Original article

Effectiveness of video assisted teaching on knowledge regarding Sheehan's Syndrome among staff nurses working at selected hospital, Kolar.

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Abstract

Background: Sheehan's syndrome is caused because of huge blood loss during or after childbirth which decreases blood pressure leading to reduced oxygen level in the body causing hypovolemic shock. The lack of oxygen in the pituitary gland will decrease its function leading to postpartum pituitary gland necrosis. This is known as Sheehan's syndrome. In view of assessing the knowledge of this rare condition among Staff Nurses, this study was conducted.

Objectives: The aim of the study was**:** 1. to assess the knowledge level on Sheehan's syndrome among staff nurses working at selected hospital using structural knowledge questionnaire. 2. To estimate the effectiveness of video assisted teaching on Sheehan's syndrome among Staff nurses. 3. To Find the association between post-test knowledge scores with selected demographic variable.

Methods: Quantitative approach, one group pre- test, post-test design was adopted in the study. Using non probability, purposive sampling technique 200 staff nurses were selected who were working in selected hospitals at Kolar city and who fulfilled inclusion criteria. Pre-test data was collected by self reporting technique using structured knowledge questionnaire. Video- Assisted Teaching on Sheehan's syndrome was given after pre-test and after 7 days post test was conducted using same structured knowledge questionnaire. Analysis of data was done using descriptive and inferential statistics.

Result: Study findings showed that, in pre-test showed that 20 (10%) staff nurses had Good knowledge, 32 (16%) nurses had average knowledge and 148 (74%) staff nurses had poor knowledge. In post-test, study findings showed that 24 (12%) staff nurses had Good knowledge, 42 (21%) staff nurses had average knowledge and 134 (67%) staff nurses had poor knowledge. findings related to administration of video assisted teaching using paired 't' test showed that $t_{(tab199)}$ was 1.646 was greater than' $t'_{(cal199)}$ 0.636 value at 0.05 level of significance. This findings showed that video assisted teaching was not much effective method in improving the knowledge on Sheehan's syndrome among staff nurses.

Conclusion: Overall findings showed that there is knowledge deficit among staff nurses regarding Sheehan's syndrome. And different methods of teaching can be adopted to improve the level of knowledge along with video assisted teaching among staff nurses.

Keywords: knowledge, Video assisted teaching (VAT), Sheehan's syndrome, staff nurses, pituitary necrosis, hypopitutarism, hypovolemic shock.

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Introduction

Sheehan's syndrome was first reported before 100 year by przeglad kakarikis by Leoncorned G Liriski. It is caused by necrosis of the pituitary gland and also known as postpartum hypopituitarism. Anterior pituitary hormone deficiency is commonly seen in this patient who shows impairment in neurohypophyseal function test. This is seen in patients with severe postpartum haemorrhage, which is asymptomatic and commonly identified in underdeveloped and developing countries.[1]

Sheehan's syndrome is honor of Harold Sheehan's who categorized the syndrome as the consequences of ischemia after sever peripheral hemorrhage with the advancement of obstetrical care. It occurs because of vasospasm. A report on a case of 23years old Saudi Arabia women who presented to the MICU with severe hyponatremia, hypoglycemia following a caesarean section delivery complicated by hemorrhage due to disseminated intravascular coagulopathy. The mechanism of Sheehan's syndrome includes vasospasm, thrombosis and vascular compression of the hypophyseal arteries and also been described as possible causes of the syndrome. Enlargement of pituitary gland, small cellar size, disseminated intravascular coagulation (DIC) and immune mediate is the cause of Sheehan 'syndrome.[2]

An epidemiological study was conducted in Kashmir valley of Asia continent to know the prevalence of Sheehan's syndrome and found that the prevalence was about 3% for women above 20 years of age, due to home deliveries and it's a rare cause of hypopituitarism.[3]

A study was conducted on 1034 hypopituitary condition adults, which showed Sheehan's syndrome was sixth most frequent causes of growth hormone deficiency G H D, resulted in 3.1% of total cases.[4]

A retrospective study was conducted in Iceland national wide in 2009 to check the prevalence of Sheehan's syndrome and the results of the study showed that 5.1 per 100,000women were affected with Sheehan's syndrome.[5]

Sheehan's syndrome can be present in the post-partum period with lactation failure or after many months to year following the LSCS. In many affected women, anterior pituitary dysfunction is not diagnosed for many years after the delivery. A study was done on 60 patients, the mean time taken to identify the previous obstetric event of blood loss and diagnosis of Sheehan's Syndrome was 13 years.[6]

The clinical manifestations of Sheehan's syndrome include lactation failure, regular menstruation or resume menses after delivery, genital and auxiliary hair loss, asthenia and weakness. Fine wrinkles are seen around the eyes and lips. Women develops the sign of premature aging, dry skin, hypo pigmentation and hypopituitarism.[7]

The cessation of menses or amenorrhea and postpartum lactation failure, however, does not rule out or diagnose Sheehan's syndrome.[8] unusually it can present profoundly with peripheral vascular failure, severe hyponatremia, dipsogenic diabetes insipidus, low blood sugar, cardiac infraction and psychosis.[9]

Hence, this study was conducted to bring the awareness on Sheehan's syndrome which is a rare condition, which helps the staff nurses to identify the signs and symptoms of it and carry-on treatment and nursing care of the patients confidently.

