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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/12316
DOI URL: <http://dx.doi.org/10.21474/IJAR01/12316>



RESEARCH ARTICLE

EFFECTIVENESS OF INFORMATION PAMPHLET REGARDING LIVER BIOPSY ON ANXIETY AMONG PATIENTS UNDERGOING LIVER BIOPSY

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Manuscript Info

Manuscript History

Received: 10 November 2020
Final Accepted: 12 December 2020
Published: January 2021

Abstract

Background: Providing information to the patients before liver biopsy level of patient during procedure. To reduce the anxiety level, coping used as an procedure may decrease the level of anxiety and can improve tolerance alternatives. There are two types of coping present: Monitoring coping style- Individuals who seek information in response to stressful situation and Blunting coping style- Individuals who avoids information in response to stressful situation.

Methods: Convenient sampling was used to enroll 80 patients, randomly assigned to Experimental and Comparison group based on Randomized days using Hospital Anxiety and Depression-sub scale and Miller-Behavioral Style Scale.

Results: Out of 40 subjects 24 were monitors and 16 were blunters in the Experimental group and in the Comparison group 25 were monitors and 15 were blunters. There was significant difference found between mean anxiety score of experimental group (6.9) and comparison group (9.03) at t value = 7.557 and p = 0.01. Anxiety of Monitors was significantly less in Experimental group as compared to Comparison group (p value 0.041) at 0.041.

Conclusion: Information Pamphlet was found to be effective in decreasing the anxiety of patients undergoing Liver Biopsy.

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Introduction:-

Liver diseases have been found to contribute markedly to the global burden of mortality and morbidity (Rehm, Samokhvalov&Shield, 2013).

Liver biopsy is regarded as the “gold standard” for the evaluation of liver disorders and the most specific test to assess the nature as well as the grading and staging of certain liver diseases (Dugum et al, 2015).

Different approaches are used for liver biopsy which includes percutaneous liver biopsy (PLB), transjugular liver biopsy (TJLB), intra-operative liver biopsy and ultrasound guided liver biopsy are most frequently applied techniques to obtain liver specimens (Beckmann, 2009). Patients with liver disease frequently have impaired blood coagulation levels. TJLB has become an accepted alternative method of obtaining hepatic tissue for pathological

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diagnosis in patients with an established contraindication to PLB such as severe or uncorrectable coagulopathy, thrombocytopenia, or ascites (Kim et al, 2008).

To reduce the anxiety level, coping used as an alternatives. There are two types of coping present: Monitoring coping style- Individuals who seek information in response to stressful situation and Blunting coping style- Individuals who avoids information in response to stressful situation. Information can be given in any forms such as Pamphlet, Booklet, Video, verbal instructions, flashcards etc.

Need for the study:

Liver biopsy is the surgical intervention which can create some degree of anxiety in the patients. Poor co-operation causes more difficulty and painful procedure, incomplete or prolonged procedure, they may cancel the examinations and the financial burden of the patient may be increased. In daily practice it is observed that patients do not understand clearly information given by the healthcare team due to anxiety. In this context of waiting and anxiety, relatives are also stressed and share feelings and uncertainties with the patients, thus turning the situation more complex for the nursing team, since these experiences are mainly witnessed by nurses.

There is a great need to conduct this study because there is no such study in India most of the studies were conducted out of India. So, researcher wants to conduct the study on anxiety of patients undergoing liver biopsy procedure.

Problem Statement:

A study to evaluate the effectiveness of information pamphlet regarding liver biopsy on anxiety among patients undergoing liver biopsy at ILBS, New Delhi.

Objectives of the Study:-

Primary objective:

To evaluate the effectiveness of information pamphlet regarding liver biopsy on anxiety of patients undergoing liver biopsy.

Secondary objectives:

1. To find association between anxiety and coping style of patients undergoing liver biopsy.
2. To find association of anxiety and coping style of the patients undergoing liver biopsy with their selected demographic and clinical variables.

