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AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF COMMUNICATION BOARD ON THE COMMUNICATION PROCESS AMONG APHASIC PATIENTS AT SELECTED HOSPITALS, CHENNAI.

Rimi Sarkar M. Sc. (N) student

ABSTRACT Communication at the top list of the cause of sentinel events in hospitals. Patient's inability to communicate results in unrecognized pain, feelings of loss of control, depersonalization, anxiety, fear, distress and frustration. This study was conducted to assess the Effectiveness of Communication Board on the Communication Process among Aphasic Patients. Study was conducted using quasi experimental research design. The sample included 60 patients (30 in control group and 30 in experimental group) and were selected using purposive sampling technique. Data was collected by observation method with the help of rating scale and numerical as well as categorical scale. Result revealed that the communication process in the experimental group had high mean score in post-test (M=27.03, SD=5.64) compared to pretest (M=10.53, SD=6.71) of aphasic patients. The difference was statistically significant at p<0.001 level, whereas in the control group there was no significant difference between post-test (M=10.01, SD=5.08) and pre-test (M=9.93, SD=5.29) mean score among aphasic patients. This study emphasizes the use of the communication board for aphasic patients to improve their communication pattern.

KEYWORDS :

Introduction

Human being are always excited to meet new person, appear approachable to others and acquaintances, and are the kind of person who can just start chatting to a person on a working place, in line at the drug store, or when we are stuck on the bus. However, making a goal to smile at least 30% more on a daily basis, whether we are smiling at people we know, complete strangers, or acquaintances who cross our path, smiling will make us look like much more approachable, friendly person. Aphasia came from a Greek word Aphatos meaning speechless. Aphasia can cause impairment in speech and language modalities. Communication boards are both augmentative and alternative communication devices. Boards can be as simple as a laminated piece of paper or as complex as an electronic board with an electronic voice which speaks for the user.

Dickerson et al. (2002) confirm that patient's inability to communicate results in unrecognized pain, feelings of loss of control, depersonalization, anxiety, fear, distress and frustration. So the Joint Commission on Accreditation in Health care Organizations (JCAHO) placed communication at the top list of the cause of sentinel events in hospitals. However there is paucity of studies in this area especially in India. Hence the investigator have undertaken this study to assess the effect of communication board on communication process among aphasic patients.

Methodology

Quasi experimental research design was adopted for conducting this study at selected hospitals, Chennai. Sixty students were selected for the study using purposive sampling technique, out of which 30 were assigned to the control group and 30 in the experimental group who received the communication board as intervention. The instrument used in this study were Demographic Variables Proforma is used to measure the demographic variables such as age, gender and educational status etc. Clinical variables Proforma was used to measure the clinical variables such as cause of aphasia, surgery done or not, no of days of hospitalized, sedation used, GCS level of the patients. Rating Scale was designed to assess the communication process of aphasic patients. There were about 20 items with 3 responses scored as 2 for done, 1for partially done and 0 for not done. Individual items were totaled to obtain total score. Hence the obtainable score was 40. Combined Numerical and Categorical Scale is a visual analog scale was used to assess the level of satisfaction of patients who were using communication board. It consists of 10 points where minimum score was 0 and maximum was 10. The data was collected for 4 to 6 patients every day. The communication process of control group and experimental group were assessed by using rating scale and the level of satisfaction of the experimental group was assessed by Combined Numerical and Categorical Scale.

Results

Demographic data revealed that 40 % of the control group aphasic patients were in age group of ≤35 years, whereas in the experimental group it is 33.33%. It was also observed that majority were males 63.33% in the control group and 73.34 % in the experimental group of aphasic patients. In the control group 36.66% of the aphasic patients have studied up to higher secondary and in the experimental group 43.34% of the aphasic patients were graduates. There was no significant difference between the control and the experimental group with regard to demographic variables, indicating the homogeneity of the group.

Data collected from clinical variables indicates that ET tube was used among 36.66% in the control group and 30% in the experimental group of aphasic patients. Majority of the patients in the control group 76.67% and 66.6% in the experimental group of aphasic patients had no history of surgery. Regarding sedation use, 73.34% in the control group and 76.67% in the experimental group did not use sedation. Fifty percent in the control group and 53.34% in the experimental group had GCS between 8-12. There was no significant difference between the control and the experimental group with regard to clinical variables, indicating the homogeneity of the group.

Table 1: Comparison of Mean and Standard Deviation of Communication Process before and after the Use of Communication Board in the Control and the Experimental Group of Aphasic Patients.

Assessment	Control Group (n=30)			Experimental Group (n=30)		
	Mean	SD	paired t-test	Mean	SD	paired t-tes
Pre test	9.93	5.29	0.06	10.53	6.71	17.34***
Post test	10.01	5.08		27.03	5.64	

***p<0.001

It can be inferred from table 5, the communication process in the experimental group had high mean score in post-test (M=27.03, SD=5.64) compared to pretest (M=10.53, SD=6.71) of aphasic patients. The difference was statistically significant at p<0.001 level, whereas in the control group there was no significant difference between post-test (M=10.01, SD=5.08) and pre-test (M=9.93, SD=5.29) mean score among aphasic patients.

