

**Sigma's VIRTUAL 31st International Nursing Research Congress (Wednesday, 22 July - Friday, 24 July)**

## **Employment Status and QOL With Laryngectomized Patients**

**Kazuyo Iwanaga, MSN, RN**

*Faculty of Medicine, School of Nursing, Fukuoka-University, Fukuoka, Japan*

Kumiko Kotake, PhD, RN

*Faculty of Nursing, Graduate school of Nursing, Nara Medical University, Kashihara, Japan*

Yoshimi Suzukamo, PhD

*Department of Physical Medicine and Rehabilitation, Tohoku University, Graduate School of Medicine, Sendai, Japan*

Ichiro Kai, PhD, MD, MPH

*Social Gerontology• School of Public Health, The University of Tokyo, Tokyo, Japan*

Yoko Ishibashi, MSN, RN

*Faculty of Medicine, School of Nursing, Fukuoka University, Fukuoka, Japan*

Kaori Haba, MSN, RN, PHN

*Faculty of Nursing, Nara Medical University, Kashihara, Japan*

Aya Takahashi, MSN, RN, PHN

*Faculty of Health Sciences• CDepartment of Nursing, Saitama Prefectural University, Koshigaya, Japan*

Mami Miyazono, PhD

*Department of Nursing, Fukuoka Nursing College, Fukuoka, Japan*

Yuki Nagamatsu, MSN, RN, PHN

*Department of Adult Health Nursing, University of Occupational and Environmental Health@Department of Nursing, Kitakyushu, Japan*

### **Purpose:**

The purpose of this research is to clarify the change of employment status and quality of life (QOL) from before surgery to twelve months after discharge from hospital among laryngectomized patients.

### **Methods:**

Subjects were 199 patients who underwent laryngectomy at six hospitals in Japan and agreed to participate in the research. A leaving method was used to collect questionnaire before surgery and at the time of discharge from hospital. A mailing method was used three, six, and twelve months after discharge from hospital. They were asked about age, sex, family configuration, employment status, and QOL. QOL was measured using the SF-36, generic scale composed of physical functioning (PF), role physical (RP), bodily pain (BP), general health perceptions (GH), vitality (VT), social functioning (SF), role emotion (RE), and mental health (MH). Then, norm-based scoring (NBS) based on the national standard value (50) was calculated. We collected descriptive statistics of basic attributes and employment status. A chi-square test was conducted for the analysis of association of employment status, sex, and family configuration with periods ( $p < .05$ ). Analysis of variance was conducted for the analysis of association between age and periods ( $p < .05$ ). The Wilcoxon signed-ranks test was

used to detect differences between QOL and its national standard value ( $p < .05$ ). This research was approved by the Research Ethics Committee at Fukuoka University.

**Results:**

The mean age of patients at the time of surgery was  $64.6 \pm 8.6$  years old (ranging from 39 to 82). They were 176 males (88.4%) and 23 females (11.6%). The mean age of those who were not working was significantly higher than that of those who were working at all time periods. Sex and family configuration failed to affect employment status at a significant level. Before surgery, QOL was significantly different in PF\_N, RP\_N, GH\_N, SF\_N, RE\_N, and MH\_N for those who were working, and in PF\_N, RP\_N, GH\_N, BP\_N, SF\_N, RE\_N, and MH\_N for those who were not working. There were significant differences in all subscales at three months after discharge from hospital. At six months after discharge from hospital, there were significant differences in all subscales for those who were working, and in all subscales except VT\_N for those who were not working. At twelve months after discharge from hospital, there were significant differences in PF\_N, RP\_N, GH\_N, SF\_N, and RE\_N for those who were working, and in PF\_N, RP\_N, BP\_N, GH\_N, VT\_N, SF\_N, and RE\_N for those who were not working.

**Conclusion:**

QOL was generally declining before surgery and remained low until twelve months after discharge from hospital. It was found that, regardless of whether or not they were working, their low physical functions and pain continued, restricting their daily lives for physical and psychological reasons. It is thought that those who continue to work face difficulties in the workplace. It is necessary to continue physical and psychological support for those who want to continue to work after their discharge from hospital. Therefore, we must establish a support system from employers.

---

**Title:**

Employment Status and QOL With Laryngectomized Patients

**Keywords:**

employment status, laryngectomized patients and quality of life

**Abstract Summary:**

We longitudinally examined employment status and quality of life with 199 laryngectomized patients. QOL assessed by the SF-36 was low until twelve months after discharge. It is necessary to continue physical and psychological support for those who want to continue to work after their discharge from hospital.

