



Investigation on the health literacy and nutrition education of employees in a medical center in eastern Taiwan

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Background/Problem/Objective

Health literacy shows your understanding of basic health information. In our hospital, we routinely hold activities four times a year to educate our employees about nutrition.

This study collected data on health literacy in a medical center in eastern Taiwan and prepares health literacy assessment questions suitable for employees to understand the health literacy of employees and assess health promotion effectiveness. In this study, we aim to explore the differences of health literacy in employees in different professions.

Methods/Intervention

We collected validated questionnaires completed by participants after each program to evaluate health literacy, and predefined that score higher than 80 was qualified. Chi square test and logistic regression were used to examine the association between health literacy performance and baseline characteristics, such as sex, age, seniority, departments, and education level. For those who participated the second time, we compared their first participation with the second ones using the McNear test to evaluate the efficacy of our education program.

Results (of evaluation)

There were 132 employees participated in this program, and 39 of them participated more than two times (Table 1). We found that the elder was associated with lower qualification proportion (OR=0.1, 95%CI: 0.01-0.9) while the seniority was positively associated with higher qualification proportion (OR=6.8, 95%CI: 1.0-45.7 in work year>10 and OR 6.8, 95%CI: 1.2-39.5 in work year> 15) (Table 2). And the qualification proportion was significantly improved after our education program ($p<0.001$).

Conclusions/Lessons learned

There is a significant association between age, seniority and health literacy. Our education program can effectively improve the employees' health literacy.

Keywords

Health literacy, Nutritional education, Health promoting

Table 1. Analysis of different categories and scores

Category	Number	qualified	unqualified	P value
N	132			
Gender				0.34
Male	28(21.2%)	20(15.1%)	8(6.1%)	
Female	104(78.8%)	83(62.9%)	21(15.9%)	
Age				0.57
20~30 years	28(21.2%)	23(17.4%)	5(3.8%)	
31~40 years	35(26.5%)	28(21.2%)	7(5.3%)	
41~50 years	48(36.3%)	38(28.8%)	10(7.6%)	
>50 years	21(15.9%)	14(10.6%)	7(5.3%)	
Seniority				0.79
0~5 years	41(31.1%)	31(23.5%)	10(7.6%)	
6~10 years	20(15.1%)	16(12.1%)	4(3.0%)	
11~15 years	21(15.9%)	18(13.6%)	3(2.3%)	
>15 years	50(37.8%)	38(28.8%)	12(9.1%)	
Education				0.04*
High school	47(35.6%)	32(24.2%)	14(10.6%)	
University	73(55.3%)	59(44.7%)	14(10.6%)	
Master's degree	12(9.1%)	12(9.1%)	0(0.0%)	
Career category				0.81
Administrative class	81(61.3%)	64(48.5%)	17(12.9%)	
Nursing class	20(15.1%)	16(12.1%)	4(3.0%)	
Medical technology (technical) cl	16(12.1%)	11(8.3%)	5(3.8%)	
Physician	15(11.3%)	12(9.1%)	3(2.3%)	

*p-value<0.05 was considered statistically significant after test.
Score higher than 80 was qualified.

Table 2. Analysis and comparison of population characteristics variables of sample.

Variable	unAdjusted (N=132)			Adjusted (N=132)		
	OR	95% CI	P-value	OR	95% CI	P-value
Gender						
Male	0.632	(0.245, 1.634)	0.344	0.379	(0.112, 1.284)	0.119
Female	1	(reference category)		1	(reference category)	
Age						
20~30 years	1	(reference category)		1	(reference category)	
31~40 years	0.87	(0.243, 3.107)	0.829	0.404	(0.087, 1.865)	0.245
41~50 years	0.826	(0.251, 2.720)	0.753	0.279	(0.051, 1.533)	0.142
>50 years	0.435	(0.115, 1.037)	0.218	0.098	(0.01, 0.36)	0.043*
Seniority						
0~5 years	1	(reference category)		1	(reference category)	
6~10 years	1.29	(0.349, 4.708)	0.702	3.031	(0.61, 15.073)	0.175
11~15 years	1.935	(0.47, 7.967)	0.36	6.875	(1.035, 43.69)	0.046*
>15 years	1.022	(0.39, 2.679)	0.965	6.807	(1.173, 39.496)	0.032*
Education						
High school	1	(reference category)		1	(reference category)	
University	1.975	(0.848, 4.603)	0.114	2.393	(0.757, 7.569)	0.137
Master's degree	>999	(<0.001, >999)	0.96	>999	(<0.001, >999)	0.957
Career category						
Administrative class	1	(reference category)		1	(reference category)	
Nursing class	1.062	(0.314, 3.596)	0.922	0.518	(0.121, 2.213)	0.334
Medical technology (technical) class	0.584	(0.179, 1.911)	0.374	0.521	(0.128, 2.116)	0.361
Physician	1.062	(0.269, 4.196)	0.931	1.055	(0.202, 5.498)	0.949

*p-value<0.05 was considered statistically significant after test.

