

# Related factors that the social support and communication methods to the structure of psychological and social adjustment in Japanese Laryngectomized people : In the Case of Self-Help Group Members

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## Objectives

1. The purpose of this study is to clarify related factors that the social support and communication methods to the structure of psychological and social adjustment in patients after they had undergone total laryngectomy.
2. We consider that plan the nursing support for promoting social adjustment in the Laryngectomized patients.

## Methods

We contacted patients with perilaryngeal cancer enrolled in a patient association using a mail survey method. This group included 893 of 1828 patients who agreed to participate in the study. They were registered as members of “A” laryngectomized patient association that is a public interest incorporated self-help group and its objective is to provide training on enunciation techniques and support the rehabilitation of those who have lost their vocal function due to total laryngectomy throughout the country by publishing and selling relevant books and welfare equipment.

## 1)Measurements

### (1)Psychological adjustment

The Japanese version of the Nottingham Adjustment Scale, Laryngectomy (NAS-J-L), translated by Yaguchi et al. (2004), was used in this study. The NAS-J-L consists of the following seven subscales and 27 items:

(i) anxiety-depression: six items that assess the anxiety-depression of patients who lost their voices (e.g., “I have no energy and feel depressed”)

(ii) self-esteem: three items that measure the self-esteem of patients (e.g., “I feel totally useless from time to time”)

(iii) self-knowledge :three items that measure the self-knowledge of the acceptance of disability

(e.g., “I do not need to be anxious about losing my voice”)

(iv) positive affirmation:six items that assess the positive affirmation of the acceptance of disability

(e.g., “I feel that my life is very significant even after losing my voice”)

(v) attitude: four items that measure the attitude toward laryngectomized patients (e.g., “Many people with vocal impairments generally consider losing their voices as the worst incident to have happened”)

(vi) self-efficacy: three items that measure the self-efficacy of the patient (e.g., “I tend to give up easily”)

(vii) locus of control: two items that measure the locus of control of the patient (e.g., “I will make only very little progress in rehabilitation”)

Attributional style, which was part of the original scale, was found to work differently from other subscales (Dodds et al., 1993). Consequently, it was proposed to be excluded by Suzukamo et al. (2006) and was thus excluded from the NAS-J-L.

The higher the points in each subscale, the higher the psychological adjustment. This scale has established reliability (Cronbach’s alpha coefficients: 0.69–0.91), validity of the structural concept, and criterion-related validity (Yaguchi et al., 2004).

### (2)Social adjustment

①we used three subscales of Role physical(RP)•Role emotional (RE)•Social functioning(SF) in SF-36V2 Japanese version based on NBS(norm-based scoring). We defined three subscales as social unification in this study.

②In social support scale, for informal social support, 20 items of the Medical Outcomes Study Social Support Questionnaire (MOS) were used for measurement (four sub-scales of emotional/informational, tangible, affectionate and positive social interaction) (Cathy et al., 1991) and for formal social support, 10 items of the Hospital Patient Satisfaction Questionnaire-25 (HPSQ-25) were used (two subscales of technical evaluation and human aspects) (Bito et al., 2005).

### (3)Characteristics population

Age, sex and the duration of the post-surgery period were surveyed.

Communication methods (esophageal speech, electro-larynx, TE speech, writing and gesturing) and the number of syllables they were able to produce were investigated. In this study, the communication methods were classified 2group (esophageal /tracheoesophageal group and others group) for analyzing.

## 2)Analysis

In order to understand the characteristics of study population, descriptive data were calculated.

We then used a model of psychological adjustment of laryngectomized patients (Kotake K et al., 2008). The structural model consists of a three-tier structure; the “Recognition of oneself as voluntary agent” (the latent value for self-efficacy and locus of control) promotes “Acceptance of disability”(the latent value for acceptance of disability and the attitude to laryngectomy) which further promotes “Internal value as human being” (the latent value for anxiety/depression and self-esteem).

We analyzed what the structure model by adding two types of support - formal and informal -, communication methods and social unification by covariance structure analysis.

## Results

The mean age was 70.8 years( range:39-95years), 90.7% were male. Regarding duration after surgery, 562 people(65.8%) indicated that they had undergone the operation 5–20 years ago. The esophageal/trachea-esophageal group was 570 people(63.8%) and the others group was 280people (31.4%).The structural models was goodness- of -fit, as shown by the values GFI = .948, AGFI = .927, and RMSEA = .059. Note that a low RMSEA value indicates a good fit, and this model has the low RMSEA value (Figure1).

