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USES OF PURSED LIPS BREATHING AND CHEST PHYSIOTHERAPY TO IMPROVE OXYGENATION STATUS IN PNEUMONIA PATIENTS

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Background: Pneumonia is an inflamed lung infection. The disease is becoming one of the major problems in global public health due to its significant impact on morbidity and mortality. One of the non-pharmacological therapies that can help in handling pneumonia cases is *Pursed Lips Breathing Breathing*, this technique helps improve lung function, and *Chest Physiotherapy* helps in removing mucus trapped in the lungs. **Objective:** To analyze the intervention of *Pursed Lips Breathing* and *Chest Physiotherapy* therapy to improve airway proficiency in the Emergency Installation Room of Abepura Hospital. **Methods:** This research uses a case study method, data collection is carried out through anamnesis to find out the patient's identity and complaints, observation and physical examination when conducting nursing assessments on patients. The subjects in this study were one Pneumonia patient with respiratory disorders and experienced an increase in respiratory rate (RR) and oxygen saturation. Pursed *Lips Breathing* and *Chest Physiotherapy therapy* was administered 1 time during treatment in the emergency room. **Results:** from this case study, it was found that there was a decrease *in respiratory rate* (RR) and an increase *in pulse oxygen saturation* (SpO2), as well as *airway proficiency* with a decrease in sputum production. The application of innovative interventions needs to be carried out in the emergency room so that patients can control breathing when shortness of breath and when a restrained cough occurs. **Conclusions:** This intervention showed an improvement in the oxygenation status and *airway* competence of patients when given *Pursed Lips Breathing* and *Chest Physiotherapy therapy*.

Keywords : *airway, chest physiotherapy, oxygenation status, pneumonia, pursed lips breathing,*

INTRODUCTION

Pneumonia is an acute respiratory infection that has adverse effects on the lungs caused by viruses, bacteria and fungi. This causes signs and symptoms such as coughing, tightness, and chest pain due to the presence of pus and fluid in the alveoli so that pneumonia sufferers experience chest pain when breathing and limited oxygen intake enters the lungs (Sholichin, 2020). The disease is one of the major problems in public health globally due to its significant impact on morbidity and mortality (Kurniawan & Aida, 2024).

The WHO also noted that in 2019, pneumonia caused about 2.5 million deaths worldwide. The prevalence of pneumonia globally is quite high, especially in developing countries. It is estimated that there are approximately 386 million cases of pneumonia worldwide (Sari, 2020). It is a common and serious health problem worldwide with high morbidity and mortality rates especially in children, the elderly, and individuals with weakened immune systems. The infection can spread to different parts of the lungs, causing inflammation and damage to the alveoli which are small air sacs where gas exchange occurs (Hamzah B et al, 2021).

In pneumonia, complications such as dehydration, bacteremia (sepsis), lung abscess, pleural effusion and difficulty breathing can occur. In the elderly with pneumonia has a high degree of disease severity, it can even result in death. The most sufferers are experienced by men compared to women, age factors are one of the risk factors for the increase in incidence and death due to pneumonia in Indonesia, especially in the elderly and children (Abdjul & Herlina, 2020).

Data related to the increase in pneumonia cases taken from the latest Basic Health Research (Riskesdas) in Indonesia in 2018, the prevalence of pneumonia in children under 5 years old in Indonesia reached 2.2%, at the age of 5 years and above reached 1.5%, and there was an increase in the number of pneumonia cases from the previous year, namely from 1.4 million cases to 1.5 million cases. Information on pneumonia cases in Papua Province was taken from a report by the Ministry of Health of the Republic of Indonesia (Kemenkes) in 2020 as many as 23,263 cases. Papua province has a pneumonia incidence rate of 1,439 per 100,000 population, which is higher than the national average of 1,195 per 100,000 population, and a pneumonia mortality rate of 355 cases. Several efforts have been made to deal with pneumonia in Papua, one of which is through increasing the capacity of health workers in handling pneumonia (Ministry of Health, 2021).

