

## **THE EFFECT OF LEVEL 1 PROGRESSIVE MOBILIZATION ON THE RESPIRATION RATE (RR) OF CRITICALLY ILL PATIENTS IN ICU OF DAYA HOSPITAL, MAKASSAR**

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### **Abstract**

**Backgrounds:** patients who are treated in the ICU have various conditions that require the patient to be given maximum care. Progressive mobilization of level 1 will affect oxygen saturation, which can increase the rate and depth of breathing, improve ventilation, decrease breathing, and increase diaphragmatic expansion. **Objectives:** to determine the effect of level 1 progressive mobilization on respiration rate (RR) in the ICU of Daya Hospital. **Methods:** The research design used in this research is quantitative, with a pre-experimental design and a one-group pretest post-test design. The sample used in this study was 16 respondents. This research was conducted from 10 November 2023 to 10 December 2023 in the ICU of Daya Hospital, Makassar. The research institute used a respiratory rate measuring device, a bedside monitor, and an observation sheet. The analysis used non-parametric statistics, namely the Wilcoxon Signed Rank Test analysis. **Results:** The Respiration Analysis Rate pretest has an average value of 16x/minute, and the Respiration Rate protest has an average value of 22x/minute with a significance of 0.002 <0.05. **Conclusions:** There is an influence between the knowledge variable of Level 1 Progressive Mobilization and the change in the value of the Respiration Rate in the ICU of Daya Hospital Makassar.

**Keywords:** *Critical Care; Mobilization; Progressive Mobilization*

## **BACKGROUND**

The World Health Organization (WHO) reported that patient critical condition who are in the Intensive Care Unit prevalence his increases per year his . Recorded as many as 9.8-24.6% of patients comma and treated in Intensive Care Units per 100,000 population, as well death resulting from disease critical until chronicles in the world are increasing as many as 1.1-7.4 million people (WHO, 2020) In Indonesia reason death The highest rate in the Intensive Care Unitis sepsis at 25%-30% and deaths caused by disorders cardiovascular amounting to 11% -18% disruption cardiovascular can modified covers style life, habit smoking, pattern Eat pressure blood tall is contributor main happen disease disturbance cardiovascular ( Ministry of Health 2020) Patient critical is patients who physiological No stable need help tool adequate medical, Characteristics patients admitted to the ICU viz patient Sick critical need monitoring continuous and action quick For prevent emergence decompensation physiological; patients who need it intervention medical immediately by the intensive care team; and patients who need it management function body organ systems in a way coordinated and sustainable so that it can done constant supervision Keep going continuous and method therapy titration, patient critical experience various rapid change worsened so that happen change function system body that affects other organs: experiencing response hypermetabolic complex to the trauma, pain experienced will change metabolism body, hormonal, immunological and hemoptysis nutrition and can caused death. ( Romadoni , 2018).

Mobilization progressive level I will influence saturation oxygen will increase frequency and depth breathing, increasing alveolar ventilation, decreases Work breathing and increase development diaphragm ( Suyanti et al, 2019) Mobilization progressive level I is mobilization carried out in a way gradually in patients critically ill who are treated in the ICU room influence pressure blood matter This because after given mobilization progressive level 1 in the head of bed position indicates Genre come back blood from inferior part towards into the right atrium Enough OK , that 's fine leads to an increase in heart volume and cardiac output (the volume of blood pumped). ventricle left to each aorta minutes), moment given passive ROM of the extremities upper and extremities lower so vessels blood become elastic and flow blood going to to heart become smoothly which causes Work heart increase as well as increasing ability heart in pump blood ( Suyanti et al , 2019) This matter proven from results study previously by Mugi et al (2019) in the ICU room in 15 respondents show exists enhancement saturation oxygen of 2.5%. Obtained The p value is 0.000 which means There is influence before and after mobilization progressive level I. And results study previously by Suyanti et al (2018) in the Home ICU Room Palembang Muhammadiyah Hospital.

## **METHODS**

Research design used in study This is study quantitative with design study pre experimental design with design one group pretest - posttest design . For see influence mobilization progressive level 1 against patient's respiratory rate critical in the ICU room at Labuang Hospital Baji Makassar, Where found the subject being measured according to circumstances or the status character or variable subject be measured according to circumstances or the status in a way simultaneous in something sample representative population or give chance to researcher For do analysis descriptive from moderate variables researched. Study taking place from 10 November 2023 to 10 December 2023 in the ICU at Daya Hospital , Makassar. Sample is part or representative of the population studied . Samples used in research people This is as much 16 people , Total sample in study This calculated with use Federer's formula. In study This technique used is nonprobability sampling with consecutive sampling method . Criteria inclusion in study This namely: a. patient critical with aged 15-51 years , b. Patients moderate critical treated in the ICU at Daya Makassar Hospital. Criteria exclusion namely: patient in circumstances urgency and awareness decreased , patient with limitations motion.

## RESULTS AND DISCUSSION

Research result show that obtained change significant respiratory rate after given passive Rom exercises in patients critical. Where from distribution test results frequency respiration rate before done mobilization progressive is with the average value is 16x/ minute, the minimum average value is 10x/ minute, as well maximum average value there is as much as 26x/ minute and standard division is 4.68, whereas rate respiration rate after done mobilization progressive that is average value 22x/ minute, minimum average of 19x/ minute, value maximum 26x/ minute and standard deviation 2.67 . Based on results analysis researcher, that there is difference between mark respiration rate before and after Passive ROM was performed on the patient critical, p This can seen from sheet observation respiration rate filled in by the researcher based on results observation seen direct from the monitor on each patient respondents who have observed by researchers. Comparison between study influence mobilization progressive level 1 against patient's respiratory rate critical condition in the ICU of Indrianti Hospital Solo Baru carried out by Angga Arinda Tri Murti Nugroho et al 2020. With results research that has mark significant  $0.000 < 0.05$  which means that mobilization Very progressive influence mark respiration rate.

Influence mobilization progressive level 1 against pressure blood and saturation oxygen to the patient with decline awareness carried out by Suyanti, in 2019 became comparison that mobilization Progressive is very influential pressure blood, saturation oxygen with decline awareness patient. Other results were obtained that giving mobilization progressive with giving Semi-Fowler position and passive ROM can effect on value change Respiratory patient critical Where before giving passive ROM so that happen spread oxygen in lungs and increases, in patients consists from mark breathing 23-26, 16-22 and 10-15 with mark most in the category respiration rate 23-26 there are 7 and the lowest is in the category respiration 10-15 i.e. 3, after given passive ROM mark Respiratory there is Respiratory high 23-26 and normal 16-22 values low 10-15 with mark most in 16-22, namely 11 and lowest in category low namely 1. With that is very influential to respiration . so that can concluded that progressive level 1 influential in a way significant to change respiration rate in patients critical.

## CONCLUSION

Mobilization progressive level 1 influential in a way significant to change respiration rate in patients critical. So that quite a change expected for nurse For always monitor and help respondents in perform passive ROM with Correct in accordance procedures that have been doneset .

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