## Conclusion

In this study, We clarified that Japanese Laryngectmized people will be able to promote the social rehabilitation, when the psychological adjustment improve by social support and communication methods. We suggest that the SGH activity is important for the people because they need to get alternative voice and informal/formal support.

Also, we found that professional support such as nurse and physician are important, especially, they need the human and technical support by medical team.

Formal support identified in this study includes; (1) relate to the patients with interest and empathy, (2) give sufficient understanding and consideration to the patients, (3) communicate to soothe their minds, (4) give appropriate responses (e.g. nursing, treatment, and respect for patients' opinion).

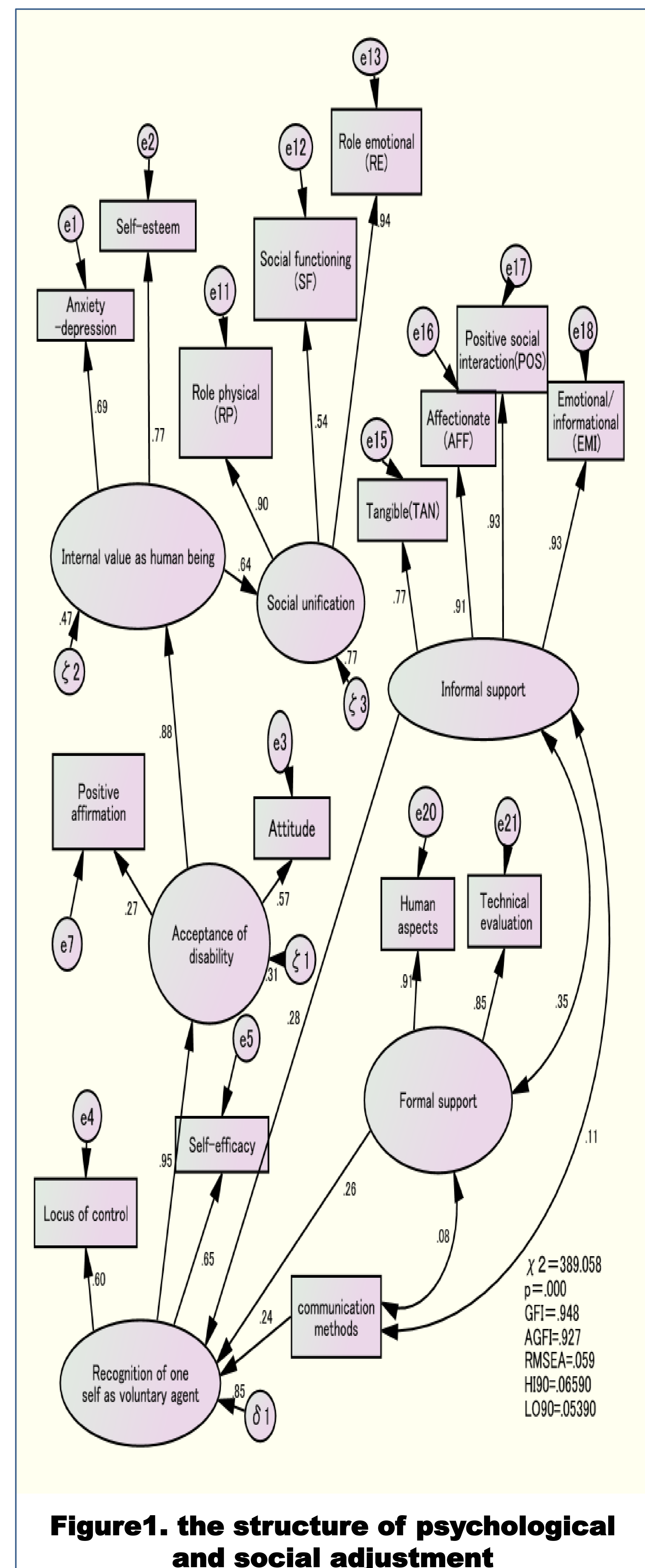


Figure1. the structure of psychological and social adjustment

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