Emergency nursing management in pneumonia patients includes measuring oxygen levels in the blood, assessing respiratory conditions, and fluid management (Rohmah, 2020). Pneumonia is an inflammatory disease in the lungs that arises due to the invasion of several pantogens and one of the most common causes is bacteria that cause impaired respiratory organ function such as difficulty breathing due to lack of oxygen (Arisa et al., 2020). *American Thoracic Society* (2020) stated that one of the non-pharmacological therapies that can help in handling pneumonia cases is respiratory therapy, this therapy includes breathing techniques such as *deep breathing*, *Pursed-Lips breathing*and *breathing exercises*. These techniques help improve lung function and aid in removing mucus trapped in the lungs (Gelok & Mukin, 2024).

Pursed Lips breathing It is a breathing technique that is performed by exhaling through a bent lip, thus putting extra pressure on the airways and helping to expel air trapped in the lungs. This technique is used as part of nursing therapy in pneumonia patients to help improve lung function and improve oxygenation (Bhatnagar & Jangra, 2020). Pursed LipsBreathing (PLB) Therapy is a breathing technique that is performed by narrowing the lips. This technique can provide many health benefits, from overcoming anxiety to relieving symptoms of bronchoneomonia and pneomonia (Ning Pangesti & Suharti, 2021)

Other non-pharmacological therapies that can be done to help improve proficiency *Airway* in the case of pneumonia is with *Chest Physiotherapy* (CPT), this therapy can be done with several techniques, such as *Postural drainage* (the patient's body position is manipulated to facilitate the flow of mucus and secretions from the respiratory tract), *percussion* (hitting the patient's chest and back area with hands or special tools to speed up the movement of mucus and secretions in the respiratory tract), *vibration* (the use of small vibrations in the patient's chest and back area with special hands or tools to accelerate the movement of mucus and secretions within the respiratory tract), and *Coughing* (pushing hard air through the respiratory tract by using the chest and abdominal muscles) (Oktaviani & Nugroho, 2022)

Based on the results of research conducted by (Moy et al., 2024) in pneumonia patients using the CPT technique routinely for 5 days showed a significant improvement in competence *Airway* and increased value *Peak Expiratory Flow* (PEF). The study concludes that CPT is an effective method in improving proficiency *Airway* and lung function in pneumonia patients. Based on the above explanation, the purpose of this study is to conduct an analytical study related to the Application of Nursing Measures *Pursed Lips Breathing*

and *Chest Physiotherapy* to Improve Oxygenation Status and Attenuation *Airway* in Patients with Pneumonia in the Emergency Installation of Abepura Hospital.

METHOD

This study uses a case study method, data collection is carried out through anamnesis to find out the patient's identity and complaints, observation of clinical conditions and physical examination when conducting nursing assessments on patients. The subject of this study was one female patient who came to the emergency room of Abepura Hospital with complaints of severe shortness of breath and a medical diagnosis of Pneumonia dd TB Pulmonary Relapse with respiratory disorders, experiencing a decrease in oxygen saturation. Pursed *Lips Breathing* and *Chest Physiotherapy* therapy exercises were given 1 time during the morning shift on December 5, 2022 from 12.00 to 14.00 WIT. With treatment techniques, namely measuring *respiratory rate* (RR) and increasing *pulse oxygen saturation* (SpO2),

The variable measurements in the study referred to respiratory *rate* (RR) and increased *pulse oxygen saturation* (SpO2) as well as *airway* proficiency before and after the administration of *Pursed Lips Breathing* and *Chest Physiotherapy interventions*
The research procedure includes the elaboration of the process of implementing a case study which consists of several stages, namely preparation which includes the submission of the title of the case study, data collection through observation and interview methods, and finally the preparation of a report based on the stages of writing a scientific paper. Data analysis and data presentation are presented textually, with facts created in the form of text and described narratively. In addition, the analysis is also supported by the Indonesian Nursing Diagnosis Standards (SDKI), Indonesian Nursing Intervention Standards (SIKI), and Indonesian Nursing Output Standards (SLKI)

RESULT

From the results of the nursing assessment, the patient appeared short of breath but breathing spontaneously, coughed but was ineffective (the patient seemed to be hugging when he wanted to expel sputum), there was an additional sound of *ronchi* breathing (in both lung fields), the patient's breathing still felt strong, the sputum appeared greenish, the consistency was thick and the volume of sputum was ± 2 cc.

