

# Care Of Ventilated Adult Patient In Medical Wards : Nurses' Perception

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# OUTLINE

- Background
- Methods
- Results
- Discussion
- Acknowledgement
- References/bibliography

**BACKGROUND**

MV - a technique in which an external device connected directly through the respiratory track to assist in breathing (Bonet, 2013)

Commonly conducted by anesthesiologist and critical care nurses.

Need to be monitored in intensive care unit (ICU) setting (Tobin, 2017).



One of the high priority indications for admission to the intensive care unit (ICU) (Tang, 2012).



Admission rate of patients to ICUs of public hospitals in Malaysia has been increased by 81% (Ludin, 2018).



Cause **shortages of ICU beds** (Hersch et al. 2007).



Responsibilities been passed down to general ward.

**General ward environment was not appropriate** compared to the ICU (Tang et. al, 2012).

## Inefficient distribution of nurses

(Couchman, et. al 2007; Rose & Gerdtz, 2009; Faidy et. al, 2014).

## Weaknesses in general ward

### Nurses:

- not well-trained
- lack of knowledge and experience in MV care

(Grossbach, Chlan & Tracy, 2011; Rose & Gerdtz , 2009).

Inadequate  
facilities, equipment  
especially MV

(Faidy et. Al, 2014).

# SIGNIFICANCE OF STUDY

- Hospital administration - able to find out nurses issues in managing critical ill ventilated patient in medical ward.
- The issues might be managed through innovations and strategies.
- Essential training can be provided to the nurses according to current needs.
- Patient care outcome will be improved.
- It will reflect a good service shown by the nurse and able to be a role model to other hospitals.

