



Exploring Posttraumatic Stress Disorder, Depression, and Quality of Life in Post ICU Stay Patients

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Background

- Patients' body and mental suffer from critical illness, especially patient must be treated in Intensive Care Unit. During stay ICU they feel life threat and stress from disease, strange environment and uncertainty all the time. These condition might induce acute stress reaction, even evolve into posttraumatic stress disorder(PTSD) and emotional disorder in the future.

Purpose

- The purpose of this study is to explore PTSD, depression and quality of life(QOL), and to follow up their change at 1, 3 and 6 month post transfer out from ICU.

Methods

- The sample is selected from Chest Medical Ward. Patients are first time treated in ICU and transfer to ward 3-5 days, above 20 years old, no other life threat events or disease in recently one year and no mental illness history. Data collect at 4 time points while patients transfer to ward from ICU 3-5 days, 1 month, 3 month and 6 month. Instruments in this study include Post-traumatic Stress Disorder Reaction Index(PTSD-RI), Beck's Depression Inventory(BDI) and 36-items Short Form of the Medical Outcomes Study Questionnaire(SF-36, include PCS and MCS).

Results

- Total 70 subjects participate this study. The result show PTSD-RI average score at 4 time points are 12.04(SD= 10.65), 9.50(SD= 8.32), 9.17(SD= 9.23) and 7.83(SD= 9.77). and the rate of PTSD occurrence are 44.3%, 32.3%, 30.2% and 21.3%. BDI average score are 12.20(SD= 11.64), 9.75 (SD= 9.88), 8.84(SD= 10.37) and 8.97(SD= 11.25), and depression occurrence rate are 50%, 35.4%, 30.2% and 27.9%(Table 1). The report of GEE analysis indicates that PTSD-RI and BDI at 6 month compares to transfer to ward 3-5 days dose not decrease significantly (Table 2). Old patient(p= .009), live alone(p= .042) and lack family support(p= .001) will have higher PTSD-RI score. Aged (p= .005)and patients are sedation in ICU(p< .001) have higher BDI score.

Table 1 : Change of PTSD 、depression and quality of life(N= 70)

Viable	transfer out ICU 3-5 days Time 1	transfer out ICU 1 month Time 2	transfer out ICU 3 month Time 3	transfer out ICU 6 month Time 4
PTSD-RI				
score	12.04(10.65)	9.50(8.32)	9.17(9.23)	7.83(9.77)
>12 score(%)	44.3	32.3	30.2	21.3
BDI				
score	12.20(11.64)	9.75(9.88)	8.84(10.37)	8.97(11.25)
>10 score(%)	50.0	35.4	30.2	27.9
SF-36				
PCS	50.60(18.74)	61.27(21.31)	66.53(23.29)	69.50(21.56)
MCS	69.04(20.80)	72.47(19.35)	70.99(22.02)	71.28(21.56)

- This study also show that there are significantly negative correlation between PTSD-RI, BDI and SF-36. PCS and MCS two domain of SF-36 analysis by GEE to compare quality of life at each data collected time point. PCS has significant improvement at 1, 3 and 6 month post transfer out from ICU, but MCS dosen't(Table 2). Age(p= .001), depression(p< .001) and days of ICU stay(p< .001) will influence quality of life in this population.

Table 2 : Compare PTSD 、depression and quality of life(N= 70)

Parameter	β	SE	95% CI		P	
			Lower	Upper		
PTSD-RI	1month/3-5day	-.79	1.76	-4.27	2.69	.653
	3month/3-5day	-1.51	1.64	-4.76	1.73	.359
	6month/3-5day	-.70	1.59	-3.85	2.45	.660
BDI	1month/3-5day	.02	1.50	-2.94	3.00	.984
	3month/3-5day	-.38	1.50	-3.35	2.58	.798
	6month/3-5day	-2.29	1.42	-5.11	.51	.108
SF-36 PCS	1month/3-5day	6.93	3.10	.79	13.07	.027
	3month/3-5day	11.10	3.14	4.87	17.34	.001
	6month/3-5day	13.03	3.10	6.87	19.18	<.001
MCS	1month/3-5day	-.47	3.08	-6.58	5.64	.879
	3month/3-5day	-3.23	3.16	-9.48	3.02	.309
	6month/3-5day	-4.47	3.07	-10.56	1.61	.148

Conclusion

- Summary this study result is that PTSD, depression and quality of life do not improve post 6 month transfer out from ICU . Old people, live alone, sedation in ICU, lack family support will have worse PTSD, depression and quality of life.