Material and Methods

In this study, Quantitative approach and one group pre-test, post-test design was used to conduct this study. Permission was obtained from SDUCON Institutional Ethical Committee, Medical Superintendent, Chief Nursing Officer of R.L.J Hospital & RC. 200 staff nurses who were working at selected hospitals in Kolar city and fulfilled Inclusion criteria were selected with purposive sampling technique. Structured knowledge questionnaire was developed and got validated by six subject experts and tool was finalized with 20 knowledge questions as per the suggestions given by experts. The reliability of the tool was found to be 0.76. By self-reporting technique, using structured knowledge questionnaire on Sheehan's syndrome, Pre-test data was collected which took the time duration of 45min to one hour. After that video- assisted teaching on Sheehan's syndrome was done on same day and post- test was conducted after 7 days of video assisted teaching using same questionnaire. Descriptive and inferential statistics was used to analyze the data. Descriptive statistics are mean, median, standard deviation, paired t-test, mean % and inferential statistics used was chi square test.

Results

1. Findings related to socio demographic profile:

The majority141 (70.5%) of the staff nurses were in the age group of less than 25 years, 38(19%) staff nurses belonged to 26-29 year of age group. 17 (8.5%) of staff nurses belongs to 30-34 years of age and the minority 4(2%) of the staff nurses were >35 years of age. Maximum 182(91%) of the staff nurses had BSC Nursing, and 7(3.5%) of staff nurses had MSc Nursing, 7(3.5%) staff nurses had GNM qualification and the minimum 4(2%) of the staff nurses had ANM qualification. Majority 108 (54%) of the staff nurses had <1-year experience, 68(34%) of staff nurses had 2-5 years of experience, 17(8.5%) of staff nurses had 5-7years of experience and the minority 7 (3.5%) of the staff nurses had >7years of experience. (Table 1)

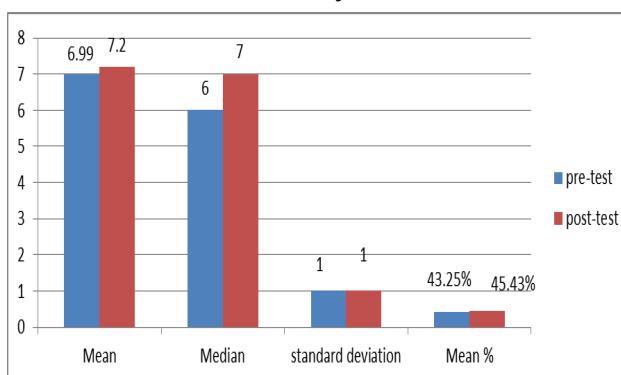**Table 1: Findings showing related to socio demographic profile.**

n = 200

Sl. No	Socio demographic variables	Fre-quency (f)	Percent-age (%)
1.	Age in years		
	1.1)<25yrs	141	70.5%
	1.2) 26-29 yrs	38	19%
	1.3) 30-34yrs	4	2%
	1.4) >35yrs	17	8.5%
2.	Qualification		
	2.1) ANM	4	2%
	2.2) GNM	7	3.5%
	2.3) BSC	182	91%
	2.4) MSC	7	3.5%
3.	Year of experience		
	3.1) <1year	108	54%
	3.2) 2-5 year	68	34%
	3.3) 6-7 year	17	8.5%
	3.4) >8 year	7	3.5%
4.	Previous knowledge of Sheehan's syndrome		
	4.1) Yes	101	50.5%
	4.2) No	99	49.5%

2. Findings related to pre-test and post-test knowledge scores on Sheehan's syndrome among staff nurses.

The findings of the study showed that, in pre-test 20 (10%) staff nurses had Good knowledge, 32 (16%) of the staff nurses had average knowledge and 148 (74%) staff nurses had poor knowledge, Mean was 6.99. In post-test, study findings showed that 24 (12%) staff nurses had Good knowledge, 42 (21%) of the staff nurses had average knowledge and 134 (67%) staff nurses had poor knowledge , Mean was 7.20. overall there was slight increase in post test mean% score after Video Assisted Teaching. (Graph 1)

Graph 1. Bar graph showing findings related to pre-test and post-test knowledge level among staff nurses on Sheehan's syndrome.

