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Developing Cross–C ultural Understanding and Behavior in Nursing Care Services

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PROCESS IMPROVEMENT WEANING FUNCTION VENTILATION AND OXYGENATION POSITION ADJUSTMENT THROUGH HEAD UP 45^0 IN THE SPACE INTESIVE CARE UNIT

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Abstract

Respiratory failure caused a pulmonary inability to provide sufficient O2 or CO2 in the body reduces the pile. Respiratory failure event reaches 20-75 cases per 100,000 population per year with a mortality rate reaches 30-50%. Respiratory failure is further defined as a failure of ventilation and oxygenation failure. A non equivalent control group. The independent variables were setting up the position of head 45°. The dependent variable is measured weaning process of change of PEEP and FiO_2 ratio in ICU in March-May 2016. The sample of 20 respondents with systematic random sampling. The instrument used bed side monitors, peak flow meters and pulse oxymetry. Analysis using *paired t-test* to identify whether there is any difference in oxygenation pulmonary ventilation function. The results: Showed that *the paired t-test p-value* of 0.001 indicating no significant effect given patient's head-up position 45^0 where the results of pulmonary ventilation and pulmonary ventilation for the better. Provides head-up position 45º which is intervention to improve ventilation, the patient had a spontaneous tidal volumes low due to lack of pressure support ventilation. Conclusions Expected setting position of the head up 45° made management procedures, increase lung capacity improvement, oxygenation, prevent aspiration and atelectasis.

Keywords: Position Head Up 45º, Ventilator, Weaning Process

Introduction

Respiratory failure is the most common indication for treatment in the intensive care unit (ICU) of the hospital. Respiratory failure is the inability of the lungs to maintain balance or homeostasis of O2 and CO2 in the body as well as the inability of the lungs to provide sufficient O2 or reduce CO2 in the body pile. According Ignativicius& Workman (2006) further respiratory failure can be defined as a failure or a failure of ventilation and oxygenation due to various factors. The provision of respiratory assistance with the installation of mechanical ventilation may help lung ventilation to improve oxygenation and prevent lung damage. According to Smeltzer, et al (2013) was conducted to help meet the oxygen requirements, reduce work

of breathing, and improve oxygenation to the tissues or correcting respiratory acidosis.

The use of mechanical ventilation, according to a survey of multinational to 5,000 patients in Europe is used in cases of acute respiratory failure (69%), comma (17%), respiratory failure chronic (13%) and neuromuscular disorders (2%) (Rodriquez, Dojat & Brochard: 2005). Respiratory assistance should be given adequate as indicated for preventing respiratory muscle weakness due to be rested (Smeltzer et al, 2013). Mode selection and settings based on the needs for assistance to the inability of respiratory function. If the aid is not adequate can cause diaphragmatic fatigue or weakness, muscle retraction accessories, respiratory acidosis or alkalosis and ineffective breathing pattern (Sundana, 2008).

CPR should be administered as indicated adequate and to prevent respiratory muscle weakness due to be rested (Sundana, 2008). Ability to breathe spontaneously became one of the reasons is done weaning (weaning). The most important thing after weaning (weaning) is the immediate recovery of respiratory function (Prawira and Redjeki, 2008).

Rate weaning is done by a few things: the volume per minute, maximum inspiratory pressure, tidal volume, breathing is rapid and shallow, most of the above criteria is sensitive but not specific, so that they could conduct the assessment of the value of PEEP and FiO 2. This shows that all the indications are predictors of weaning in ICU patients in general. Patients should continue to get screened to find the possibility of weaning / weaning (Kusuma, AJ 2010.

Efforts to improve the process of weaning patients who mounted ventilator and prevent respiratory failure is a recurring basis and the risk of pulmonary atelectasis, the risk of pneumonia after intubation really need to make a change in position, by adding the position of head up 30 ° to 45 °, the position of 45 ° is associated with a significant decrease in MAP and SaO2 in patients with mechanical ventilation. Patients at risk may need a position at 20 ° to 30 ° to overcome the negative effects of the position, especially in the early phase entered the intensive care unit, David RS, et al. (2014). Head position 45
3. is useful to prevent atelectasis, pneumonia and prevent aspiration so that the weaning process can be done more quickly.