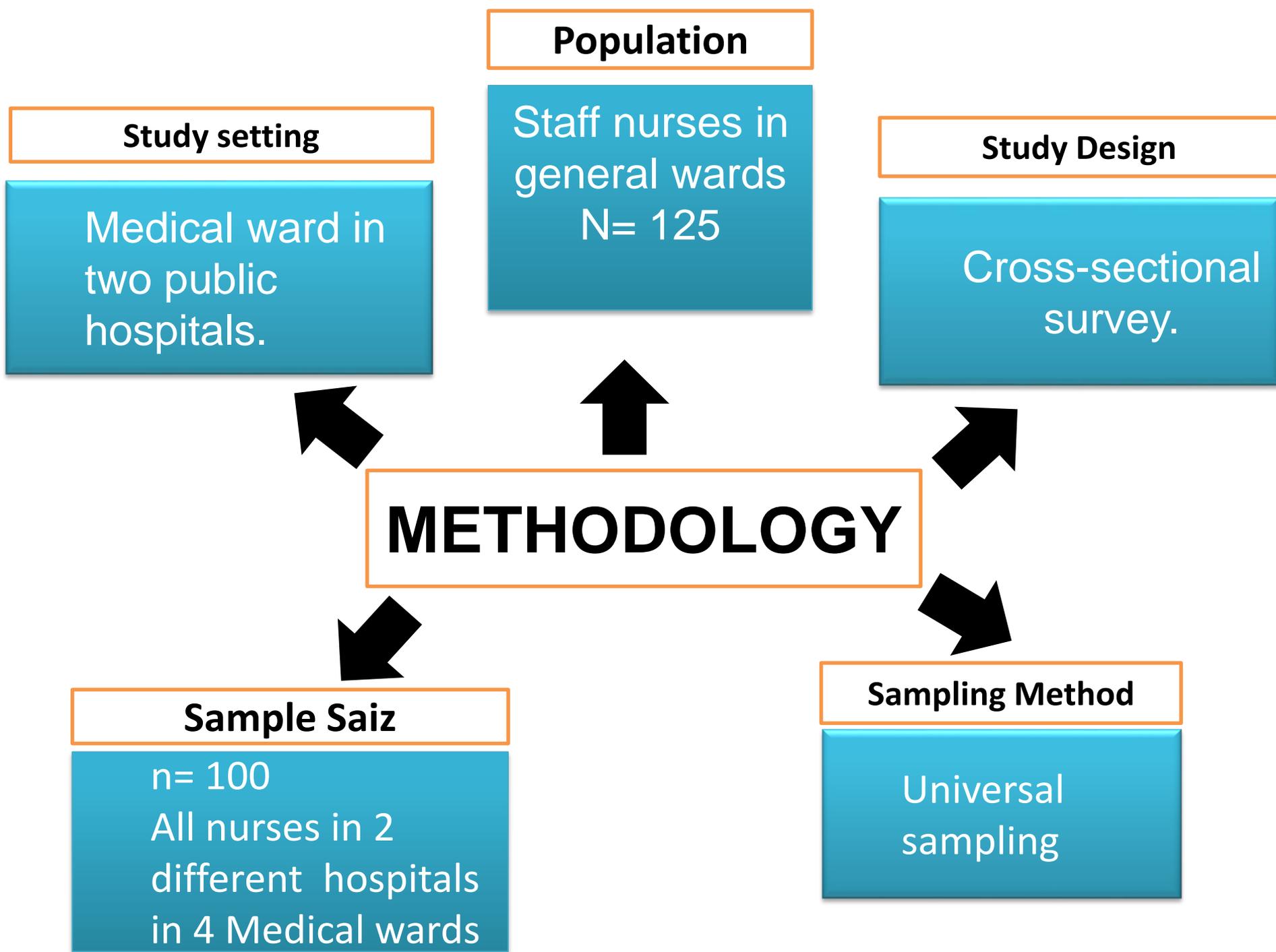
# OBJECTIVES

- GENERAL OBJECTIVES

- To explore nurses perception on ventilated adult patient in general ward.

- SPECIFIC OBJECTIVES

1. To determine the perception of nurses towards patients with ventilator in medical ward.
2. To identify association between years of service, background of critical care training and their perceptions.



# INSTRUMENT

- Adapted from study by Faidy et. al, 2014 entitled “Care of Mechanical Ventilated Patients in General Ward : Nurses Perspective” from Journal of Nursing and Health Care (JNHC), Vol.1, No. 2.
- Content validated by senior anesthetist and senior nurse clinical.

Consist of 2 parts

- Part A - 7 questions on socio-demographic data
- Part B - 33 questionnaires with 5 Likert's scale
  - i. 11 questions on nurses perspective on their mechanical ventilated patient care knowledge and skills
  - ii. 7 questions on general ward difficulties of accessing critical care team during emergencies
  - iii. 9 questions on level of satisfaction and confidence
  - iv. 6 questions on staffing, equipment and facilities

# RELIABILITY TEST

- Pilot study had been done to 10 participants. Reliability test with Cronbach alpha of 0.88.

# Study Flow

Approval ethic committee



Permission from hospital administration  
(Hospital Director , HOD medical, matron,  
ward manager).



Briefing to ward manager  
include all participants during  
department's CNE.



Immediately distribute  
questionnaire and collect back.  
(20-30min)



Data collection  
(17<sup>th</sup> of May – 18<sup>th</sup> of June)

# DATA ANALYSIS

- SPSS version 22.
- Descriptive statistics – percentage, mean and standard deviation.
- Inferential statistics - Independent t-test, Mann-Whitney test, Kruskal-Wallis test, one way ANOVA.

# RESULTS

	<b>Characteristic</b>	<b>N</b>	<b>Percentage (%)</b>
<b>Years of working experience</b>	<b>0-5 years</b>	<b>59</b>	<b>59</b>
	<b>6-10 years</b>	<b>30</b>	<b>30</b>
	<b>11-20years</b>	<b>8</b>	<b>8</b>
	<b>More than 20 years</b>	<b>3</b>	<b>3</b>
<b>Nurses attended ventilator course</b>	<b>Intensive/critical care</b>	<b>34</b>	<b>34</b>
	<b>Advanced resuscitation</b>	<b>49</b>	<b>49</b>
	<b>More than 2 courses</b>	<b>17</b>	<b>17</b>
<b>Area of competencies</b>	<b>Critical care patient assessment</b>	<b>7</b>	<b>7</b>
	<b>Sedation</b>	<b>6</b>	<b>6</b>
	<b>Pain assessment</b>	<b>12</b>	<b>12</b>
	<b>More than 2 competencies</b>	<b>46</b>	<b>46</b>
<b>Attended training provided by organizations</b>	<b>Invasive IV line care</b>	<b>15</b>	<b>15</b>
	<b>Critical care clinical training</b>	<b>6</b>	<b>6</b>
	<b>ABG interpretations</b>	<b>4</b>	<b>4</b>
	<b>Basic ECG interpretations</b>	<b>5</b>	<b>5</b>
	<b>More than 2 competencies</b>	<b>28</b>	<b>28</b>
<b>Critical care working experiences</b>	<b>Yes</b>	<b>28</b>	<b>28</b>
	<b>No</b>	<b>72</b>	<b>72</b>
<b>MV care experiences</b>	<b>Yes</b>	<b>93</b>	<b>93</b>
	<b>No</b>	<b>7</b>	<b>7</b>

# KNOWLEDGE AND SKILLS

Total Mean Score 3.67, SD 0.6

94%

Able to practice suctioning (M: 4.28, SD 0.71).

