

The Effects of Health Awareness Through Social Media on Health Belief and Health Promotion Behavior

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Abstract: The purpose of this study is to investigate the effects of health awareness of internet health communication users on their health belief and health promotion behaviors. To prove the purpose of this study, total 200 college students in Seoul in 2017 including 100 males and 100 females who participate in health campaign through internet were selected with the convenience sampling method. Prior to the survey, whether they participated in health campaign through internet was confirmed. For the questionnaire completion method, self-administration method was used. The results of the study are as follows. First, health awareness of internet health communication participants has a partial influence on health promotion behaviors. Second, the health awareness of internet health communication participants has a partial effect on health belief. Third, the health promotion behaviors of internet health communication participants have a partial effect on health belief.

Key words: Health communication, health belief, health awareness, health promotion behaviors, campaign through, communication

INTRODUCTION

One of main concerns of modern people is health. Healthy life is considered as the most important issue in life. This health issue leads to the development of advanced medical devices and health care system in the aging society. In addition, the rapid development of internet enables health communication from health promotion campaigns using media to direct communication between doctors and patients to be done on the internet. Health communication can be defined as the message for specific accepters to affect knowledge, attitude and belief that are helpful for healthy behaviors. The health communication is spreading by the development of smart phones, wireless internet and social media. The health communication includes the management and prevention of diseases, prevention of injury and violation, response to health related crisis, public health, health related policies and health care businesses (Park and Lee, 2017). The main concern of modern people is health. Accordingly, health, disease and medical problems are often appearing as controversial social issues. Health communication that provides proper and accurate health information to public including individuals and organizations and pursues changes of attitudes towards positive directions is a critical element in public health promotion. Health communication which is related to health management of health risk factors that

didn't exist in the past, information for health awareness and persuasion, can be very important in modern people's life (Han, 2016; Kwon, 2017).

Therefore, in this study, the basic meaning of health communication is based on two-way relationship with objects about health management and prevention. The purpose of this study is to recognize the necessity of researching unique characteristic and correlation of health communication due to the development of internet environment and to find out the effects of health communication on health awareness, health belief and health promotion behaviors.

MATERIALS AND METHODS

Study subjects: Total 200 college students (100 male students, 100 female students) in Seoul who participated in health campaigns through internet in 2017 were selected. Prior to survey, they were checked whether they participated in health campaigns through internet. For questionnaire completion method, the self-administration method was used.

For research tools to measure health awareness, based on questions used by Lee and Sung (2017), five-point scale was constituted with four sub-factors of health concern, sensitivity, current health status and future health. To measure health promotion behaviors, based on questions used by Shin and Shin (2008), 5-point

Table 1: Factor Analysis on health awareness

Questions	Factor 1	Factor 2	Factor 3	Factor 4
Health concern				
Q01	0.762	0.009	0.067	0.073
Q04	0.731	0.003	0.125	0.147
Q03	0.714	0.019	0.172	0.109
Q02	0.712	0.016	0.055	0.115
Q05	0.688	0.013	0.181	0.008
Resistance/sensitivity				
Q06	0.076	0.761	0.030	0.062
Q07	0.124	0.751	-0.033	0.011
Q08	0.076	0.745	-0.049	0.038
Q10	0.010	0.683	-0.002	0.021
Q09	0.154	0.658	0.019	0.118
Current health				
Q15	0.089	0.065	0.811	0.073
Q11	0.045	0.053	0.795	0.147
Q13	0.129	0.064	0.741	0.109
Q12	0.152	0.057	0.688	0.115
Q14	0.180	0.105	0.695	0.008
Future health				
Q16	0.090	0.073	0.055	0.911
Q20	0.082	0.147	0.033	0.910
Q17	0.197	0.109	0.120	0.834
Characteristic value	4.429	4.399	3.150	2.671
Dispersion (%)	18.456	18.327	13.123	11.128
Accumulation (%)	18.456	36.783	49.907	61.034
Chronbach's α value	0.81	0.79	0.77	0.80

scale was constituted with two sub-factors of health responsibility and stress. Lastly to measure health belief, based on questions used by Lee and Oh (2010), 5-point scale was constituted with four sub-factors of sensitivity, benefit and hindrance.

Validity and reliability: The result of exploratory factor analysis on the validity test of health awareness is in Table1.

Specifically, the factor loadings were 0.688-0.911. The accumulation rate that explains the four factors of health concern, resistance/sensitivity, current health and future health is approximately 61.034%. Cronbach's α value of each sub-factor of health awareness is 0.80~0.81. The result of exploratory factor analysis of validity test on health belief is in Table 2.

Specifically, Specifically, the factor loading was 0.762-0.855. The accumulation rate that explains the four factors of sensitivity, hindrance, usefulness and seriousness is approximately 62.143%. This analysis result indicates that health belief is relatively validly measured. Cronbach's α value of health belief is 0.78~0.89.

