diabetes mellitus.

Conclusion
In this study the majority of postnatal mothers had average knowledge regarding breast engorgement. In demographic variables education was found to be significantly related and other factors were not found to be significantly related to knowledge of postnatal mothers.

Major deficit area of study are factors leading to breast engorgement, complications of breast engorgement and management of breast engorgement.

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CONFLICTS OF INTEREST

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