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EVALUATION OF INDIVIDUALS SATISFACTION WITH COMMUNICATION AFTER A TOTAL LARYNGECTOMY

AVALIAÇÃO DA SATISFAÇÃO DA COMUNICAÇÃO DE INDIVÍDUOS APÓS LARINGECTOMIA TOTAL

EVALUACIÓN DE LA SATISFACCIÓN DE LA COMUNICACIÓN DE INDIVIDUOS DESPUÉS LARINGECTOMÍA TOTAL

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ABSTRACT

Objective: to evaluate patient's satisfaction with communication after a total laryngectomy. **Method:** an exploratory study which adopted a quantitative approach and was carried out in a large state hospital with 50 individuals. Data were collected using the tool "Questionário de Avaliação da Comunicação após Laringectomia Total," a questionnaire prepared for the evaluation of communication after a total laryngectomy, and analyzed with computer software. **Results:** the majority of participants were retired men over 50 years of age. The study shows that 33.6% of patients are on the maximum score of the functional scale, and are satisfied with this aspect. On the evaluation of satisfaction of communication, on the other hand, which evaluates the satisfaction of communication after a total laryngectomy, most participants (27.5%) are on score 3, which indicates a regular satisfaction with the present form of communication. **Conclusion:** this study shows the importance of the support care offered by nurses together with the multidisciplinary team to attend to the psychosocial dimension during the rehabilitation process, which eases the patient's return to everyday life.

Keywords: Rehabilitation; Communication; Laryngectomy; Tumors of the Larynx.

RESUMO

Objetivo: avaliar a satisfação da comunicação do paciente após a laringectomia total. **Método:** estudo exploratório, de abordagem quantitativa, realizado em um hospital público de grande porte, com 50 indivíduos. Os dados foram coletados por meio do "Questionário de Avaliação da Comunicação após Laringectomia Total" e analisados por meio de um software. **Resultados:** predominância do sexo masculino, acima de 50 anos e aposentados. O estudo mostra que 33,6% dos pacientes encontram-se no escore máximo da escala funcional, demonstrando satisfação com este aspecto, ao passo que, na avaliação da satisfação da comunicação, a qual avalia a satisfação da comunicação após a laringectomia total, a maioria (27,5%), encontra-se no escore 3, indicando uma satisfação regular da atual forma de comunicação. **Conclusão:** o presente estudo demonstra a importância do suporte assistencial do enfermeiro junto à equipe multidisciplinar, visando à dimensão biopsicossocial no processo de reabilitação, facilitando o retorno do paciente à vida cotidiana.

Descritores: Reabilitação; Comunicação; Laringectomia; Neoplasias Laríngeas.

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RESUMEN
Objetivo: evaluar la satisfacción de la comunicación del paciente después de la laringectomía total. **Método:** estudio exploratorio, de abordaje cuantitativo, realizado en un hospital público de gran porte, con 50 individuos. Los datos fueron recolectados a través del "Cuestionario de Evaluación de la Comunicación después de la Laringectomía Total" y analizados a través de un software. **Resultados:** predominio del sexo masculino, por encima de 50 años y jubilados. El estudio muestra que el 33,6% de los pacientes se encuentran en el puntaje máximo de la escala funcional, demostrando satisfacción con este aspecto, mientras que, en la evaluación de la satisfacción de la comunicación, la cual evalúa la satisfacción de la comunicación después de la laringectomía total, (27,5%), se encuentra en la puntuación 3, indicando una satisfacción regular de la actual forma de comunicación. **Conclusión:** el presente estudio demuestra la importancia del apoyo asistencial del enfermero junto al equipo multidisciplinario, visando la dimensión biopsicosocial en el proceso de rehabilitación, facilitando el retorno del paciente a la vida cotidiana.
Descriptores: Rehabilitación; Comunicación; Laringectomía; Neoplasias Laríngeas.

INTRODUCTION

Laryngeal cancer is one of the most common to affect the head and neck according to the Brazilian National Cancer Institute (INCA). This type of cancer represents 25% of tumors affecting this area and 2% of all cancers. Laryngeal cancer may develop in any of the three anatomical regions the organ is divided into: the supraglottis, glottis and subglottis.[1]

INCA estimates, for the year of 2016, that there will be about 7,350 new cases of laryngeal cancer in Brazil, 6.360 in men and 990 in women.[2] The incidence of this type of cancer is higher in men over 40 years of age as data from INCA and research indicate.[2,3]

Amongst etiological factors related to laryngeal cancer, smoking is the most relevant, especially when combined with alcoholism. There are also other risk factors associated, such as family history, bad eating habits, low socioeconomic status, chronic inflammation of the larynx caused by gastroesophageal reflux, human papillomavirus (HPV) and, regarding occupational risk factors, long and intense exposure to wood dust, and certain chemical agents used in the metallurgical, oil, plastic and textile industries, besides asbestos, may increase the risk for laryngeal cancer and hypopharyngeal cancer.[2,4]