Methodology:-

Research Approach:

Quantitative approach

Research Design:

Quasi-experimental research design

Setting:

Endoscopy Unit of Institute of Liver and Biliary Sciences, New Delhi

Target population:

All patients coming for Liver biopsy.

Accessible population:

All the patients undergoing liver biopsy via transjugular route during the time of data collection.

Sample Size:

Total 80 patients were randomly assigned to Experimental and Comparison group based on Randomized days (3 days for Experimental and 3 days for Comparison group)

Sample Technique:

Non probability convenient sampling technique was used based on inclusion and exclusion criteria:-

Demographic Variables:

Age, Gender, Place of living, Marital status, Education, Monthly Family income and Occupation.

Clinical Variables:

History of Liver Biopsy, Indication of Liver Biopsy, Diagnosis, Blood pressure and Pulse Rate.

Attribute Variable:

Coping Style

Description of tool:-

Tool I: - Demographic data sheet:

Section-A: Demographic Profile:

Age, Gender, Place of Living, Marital Status, Education, Occupation and Family Income per month.

Section-B: Clinical Variables:

Previous history of liver biopsy procedure, Indications, Diagnosis.

Section-C: Bio-physiological Parameters:

Blood pressure and Pulse Rate at three times: Before, during and after the procedure.

Tool II: Miller Behavioural Style Scale:

Standardized tool, designed to measure the inclination of people to seek out or avoid information about threatening uncontrollable events.

Scoring:

1. Blunters (-16 to 0)
2. Monitors (1 to 16)

Tool III: - Hospital Anxiety and Depression scale- standardized scale; subscale was used to assess the anxiety of patients.

Scoring:

- 0-7 = No anxiety
- 8-10 = Mild anxiety
- 11-14 = Moderate anxiety
- 15-21 = Severe anxiety

Pilot study:

Pilot study was conducted on ten patients five in each group (experimental and comparison group). It was found to be feasible to carryout final study.

Section I deals with the description of demographic, clinical and bio-physiological parameters at baseline.

Results:-

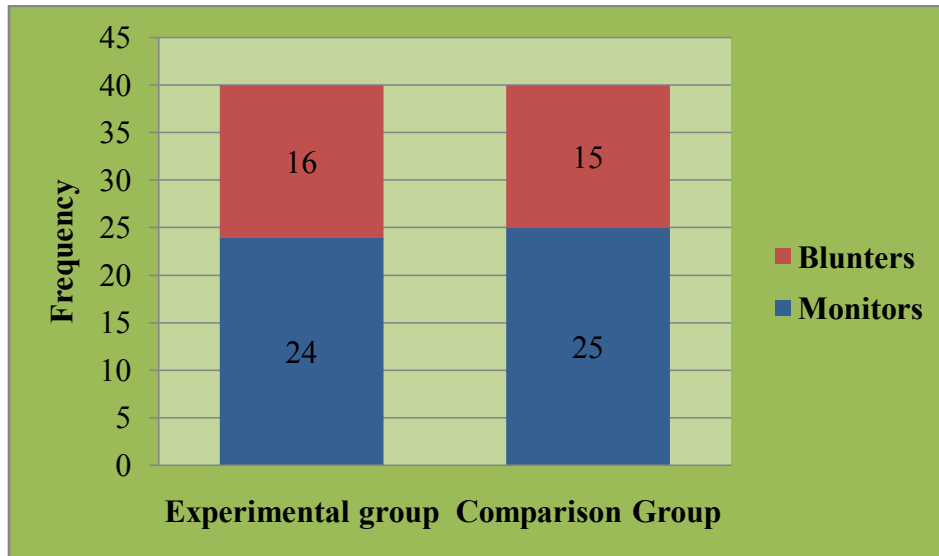


Figure 1:- Stacked Column Chart showing Frequency distribution of patients by their Coping Style.

Table 1:- Comparison of Mean anxiety score of Experimental and Comparison group $n_1+n_2=40+40$.