The result of exploratory factor analysis of validity test on health promotion behaviors is in Table 3. Specifically, the factor loading was 0.765-0.841. The accumulation rate that explains the two factors of health responsibility and stress is approximately 70.791%. This analysis result indicates that health promotion behaviors are relatively validly measured. Cronbach's α value of health promotion behaviors is 0.80~0.81.

Table 2: Factor analysis of health belief

Questions	Factor 1	Factor 2	Factor 3	Factor 4
Sensitivity				
Q04	0.855	0.033	0.084	0.025
Q02	0.831	0.098	0.025	0.092
Q01	0.788	0.091	0.054	0.101
Q03	0.779	0.107	0.015	0.110
Seriousness				
Q06	0.072	0.831	0.012	0.023
Q07	0.04	0.822	0.081	0.110
Q05	0.021	0.79	0.113	0.021
Usefulness				
Q09	0.042	0.081	0.811	0.107
Q08	0.101	0.013	0.788	0.025
Q10	0.081	0.102	0.782	0.087
Hindrance				
Q12	0.132	0.012	0.014	0.81
Q13	0.042	0.036	0.032	0.776
Q11	0.112	0.141	0.018	0.762
Characteristic value	6.198	3.549	3.524	2.265
Dispersion (%)	24.792	14.195	14.097	9.058
Accumulation (%)	24.792	38.987	53.085	62.143
Chronbach's α value	0.890	0.820	0.910	0.780

Table 3: Factor analysis of health promotion behaviors

Questions	Factor 1	Factor 2
Health responsibility		
Q01	0.841	0.093
Q04	0.821	0.014
Q03	0.817	0.031
Q02	0.788	0.031
Stress		
Q06	0.022	0.832
Q07	0.101	0.822
Q08	0.089	0.779
Q05	0.054	0.765
Characteristic value	3.344	3.028
Dispersion (%)	37.151	33.640
Accumulation (%)	37.151	70.791
Chronbach's α value	0.810	0.800

Data processing: For data analysis, the questionnaires with answers completed were collected, data with double entry or no-entry was excluded and valid samples were coded according to the guideline of coding. The coded data was input individually into the computer and then frequency analysis, exploratory factor analysis, reliability analysis and multiple regression analysis were done with the use of SPSS Windows 18.0 Version statistical program.

RESULTS AND DISCUSSION

The effects of health awareness on health promotion behaviors: The result of multiple regression analysis to find out the effects of health awareness on health promotion behaviors is in Table 4.

Table 4 shows that health awareness has a significant effect on health responsibility and stress of health promotion behaviors at the level of 0.1% in the regression equation Specifically, health concern and current health of health awareness has a significant effect on health responsibility at the level of 0.1% and future

Table 4: Multiple regression analysis on the effects of health awareness on health promotion behaviors

Variables	Health responsibility		Stress	
	β	t-values	β	t-values
Invariable		10.850		5.595
health concern	0.395	7.625***	-0.009	-0.182
Resistance/Sensitivity	0.043	0.842	0.221	3.923***
Current health	0.177	3.321***	-198.000	-3.616***
Future health	0.111	2.428*	-0.139	-2.569*

R² = 0.277; F = 34.502***; R² = 0.193; F = 21.544***; ***p<0.001, *p<0.05

Table 5: Multiple regression analysis on the effects of health awareness on health belief

Variables	Sensitivity		Seriousness		Usefulness		Hindrance	
	β	t-values	β	t-values	β	t-values	β	t-values
Invariable		12.530		9.114		12.46		10.974
Health concern	0.230	4.039***	-0.348	-6.791***	0.155	2.999**	-0.06	-1.24
Resistance/sensitivity	0.120	2.632**	-0.03	-0.599	0.044	0.78	-0.381	-6.931***
Current health	0.156	2.652**	-0.206	-3.883***	0.335	6.285***	-0.074	-1.301
Future health	0.129	2.810**	-0.108	-2.131*	0.175	3.438***	-0.016	-0.294

R² = 0.124; F = 12.791***; R² = 0.289; F = 36.751***; R² = 0.280; F = 35.070***; R² = 0.184; F = 20.344***; *** p<0.001, **p<0.01, *p<0.05

Table 6: Multiple regression analysis on the effects of health promotion behaviors on health belief

Variables	Sensitivity		Seriousness		Usefulness		Hindrance	
	β	t-values	β	t-values	β	t-values	β	t-values
Invariable		17.228		5.595		19.771		5.595
Health responsibility	0.271	8.353***	-0.198	-3.616***	0.257	7.663***	-0.009	-0.182
Stress	-0.03	-0.599	-0.221	-3.923***	-0.009	-0.182	0.221	3.923***

R² = 0.229; F = 46.570***; R² = 0.193; F = 21.544***; R² = 0.175; F = 52.695***; R² = 0.193; F = 21.544***; *** p<0.001

health has 5% of significant effect. In addition, the explanation power of health awareness on health responsibility is 27.7% of total variable. The resistance/sensitivity of health awareness has a positively significant effect on stress, current health has a negatively significant effect on stress by 0.1% and future health has a negatively significant effect on stress by 5%. The explanation power of health awareness on stress is 19.3% of total variable.