One of the main treatments for advanced stage laryngeal cancer is the total laryngectomy.[5] The individual's physiology change after a total laryngectomy, since the surgery implicates the removal of the structures responsible for natural voice production. It also occurs a definitive transfer of the nasal airflow to the tracheostoma, which alters smell and taste perception.[6]

This type of cancer generates apprehension and fear in people due to surgeries in the larynx sometimes causing functional and aesthetical mutilations. The repercussions really impact on patients and exacerbate their feelings of vulnerability, sadness and fear[8] because most of the procedures affect self-image, change functional anatomy, and alter how the patient experience breathing, eating and oral communication.

Oral communication is recognized in our culture as an important tool for social insertion and interaction, and the deterioration of communication caused by the laryngeal cancer and its treatment leads to a high prevalence of anxiety in patients who have undergone a total laryngectomy.[7] The loss of satisfaction with oral communication is the main reason for the abrupt interruption in patients' social lives after a total laryngectomy. Such interruption causes significant social and psychological changes. Failures during the adaptation period of the rehabilitation of communication frequently result in refusal to engage in social activities and hurt these individuals' quality of life.[8]

A total laryngectomy causes the complete loss of the natural voice produced in the larynx. However, that does not implicate the loss of the ability to speak or of language itself. Vocal rehabilitation is possible through the esophageal voice, which substitutes the laryngeal voice by using the digestive tract to produce sound, or through the use of voice prosthesis.[1]

Patients usually need speech rehabilitation after a total laryngectomy to help them adapt to their new speaking situation, be it through esophageal voice, electronic larynx, or voice prosthesis.[9]

Despite vocal rehabilitation being a phonoaudiologist responsibility, nurses play an important role in a multidisciplinary team. The perioperatory assistance offered by nurses is very important for patients with cancer of the larynx because it includes physical and emotional care, which means nurses have information that favours the patients' adaptation after the surgery and work as a link with the multidisciplinary team since they spend more time with patients than any of the other professionals.

The loss of oral communication and the physical changes caused by the presence of a stoma causes great pain to patients with laryngeal cancer. This new condition causes patients to isolate themselves and has repercussions in their social lives and quality of life. Therefore, it is considered important that tools are used to evaluate the main aspects related to communication that are affected after a total laryngectomy in order to provide strategies to ease the patients' reinsertion in their social lives.

Thus, this study intends to evaluate the patient's satisfaction with communication after a total laryngectomy.

METHODOLOGY

This is an exploratory, descriptive, cross-sectional, quantitative study carried out in the Head and Neck outpatient ward of a state hospital in the southeast of Brazil.

The population study is made up of all patients cared for in the Head and Neck Outpatient Ward who underwent a total laryngectomy with a postoperative time period of three to six months. The accidental probability sample included 50 patients who agreed to partake in the study by providing informed consent through the signing of the form Termo de Consentimento Livre e Esclarecido (TCLE).

Inclusion criteria included: being older than eighteen, being in a postoperative time period of less than a year after a total laryngectomy. Patients in a postoperative time period longer than six months were excluded as were those who had difficulties understanding simple questions, which is indicative of alopsychic orientation, like birth date, address and weekday.

Data collection happened from January through June 2012, with the tool "Questionário de Avaliação da Comunicação após Laringectomia Total", a questionnaire for the evaluation of communication after a total laryngectomy, which had already been validated.[8] this questionnaire evaluates patient's satisfaction with communication after a total laryngectomy and presents objective questions which make it easier for participants to answer.

It is made up of 94 items, of which 14 are for sample characterization, 9 are for the characterization of the surgical procedure, 56 were specifically designed for the functional evaluation of communication and 15 for the evaluation of patient's satisfaction with communication after a total laryngectomy. It is a Likert-type scale with scores that range from not at all (score 1) to a lot (score 5).

The subscale of the functional evaluation of communication is made up of 56 items and the one for the evaluation of satisfaction with communication is made up of 15 items. For the former, the minimum score is 56 and the maximum possible score is 280, while for the latter the minimum is 15 and the maximum possible is 75. The higher the score, the more positivity regarding the domain studied.

The data obtained were arranged in an Excel spreadsheet and exported to the computer software Statistical Package for Social Science (SPSS), version 15.0. In the statistical analysis, the characteristics of patients are described as frequencies and percentages when dealing with qualitative variables, or as means and standard deviation in the case of quantitative variables.

