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Causal Relationship Between Six Factors of Psychological Adjustment of Laryngectomized Patients

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Purpose:

The purpose of this study was to clarify the causal relationship between factors on psychological adjustment of laryngectomized patients from before discharge from hospital to twelve months after it.

Methods:

Subjects were 130 hospitalized pharyngeal and laryngeal cancer patients who underwent laryngectomy and responded to all four questionnaires before surgery, three months, six months, and twelve months after discharge from hospital. The Nottingham psychological adjustment scale for laryngectomized patients was used for measuring their psychological adjustment before and after discharge from hospital. This scale is composed of six subscales: anxiety and depression, self-esteem, self-efficacy, acceptance of disability (positive affirmation), attitude towards disabled persons who lost voice (attitude), and locus of control. A Likert scale of four or five points was used to measure them. The following basic attributes were asked to them: age, sex, family composition, and occupation. We conducted exploratory factor analysis and confirmed that the six subscales of psychological adjustment were composed of one factor. Toyoda's full path model was used as an unidentified indeterminate model.

Results:

Subjects' average age before discharge from hospital, sex, and family composition were 63.6 ± 8.1, 115 males (88.5%) and 15 females (11.5%), and one person (19, 21.5%), two persons (66, 50.8%), and more than two persons (36, 27.7%), respectively. The number of subjects who worked at the time of before discharge from hospital and three, six, twelve months after it were 60 (39.2%), 55 (42.3%), 54 (41.5%), and 51 (39.2), respectively. Paths of the full path model (CFI = .820, TLI = .779, RMSEA = .096, p = .000) decreased one by one, resulting in a good fit model (CFI = .868, TLI = .857, RMSEA = .077, p = .000).

Before discharge from hospital, as self-esteem rose, the level of other five factors also rose. The final outcomes were anxiety and depression, and positive affirmation. At three months after discharge from hospital, the model started from the rise of self-esteem as was the case before discharge from hospital, but there was a mutual relationship between self-efficacy and self-esteem. When the level of laryngectomized patients' self-efficacy rose, the level of their self-esteem also rose. Other factors had a
psychological structure that circulated themselves by affecting one another. It is also noteworthy that the standardized regression coefficient from self-esteem to anxiety and depression was 0.38.

At six months after discharge from hospital, the model started from self-efficacy and other factors had a psychological structure that circulated themselves, and its final outcome was the acceptance of laryngectomized patients. At twelve months after discharge from hospital, all six factors circulated, suggesting that psychological status of laryngectomized patients continued to change.

We examined the model by excluding the standardized regression coefficients of 0.2 or less in order to specify its causal relationship. Then, we found the psychological structure that started from locus of control and whose final outcome was self-efficacy. The analysis of chronological changes from before discharge from hospital to twelve months after it revealed that the standardized regression coefficient of self-esteem remained on the same level (0.27, 0.35, 0.20), whereas the standard regression coefficients of anxiety and depression (0.14, 0.22, 0.44), positive affirmation (0.12, 0.11, 0.25), self-efficacy (0.20, 0.20, 0.43), locus of control (0.28, 0.29, 0.50), and attitude (0.28, 0.33, 0.50) rose gradually.

Discussion:

The analysis showed that the self-esteem was dominant from before discharge from hospital to three months after it, but the outcome was positive affirmation, suggesting that the psychological state of laryngectomized patients during this period was characterized as a critical period that shook their self-esteem. Self-esteem can be paraphrased as emotion grasping the existential value of self as a human being. Laryngectomized patients may have spiritual pain particularly during the period from before discharge from hospital to three months after it. It is, therefore, necessary to support them for reducing their spiritual pain and helping them to make self-affirmation during the period from before discharge from hospital to three months after it.

Then, on three months after discharge from hospital laryngectomized patients directed their psychological state of self-efficacy toward the enhancement of self-esteem. This would be a period in which laryngectomized patients attempted to make psychological adjustments by raising the level of their self-efficacy. It is important to focus on the fact that their self-efficacy began to rise three months after discharge from hospital for the enhancement of their self-esteem. If we can encourage them to enhance their self-efficacy, it would contribute to promote their psychological adjustments to their diseases. The correlation between self-esteem and “anxiety and depression” was 0.38, showing the necessity to take a concrete measure to reduce their anxiety and depression. It was found that in six months after discharge from hospital, self-efficacy enhanced self-esteem, attitude, locus of control, and positive affirmation. It is, therefore, necessary to support them for enhancing their self-efficacy during this period.

