Social Function and Related Factors in Patients with Head and Neck Cancer

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Objective

Due to the complicated treatments and potentially having disfigurement, head and neck cancer patients might experience more difficulties in social function than other types of cancer patients. This study aimed to explore social functions and their related factors in head and neck cancer patients after major treatments.

Method

- This is cross-sectional study to recruit HNC survivors from a medical center in Northern Taiwan.
- Patients were assessed of their social function using 3 subscales from the WHO Disability Assessment Schedule 2.0 (WHODAS 2.0). Higher of the scores indicate lower the social function.
- Patient's demographic data and medical records were collected.
- Mann-Whitney U test, Kruskal Wallis test, and Spearman's correlation were used to analyze the social factors and related factors.

Results

- A total of 145 participants completed the assessments.
- 60% of HNC patients reported no social dysfunction. However, 23.4% of HNC patients reported mild social dysfunction, 9% moderated, and 7.6% severe. Among the three domains of social function (interpersonal interaction, social participation and daily life), social participation was the worst function. (Table 1)
- Patients with longer time since diagnosis and stage I disease reported better overall social function. (Table 2 & 3)
- Patients who stopped working because of their disease reported worse social function and less social participation. (Table 3)
- There was no significant correlation between social function and main demographic factors and types of cancers. (Table 2 & 3)

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Table 1. Presentation of Domain Sore of WHODAS 2.0 Social Function (*N* = 145)

Item	Mean (SD)	N	(%)	Range	Rank
Interpersonal interaction	10.5（24.6）			0-100	②
None		112	(77.2)		
Mild		12	(8.3)		
Moderated		5	(3.4)		
Severe		16	(11.0)		
Daily life	9.7（22.3）			0-100	③
None		108	(74.5)		
Mild		17	(11.7)		
Moderated		10	(6.9)		
Severe		10	(6.9)		
Social participation	15.6（22.9）			0-93.75	①
None		72	(49.7)		
Mild		41	(28.3)		
Moderated		16	(11.0)		
Severe		16	(11.0)		
Total social function	12.1（20.9）			0-94.05	
None		87	(60.0)		
Mild		34	(23.4)		
Moderate		13	(9.0)		
Severe		11	(7.6)		

Note: WHODAS 2.0 social function, ranging from 0 to 100, the higher scores indicating more severe dysfunction.

Table 2. Correlation among Diagnosis Time, Age, Three Domains Score and Total Score of WHODAS 2.0 Social Function.

Variable	1.	2.	3.	4.	5.	6.
1.Total	1					
2.Interpersonal interaction	.69**	1				
3.Daily life	.68**	.55**	1			
4.Social participation	.92**	.64**	.47**	1		
5.diagnosis time	-.34**	-.35**	-.35**	-.32**	1	
6.Age	.08	.08	.26**	-.05	.03	1

Note: *p<0.05; **p＜0.01

Conclusion

Social participation is the most severe disable function reported by HNC patients. Future study to improve those related problems and enhance their social function are urgent needed.

Table 3. Factors to Predict Social Dysfunction in HNC Patients

variables	N	Total score of social function Mean (SD)	Z	Post-Hoc
Gender			-0.0	
①Male	113	9.4(15.2)		
②Female	32	12.9(22.2)		
Occupation			20.9**	①, ③＞② ③＞④
①none	27	18.4(24.9)		
②employed	80	5.1(9.1)		
③quitted	16	32.6(31.7)		
④retired	22	15.2(24.8)		
Caregiver			-0.4	
①self	90	9.9(18.4)		
②others	55	15.8(24.1)		
Education			2.3	
①elementary	27	17.8(29.6)		
②junior	80	15.6(21.3)		
③senior	16	9.3(16.7)		
④above	22	9.6(18.1)		
Stage			8.2*	②, ④＞①
①I	43	6.6(10.8)		
②II	32	14.2(20.7)		
③III	14	3.6(6.2)		
④IV	56	17.3(27.0)		
Type of HNC			2.8	
①Nasopharyngeal cancer	31	6.5(12.6)		
②Oral cavity cancer	82	13.4(21.8)		
③Others	32	14.2(24.3)		
Treatment			5.2	
①Single surgery	54	10.4(17.4)		
②CT	48	10.1(19.3)		
③Surgery with CT or RT	11	24.0(33.5)		
④Surgery with CCRT	32	14.0(22.7)		

Note: [1]Chemotherapy;[2]Radiotherapy; [3]Chemoradiotherapy
*p<0.05; **p＜0.01