Table 1.1 Evaluation of Oxygenation Status and *Airway*, Proficiency, Before and After *Pursed Lips Breathing* and *Chest Physiotherapy*

Patient's Initials	RR before	RR after	SpO2 before	SpO2 after	Breath and sputum sound before	Breath and sputum sound after
Mrs. N.	28 x/min	20 x/min	94%	97%	Ronchi in both lungs, retained sputum	Ronchi descends on the left chest, sputum can

	come out

Source. Premiere Date (2022)

Based on table the results obtained when measuring the status of oxygenation and *airway proficiency before* Pursed Lips Breathing *and* Chest Physiotherapy *were carried out* in Mrs. N, namely oxygen saturation of 94% and respiratory frequency of 28 x/min, additional sound of breathing in both lung fields, retained sputum after therapy was given there was an increase in saturation to 97% and RR changed to 20 x/min, The sound of *Ronchi*'s breathing was heard decreasing in the left chest, the patient was able to expel sputum. This suggests that *Pursed Lip Breathing* and *Chest Physiotherapy* interventions can improve oxygenation status and *airway adequacy* in pneumonia patients.

DISCUSSION

Mrs. N, 37 years old, was escorted by her family to the emergency room of Abepura Hospital in a state of shortness of breath and weak body condition. The results of the primary *survey include A (Airway:* The patient looks short of breath but breathing spontaneously, coughs but is ineffective (the patient appears to be hugging when he wants to expel sputum) there is an additional *sound of ronchi* breathing (in both lung fields), the patient's breath still feels strong, the sputum appears greenish, the consistency is thick and the volume of sputum ± 2 cc), B (Breathing: The breathing pattern of *the patient is tachypnea* With a breathing frequency of 28 times per minute, there is a light pull of the chest wall muscles, an oxygen saturation value (SaO2) of 94%, there is a breathing of the noselobes, symmetrical chest movements and appears fast and shallow. The patient was fitted with O2 Mask 6 lpm), C (Circulation) *Capillary refill time* (CRT) 3 seconds, blood pressure value 120 / 84 mmHg, strong palpable radial pulse with a pulse frequency of 84 times per minute, peripheral cyanosis, warm tactile acral, and the patient's body temperature was still within normal limits, namely 37oC, NS infusion 20 tpm was installed), D (*Disability:* The patient's level of consciousness was composed with a GCS score of 15 (E4V5M6). The patient did not experience any weakness or paralysis of the body, and other neuro, muscle, and bone disorders) and E (*Exposure*: There was no increase in temperature in the patient).

From the results of the study, three main nursing diagnoses were obtained, namely ineffective airway clearance related to airway hypersecretion (situational: active smoking) which is characterized by ineffective coughing of excess sputum, *ronchi*, altered breathing pattern, altered breathing frequency (D.0001**),** Gas exchange disorders related to changes in the capillary alveolus membrane characterized by *dyspnea*, additional breathing sounds, nasal lobe breathing, abnormal breathing patterns (fast and shallow) **(**D.0003) and Ineffective breathing patterns are associated with obstruction of breathing effort (weakness of the respiratory muscles) characterized by *dyspnea*, abnormal breathing patterns (*tachypnea*), use of respiratory auxiliary muscles, nasal lobe breathing (D.0005).

In connection with the problem of ineffective airway cleaning nursing, the author is interested in doing *Pursed Lips breathing* that is With deep breathing techniques with closed lips which is a breathing method that can help reduce shortness of breath and improve lung ventilation. This technique is often recommended for patients with respiratory distress (Andrian & Rosyid, 2024). *Chest physiotherapy* (CPT) is a set of physiotherapy techniques used to help clear mucus or secretions from the lungs and airways, it can be important in the management of a variety of respiratory conditions, especially in individuals with excessive mucus production or difficulty in excreting it.

