

# The Effect of Multimedia Education on PCA Cognitive and Satisfaction of Postoperative Patients

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Patients using PCA are encouraged to medicate themselves when they start to feel uncomfortable and prior to activities such as dressing changes or physical therapy. The best way to control pain and reduce physiological stress is to maintain a consistent blood level of the prescribed analgesic. This can be accomplished by taking pain medication at regular intervals and before the pain becomes severe. Waiting until the pain is severe causes physiological distress, which can slow down the healing process and lower the ability of the medication to alleviate the pain. (Gerard, 2014)

## Purpose:

To examine the effect of interactive multimedia education program (MEP) of patient-controlled analgesia (PCA) on cognition interference of life, and satisfaction in orthopedics surgery patients.

## Methods:

--**Design:** Quasi-experimental design.

--**Sampling:** Eligible subjects recruited from teaching hospital in Kaohsiung. Inclusion criteria were orthopedics surgery patients above 20 old agreed to receive PCA. Totally 60 subjects obtained were non-randomly assigned into either the intervention group (n=30) or the intervention group (n=30) .

--**Intervention:** The experimental group received the nursing instruction with videodisc before surgery. After surgery, the nursing instruction was provided by visiting and guiding. The control group only received regular outpatient service and the pain management team routine care. The research instruments included pain cognition, life interference, and satisfaction scale . SPSS 18.0 version was used for coding and data analysis. Statistical methods included t-test and pair t-test.

## Results:

- 1.Participants in the MEP group have higher cognition (p< .001) and satisfaction (p< .001) towards PCA when compared with the pamphlet group.
- 2.There is significant difference (p< .001) toward life interference before and after surgery for each group, but there is no significant difference between these two group.

Variables		MEP group (n=30)	control group (n=30)	Test
		Mean(±SD)	Mean(±SD)	T
PCA cognition	Pre	3.30(2.69)	2.77(2.39)	.51
	post	12.68(1.50)	11.87(1.84)	2.67*
		-30.00***	-29.05***	
Life interference	Pre	23.7(8.583)	24.2(8.477)	-.32
	post	12.97(5.9)	13.23(5.56)	-.26
		15.84***	.859***	
Satisfaction	post	4.52(.50)	4.10(.35)	-5.2***

\* p< .05 \*\*\*p< .001

## Conclusion :

This research shows that MEP is the patient's pre-operative to be increased cognition for PCA and nursing satisfaction in orthopedics surgery. Results demonstrate the potential benefic of using MEP for orthopedics surgery patients with PCA.