Based on a preliminary study of the data obtained from 420 patients treated in October 2013 - October 2014 in Bangil Hospital ICU, 103 patients on a ventilator for respiratory failure. 53% of patients taking successful ventilator weaning or weaning, then extubated, with an average treatment duration ≥7 days in the ICU. From a medical record obtained 30 successful mechanical ventilation weaning or weaning and extubation with improved awareness, the average after 2-4 days the patient underwent further treatment in the next room High Care Unit usual treatment. In hospitals Bangil to observe and evaluate changes in positions of influence in the process of weaning, hospitals arrange observation or monitoring of patients with ventilator should be monitored daily in patients who mounted ventilator-called "bundle prevention check list". In everyday implementation provides head-up position 30 ° in patients who have already installed a ventilator which refers to the existing

procedures, but there is still weaning process pending events, the events of 2012-2013 are likely still experiencing problems. Hospital ICU bangil, nursing interventions head-up position 30 ° mounted ventilator done optimally, especially 6-24 hours post-intubation.

Based on observations of researchers at hospitals have never conducted research on the benefits of change head-up position 30 4. to 45 ° head-up the installed ventilator in intensive care. Care measures that have been implemented in the ICU to patients post-intubation of which still gives the position of head up 30 °, maintanance needs oxygen, monitoring haemodinamik, suctioning and postural drainage to overcome airway obstruction and actions meeting the needs of the day - the day such as nutrition, elimination, fluids and electrolyte.

The role of nurses in the monitoring of oxygenation pulmonary ventilation function well done, even manifestations of respiratory distress received more attention from the ICU nurses.

Weaning (weaning) mechanical ventilation do if the existing ability to breathe spontaneously. This is one reason the process of improvement of respiratory function (Rodriquez, Dojat&Brochard, 2005). Efforts are made with extra breathing exercises to improve ventilation and oxygenation of lung function (Ignatavicius& Workman, 2014).

Some types of breathing exercises that can be recommended for lung recovery is Deep breathing exercises (DBE), diaphragmatic exercise, pursed lip breathing techniques, and the incentive spirometer (Smeltzer, et al, 2008). It is also setting up the position of head 450 head when mounted ventilator will lead to ease of development and the prevention of pulmonary atelectasis and prevent aspiration. Thereby granting the head-up position 450 in patients who mounted ventilator, need to be activated and applied as an alternative to accelerate the process of weaning / weaning and prevent a bad impact. So that needs further investigation.

Literatur Review

The concept ventilation and oxygenation

Ventilation is the process out of the air and into the lungs that require muscle coordination and pulmonary elastic piston with persyarafan intact. Adequasi lung ventilation determined by lung volume, airway resistance, or pulmonary compliance elasitik nature and condition of the chest wall. Intrapleura air pressure difference between the atmospheric pressure, the inspiration intrapleura pressure lower than atmospheric pressure so that air enters the alveoli.

Assessment of respiratory function should not be overlooked in treatment, notbut only for the purpose of diagnosis is useful to assess response to treatment and ventilation function status.

Ventilation function tests including by checking the value of PaCO2, HCO3- and pH. Evaluation of respiratory function through blood gas analysis is not enough to provide information on the transport of O2 and CO2 to ensure adequate oxygenation because it is influenced cardiac output, tissue perfusion and diffusion gas at the network level (Price & Wilson, 2006). Oxygenation not adequat can be identified: a) the presence of cyanosis is a

bluish color of the skin / mucous membranes due to the increase in the absolute amount of reduced hemoglobin; b) hypoxemia and hypoxia were interconnected between PaO2 and SaO2; c) hypercapnia (increased PaCO2 above 45 mmHg) and hypocapnia (decreased PaCO2 <35 mmHg). Both describe the adequacy of ventilation and oxygenation response when supply O2 balanced with the need for the disposal of CO2 via the lungs (Price & Wilson, 2006).

