

The Relationship Between the Means of Communication and a self-help group for laryngectomized Patients

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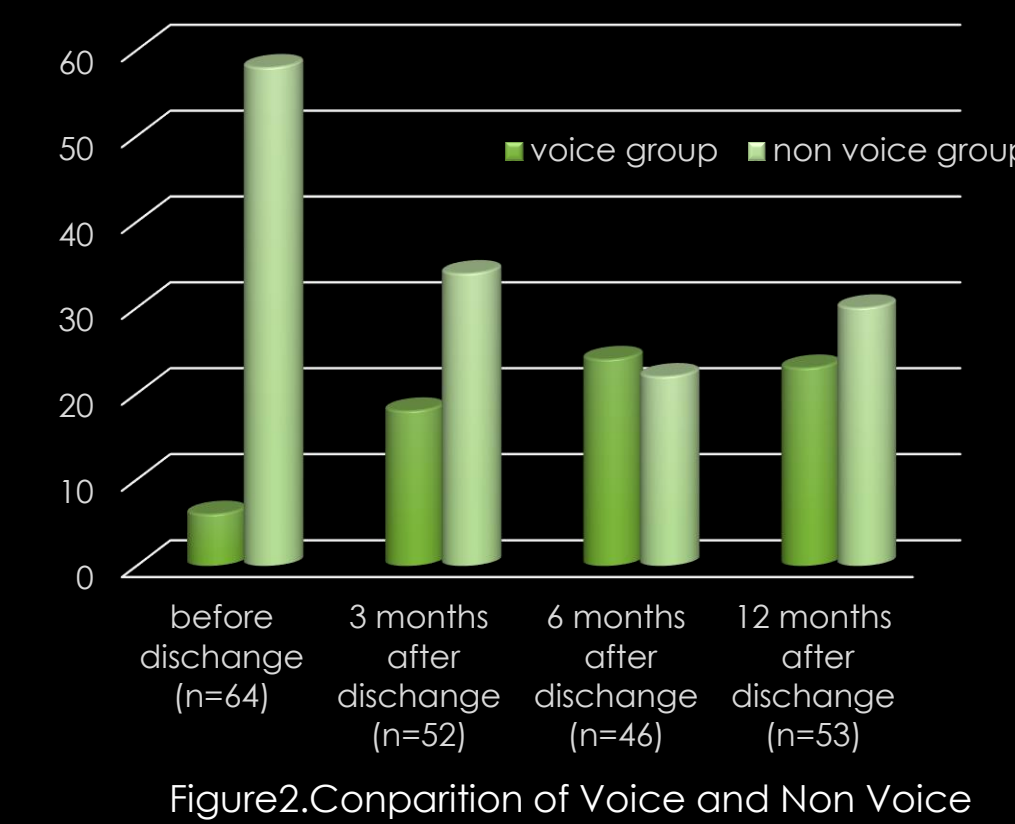
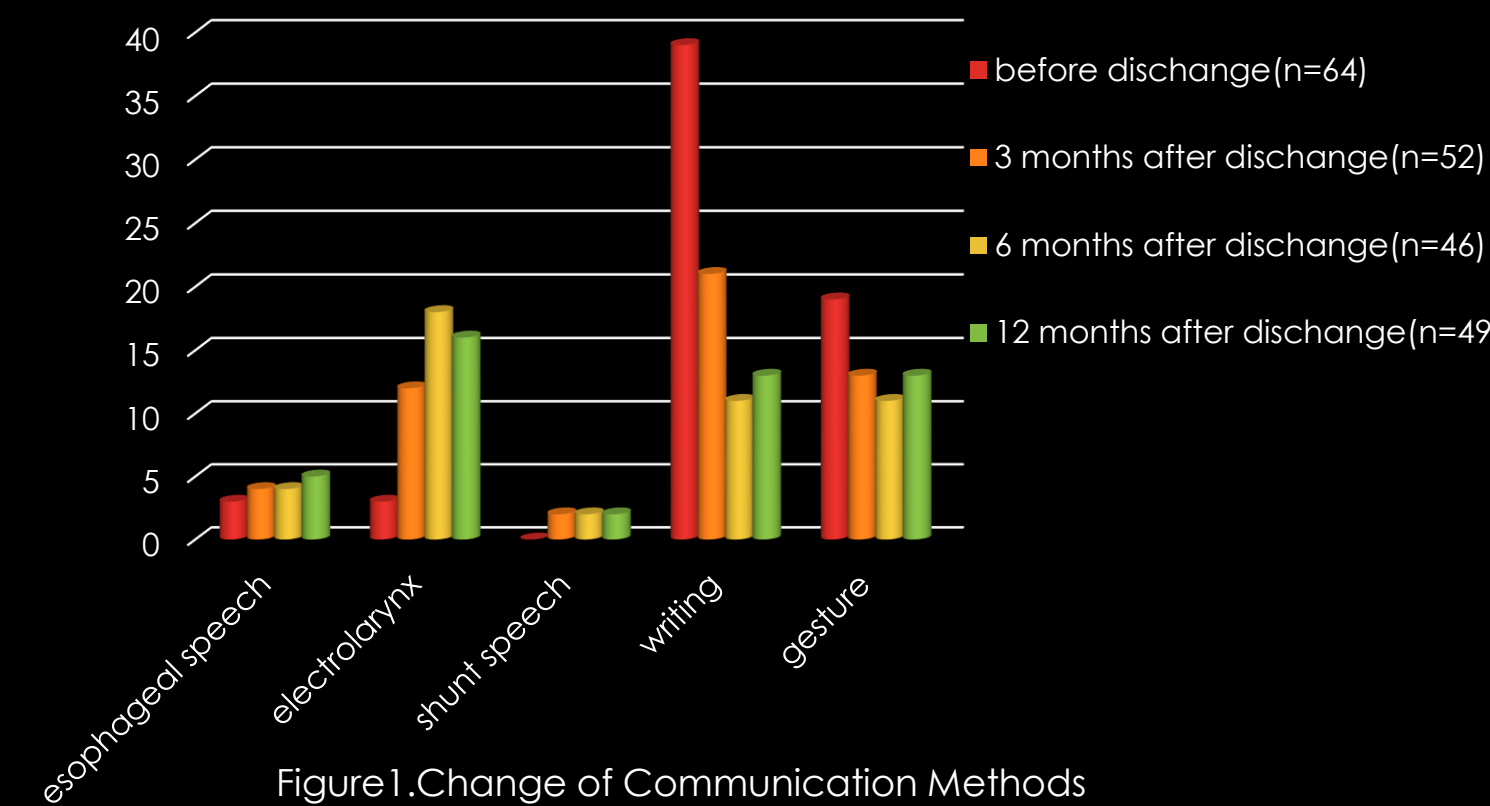
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Purpose:

