

The Effect of Characteristics of Patients with Hemophilia on the Quality of Life

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Objectives

Quality of life (QoL) has become a issue which hemophilia caregivers should take into account in their practice. The purpose of this study is to analyze the impact of the general and clinical characteristics of hemophiliac patients on their quality of life.

Material and Methods

From Feb., 2012 to Jan., 2013, we reviewed retrospectively the patient's medical records who have registered to Korea Hemophilia Foundation to establish general and clinical characteristics. And we surveyed the same patients using SF-36 instruments. In general and the clinical characteristics as age, BMI, marital status, profession, hemophilia phenotype, inhibitor, monthly bleeding numbers and disability. Both physical and mental QoL were analyzed by using SF-36 instruments. The patients subjected to this study should be more than 18 years old and have been followed up.

By using SPSS Win 18.0 program, the collected data were analyzed into real numbers, percentage, average, standard deviation, t-test according to the purpose of the study.

<Table 1-1> Disease-related characteristics of subjects by analyzing the difference in the physical quality of life

Characteristics	Divisions	N	physical Quality of life			P
			M±SD	F/t		
Age	≥19	104	72.67±17.86	18.525	<.001	
	20~29	169	67.61±15.56			
	30~39	153	60.03±17.34			
	40~49	101	56.28±18.53			
	50~59	45	49.44±22.18			
	60≤	16	53.91±19.72			
Height (cm)	≥160	36	48.04±16.81	9.645	<.001	
	161~169	227	62.26±17.99			
	170~179	273	65.29±19.00			
	180≤	40	65.26±18.16			
Body Weight (kg)	≥59.9	163	59.70±20.96	2.059	.085	
	60.0~69.9	207	63.62±17.90			
	70.0~79.9	132	65.08±18.85			
	80.0~89.9	58	61.70±16.51			
	90.0≤	28	66.88±16.94			
Profession	Office	188	64.05±17.20	26.517	<.001	
	Self-employed	79	54.56±19.79			
	Student	149	73.67±14.82			
	No	134	54.74±18.90			
	etc.	38	59.91±17.83			
Marital Status	Yes	199	56.24±18.37	-6.230	<.001	
	No	389	66.19±18.31			

<Table 1-2> Disease-related characteristics of subjects by analyzing the difference in the physical quality of life

Characteristics	Divisions	N	physical Quality of life			P
			M±SD	F/t		
Hemophilia Phenotype	A	492	62.16±18.73	-1.93	.054	
	B	96	66.22±19.57			
Severity	Severe	446	61.16±18.61	2.633	.073	
	Moderate	113	66.43±19.19			
	Mild	29	74.31±16.85			
Inhibitor	No	452	63.99±19.03	9.387	<.001	
	Transient	120	59.54±17.82			
	Low	7	60.80±13.81			
	High	9	49.55±22.86			
BMI (kg/m2)	≥18.50	36	65.05±23.35	0.318	.812	
	18.51~23.00	272	62.82±18.84			
	23.01~25.00	120	63.37±19.39			
	25.01≤	160	61.93±17.65			
Monthly Bleeding Episodes	No	63	75.84±16.84	15.612	<.001	
	1	116	68.02±16.87			
	2	108	64.04±18.45			
	3	83	58.80±18.51			
	4	93	58.27±15.98			
Bleeding Management	5	81	51.00±18.67	0.626	.598	
	Less than 1	44	66.46±18.37			
	Prophylaxis	268	63.31±18.98			
	On-demand	216	62.15±19.74			
	Change the management	75	61.60±16.26			
Orthopedic Surgery Experi.	etc.	29	66.54±18.59	-2.961	.003	
	Yes	228	60.05±16.71			
Disability	No	360	64.58±20.01	-8.671	<.001	
	Yes	251	55.44±18.15			
	No	337	68.32±17.56			

<Table 2-1> Disease-related characteristics of subjects by analyzing the difference in the mental quality of life

Characteristics	Divisions	N	Mental quality of life		
			M±SD	F/t	p
Age	≥19	104	77.58±17.66	7.531	<.001
	20~29	169	73.16±18.93		
	30~39	153	68.13±18.58		
	40~49	101	67.65±21.18		
	50~59	45	59.00±25.97		
Height (cm)	60≤	16	65.38±16.48	6.886	<.001
	≥160	36	56.97±22.26		
	161~169	227	70.72±19.91		
	170~179	273	71.79±19.31		
Body Weight (kg)	180≤	40	75.19±16.79	1.604	.172
	≥59.9	163	67.83±21.79		
	60.0~69.9	207	70.55±19.83		
	70.0~79.9	132	71.60±18.63		
	80.0~89.9	58	70.95±19.89		
Profession	90.0≤	28	77.22±18.65	15.813	<.001
	Office	188	72.98±17.45		
	Self-employed	79	62.51±22.32		
	Student	149	78.30±16.44		
	No	134	62.76±21.94		
Marital Status	etc.	38	69.88±19.99	-3.812	<.001
	Yes	199	66.02±20.12		
	No	389	72.63±19.79		

<Table 2-2> Disease-related characteristics of subjects by analyzing the difference in the mental quality of life

Characteristics	Divisions	N	Mental quality of life		
			M±SD	F/t	p
Hemophilia Phenotype	A	492	70.02±20.36	-1.001	.317
	B	96	72.27±18.94		
Severity	Severe	446	69.31±20.19	3.098	.046
	Moderate	113	73.03±20.24		
	Mild	29	76.78±17.08		
Inhibitor	No	452	71.55±19.99	2.962	.032
	Transient	120	67.13±19.54		
	Low	7	68.93±22.13		
	High	9	56.76±26.83		
BMI (kg/m2)	≥18.50	36	72.74±23.19	0.186	.906
	18.51~23.00	272	70.16±20.08		
	23.01~25.00	120	70.08±20.77		
	25.01≤	160	70.49±19.15		
Monthly Bleeding Episodes	No	63	78.35±17.07	8.648	<.001
	1	116	74.44±18.06		
	2	108	73.63±18.38		
	3	83	67.34±18.34		
	4	93	68.09±20.61		
Bleeding Management	5	81	58.72±22.55	0.592	.620
	Less than 1	44	72.48±21.21		
	Prophylaxis	268	71.04±20.41		
	On-demand	216	69.83±20.21		
	Change the management	75	68.49±19.06		
Orthopedic Surgery Experi.	etc.	29	73.44±20.10	-1.227	.220
	Yes	228	69.11±19.06		
Disability	No	360	71.20±20.77	-5.487	<.001
	Yes	251	65.14±21.09		
	No	337	74.30±18.48		

Results

Totally 588 hemophilia A and B patients were enrolled. Severe patients were 446, moderate patients 113 and mild patients 29. Their mean age was 32.7 years old. Physical and mental QoL exhibited significant difference depending on their marital status ($p<.001$), age ($p<.001$), and professions ($p<.001$). Depending on the types of hemophilia, there was no significant difference in physical and mental QoL, but according to the disease severity, mental QoL exhibited significant difference ($p<.046$). In addition, both physical and mental QoL displayed significant difference according to the monthly bleeding episodes ($p<.001$).

Conclusions

The characteristics which have positive effect on the QoL of patients with hemophilia turned out to be marital status, age, profession, severity and the number of bleeding episodes. The result of this study is of note as a basic material for the nursing intervention items of each patients of Quality of life. And supports related with specific general and clinical characteristics strengthen their inner value.