Important information to assess the status of respiratory function is the concentration of hemoglobin that describes an assessment of O2 transport. Hb concentration, O2 saturation and heart health status is the data that needs to be known. Evaluation ventilation function can be assessed from the breathing mechanism that can be observed PEEP of number, rhythm and breathing characteristics to determine the effectiveness of the breathing pattern. Specifically pulmonary compliance can be assessed from a lung capacity and breathing frequency. Brain damage or consumption of barbiturates with excessive doses will affect the respiratory center.

Neuromuscular diseases and disorders to the chest will lead to reduced breath. Thus the pulmonary system, cardiovascular and hematologic highly correlated with body tissue oxygenation (Price & Wilson, 2006). Operational mode cycle volume ventilation in adult clients include: respiratory rate (RR) per minute; tidal volume; the concentration of oxygen (FiO 2) and end respiratory positive pressure (PEEP). The oxygen concentration is given by the percentage of O2 in the AGD (blood gas analysis) The frequency of breathing between 12 - 15x / min; tidal volume of about 10-15 ml / kg. Oxygen fraction (FiO 2) is set at a level lower PaO 2 and oxygen saturation to determine the concentration of oxygen. PEEP is used to prevent alveolar collapse and increases alveolar capillardiffusion (Prawira and Redjeki, 2008).

The concept of setting up the position of head 45^0

The head-up position is recommended interventions to improve patient's ventilation. For example, a patient in the supine position will have lower spontaneous tidal volumes on pressure support ventilation than those seated in an upright position. Although patients may be on mandatory modes of ventilation, improvement in the position to assist the efforts ventilation and minimize atelectasis.

The physiological effects of oxygenation improvement during prone ventilation is multifactorial. The most important factor is the possible optimization of ventilation and perfusion, although the change in the distribution of extravascular lung water and secretions may also play a role. Improve gas exchange through the gas exchange effects on the lung pleural pressure and compression. Increased functional residual capacity (FRC) has also been proposed, but there has been no change FRC dominant in most studies finding ventilation

Position 45 ° is associated with a significant reduction in MAP and SaO2 in patients with mechanical ventilation. Pressure-controlled ventilation, acute physiology higher, sedation, high catecholamine, and PEEP. It was identified as an independent risk factor for hypotension

after the elevation. Patients who are at risk may need a position at 20 ° to 30 ° to overcome the negative effects of the Head of Bed Elevation, especially in the early phase entered the intensive care unit (David RS, et al. 2014).

Data research, intervention and outcome definitions, comparing the 45 ° head of bed elevation (treatment group) with each 25 °, 10 °, or 0 ° elevation (control group) in adults ventilated ICU patients with a ventilation means varies from 4 days to 7 days can produce varied and prevents the GCC ventialsipnemoni. Patients with hemodynamic instability, pelvic trauma, abdominal surgery or neurosurgery, and severe obesity was issued.

Guidelines head of bed (HOB) elevations to prevent aspiration and pressure sores that may occur. some experts recommend a height of 45º sources HOB (Unless there are medical contraindications) to prevent aspiration, while others recommend HOB elevation between 30º and 45º (unless medically contraindicated). Instead, it is at risk of causing injuries hit. Although many studies that provide recommendations 45º HOB elevation is generally performed to prevent aspiration in patients on mechanical ventilation and nasogastric tube. Because aspiration is a threat to oxygenation, some authors caution that aspiration is greater attention and more quickly than pressure sores that may occur (Norma A, et al. 2013)

Research Methods

In this research method research designs (Quasy experiment) with Non- Equivalent Control Group approach pre and post.