CPT aims to improve ventilation, reduce respiratory resistance, and facilitate the excretion of mucus trapped in the airway (Israni et al., 2024). The second nursing problem is gas exchange disorder, the patient experiences changes in the capillary alveolus membrane which is characterized by *dyspnea*, nasal lobe breath, with positive TB TCM results and *X-ray chest* There is a veil in the right and left lung fields, giving the impression of bronchopneumonia, bilateral pleural effusion. The third nursing problem is ineffective breathing patterns, patients experience *dyspnea*, abnormal breathing patterns, and there is the use of respiratory support muscles.

From the results of research conducted by (Lokhande et al., 2023) Increased oxygenation status and proficiency *Airway* is an important step in the care of patients with respiratory disorders, especially those who have difficulty breathing or have conditions such as pneumonia, bronchitis, or chronic obstructive pulmonary disease (COPD). Technique *Pursed Lips Breathing* (PLB) and *Chest Physiotherapy* (CPT) are two approaches that can be used to achieve this goal. Technique *Pursed Lips Breathing* It is currently still the easiest method of relaxation. This method is easy to do because breathing itself is an action that can be done normally without the need to think or feel doubtful. The deep breath relaxation technique is to improve alveoli ventilation, maintain gas exchange, prevent lung atduction, increase cough efficiency, and reduce both physical and emotional stress, while the benefits that can be felt by patients after performing the deep breath relaxation technique are increasing lung capacity and breathing efficiency (Zhan et al., 2025)

Nurses who act as implementers or caregivers of nursing, as well as carry out their leadership roles in order to influence changes in patient behavior, receive or provide consultation with nursing teams and other health teams to meet patient needs. Nurses can also provide interventions to help improve oxygenation status and competence *Airway* patients, in addition to pharmacological interventions, there are many interventions that can be carried out, one of which is intervention *Pursed Lips Breathing* and *Chest Physiotherapy.* Pneumonia is one of the serious respiratory diseases that occurs when lung tissue becomes inflamed and infected. It can be caused by various factors such as bacteria, viruses, fungi, or parasites (Muliasari & Indrawati, 2018)

Pneumonia usually affects the ability of the lungs to fill air properly and can produce symptoms such as coughing, difficulty breathing, fever, and chest pain (Agustina et al., 2022). Pneumonia is one of the diseases that directly affects the respiratory system, as a result of this inflammation, the alveoli (small air sacs in the lungs) can fill with fluid, mucus, or debris, interfering with the ability of the lungs to fill the air properly and can interfere with the exchange process of oxygen and carbon dioxide. The physical impact of pneumonia on the respiratory system includes difficulty breathing (shortness of breath, rapid breathing, and a feeling of shortness), coughing (a productive cough, with sputum (mucus) that may contain colored mucus or pus), lack of oxygen or hypoxia (Martatia et al., 2024)

The process of pneumonia involves several stages in the body's mechanisms to fight infection, and the general picture of the mechanism of pneumonia is pollution and the entry of disease-causing agents (e.g., bacteria or viruses) into the respiratory tract. the causative agent of pneumonia settles and begins to multiply in the lungs or bronchi (the ducts that connect the trachea to the lungs) (Oktaviani & Nugroho, 2022). At this time, the initial symptoms of infection may not be noticeable. When the body detects an infection, the immune system responds by sending immune cells, such as neutrophils and macrophages, to the infected area. These immune cells play a role in fighting infection-causing agents. The immune system responds to infection by causing inflammation in the lungs. This

inflammatory process can lead to swelling, increased blood flow to the infected area, and more mucus production (Martatia et al., 2024)

It aims to help eliminate the causative agent of the infection. In the later stages of infection, the causative agent of pneumonia can cause damage to lung tissue. This can result in damage to the alveoli, which are small air pockets inside the lungs where gas exchange occurs. This damage can interfere with the lungs' ability to carry out efficient gas exchange. Patients begin to show clinical symptoms of pneumonia, including fever, cough, mucus production, chest pain, shortness of breath, and fatigue. This symptom is the body's response to infection and inflammation in the lungs. Pneumonia can be a serious condition, especially in individuals with weakened immune systems or underlying health conditions (Oktaviani & Nugroho, 2022)