The research project was approved by the Institutional Ethics Comittee, and confidentiality was maintained regarding the identity of subjects, in agreement with Resolution 466/2012, of the Brazilian National Health Council (CNS), protocol no. 4444/2010. All participants provided informed consent through the signing of the form "Termo de Consentimento Livre e Esclarecido – (IC)" in two copies, of which one was given to the participant and another was kept by the researcher.

RESULTS

The sample was made up of 50 participants who fit the inclusion criteria, of which 22% came from the city of Ribeirão Preto and 88% from its surrounding towns. Participants were mostly males (70%), over 50 years of age (74%), and married (31%). Table 1 shows the characteristics of subjects according to gender, age, marital status and religion.

Table 1 – Socio-demographic characteristics of patients who have undergone a total laryngectomy. Ribeirão Preto, São Paulo, Brazil 2012. (n=50).

Variable	N (n=50)	%
Age (years)		
30⊢ 40 years of age	01	2.0
40⊢ 50 years of age	12	24.0
50⊢ 60 years of age	19	38.0
60⊢ 70 years of age	12	24.0
70⊢ 80 years of age	05	10.0
≥ 80 years of age	01	2.0
Gender		
Male	35	70.0
Female	15	30.0
Marital status		
Married	31	62.0
Single	07	14.0
Widower	04	8.0
Divorced	08	16.0
Religion		
Catholicism	38	76.0
Protestantism	07	14.0
Spiritism	01	2.0
None	04	8.0

Source: own source

Table 2 shows the characteristics of subjects by current occupational situation.

Table 2- Characteristics of subjects regarding occupational situation. Ribeirão Preto, São Paulo, Brazil, 2012. (n=50).

Variable	N (n=50)	%

Retirement		
Yes	31	62.0
No	19	38.0
Reason for Retirement		
Prior to disease	17	34.0
Due to disease	14	28.0
Not retired	19	38.0

Source: own source

Analysis of satisfaction with communication and functional evaluation

The functional evaluation of communication scale includes items that evaluate voice quality regarding intelligibility, volume, timbre, fluency, and intelligibility on the telephone, while the scale of satisfaction with communication evaluates the patient's satisfaction with communication after the laryngectomy.

The frequency and percentage of answers by the 50 patients are distributed into two subscales of the tool and presented in Table 3.

Table 3-Distribution of frequencies and percentages of functional evaluation and satisfaction of patients. Ribeirão Preto, São Paulo, Brazil, 2012. (n=50).

Scores	**1 N(%)**	**2 N(%)**	**3 N(%)**	**4 N(%)**	**5 N(%)**	**Total N(%)**
Functional Evaluation	533 (19.6)	391 (14.3)	375 (13.8)	508 (18.6)	916 (33.6)	2.723 (100.0)
Evaluation of Satisfaction	163 (22.9)	144 (20.3)	195 (27.5)	169 (23.8)	39 (5.5)	710 (100.0)

Source: own source

Table 4 shows the mean and standard deviation of answers in the subscales, and it can be observed that the higher mean was found in the subscale of functional evaluation, which corroborates the good functional evaluation by the subjects. Regarding the mean of the evaluation of satisfaction with communication, it is a little above the mean of the lowest and highest scores.

Table 4- Mean and standard deviation of answers to the functional evaluation and the evaluation of satisfaction by the subjects, Ribeirão Preto, São Paulo, Brazil, 2012. (n=50)
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Subscale	Mean	Standard Deviation	Total
Functional Evaluation	181.04	40.30	2,723
Evaluation of Satisfaction	38.14	14.56	710

Source: own source

Table 5- Type of communication used by the subjects, Ribeirão Preto, São Paulo, Brazil, 2012. (n=50).

Type of Communication	*N (n=50)*	*%*
Lip Movement/Gesture	24	48
Mouthwash voice	01	02
Esophageal voice	21	42
Tracheoesophageal voice prosthesis	04	08

DISCUSSION

The sociodemographic characteristics of the patients after a total laryngectomy are similar to those observed by other researches carried out in Brazil[5,10,11], and show that the highest incidence of laryngeal cancer is amongst men over 50 years of age.

An important aspect observed in this study was the fact that 28% of the retired patients retired due to the disease, which was also observed in another study.[5] That shows the importance of taking a special look at the rehabilitation of individuals after a total laryngectomy in the context of the labour market, in order for patients to have their independence and self-esteem preserved.