Group of subjects was observed before the intervention and then observed again after the intervention (Nursalam, 2013). This study uses the intervention group In the intervention group and the control equally to receive care and medical action appropriate hospital procedures that suctionig, oxygenation mechanical ventilation, over the rest, fulfillment of basic needs, suctioning, oxygenation mechanical ventilation, over the rest, the fulfillment of the liquid electrolyte , nutrition, elimination and personal hygiene.

Group of subjects given treatment intervention: changing the position of head up 45 ° with a span of 6-24 hours after installing the ventilator or post intubation, up to half sitting (semi-Fowler) dive 20 minutes to do every morning, on the first day after the patient's ventilator is attached. The two groups were observed effect of the head-up position 45º with the weaning process until the engine separated from the ventilator or extubation in the ICU Hospital bangil

Sampling in this study is the use of Pre-Post test Experiment with statistical tests Paired T Test (Draft Pre-Postes Experiment) for subjects in the population have a chance of being selected or not selected as a sample, how to determine which members of the sample by means of a number of 20 people are all mounted ventilator patients in the ICU Hospital bangil. Data collection instrument was developed based on what and determination of the results of this research bagaimana.Pada data collection tool by using a check list bundlle prevention. The purpose of this study prove the effect of setting up the position of head 450 to the process of weaning patients who mounted ventilator in the ICU (Intensive Care Unit) "

Result

Table 1. Characteristics of Respondents Longer Ventilator Installed Ventilator In Intensive Care Hospitals Bangil.

characteristics of Respondents	Frekuensi (f)	Prosentase (%)
3- 4 day	7	35
5- 6 day	7	35
7- 8 day	5	25
>9 day	1	5
Total	20	100

Based on data from a long-specific characteristics ventilator 3- 4 days there were 7 (35%) of respondents use ventilator 5- 6 days there were 7 (35%) of respondents use of ventilator 7-8 days there are five (25%) of respondents, and 1 (5%) of respondents there is the use of> 9 days

Table 2. Characteristics of respondents breathing pattern prior to intervention mounted ventilator patients in the ICU Hospital bangil

characteristics of Respondents	Frekuensi (f)	Prosentase (%)
Regular	9	45
Irregular	11	55
Total	20	100

Based on data from specific characteristics of respondents attached breathing patterns ventilator there were 9 (45%) of respondents with parameter 1 / irregular breathing patterns and 11 (55%) of respondents with parameter 2 / irregular

Table 3. Characteristics of respondents after the patient's breathing pattern of intervention in a hospital ICU ventilator Bangil

Characteristics of Respondents	Frekuensi (f)	Prosentase (%)
Regular	18	90
Irregular	2	10
Total	20	100

Based on data from specific characteristics of respondents attached breath sounds ventilator there were 18 (90%) of respondents with parameter 1 / normal breath sounds and 2 (10%) of respondents with parameter 2 / whizzing

Table 4. Characteristics of respondents breath sounds before the intervention patients in the ICU ventilator attached hospitals bangil.

Characteristics of Respondents	Frekuensi (f)	Prosentase (%)
Normal	10	50
Whizzing	10	50
Total	20	100

Based on data from specific characteristics of respondents attached breath sounds ventilator there were 10 (50%) of respondents with parameter 1 / normal breath sounds and 10 (50%) of respondents with parameter 2 / whizzing.

Table 6. Characteristics of respondents photo thorax after intervention patients in the ICU ventilator attached hospitals bangil

Characteristics of Respondents	Frekuensi (f)	Prosentase (%)
Normal	20	100
Pneumonia	-	0
Total	20	100

Based on data from specific characteristics of respondents photo thorax after intervention were mounted ventilator patients there were 20 (100%) of respondents with parameter 1 / normal and there is no respondents with parameter 2 / pneumonia

Table 7. Table Parameter positive end expiratory pressure (Peep) before the intervention patients who mounted ventilator in ICU hospitals bangil.