The effects of health awareness on health belief: The result of multiple regression analysis to find out the effects of health awareness on health belief is in Table 5.

Table 5 shows that health awareness has a significant effect on sensitivity, seriousness, usefulness and hindrance of health belief at the level of 0.1% in the regression equation specifically, health concern of health awareness has a significant effect on resistance/sensitivity at the level of 0.1% and current and future health has 1% of significant effect. In addition, the explanation power of health awareness on sensitivity is 12.4% of total variable. The health concern and current health of health awareness have a negatively significant effect on stress by 0.1% and future health has a negatively significant effect on stress by 5%. The explanation power of health awareness on seriousness is 28.9% of total variable. The health concern, current health

and future health of health awareness have a significant effect on stress by 0.1%. The explanation power of health awareness on usefulness is 28% of total variable. The resistance/sensitivity of health awareness has a negatively significant effect on hindrance by 0.1%. The explanation power of health awareness on hindrance is 18.4% of total variable.

The effects of health promotion behaviors on health belief: The result of multiple regression analysis to find out the effects of health promotion behaviors on health belief is in Table 6.

Table 6 shows that health promotion behaviors have a statistically significant effect on sensitivity, seriousness, usefulness and hindrance of health belief at the level of 0.1% in the regression equation.

Specifically, health concern of health promotion behaviors has a significant effect on sensitivity at the level of 0.1. In addition, the explanation power of health promotion behaviors on sensitivity is 22.9% of total variable. The health responsibility and stress of health promotion behaviors have a negatively significant effect on seriousness at the level of 0.1%. In addition, the explanation power of health promotion behaviors on seriousness is 19.3% of total variable.

The health responsibility of health promotion behaviors has a significant effect on usefulness at the level of 0.1%. In addition, the explanation power of health

promotion behaviors on usefulness is 17.5% of total variable. The stress of health promotion behaviors has a significant effect on hindrance at the level of 0.1%. In addition, the explanation power of health promotion behaviors on hindrance is 19.3% of total variable.

CONCLUSION

The purpose of this study is to investigate the effects of health awareness of college students who experience health communication through social media on their health belief and health promotion behaviors. The results of the study through the above research process are as follows.

First, health awareness of those who experienced health communication has a partial influence on health promotion behaviors. As their health concern, current health and future health levels of health awareness are high, they recognize health responsibility high. As their resistance/sensitivity of health awareness is high, they recognize stress high. In addition, as the awareness of current and future health is high, their stress level gets lower.

Second, the health awareness of those who experienced health communication has a partial effect on health belief. As their health concern, resistance/sensitivity, current health and future health levels of health awareness are high, their sensitivity higher. As the levels of health concern, current health and future health are low, they recognize seriousness high. In addition as they recognize health concern, current health and future health high, they recognize usefulness higher. As they recognize resistance/sensitivity high, they recognize hindrance lower.

Third, the health promotion behaviors of those who experienced social media health communication have a

partial effect on health belief. As health responsibility of health promotion behaviors is high, they recognize sensitivity high. As they recognize health responsibility and stress high, they recognize seriousness low. In addition as they recognize health responsibility high, they recognize usefulness and hindrance high.

REFERENCES

- Han, S.H., 2016. Characteristics and comparison of popular channels on internet game broadcasting: Focus on Switch TV. *J. Inst. Internet Broadcast. Commun.*, 16: 7-14.
- Kwon, M.R., 2017. The impact of emotional intelligence and self-esteem on internet and smart phone addiction, sports activities and reading of youth. *Intl. J. Internet Broadcasting Commun.*, 9: 35-41.
- Lee, E.J. and M.H. Sung, 2017. Impacts of health perception, aging anxiety and perception of successful aging on health promotion behavior of late middle-aged women. *Korean J. Women Health Nurs.*, 23: 181-190.
- Lee, S.I. and E.T. Oh, 2010. The effect of health belief on leisure sports continuous participation as health-promoting behaviors in middle aged group. *J. Leisure Recreation Stud.*, 34: 217-231.
- Park, S.M. and A.Y. Lee, 2017. The effects of social network sharing on the acceptance attitude and channel loyalty of professional baseball media sports viewers. *Intl. J. Appl. Eng. Res.*, 12: 9763-9767.
- Shin, H.S. and H.S. Shin, 2008. Antecedents of health-promoting behavior among female university students in Korea. *J. East West Nurs. Res.*, 14: 78-86.