Based on table 4.1, the results obtained when measuring the status of oxygenation and *airway proficiency before* Pursed Lips Breathing *and* Chest Physiotherapy *were carried out* in Mrs. N, namely oxygen saturation of 94% and respiratory frequency of 28 x/min, additional sound of breathing in both lung fields, retained sputum after therapy was given there was an increase in saturation to 97% and RR changed to 20 x/min, The sound of *Ronchi*'s breathing was heard decreasing in the left chest, the patient was able to expel sputum. This suggests that *Pursed Lip Breathing* and *Chest Physiotherapy* interventions can improve oxygenation status and *airway adequacy* in pneumonia patients.

One form of respiratory therapy that can be given to pneumonia patients is exercise *Pursed Lips Breathing* (PLB). PLB is one of the breathing training techniques that involves breathing through a match created by narrowing the lips (Tukang et al., 2023). PLB allows for a thorough exchange of air in the lungs and makes it easier to breathe, gives the lungs a small pressure back, and keeps the airways open for a long time so that it can facilitate the oxygenation process in the body. PLB exercises also cause changes in the use of respiratory muscles, namely by reducing the use of diaphragmatic muscles and maximizing the use of abdominal and chest muscles during the breathing process so that breathing becomes more efficient (Kurniawan & Aida, 2024)

This breathing technique can prevent the collapse of the pulmonary unit and help the patient to control the frequency and depth of breathing and relax the patient so as to allow the patient to achieve control of the *Dipsnea* and panicked breathing (Bruner and Suddarth, 2014). *Pursed Lip Breathing* (PLB) may also increase tidal volume and reduce symptoms *Air Trapping* or air trapped in the alveoli, reducing hyperinflation, thereby improving ventilation and perfusion, and lowering the level of PaCO2 content in the blood. In line with the decrease in PaCO2, this also leads to an increase in oxygen bound by hemoglobin and an increase in PaO2 levels (Wardiyah et al., 2022)

The evaluation obtained in Mrs. N's patients was a decrease in RR and an increase in SpO2 in pneumonia patients. In Mrs. N, the patient said that shortness of breath began to decrease with an initial RR of 28 x/min and SpO2 of 94%, after being taught breathing techniques *pursed lips breathing* (PLB) experienced changes with RR of 20 x/min and SpO2 of 97%. The patient said his tightness had reduced slightly, and his breathing pattern could be adjusted slowly. This intervention is given to Mrs. N 1 x/day with a duration of 5-10 minutes. According to Smeltzer and Bare (2013) in Fitria and Devita (2021), this exercise is done every time you feel a short breath and increase it gradually for 5-10 minutes, 3 times a day (morning, afternoon, night). The exercise is carried out in a standing sitting, standing and walking position. The mechanism used in implementing PLB intervention is to increase the pressure of the alveoli in each lung lobe so that it can increase airflow during expiration.

Increased airflow during expiration will activate cilia in the airway mucosa so that they are able to evacuate secretions out of the airways. This action is one of the efforts that is suspected to be able to improve the oxygenation status (Moy et al., 2024)

Pursed Lips Breathing is one of the breathing exercise techniques by breathing air through the nose and excreting air by way of lips that are more closely together with an extended expiratory time which aims to prolong breathing and increase airway pressure during expiration so that it can reduce the amount of trapped air and reduce airway obstruction, helping patients in improving oxygen transport, regulate slow and deep breathing patterns, help the patient to control breathing, and prevent alveoli collapse (Israni et al., 2024). Technique *Pursed Lips Breathing,* patients prefer to prolong expiration gradually by involving the inflation reflex *Hering – Breuer* (a breathing regulation mechanism that helps control the volume and frequency of breathing, this reflex works in normal breathing to prevent lung overinflation) in an effort to reduce the air trapped in the alveoli and will also reduce carbon dioxide in the body which will automatically increase the oxygen that enters the alveoli and oxygen can be bound by hemoglobin

The ineffectiveness of airway clearance is the inability to maintain airway cleanliness from foreign objects that clog the airways. Obstruction in the airway occurs due to the accumulation of phlegm or sputum in the airways which causes ventilation to be inadequate. Because proper treatment is needed to remove sputum or sputum that accumulates in patients, one of the interventions in nursing that can be used is *Chest Physiotherapy* (CPT) that has been shown to be effective in clearing phlegm in the airways (Hanafi & Arniyanti, 2020).