Parametre Positive End Expiratory Pressure (Peep)	Frekuensi	Prosentase (%)
5-7	9	45
8-10	10	50
> 10	1	5
Total	20	100

Based on Table 7 Parameter parameter intervention pretest positive end expiratory pressure (Peep) before the intervention patients who mounted ventilator in ICU hospitals bangil, There are nine (45%) of respondents with Peep parameters 5-7 and there were 10 (50%) of respondents with parameters 8-10 and 1 (5%) of respondents with Peep parameter> 10.

Table 8. Table Parameter positive end expiratory pressure (Peep) after intervention in patients who mounted ventilator in ICU hospitals bangil.

Classifications Positive End Expiratory Pressure (Peep)	Frekuensi	Prosentase (%)
5-7	15	75
8-10	2	10
>10	1	5
Total	20	100

Based on Table 8 Parameter Peep posttest intervention parameters positive end expiratory pressure (Peep) after intervention in patients who mounted ventilator in ICU hospitals bangil, there were 15 (75%) of respondents with 5-7 and there are Peep parameter 2 (10%) respondents with parameter 8-10 (85%) and respondents with parameter 1 Peep> 10

Table 9. Table Parameter Fraction of oxygen (FiO 5. before the intervention patients who mounted ventilator in ICU hospitals bangil.

Classification parameter FraksiOksigen (FiO2)	Frekuensi	Prosentase (%)
25-35%	3	15
40-60%	15	75
65-80%	2	10
Total	20	100

Based on Table 9 Parameter Fraction of oxygen (FiO 2) prior to the intervention of the head-up position 45 ° Patients with ventilator in ICU hospitals bangil, There

are three (15%) of respondents premises parameter FiO 2 25-35% (16.6%), 15 (75 %) of respondents to the parameters FiO 2 40-60% 2 (10%) of respondents to the parameters FiO 2 65-80%

Table 10. Parameter Fraction of oxygen (FiO 6. after intervention patients who mounted ventilator in ICU hospitals bangi

Clasification FraksiOksigen (FiO2)	Frekuensi	Prosentase (%)
25- 35%	18	90
40- 60%	2	10
65- 80%	-	0
Total	20	100

Based on the parameters of the table Quality Fraction of oxygen (FiO 2) after intervention patients who mounted ventilator in ICU hospitals bangil, There are 18 (90%) of respondents with FiO2 parameter 25- 35 2 (10%) of respondents with parameter FiO2 40 to 60%

Table 11. Results of parameter positive end expiratory pressure (Peep) before and after the intervention of the head-up position 45º patients who mounted ventilator in ICU hospitals bangil.

			PEEP post		Total
			5- 7	8- 10	
PEEP pre	5- 7		8	0	8
			100.0%	.0%	100.0%
	8- 10		11	0	11
			100.0%	.0%	100.0%
	11- 13		0	2	2
			.0%	100.0%	100.0%
Total			18	2	20
		90%	10%	100.0%	

Paired t-test ρ. Value = 0,001

Table 12. Cross tabulation FiO2 parameters before and after the intervention of th head-up position 45º patients who mounted ventilator in ICU hospitals bangil.

			FiO2 post		Total
			25- 35	40- 60	
FiO2 Pre	25- 35		4	6	10
			40%	60.0%	100
	40- 60		2	4	6
			20%	80%	100
	65- 85		2	2	4
			50%	50%	100
Total			8	12	20
		40%	60%	100	

Paired t-test ρ. Value = 0,001

Table 11 and 12 Based on the results obtained normality test all common data 7. 0.05 means there is statistically normal distribution. After parametric statistical tests with Paired T-Test, obtained ρ. Value = 0.001 8. 0:05 statistic result Paired T-Test shows the results of $\rho = 0.001 \leq 0.05$ which meaningful H0 and H1 accepted, so that there is the influence of the head-up position 45 ° to the repair process mounted ventilator weaning patients in the roombangil Hospital ICU