93%

Aware of possible complications of ETT suctioning (M: 4.19, SD 0.75).

77%

Know the invasive line care and interventions to prevent nosocomial infections (M: 4.0, SD: 0.79).

68%

Able to recognize patient in deterioration state (M: 3.85, SD: 0.82).

58%

Had agree that they were able to perform systematic procedures on MV-patients (Mean: 3.48, SD 0.75).

# CRITICAL CARE TEAM SUPPORT

Total Mean Score: 2.9, SD: 0.63

62%

Agreed that they get assistance from critical care team during emergencies (M: 3.21, SD: 1.22)

60%

Disagree that they supported by the critical care nursing team (M: 2.22, SD 1.16).

49%

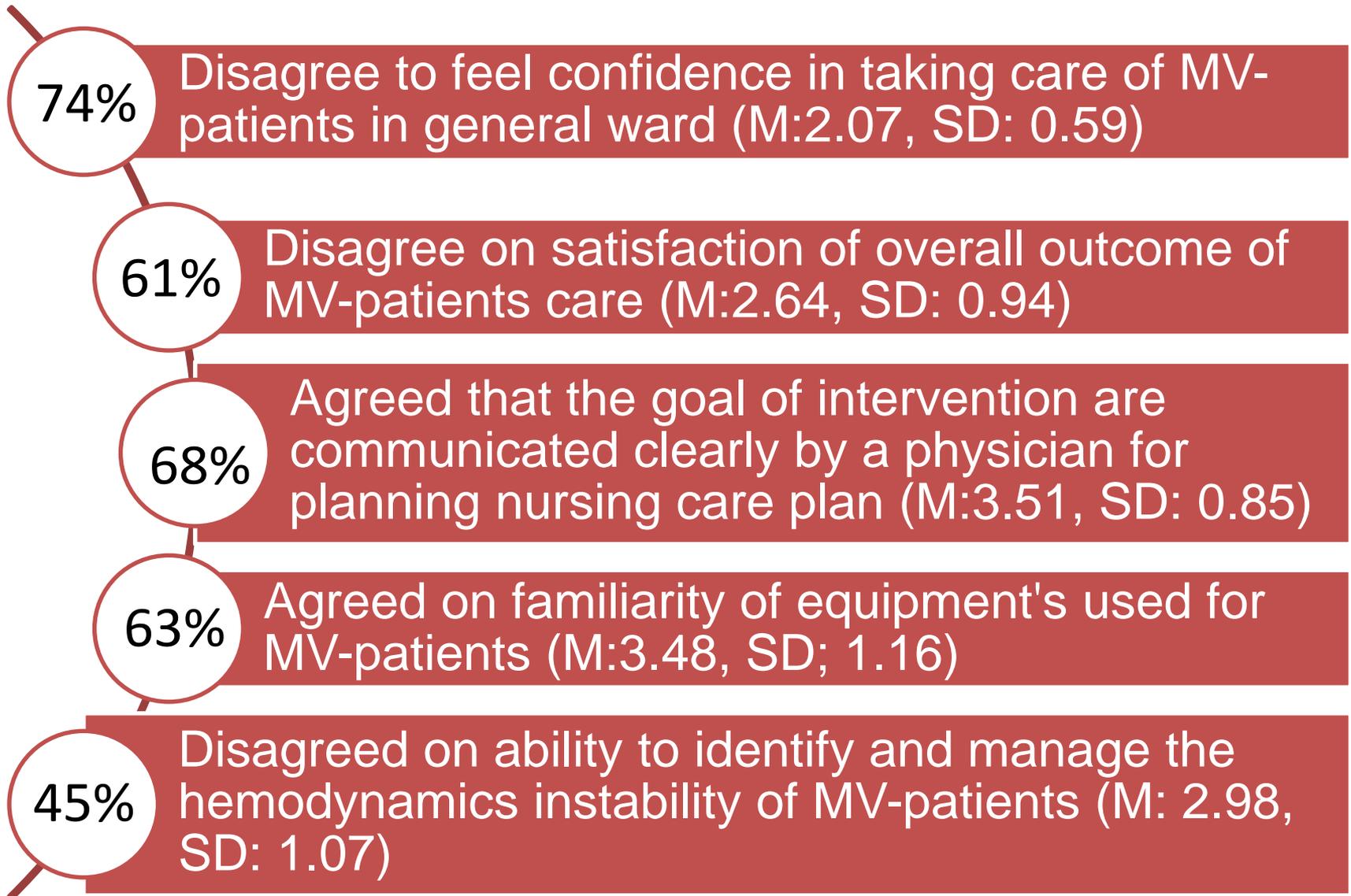
Disagree the critical care physician is available in the ward to determine pre existing illness (M: 2.65, SD: 0.86).