3. Findings related to the Effectiveness of Video Assisted Teaching on Sheehan's syndrome among staff nurses.

Study findings related to effectiveness of video assisted teaching using paired 't' test showed that t(tab199) was1.646 which was greater than t(cal199)-0.636 value. This values showed that Video Assisted Teaching was not much effective in increasing the knowledge level on Sheehan's syndrome among staff nurses. (Table 2)

Table 2: Findings related to the Effectiveness of Video Assisted Teaching on Sheehan's syndrome among staff nurses.

n= 200

Knowledge Scores	Pre – test		Post – test	
	Frequency	Percentages %	Frequency	Percentages %
Good (13-16)	20	10%	24	12%
Average (9-12)	32	16%	42	21%
Poor (0-8)	148	74%	134	67%

4. Findings related to association between post-test knowledge scores with selected socio demographic variable.

Association between post-test Knowledge scores with selected demographic variables showed that, there was statistically significant association between age in years, year of experience and previous knowledge on Sheehan's syndrome. (Table 3)

Table 3. Findings related to the association between post-test knowledge scores with selected socio demographic variables.

n = 200

Sl. No	Demographic Variables	Knowledge Level		X² Cal-culated value	df	P value Inference
		Below Median <7	Above Median >7			
1.	**Age in years** 1.1) <25 yrs. 1.2) 26 – 29 yrs. 1.3) 30 -34 yrs. 1.4) >35 yrs.	104 30 02 12	31 10 08 03	8.1	3	7.815 P>0.05 SS
2.	**Qualification** 2.1) ANM 2.2) GNM 2.3) BSC 2.4) MSC	02 04 140 5	4 3 40 02	6.4	3	7.815 P>0.05 NS
3.	**Year of Experience** 3.1) <1yrs. 3.2) 2-5 yrs. 3.3) 5-7 yrs. 3.4) >7 yrs.	60 20 40 10	20 10 25 5	21.67	3	7.815 P>0.05 SS
4.	**Previous knowledge Of Sheehan's syn-drome.** 4.1) Yes 4.2) No	31 10	70 89	12.9	1	3.841 P>0.05 SS

Discussion

The study findings were discussed under the following headings:

1. Findings related to pre-test and post-test knowledge scores among staff nurses on Sheehan's syndrome.

The findings of the study in pre-test showed that 20 (10%) had Good knowledge, 32 (16%) had average knowledge and 148 (74%) had poor knowledge.

Similar findings were seen in the study done by Joseph L[10] which showed 28 (56%) of the staff nurses had inadequate level of knowledge and 22 (44%) staff nurses had moderate knowledge and none of the subject had adequate knowledge in pre-test. The mean value in pre-test is 19.4, standard deviation is 3 and the mean score percentage was 42.04 %.

In post-test study findings showed that 24 (12%) had Good knowledge, 42 (21%) had average knowledge and 134 (67%) had poor knowledge.

Contradict findings was seen in the study done by Joseph L.[10] the study findings showed that All 50(100%) staff nurses had adequate level of knowledge and none of the staff nurses had inadequate or moderate knowledge after STP on knowledge of Sheehan's syndrome. The mean value in post test is 36.2 and standard deviation is 1.61. The mean% was 90.74 %.

Using paired 't' test the study findings related to Effectiveness of Video Assisted Teaching showed that t(tab199) was1.646 was greater than t(cal199)-0.636 value. Which showed video assisted teaching was ineffective in improving the knowledge on Sheehan"s syndrome among staff nurses. Hence we are accepting H02 hypothesis. No similar studies were done on Video Assisted Teaching to support these study findings.

2. Findings related to association between post-test scores with selected socio demographic variables.

Findings related to association between post-test knowledge scores with selected demographic variables showed that, there was statistically significant association between age in

years chi square calculated value of df(3) was 8.1, qualification was 6.4, year of experience was 21.67 and previous knowledge on Sheehan‟s syndrome calculated value of df(1) was 12.9.

Similar findings were seen in the study conducted by Joseph L.[10] the findings showed that, there is a significant association established between age and year of experience.

Conclusion

Sheehan's syndrome is a frequent cause of hypopituitarism in underdeveloped countries. The clinical features of hypopituitarism are often subtle and years may pass before the diagnosis is made following the inciting delivery. History of postpartum hemorrhage, failure to lactate clues to the diagnosis early diagnosis and appropriate treatment are necessary to reduce the morbidity and mortality of patients.

Nursing Implications

1. Awareness programs on rare clinical conditions should be given to staff nurses for early clinical symptoms identification of the patients.
2. Video assisted teaching can be one of the effective method of teaching in clinical area along with other traditional methods.
3. Continuous nursing education can be conducted on the rare clinical conditions like Sheehan's syndrome.

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