



Self-efficacy Care Model helps self-care efficacy and physical activity in older people with hip fracture

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Background

1. Hip fracture often attacks the older people and easily causes pain, limited daily physical activity, and disability to the old patients.
2. Most studies have mainly focused on medical treatment or rehabilitation interventions of hip fracture in the older people.
3. However, very few studies developed nursing intervention from Self-efficacy Care Model (SCM) and evaluate the efficacy of it in self-care efficacy and physical activity.

Objective

To compare self-care efficacy and physical activity of older patients receiving SCM or routine care (RC) after hip fracture surgeries.

Table1. Comparison of SUPPH and BI scores pre/post surgery between SCM and RC groups

Group (n)	SUPPH		BI	
	Pre/Post surgery mean(SD)	p	Pre/Post surgery mean(SD)	p
SCM (30)	90.2(12.8)/ 96.5(14.2)	.001**	90.3(12.9)/63.2(27.1)	.000***
RC (30)	89.3(11.7)/ 80.7(11.0)	.000***	93.2(9.3)/59.5(28.0)	.000***
P	.000***		.609	

SD: Standard deviation; SCM: Self-efficacy Care Model; RC: routine care; *p<.05; **p<.01; ***p<.001

Methods

- A quasi-experimental design

SCM group (n=30)

RC group (n=30)

Measurement Tool(Pre-/Post-surgery 1 month)

- * Demographic questionnaire:14items
- * Strategies Used by People to Promote Health (SUPPH): 29 items
- * Barthel Index (BI):10 items

Statistical Analysis

- * Descriptive statistics
- * Paired samples t-test, Independent t-tests, Chi-square test
- * The Chronbach-α of SUPPH and BI were .953 and .750

Table2. Demographic stratified to SUPPH and BI scores after surgery

Variable	SCM(n=30) Mean(SD)	RC(n=30) Mean(SD)	t	p
Sex				
Male	94.3(18.5)	87.5(15.3)	-8.23	.423
Female	97.5(12.3)	78.3(8.0)	-6.114	.000***
Age				
60-69 years	102.1(17.4)	95.3(19.5)	-5.69	.582
70-79 years	101.4(12.5)	79.6(10.3)	-4.491	.000***
80-89 years	86.5(9.9)	79.5(7.6)	-1.796	.089
>90 years	93.0(5.7)	73.5(6.3)	-3.827	.019*
Education level				
Illiterate	94.8(9.4)	77.1(8.2)	-3.996	.001**
Primary school	96.1(15.0)	79.7(7.4)	-3.409	.003**
Work				
None	94.0(12.6)	79.6(9.9)	-4.677	.000***
Marital status				
Single	98.5(13.6)	80.1(8.2)	-4.798	.000***
Living situation				
With family	94.8(10.7)	78.6(8.8)	-5.007	.000***
No DM	98.4(15.0)	79.6(10.2)	-4.535	.000***
No Heart disease	97.2(14.7)	80.8(10.3)	-4.657	.000***
No Renal disease	97.7(13.1)	81.9(11.1)	-4.657	.000***
Diagnosis				
Femoral neck	91.4(13.7)	84.1(12.7)	-1.474	.152
Femoral intertrochanter	101.5(15.6)	76.9(9.2)	-4.812	.000***
Femoral subtrochanter	100.0(8.12)	82.0(2.7)	-3.621	.011*
Surgery type				
ORIF	100.3(12.5)	79.6(10.9)	-5.357	.000***
Bipolar hemiarthroplasty	90.1(15.0)	82.5(11.3)	-1.376	.183

SD: Standard deviation; ORIF: Open reduction internal fixation; *p<.05; **p<.01; ***p<.001

Results

1. One month after hip fracture surgery, both groups had significant improvement in self-care efficacy (SUPPH) and physical activity (BI) (all $p < .05$)(Table 1).
2. The SCM group had improvement in self-care self-efficacy, including coping with stress, reducing stress, making decisions, and enjoying life, than the RC group(all $p < 0.05$), but did not improve in physical activity (BI) ($p = .609$)(Table 1).
3. In the SCM group, patients who were female, age of 70-79 years, > 90 years, education level ≤ primary school, unemployed, single, living with family, without comorbidity of heart disease, DM, renal disease, with open reduction internal fixation, had better self-care efficacy than RC group(all $p < 0.05$) (Table 2).
4. In the SCM group, patients with femoral intertrochanteric fracture had better improvement in physical activity than RC group ($p < 0.05$)(Table 2).

Conclusions

1. Self-efficacy Care Model (SCM) nursing intervention can improve self-care efficacy of older hip fracture patients, especially in patients who were female, age of 70-79 years, > 90years,education ≤ primary school, unemployed, single, living with family, without comorbidity.
2. Self-efficacy Care Model (SCM) intervention can only increase physical activity of patients with femoral intertrochanteric fracture.
3. Our study is the first related nursing study in Taiwan.

References

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