The aim of this research is to examine the means of communication used by laryngectomized patients by clarifying how their admission to a self-help group affects their means of communication.

table1. Characteristics of study participants

item	number	(%)	mean	SD	range
Age	64	100	67.3 ± 8.9		46-82
Sex					
mail	56	87.5			
femail	8	12.5			
No. of family member					
1	8	12.5			
2 or more	56	87.5			
Employment status					
employe	30	46.9			
unemployr	28	43.8			
no respons	6	9.3			



Methods:

Subjects were 43 patients who underwent laryngectomy in three university hospitals in Fukuoka Prefecture which agreed to cooperate in our research. Self-administered questionnaires were handed directly to or mailed to patients before discharge from hospital and mailed to them three, six, and twelve months after discharge from hospital. We checked subjects' age, sex, employment status, family structure, communication methods (esophageal speech, electrolarynx, shunt speech, written message, and gesture), conversation time, and admission to a self-help group. We collected descriptive statistics of their basic attributes and communication methods. We then classified communication methods into two groups – speech (esophageal speech, electrolarynx, and shunt speech) or no speech (written message and gesture) and analyzed their changes of communication methods after discharge from hospital by the Cochran-Mantel-Haenszel test. The admission to and the participation in a patients association was tested by a chi-square test.

This study was approved by Institutional Review Boards (IRBs) in each hospital. We explained to subjects that we protect their privacy both verbally and in written forms. We asked those who agreed to participate in this research to sign the letter of consent before conducting survey.

