

Factors Affecting Health Behaviors to Prevent Second Primary Cancer in Stomach Cancer Survivors

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INTRODUCTION

Stomach cancer is the third most common in South Korea, with a 5-year survival rate of 77.5% [1]. One of the most severe problems experienced by cancer survivors is the second primary cancer (SPC) [2]. Cancer survivors are at a risk of SPC due to prior cancer treatment, lifestyle and environmental factors, and the interaction of these factors [3]. Therefore, both healthy lifestyles and periodic cancer screening are essential to prevent SPC.

METHODS

Design: Cross-sectional study

Subjects: 135 stomach cancer survivors in South Korea

- Aged 19 years and older
- Within 1~5 years after the initial diagnosis of stomach cancer
- Without SPC, metastasis, recurrence, psychiatric disorders or cognitive impairment

Measurements

- Demographic and disease-related characteristics
- Knowledge of SPC prevention
- Perceived benefits and barriers of SPC-preventive health behaviors
- Anxiety and depression, social support
- SPC-preventive health behaviors

Data collection: Outpatient clinic at a University Hospital in Daegu, South Korea from 2021 to 2022

RESULTS

Table 1. Differences in SPC-preventive health behaviors according to the characteristics of participants (N=135)

Variables	Categories	N (%) M±SD	SPC-preventive health behaviors		
			M±SD	t or F	p (Scheffé)
Gender	Men	111(82.2)	2.17 ± 0.44	-1.89	.060
	Women	24 (17.8)	2.35 ± 0.34		
Age (year)	< 60	41 (30.4)	2.14 ± 0.52	0.59	.553
	60 ~ 69	56 (41.5)	2.24 ± 0.38		
	≥ 70	38 (28.1)	2.21 ± 0.40		
Educational level	≤ Elementary school ^a	22 (16.3)	2.12 ± 0.36	3.81	.012
	Middle school ^b	31 (23.0)	2.12 ± 0.42		
	High school ^c	44 (32.6)	2.13 ± 0.43		
	≥ College ^d	38 (28.1)	2.39 ± 0.42		
Marital status	Married, living together	113 (83.7)	2.19 ± 0.41	-0.98	.327
	Single, divorced, separated, widowed	22 (16.3)	2.28 ± 0.50		
Smoking	Current smoker ^a	15 (11.1)	1.70 ± 0.39	14.03	< .001
	Former smoker ^b	85 (63.0)	2.30 ± 0.35		
	Never smoker ^c	35 (25.9)	2.25 ± 0.41		
Drinking	Current drinker ^a	40 (29.6)	2.07 ± 0.47	3.52	.033
	Former drinker ^b	57 (42.2)	2.30 ± 0.45		
	Never drinker ^c	38 (28.2)	2.20 ± 0.31		
Current cancer stage	I	126 (93.3)	2.19 ± 0.43	-0.75	.454
	≥II	9 (6.7)	2.31 ± 0.47		
Type of treatment	Endoscopic resection	70 (51.9)	2.21 ± 0.44	0.35	.728
	Operation	65 (48.1)	2.19 ± 0.42		
Recommendation for SPC screening	Yes	40 (29.6)	2.17 ± 0.43	-1.36	.175
	No	95 (70.4)	2.28 ± 0.42		
Subjective health status	range: 0~10	5.50 ± 1.67			

Note. M±SD = mean ± standard deviation; † Multiple response = diabetes, heart disease, hyperlipidemia, hypertension, liver disease, others; SPC = second primary cancer.

OBJECTIVE

This study aimed to investigate the level of second primary cancer (SPC) preventive health behaviors and identify factors affecting the SPC-preventive health behaviors in stomach cancer survivors.

RESULTS

Table 2. Correlation between SPC-preventive health behaviors and major variables (N = 135)

	Knowledge of SPC prevention	Perceived benefits	Perceived barriers	Anxiety	Depression	Social Support	Subjective health status
	r (p)						
Perceived benefits	.14 (.112)						
Perceived Barriers	-.17 (.047)	-.32 ($< .001$)					
Anxiety	-.02 (.774)	-.11 (.185)	.29 (.001)				
Depression	-.01 (.910)	-.31 ($< .001$)	.34 ($< .001$)	.63 ($< .001$)			
Social Support	.25 (.004)	.53 ($< .001$)	-.35 ($< .001$)	.10 (.252)	-.26 (.002)		
SPC-preventive health Behaviours	.22 (.012)	.26 (.002)	-.50 ($< .001$)	.06 (.465)	-.25 (.003)	.29 (.001)	.31 ($< .001$)

Note. SPC = second primary cancer.

Table 3. Factors influencing SPC-preventive health behaviors (N = 135)

Variables	B	SE	β	t	p	95% CI
(Constant)	2.31	0.22		10.28	< .001	1.87~2.76
Perceived barriers	-0.30	0.66	-0.37	-5.33	< .001	-0.41~-0.19
Smoking [†] (Current smoker)	-0.45	0.09	-0.33	-4.96	< .001	-0.63~-0.27
Subjective health status	0.05	0.02	0.20	2.96	.002	0.02~0.09
Drinking [†] (Current drinker)	-0.19	0.06	-0.20	-2.93	.016	-0.32~-0.06
Recommendation for SPC screening [†] (Yes)	0.14	0.06	0.15	2.23	.028	0.02~0.26
Knowledge of SPC prevention	0.03	0.02	0.14	2.07	.035	0.00~0.06

Adjusted R² = .451; F = 19.36; p < .001.

Note. CI = confidence interval; † Dummy coded (Reference) = smoking (never smoker), drinking (never drinker), recommendation for SPC screening (No); SE = standard error

CONCLUSIONS

Our findings suggest that should provide strategies to reduce the patients' perceived barriers and educate them on the risk of smoking and drinking to promote healthy behaviors for preventing SPC in stomach cancer survivors. In addition, education on the prevention of SPC and active surveillance examinations for SPC should be recommended.

References

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