All six factors circulated in the psychological structure during the period of twelve months after discharge from hospital. We found that the psychological adjustment of laryngectomized patients started from behavior factors (locus of control) that attempted to promote rehabilitation to self-esteem, and from self-esteem to positive affirmation and self-efficacy. We need to explore why they began to try to return to society during this period. Their psychological adjustments changed from self-esteem to self-efficacy during this period, whereas their psychological conditions started from self-efficacy in the period of six months after discharge from hospital. It is considered that this is because they tried to enhance their self-efficacy for the first six months after discharge from hospital but failed to do it, so that they renewed their desire to find out their own existential value. Therefore, it is necessary to make rehabilitation aid for them to enhance their self-esteem by helping them to find jobs and providing opportunities for social exchange.

Laryngectomized patients faces various tasks needed to deal with, such as the necessity to master a new communicative method after surgery, the construction of permanent tracheotomy in front of their neck due to the change of the respiratory route, constipation that arose from ventriculocordectomy, and the difficulty in swallowing. They are forced to restructure their way of living in order to deal with these problems, but it was not an easy task. Most laryngectomized patients are elderly, so it is hard to alter their
already established lifestyle and its drastic change would lower the level of their self-esteem. Therefore, it is urgent that medical professionals establish a support system that help them restructure their lifestyle such as diet, excretion and substitute voice communication smoothly. It is also necessary to help them apply for nursing care insurance and health insurance and familiarize them with the emergency procedures. More importantly, medical professionals need to help them to make their own decisions based on their wishes. This would prevent a decline of their self-esteem and could lead to their positive affirmation.

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**Title:**
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**Keywords:**
Chronological changes, Laryngectomied patients and Psychological adjustment

**References:**
Dooks P, McQuestion M, Goldstein D, Molassiotis A (2012): Experiences of patients with laryngectomies as they reintegrate into their community Support Care Cancer. 20, 489-498.


**Abstract Summary:**
The purpose of this study was to clarify the causal relationship between factors on psychological adjustment of laryngectomized patients from before discharge from hospital to twelve months after it.

**Content Outline:**

I . Introduction

Laryngectomized patients faces various tasks needed to deal with, such as the necessity to master a new communicative method after surgery, the construction of permanent tracheotomy in front of their neck due to the change of the respiratory route, constipation that arose from ventriculocordectomy, and the difficulty in swallowing.

II. Results and Discussion

A. Main Point #1 Before discharge from hospital, as self-esteem rose, the level of other five factors also rose. The final outcomes were anxiety and depression, and positive affirmation.

1. Supporting point #1 Laryngectomized patients may have spiritual pain particularly during the period from before discharge from hospital to three months after it.

B. Main Point #2 At three months after discharge from hospital, the model started from the rise of self-esteem as was the case before discharge from hospital, but there was a mutual relationship between self-efficacy and self-esteem.
1. Supporting point #1 It is important to focus on the fact that their self-efficacy began to rise three months after discharge from hospital for the enhancement of their self-esteem. If we can encourage them to enhance their self-efficacy, it would contribute to promote their psychological adjustments to their diseases.

2. Supporting point #2 The correlation between self-esteem and “anxiety and depression” was 0.38, showing the necessity to take a concrete measure to reduce their anxiety and depression.

C. Main Point #3 Six months after discharge from hospital, self-efficacy enhanced self-esteem, attitude, locus of control, and positive affirmation.
1. Supporting point #1 It is, therefore, necessary to support them for enhancing their self-efficacy during this period.

D. Main Point #4 All six factors circulated in the psychological structure during the period of twelve months after discharge from hospital. We found that the psychological adjustment of laryngectomized patients started from behavior factors (locus of control) that attempted to promote rehabilitation to self-esteem, and from self-esteem to positive affirmation and self-efficacy.

1. Supporting point #1 It is considered that this is because they tried to enhance their self-efficacy for the first six months after discharge from hospital but failed to do it, so that they renewed their desire to find out their own existential value. Therefore, it is necessary to make rehabilitation aid for them to enhance their self-esteem by helping them to find jobs and providing opportunities for social exchange.

III. Conclusion

Laryngectomized patients faces various tasks needed to deal with, such as the necessity to master a new communicative method after surgery, the construction of permanent tracheotomy in front of their neck due to the change of the respiratory route, constipation that arose from ventriculocordectomy, and the difficulty in swallowing. They are forced to restructure their way of living in order to deal with these problems, but it was not an easy task. Most laryngectomized patients are elderly, so it is hard to alter their already established lifestyle and its drastic change would lower the level of their self-esteem. Therefore, it is urgent that medical professionals establish a support system that help them restructure their lifestyle such as diet, excretion and substitute voice communication smoothly. It is also necessary to help them apply for nursing care insurance and health insurance and familiarize them with the emergency procedures. More importantly, medical professionals need to help them to make their own decisions based on their wishes. This would prevent a decline of their self-esteem and could lead to their positive affirmation.

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