Table 2: Comparison of Mean and Standard Deviation of Communication Process before and after the Use of Communication Board between the Control and the Experimental Group of Aphasic Patients.

	Pre test			Post test		
	Mean	SD	Independent t-test	Mean	SD	Independent t-test
Control group	9.93	5.29	0.38	10.01	5.08	12.33***
Experimental group	10.53	6.71		27.03	5.64	

***p<0.001

Table 6 represents that, the experimental group of aphasic patients had higher mean score (M=10.53, SD=6.71) during pretest in comparison with the control group (M=9.93, SD=5.29) regarding communication process. The difference was not statistically significant. In posttest, the communication process in the experimental group had higher mean score (M=27.03, SD=5.64) in comparison with the control group (M=10.01, SD=5.08) of aphasic patients. The difference was statistically significant at p<0.001 level.

Table 3: Association between Selected Demographic Variables and Communication Process Before and After Administering Communication Board in the Control and the Experimental Group of Aphasic Patients.

Demographic Variables	Control Group (n=30)						Experimental Group (n=30)					
	Before Therapy			After Therapy			Before Therapy			After Therapy		
	Upto mean	Above mean	2	Upto mean	Above mean	2	Upto mean	Above mean	2	Upt	Abov	2
Age <50 years >50 years	126	84	0.15# df=1	124	86	1.14# df=1	146	64	0.36# df=1	105	105	-
Gender Male Female	126	75	0.21 df=1	116	85	0.03 df=1	155	73	0.21# df=1	123	105	0.84# df=1
Educational status Upto secondary Above secondary	144	84	0.88# df=1	133	95	1.13# df=1	1010	73	1.21# df=1	78	105	1.22 df=1

Yates correlated value, NS=Not Significant

The data from this table denoted that there was no significant association between selected demographic variables and communication process of aphasic patients.

Table 4: Association between Selected Clinical Variables and Communication Process Before and After Administering Communication Board in the Control and the experimental group of aphasic patients.

Clinical Variables	Control Group (n=30)						Experimental Group (n=30)					
	Before Therapy			After Therapy			Before Therapy			After Therapy		
	Upto mea	Above mean	x^2	Upto mean	Above mean	x^2	Upto mean	Above mean	x^2	Upto mean	Above mean	x^2
Surgyes no	5 13	2 10	0.74# df=1	4 12	3 11	0.21# df=1	7 13	3 7		5 9	5 11	
Sedation used yes no	7 11	1 11	3.74# df=1	7 9	1 13	5.25#* df=1	6 14	1 9		4 10	3 13	
GCS level <12 >12	15 0	3 12	20.13# *** df=1	14 2	1 13	19.41# *** df=1	16 4	0 10		11 3	5 11	

***** p<0.001, **p<0.01, *p<0.05, # Yates correlated value,**

Data from this table revealed that there was a significant association between GCS level and communication process of aphasic patients in the control group pretest ((^{2}=20.13, p<0.001), post-test (^{2}=19.41, p<0.001) and the experimental group pretest (=17.1, p<0.001) and post-test (^{2}=6.76, p<0.01).There was a significant association between sedation used and communication process in the control group after therapy (^{2}=5.25) at p<0.05 level, whereas there was no significant association between the other clinical variables such as surgery, sedation and communication process of patients using communication board.

Discussion

The communication process in the experimental group had high mean score in post-test (M=27.03, SD=5.64) compared to pretest (M=10.53, SD=6.71) among aphasic patients. The difference was statistically significant at p<0.001 level, whereas in the control group there was no significant difference between post-test (M=10.01, SD=5.08) and pre-test (M=9.93, SD=5.29) mean score among aphasic patients. Communication board have upstanding impact on communication process of aphasic patients. The study findings were supported by similar study conducted by Basso et al. (2003) to find out whether chronic aphasia patients get benefit from a very intensive therapeutic regime. The results revealed that 86 patients recovered out of 100 patients.

Conclusion

The findings of the study revealed that communication pattern of aphasic patients are not influenced by age, gender and educational status. All aphasic patients have difficulty in communicating their needs to health care team members. This study emphasizes the use of the communication board for aphasic patients to improve their communication pattern.

Implication for practice

The nurse needs to understand the importance of Communication and identify the need and problems of the patients. The findings of the study showed that the communication board facilitates communication between intubated patients and nurses. Hence there is a need of implementing the board in hospitals as a part of holistic care. The nurse must update their knowledge in research and try to incorporate those findings into nursing practice.

Ethical consideration

The study was conducted after obtaining permission from HOD, Principal, Ethical clearance from ethics committee of Apollo main hospital, Chennai. Consent was obtained from all the patients before the data collection. Confidentiality was maintained throughout the study

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