Discussion

Positive end expiratory pressure (Peep) pre intervention

The number of respondents in this research consisted of 20 patients who mounted Hospital ICU ventilatorObtained 8 respondents with a score of 1 / parameter Peep 5-7 and 11 respondents score 2 / Peep parameter 8-10 and 2 respondents with a score of 3 / parameter Peep> 10, it is because the patient is still using the head position up 30 ° before the intervention position of head up 45 ° in which position before the position of head up 30 ° causes the respiratory impaired that the development of the diaphragm less than the maximum, and still needed help breathing with a ventilator and unclear effects as well as the benefits of the change in position of the weaning process. Position 45 ° is associated with a significant reduction in MAP and SaO2 in patients with mechanical ventilation.

Ventilation pressure-controlled, acute physiology simplified higher (SAPS II) score, sedation, catecholamines high, and Peep requirements identified 30 ° to overcome the negative effects of the position, especially in the early phases of patients who entered in the room intensive care unit, David RS , et al. (2014).

Positive end expiratory pressure (Peep) post intervention

Peep parameters after intervention provides 45 ° head-up position parameters of positive end expiratory pressure (Peep) there were 18 (90%), respondents with a score of 1 9. 5-7 and there are Peep parameter 2 (10%) of respondents with a score of 2 / parameter Peep 8-10, it indicates that the parameter Peep intervention after the head-up position 45 °, affecting breathing process and developing a lung to maximum, peep used to prevent alveolar collapse and increases alveolar capillary diffusion (Prawira and Redjeki, 2008). Peep is very useful for those who use a ventilator that will require through the process of weaning the head-up position is suggested interventions to improve patient's ventilation. For example, a patient in the supine position will have lower spontaneous tidal volumes on pressure support ventilation than those seated in an upright position, David RS, et al. (2014).

Although patients may be on mandatory modes of ventilation, improvement in the position to assist the efforts ventilation and minimize atelectasis. The most important factor is the possible optimization of ventilation and perfusion, although the change in the distribution of extravascular lung water and secretions may also play a role in the patient's ventilation changes, David RS, et al. (2014

Fraction Oxygen (FiO2) Pre Interventions

There are 10 respondents with a score of 1 / parameter FiO2 25-35% and 6 respondents with a score of 2 / FiO 2 parameter 40-60% and 4 respondents with a score of 3 / parameter FiO2 65-80%, this indicates that the patient is attached ventilator still requires oxygenation with restrictions that still uses the score 2

10. parameter Fio2 40-60% in patients before the intervention ventilator mounted head-up position 45 °. The oxygen concentration is given by the percentage of O2 in the AGD (blood gas analysis). Respiratory frequency between 12 - 15x / min; tidal volume of about 10-15 ml / kg. Oxygen fraction (FiO 2) is set at a level lower PaO 2 and oxygen saturation to determine the concentration of oxygen.

Monitoring Oxygen Saturation by Pulse Oximetry Measurement of arterial blood gases is the best way to assess changes in the gas, sometimes there are some unfavorable circumstances when the arterial puncture. Therefore pulse oximetry as a non-invasive way to assess oxygenation, started being used. Pulse oximetry measures the oxygen saturation of Hb (O2 saturation) than PaO 2. Normal O2 saturation was 96% to 98% according to the PaO 2 levels of about 80 mmHg to 100 mmHg (Price & Wilson, 2006). O2 saturation values with pulse oximetry test results is an indicator of the percentage of hemoglobin saturated with oxygen during the examination. Pulse oximetry consists of two sensors, namely; infrared rays that can be absorbed by oxyhaemoglobin, while the red light that can be absorbed by hemoglobin. O2 saturation values indicate oxygenation status with measurement accuracy is affected by hemoglobin, arterial blood flow, the temperature of the sensor area, the ability of the client oxygenation, oxygen fraction (FiO 2), ventilation / perfusion mismatch, the power light sensor and venous return to the sensor area. Tools include pulse oximetry; monitors and oxygen saturation meter, cable and sensor oxygen saturation and cleaning agent recommended (Wiegand& Carlson, 2005). Educate the client / family include:

11. an explanation of the importance of checking O2 saturation by pulse oximetry;

12. describes the changes O2 saturation values are influenced by the movement, the light in the surrounding environment; c) the level of awareness and position sensor; d) describes the saturation O2 as one of several tests to identify the status of oxygenation;

13. describe the existing equipment; f) describes the alarm at certain thresholds in O2 saturation and g) explain the need for the removal of checkpoints. Assessment sign of symptoms decreased ability of oxygenation can be identified: their dyspnea, tachypnea, decreased consciousness, increased work of breathing

Fraction oxygen (FiO2) Post interventions

Obtained the results obtained 8 (40%) of respondents with the score / parameter FiO 2 ratio, 25% -35%, and 12 (60%) of respondents with a score of 2 / FiO 2 ratio parameter of 40% -60%. Improvements in a position to assist the efforts ventilation and minimize atelectasis. The most important factor is the possible optimization of ventilation and perfusion, although the change in the distribution of extravascular lung water and secretions may also play a role in the patient's ventilation changes, David RS, et al.

(2014).Changes in the position to assist the efforts ventilation and minimize atelectasis. The most important factor is the possible optimization of ventilation and perfusion, although the change in the distribution of extravascular lung water and secretions may also play a role in the patient's ventilation changes, David RS, et al. (2014).

Patient's oxygen saturation monitoring conducted by Pulse Oximetry Measurement of arterial blood gases is the best way to assess changes in the gas, sometimes there are some unfavorable circumstances when the arterial puncture. Therefore pulse oximetry as a non-invasive way of assessing oxygenation remedy, widely used. Pulse oximetry measures the oxygen saturation of Hb (O2 saturation) than PaO 2. Normal O2 saturation was 96% to 98% according to the PaO 2 levels of about 80 mmHg to 100 mmHg (Price & Wilson, 2006). O2 saturation values with pulse oximetry test results is an indicator of the percentage of hemoglobin saturated with oxygen during the examination. Pulse oximetry consists of two sensors, namely; infrared rays that can be absorbed by oxyhaemoglobin, while the red light that can be absorbed by hemoglobin. O2 saturation values indicate oxygenation status with measurement accuracy is affected by hemoglobin, arterial blood flow, the temperature of the sensor area, the ability of the client oxygenation, oxygen fraction (FiO 2), ventilation/perfusion mismatch, the power light sensor and venous return to the sensor area. Tools include pulse oximetry; monitors and oxygen saturation meter, cable and sensor oxygen saturation and cleaning agent recommended (Wiegand& Carlson, 2005).

Educate the patient/family includes: Explanation of the importance of checking O2 saturation by pulse oximetry, Explaining the changes in the value of O2 saturation is influenced by the movement, rays around the neighborhood, level of awareness and position sensors, Explaining O2 saturation as one of the few checks to identifying the oxygenation status, Explains the existing equipment, Explaining the alarm at certain thresholds in O2 saturation, Explaining the need for the removal of checkpoints.

Assessment sign of symptoms decreased ability of oxygenation can be identified: their dyspnea, tachypnea, decreased consciousness, increased work of breathing, airway obstruction, agitation, disorientation and cyanosis. Assessment of area extremities (digits) point of mounting the sensors include; decrease in peripheral arteries, peripheral cyanosis, decreased body temperature and blood pressure, tremors, light environment (Wiegand& Carlson, 2005)

Conclusions and Recommendations

Based on the research findings and the results that have been implemented, it can be concluded that setting up the position of head 450 can improve the patient's ventilation and oxygenation improvement mounted ventilator, which will accelerate the process of weaning in these patients. Position of Head up 45º is suggested interventions to prevent aspiration, increasing the patient's ventilation. 45˚ position generally recommended to prevent aspiration in critically ill patients on a ventilator, as a threat to the aspirations of oxygenation that will affect the process of weaning the patient.

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