Variable	Experimental group	Comparison group	MD	SE	t value	p value
	(Mean \pm SD)	(Mean \pm SD)				
Anxiety Score	6.9 \pm 2.772	9.03 \pm 4.288	2.13	0.438	7.557	0.01*

p<0.05 *Significant

Mean anxiety score of Experimental group was 6.9 and Mean Anxiety Score of Comparison group was 9.03. The p-value was found to be <0.05, which means there was a significant difference between mean anxiety score of experimental group and comparison group.

Anxiety distribution among patient undergoing Liver Biopsy:

Table 2:- Anxiety distribution among patient undergoing Liver Biopsy $n_1+n_2=40+40$.

Anxiety	Experimental group f(%)	Comparison group f(%)	Fisher's exact	df	p value
No anxiety	19 (47.5%)	18 (45%)	8.385	3	0.036*
Mild anxiety	16 (40%)	9 (22.5)			
Moderate anxiety	5 (12.5%)	7 (17.5)			
Severe anxiety	0	6 (15)			

p<0.05 *Significant

In experimental group, 47.5 percent of patients had no anxiety, 40 percent of patients had mild anxiety however only 12.5 percent had moderate anxiety and none of the patient had severe anxiety compared to the findings in the comparison group.

In comparison group, Forty five percent had no anxiety, 22.5% had mild anxiety, 17.5% had moderate anxiety and 15% had severe anxiety. The p- value was found to be <0.05, which means there is a significant difference between anxiety of both groups.

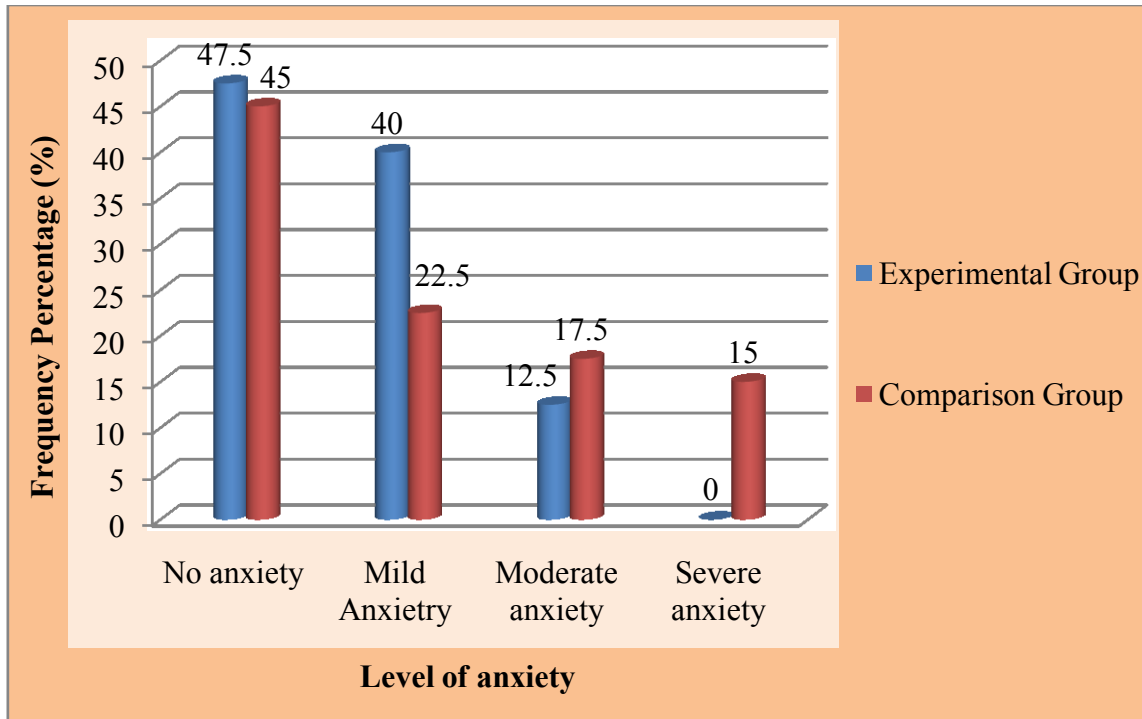


Figure 2:- Clustered Cylinder Chart showing Frequency percentage distribution of patients by their Level of Anxiety.