42%

Disagree that their ward supported by the critical care physician (M: 2.65, SD; 0.86).

# SATISFACTION AND CONFIDENCES

Total Mean Score: 3.12, SD: 0.56



# RESOURCES

Total Mean Score: 2.24, SD: 0.47

90%

Often taken care of MV-patients in ward (M: 1.78, SD: 0.86).

95%

Disagreed that the general ward is suitable for care of MV-patients (M: 1.32, SD: 0.601).

91%

Disagreed on receiving technical support for ventilator devices (M: 1.90, SD: 0.76).

84%

Disagreed regarding the ward is well equipped to take care of MV- patients (M: 1.78, SD: 0.86).

90%

Disagree that the nurses to patient ratio in general ward is 1:1 (M:1.35, SD:0.66).

# RESULTS

	Knowledge And Skills	Satisfaction And Confidence
Years of working experience	Kruskal-Wallis test: Not significant, $\chi^2(3) = 2.9$ , $p = 0.407$ .	ANOVA test: Not significant, $F(3, 96) = 0.61$ , $p = 0.611$ .
Background of clinical care training	Mann-Whitney test: Not significant, $Z = -0.096$ , $p = 0.923$	Independent t-test: Not significant, $t(98) = 0.579$ , $p = 0.564$ .

# DISCUSSION

- The mechanically ventilated patients in general ward increase ward nurses' workload which lead to low quality care (Roche et. al, 2011; Jedian et. al, 2016).
- Our finding also similar – even though the nurses have knowledge regarding the care of ventilated patients but lack of staffing and resources lead to poor satisfactions on patient care.
- This study also parallel to Chiang and Lin (2008) and Friese et.al (2008), found that nurses agreed that staffing and resources in their hospital is not enough to meet the patients' needs on ventilator care.

# DISCUSSION

- In this study, 90% of them feels they needed 1:1 or 1:2 nurse to patient ratio. This finding is supported by ACCCN (Australian College of Critical Care Nurses) to maintain optimize care of mechanically ventilated patient in general wards.
- About 84% of the nurses perceived that the general ward also not well equipped with the necessity devices to take care of mechanically ventilated patient. This finding is similar to study done by Faidy et. al (2014) and supported by Tang et. al (2012).

# DISCUSSION

- There were no significant association between years of working experiences and had attended critical care training or not, it does not affect on perceptions of knowledge and skills, as well as confidence and satisfaction. ( $p>0.05$ )

# LIMITATION

- This study was only limited to general medical ward of 2 hospitals and did not address issues of other department due to time constrain.
- Unable to generalized the result due to small sample size.
- The sample was not normally distributed because only 3% of them have working experiences of >25 years.

# RECOMMENDATION

- Encourage ward manager to promote nurses to attend seminars and workshop related to care of patient with MV.
- Provide in service training by attaching nurses to ICU from general ward for a period of 3 month.
- Hospital administrators
  - Need to look into seriously on staffing ratio of nurses in general ward for those wards who are taking care of MV-patients.
  - Ensure that general ward nurses are trained adequately
  - Provide appropriate and enough equipment to take care of MV patient.

# CONCLUSION

- Majority of the nurses in this study perceived that general ward is not suitable for caring of MV-patients which causes dissatisfaction among them, especially on shortage of nurses, and lack of resources.
- Hospital and nursing administrators should play an important role in providing a better working environment for nurses in general ward especially those who are taking care of MV-patients.
- Nurses are encourage to attend seminar or workshop related to mechanical ventilated care.

# ACKNOWLEDGEMENT

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**THANK**

**YOU**

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