**References:**

- Kotake K, Kai I, Iwanaga K, Suzukamo Y, Takahashi A. (2019): Effects of occupational status on social adjustment after laryngectomy in patients with laryngeal and hypopharyngeal cancer, *Eur Arch Otorhinolaryngol*, 276(5), 1439-1446.
- Fukuhara S, Suzukamo Y. (2004)(2019): Manual of SF-36v2 Japanese version, iHope International Inc, Kyoto.

- Costa JM, López M, García J, et al. (2018): Impact of total laryngectomy on return to work, Acta Otorrinolaringol, 69(2), 74-79.
- Mertl J, Žáčková E, Řepová B, et al. (2018): Quality of life of patients after total laryngectomy: the struggle against stigmatization and social exclusion using speech synthesis, Disabil Rehabil Assist Technol, 13(4), 342-352.
- Singer S, Keszte J, Dietz A, et al (2013): Vocational rehabilitation after total laryngectomy, Laryngorhinootologie, 92(11), 737-745.
- Bickford J1, Coveney J, Baker J, Hersh D. (2013): Living with the altered self: A qualitative study of life after total laryngectomy, Int J Speech Lang Pathol, 15(3), 324-333.

First Primary Presenting Author

**Primary Presenting Author**

Kazuyo Iwanaga, MSN, RN  
 Fukuoka University  
 Faculty of Medicine, School of Nursing  
 Associate Professor  
 Jonan-ku  
 Fukuoka  
 Japan

**Author Summary:** I am belonging to the division of fundamental department as a researcher. I teach fundamental nursing classes and practices for undergraduate students etc. I am also a member of the research ethics committees at our university.

Second Secondary Presenting Author

**Corresponding Secondary Presenting Author**

Kumiko Kotake, PhD, RN  
 Nara Medical University  
 Faculty of Nursing, Graduate school of Nursing  
 Professor  
 Kashihara  
 Japan

**Author Summary:** I am a teacher and researcher of home care nursing for undergraduate and graduate students. My themes are to exploring how to care of psychological adjustment of laryngectomized patients, and nursing education.

Third Author

Yoshimi Suzukamo, PhD  
 Tohoku University, Graduate School of Medicine  
 Department of Physical Medicine and Rehabilitation  
 Associate Professor  
 Sendai  
 Japan

**Author Summary:** I teach Doctoral degree course in medical department. I am a associate professor. My theme is Quality of Life scale development of people with disability.

Fourth Author

Ichiro Kai, PhD, MD, MPH  
The University of Tokyo  
Social Gerontology - School of Public Health  
Honorary Professor  
Tokyo  
Japan

**Author Summary:** I teach Doctoral degree course in medical department. I search a social support for elderly and patients with disability. I cure patients and family in home.

Fifth Author

Yoko Ishibashi, MSN, RN  
Fukuoka University  
Faculty of Medicine, School of Nursing  
Assistant Professor  
Jonan-ku,  
Fukuoka  
Japan

**Author Summary:** I am belonging to the division of fundamental department as a research associate. I teach fundamental nursing classes and practices for undergraduate students, and researcher of Nursing. I research of social support to laryngectomized patient's family for improving quality of life of patient and family.

Sixth Author

Kaori Haba, MSN, RN, PHN  
Nara Medical University  
Faculty of Nursing  
Assistant Professor  
Kashihara  
Japan

**Author Summary:** I am belonging to the division of fundamental department as a research associate. I teach fundamental nursing classes and practices of Home care nursing for undergraduate students etc. I research how to care disabled people using cochlear implants and laryngectomized patients.

Seventh Author

Aya Takahashi, MSN, RN, PHN  
Saitama Prefectural University

Faculty of Health Sciences Department of Nursing  
Associate Professor  
Koshigaya  
Japan

**Author Summary:** I am belonging to the division of fundamental department as a research associate. I teach fundamental nursing classes and practices for undergraduate students and graduate of school.

Eighth Author

Mami Miyazono, PhD  
Fukuoka Nursing College  
Department of Nursing  
Professor  
Fukuoka  
Japan

**Author Summary:** Research theme are to clarify the care of cancer patients, sleeping, and promoting the health of Home Care Nursing and Public Health. In addition, I was exploring research on the construction of a nursing education model of EBN practice.

Ninth Author

Yuki Nagamatsu, MSN, RN, PHN  
University of Occupational and Environmental Health@Department of Nursing  
Department of Adult Health Nursing  
Associate Professor  
Kitakyushu  
Japan

**Author Summary:** I specialize in cancer nursing. I am studying the quality of life and working status of colorectal cancer patients who have undergone surgery and chemotherapy.