Results: I showed the characteristics of study participants in table 1. The number of subjects decreased sequentially. On the means of communication those who used esophageal speech were 3 (7%) before discharge from hospital and 5 (15.2%) twelve months after it. Those who used electrolarynx were 3 (7.0%), 12 (31.6%), 18 (52.9%), 16 (48.5%) before, three months after, six months after, and twelve months after discharge from hospital, respectively. Those who used shunt speech were 0 before discharge from hospital and became 2 (5.3 to 6.1%) after that. Those who used written messages were 38 (88.4%) before discharge from hospital, decreasing to 11 (44.1%) three months after that and increasing to 17 (51.5%) twelve months after that. Those who used gesture were 19 (44.2%) before discharge from hospital, hovering around 11 to 13 (32.4% to 39.4%) after that (Figure1). Many respondents answered that they used both speech and no speech as the means of communication. Those who used speech increased gradually from 5 (11.6%) before discharge from hospital to 22 (71.0%) twelve months after it. Those who used no speech gradually decreased from 58 (90.6%) before discharge from hospital to 30 (56.6%). This trend of increase and decrease was statistically significant on all periods ($p < 0.0001$) (Figure2). The number of those who do not make a conversation was two (4.7%), eleven (25.6%), and nine (20.9%) in pre-discharge from hospital, 30-to-60 minutes, and 60-to-180 minutes, respectively. Average conversation time for 13 patients (38.2%) three months after discharge from hospital was 60-to-180 minutes, followed by 30-to-60 minutes by seven patients (20.6%) and 180-to-360 minutes by seven patients (20.6%). Eleven patients (45.8%) answered that their average conversation time was 60-to-180 minutes six months after discharge from hospital while four patients (2.9%) did not make a conversation. Those who made conversation for 30-to-60 minutes were 11 (33.3%) eleven months after discharge from hospital, followed by 10 patients (30.3%) who spoke for 60-to-180 minutes. The number of those who were admitted to a self-help group was 13 (32.5%) before discharge from hospital, 14 (42.4%) three months after it, 17 (51.5%) six months after it, and 12 (38.7%) twelve months after it. More specifically, the number of those who were admitted to a self-help group in the group of speech and the group of no speech was 0 (0%) and 13 (100%) before discharge from hospital, 10 (71.4%) and 4 (28.6%) three months after it, 15 (88.2%) and 2 (11.8%) six months after it, and 11 (91.7%) and 1 (8.3%) twelve months after it, respectively. The analysis of patients three months after discharge from hospital revealed that those who were admitted to a self-help group were more likely to rely on speech than those who were not ($p=0.02$) but there were no self-help group with the means of communication at a statistically significant level.

table2. Communication methods and self-help group

	before discharge			3 months after discharge			6 months after discharge			12 months after discharge		
	participati on	nonparticipati on	p value	participati on	nonparticipati on	p value	participati on	nonparticipati on	p value	participati on	nonparticipati on	p value
speech	0	3	—	10	6	0.036 *	15	8	0.612	11	11	—
no speech	13	24	—	4	13	—	2	2	—	8	0	—
	32.5%	60.0%		13.8%	44.8%		5.0%	5.0%		20.0%	0.0%	
Fisher's exact test	* $p < .05$											

Discussion:

More than fifty percent of laryngectomy patients used no speech such as written message and gesture before discharge from hospital but many of them gradually acquired the speech skills after discharge from hospital. Yet, there was no one who relies only on the means of speech. Esophageal speech is based on the technique in which patients draw air into the esophagus and regurgitate it, producing a vibration in the pharyngoesophageal segment. The training of esophageal speech involves a heavy physical and mental burden on patients, so that only five patients used it twelve months after discharge from hospital. It is expected that there are few patients who want to master it. Yet, most laryngectomized patients tried to be accustomed to social life by using both speech and no speech because they expected to face some difficulties on their daily life if they rely only on no speech. It also clarified that conversation time gradually increased after discharge from hospital. It is considered that this is because those who had jobs returned to work and some patients participated in a self-help group. The increase of those who do not have a conversation six months after discharge from hospital implies that they might be cut off from their social connections by living alone, leaving a job, or failing to participate in a self-help group. It has been considered that it is necessary to join a self-help group and conduct training by regularly attending its events in order to acquire the means of communication by speech. Yet, there was no association between the means of communication and the participation in a patients' association although there was a significant association between the means of communication and the admission to a self-help group three months after discharge from hospital. Those who were admitted to a self-help group were more likely to acquire the means of communication by speech as time passed but its pace declined eleven months after discharge from hospital. Previous studies reported that patients failed to participate in a self-help group due to their own problems such as their physical problems and the unavailability of transportation to the place of a meeting. In other words, it is suggested that some patients who participated in a patients' association for acquiring the means of communication by speech gave it up because they did not feel well and did not want to talk to others, and the place of a meeting was not conveniently located. Yet, laryngectomized patients could acquire necessary information such as the means of communication by sound such as electrolarynx by joining a self-help group, showing that it becomes the support for the reconstruction of communication. This study revealed that laryngectomized patients' acquisition of the means of communication is affected by their decision to join a self-help group, suggesting that it is important for them to understand the necessity to join it.