The return to work after a total laryngectomy is one of the biggest issues for patients' rehabilitation because some adaptations are needed for them to keep performing any sort of occupational activity. Inclusion in the workplace is a very important matter for individuals who have undergone a total laryngectomy and should be more addressed in the literature. Working makes a person feel useful since, besides contributing to support the family, it is also an opportunity to regain a social life.[12]

Going back to work helps individuals get back to the life they had before the laryngectomy. However, the reintegration of the patient to the labour market after a total laryngectomy may be stressful and cause psychological distress due to several difficulties caused by the treatment, such as changes in body image, an altered emotional state, functional alterations influencing communication and feeding etc.[12,13]

Verbal communication is considered an important tool for social interaction and social life by our society.[7] The rehabilitation after a total laryngectomy is a very important issue and must be treated in a multidisciplinary manner in order to ease the process of social reinsertion.[14]

There are different methods for vocal rehabilitation of patients after a total laryngectomy, such as the usage of a voice prosthesis, the usage of an electronic larynx and/or electrolarynx, and the development of an esophageal voice.[14] On the other hand, it cannot be ignored the impact that a total laryngectomy has on the patient's various aspects of survival: physical (comfort and pain), personal, familial, social and professional. Thus rehabilitation involves physical, psychological and functional aspects.

Regarding the functional evaluation, it was observed that most patients (33.6%) are on the highest score, which shows they are satisfied with the functional part which involves items that evaluate voice quality regarding intelligibility, volume, timbre, fluency, and intelligibility on the telephone. This corroborates a study carried out in the 90s which analyzed 59 individuals after a total laryngectomy and reported that half of them was satisfied with voice quality.[15] On the other hand, it goes against results from other studies[16,17], which found out that speaking is the aspect with which patients have most difficult and are most unhappy about.

With respect to the evaluation of satisfaction, the patients who had undergone a total laryngectomy reported regular levels of satisfaction with their present form of communication, with most scoring 3 or 4 on the scale. It shows that despite them being satisfied with being able to communicate and be understood, they are apprehensive with their new condition as shown in a different study[16], which found out that individuals that had undergone a total laryngectomy felt discomfort in their voices and believed that discomfort was passed on to the listener through a speech with characteristics of tension, a lot of secretion and hoarseness.

The voice performs an important role in transmitting ideas, wishes and emotions, being essential for communicating and having a social life. Making use of a new form of communication is one of the main difficulties faced by individuals who have undergone a total laryngectomy, both in regard to the psychosocial adaptation and to the rehabilitation since it is a slow process that demands a longer time frame.[17]

The forms of communication used by the patients were predominantly (48%) lip movement/gesture and esophageal voice (42%). The satisfaction of patients with communication after a total laryngectomy seems to be related to the preservation of their natural ability for oral communication.

As a consequence of the total laryngectomy, patients lose the basic speech mechanism for the production of laryngeal voice due to the removal of the entire phonation organ, which justify the need for vocal rehabilitation.

Amongst the methods for vocal rehabilitation for patients after a total laryngectomy, the esophageal voice is initially the best option due to the absence of costs and the fact that it does not require the occlusion of the tracheostoma or the use of an artificial device. The sound is lower, however, which demands practice and motivation from the patient.[18]

The use of voice prostheses, on the other hand, has the advantage of offering good voice quality: the voice sounds clearer and more intelligible. The phonation period is also generally longer, which makes it more intelligible than esophageal voice. However, it is more expensive, surgical intervention is needed for insertion, and it involves risks related to postoperative complications such as aspiration pneumonia, esophageal stricture, and recurring fistulas.[19]

The issues related to voice loss, to speech intelligibility, and to the presence of a stoma are stressful and cause more biopsychosocial difficulties for the individuals thus generating anxiety and fear of being rejected by others, besides negatively impacting the quality of life of these patients.[19,20]

The processes for rehabilitation and reinsertion of these patients must be assessed individually, respecting their psychological and physical frailty, with the intention to come up with strategies to soften the impact caused by the changes presented as physical disability.[20]

CONCLUSION

Patients who have undergone a total laryngectomy report satisfaction with its functional aspect and are regularly satisfied with the form of communication.

The results of this research indicate the indispensability of the rehabilitation process for individuals to be able to go back to their daily lives and have some satisfaction with communication after the surgery. Therefore, it is understood that the work of a multidisciplinary team is necessary for a holistic approach to treatment which provides the required attention to the biological needs as well as the psychological and social ones.

The recognition of the importance of rehabilitation as a coping and adapting strategy to a patient's new condition allows the nursing professional to plan and provide assistance in the most comprehensive way possible. A limiting factor in this study was its cross-sectional design which did not allow for the monitoring of the evolution of the patient's adaptation to a new form of communication. It was a single evaluation at one specific moment. It is important that longitudinal studies be carried out to monitor the whole postoperative period, even the rehabilitation processes, and to identify the time of greatest need or difficult in which patients need more interventions and/or assistance from the multidisciplinary team.

The results found out in this study will contribute to demonstrate to the nurse team and other health professionals the importance of the rehabilitation processes after a total laryngectomy for patients to adapt faster to the physical and physiological changes experienced.

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