Figure 3:- depicts that approximately half of the patients had no anxiety in both the groups while no patient had reported severe anxiety in experimental group and 15 percent of patients had severe anxiety in comparison group.

Comparison of bio physiological parameters in Experimental and Comparison group:

Table 3:- Comparison of bio physiological parameters in experimental and comparison $n_1+n_2=40+40$.

Bio Physiological Parameters	Group		Time F (p)	Group × Time F (p)
	Experimental group ($\bar{X} \pm SD$)	Comparison group ($\bar{X} \pm SD$)		
Systolic Blood Pressure				
Before procedure	124.35±15.10	122.15±12.74	90.06	5.18 (.009**)
During procedure	135.05±14.81	144.03±11.38	(0.00**)	
After procedure	125.98±10.29	126.8±10.77		
Diastolic Blood Pressure				
Before procedure	76.57±10.4	75.15±9.66	112.34	6.58 (.003**)
During procedure	84.57±7.08	87.57±6.50	(0.00**)	
After procedure	77.4±7.20	80.35±7.10		
Pulse Rate				
Before procedure	81.87±9.5	83.53±9.64	101.2	0.018 (.095)
During procedure	90.3±8.94	92.17±7.41	(0.00**)	
After procedure	83.08±8.55	84.75±8.67		

p<0.05 *Significant

Experimental group had significantly lower systolic blood pressure, diastolic blood pressure and pulse rate than the comparison group at p< 0.01 level.

Table 4:- findings related to distribution of anxiety among Monitors and Blunters undergoing liver biopsy in Experimental and Comparison group. $n_{1m}+n_{2m}=24+25$.

Coping style	Mean Anxiety Score		MD	SE	t value	p value
	Experimental group (Mean \pm SD)	Comparison group (Mean \pm SD)				
Monitor	6.42 \pm 2.827	8.44 \pm 3.831	2.02	0.577	3.022	0.041*

p<0.05 *Significant

The p-value is significant at 0.05 level, hence it can be interpreted that there was significant difference between anxiety of Monitors of experimental group and comparison group.

Table 5:- Association of Anxiety with coping style of experimental and comparison group $n_1+n_2=20+20$.

Coping Style	Mean Anxiety Score	SD	t value	p value
Monitors	8.77	4.03	1.557	0.124
Blunters	7.45	3.49		

Not significant $p \geq 0.05$

The t value was not found to be significant at p value of 0.05 level, which means there was no significant association between anxiety and coping style.

Conclusion:-

Information Pamphlet was found to be effective in decreasing the anxiety of patients undergoing Liver Biopsy. It was also found in the study that the individual who seeks information in stressful situation tends to cope up with their anxiety level in a better way as compared to individuals who avoids information in stressful situation.

Nursing Implications:

1. Information Pamphlet should be given to all patients coming for Liver Biopsy at the time of seeking appointment to reduce their anxiety.
2. Nurse educator should train the nurses regarding the importance of educating patients before liver biopsy procedure using information pamphlet.
3. Nursing administrator has the responsibility to make the policies and protocols which can be used by nurses for improvement of quality services.
4. Nurse administrator should plan for In-service education programs at regular intervals on Liver Biopsy.

Limitations of the study:

1. Principal Investigator faced difficulty during review of literature as studies in this area are few in Indian setting.
2. Study was conducted in a single setting in Endoscopy unit of Institute of Liver and Biliary Sciences which may have difficulty in generalization of findings.

Strength of the study:

1. Reliable, valid and standardized tools were used in the study.
2. All the patients who met the inclusion criteria were included in the.
3. Coping style was assessed prior to the procedure in both the groups which helped to know about the Monitors and Blunters.

Recommendations:-

1. The study can be replicated on a large sample for generalization of the findings.
2. Comparative study can be done to assess the anxiety between percutaneous and Transjugular Liver Biopsy.
3. Providing Pamphlet on Liver Biopsy should be included as routine at the time of seeking appointment.

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