

ABSTRACT

Key words: Modified contingency model, cognitive domain, affective domain, psychomotor domain, surgical patient health care, morbidity.

BACKGROUND: Improving the effectiveness in the education of surgical residents has been a real concern since the late 1980's. Many different teaching and evaluation methods have been practised in order to improve the clinical performance of surgical residents in our institution. Besides in Surabaya, Indonesia, we also found an increase in the morbidity rate and a decrease in the quality of surgical patient health care elsewhere.

PURPOSE: To prove that (1) modified contingency models of teaching can improve the surgical resident's behavior (cognitive, affective and psychomotor domain); and that (2) better surgical resident's behavior can improve the quality of surgical patient health care and decrease in morbidity rate.

METHOD: Thirty six surgical residents during 1996-1998 were divided into two groups of intervention using classical (n=20) and modified contingency models (n=16). This study was conducted using operational research method with significance $\alpha = 0,05$.

RESULT: Significant result of intervention groups (n=16) using modified contingency models compared to classical model groups (n=20) was showed in cognitive domain ($t = -6,562$; $df = -34$; $p = 0,001$). It also showed that intervention

groups together with three variables in age, medical school academic performance and personality of surgical resident, influence cognitive domain ($df = 5$; $F = 2,471$; $p = 0,05$), affective domain ($df = 5$; $F = 2,646$; $p = 0,001$), and psychomotor domain ($df = 5$; $F = 3,612$; $p = 0,011$) significantly. The rationality of blood transfusion was also influenced by cognitive domain of surgical resident ($b = 1,0497$; $p = 0,001$). The morbidity rate of surgical resident was influenced by rationality of antibiotic therapy ($b = 0,5698$; $p = 0,0055$), the failure of the elective operative program ($b = 0,7722$; $p = 0,001$) and the modified contingency models of teaching ($b = 0,3256$; $p = 0,0042$). In addition, process of selection of surgical resident must be considered by his age, medical school performance, and personality, because these three variables can have significant influence on surgical patient health care and morbidity. CONCLUSIONS: A modified contingency model developed to increase the value of cognitive, affective and psychomotor domain using this model can influence the surgical patient health care quality and decrease the morbidity rate of surgical residents. The clinical performance of surgical resident is influenced by personality, medical school academic performance and age.