Chest Physiotherapy is one of the therapies used in the treatment of most respiratory diseases with chronic respiratory diseases or neuromuscular diseases. In general, CPT is performed by physical therapists and respiratory therapists, where breathing is increased by indirect removal of the patient's airway mucus. Chest physiotherapy consists of chest percussion (*Clapping*), *Postural drainage*and *Vibration*. CPT aims to help clear tracheobronchial secretions, thereby lowering airway resistance, increasing gas exchange, and making breathing easier and reducing respiratory work (Syafiati & Nurhayati, 2021). CPT can also be combined with *Pursed Lips Breathing* (PLB) / Tongue blowing. Excessive sputum production will interfere with airway tightness. CPT and *Steem Inhaler* can reduce phlegm and tightness in patients with excess secretion (Daya and Sukraeny, 2020).

Research conducted (Hanafi & Arniyanti, 2020) which proves that there is a difference in sputum excretion before and after being given chest percussion (*Clapping*) with a value *p value* is 0.002 and there is a significant influence on the value of *p value* = <0.05. Likewise, the research conducted by Ariasti et al (2014) obtained a calculation of - 5,839 so that the value *p value* 0.000 < 0.05, which means that Ho is rejected and Ha is accepted, so that it can be concluded that there is an effect of giving CPT on airway hygiene in patients. Chest physiotherapy is very helpful for patients who have difficulty expelling sputum (Oktaviana & Nugroho, 2022). In addition to the provision of CPT, it can also be combined with PLB (*Pursed Lips Breathing* / Blowing the Tongue) on airway clearance in patients with pneumonia as evidenced by Hidayatin (2019) research that by combining the two interventions given, namely CPT and PLB, the results are very effective if done together for airway clearance in patients with pneumonia.

The trigger for recurrent complaints in managed patients is due to lack of control over excessive activity and also due to smoking habits, but how to overcome it and the first treatment of shortness of breath symptoms is also one part of the form of control so that when the patient can overcome it with his own breathing techniques, the patient does not need to

repeatedly go to health services which in the end is only given pharmacological therapy and Then go home (Wardiyah et al., 2022). Alternatives that can be done in the Emergency Installation room in reducing shortness of breath in pneumonia patients are by providing health education to pneumonia patients who experience shortness of breath and first handling when pneumonia occurs and teaching how to therapy breathing techniques that can relax and reduce shortness of breath, one of which is *Pursed Lips Breathing* (PLB).

Pursed lip breathing It is a breathing exercise by breathing air through the nose and expelling air by means of more close-up or extended lips with a longer exhalation time. Pulmonary rehabilitation therapy with *pursed lips breathing* this is a very easy way to do, without the need for any aids, and also without negative effects such as the use of drugs (Vatwani, 2019). Technique *pursed lips breathing* chosen because the expiratory process will be longer. This has been proven to increase tidal volume and reduce breathing frequency (Fitria, 2021). Narrowing the lips is a breathing exercise that can be used to reduce the symptoms of dyspnea. This simple and easy breathing strategy can make breathing more effective and lower your breathing rate. Additional benefits of constricted lip breathing include improving breathing patterns, releasing trapped air in the lungs, improving general relaxation, keeping the airways open longer, and prolonging breathing (Reni et al., 2024)

Advantages of breathing techniques *Pursed Lips Breathing* (PLB) is that this breathing technique can be done anywhere, only with the knowledge of how the steps can be taken by the patient can overcome his own complaints at least in the first treatment. This nursing intervention must also have the support of family and close friends, because support from family is one of the motivations and part of the success rate of this therapy when the patient feels complaints and begins to be agitated and panicked. However, in addition to the advantages of this therapy, it also has disadvantages which based on phenomena in the field, patients may refuse this therapy when given because the patient feels complaints of excessive shortness of breath so that the patient wants to get immediate treatment such as by providing oxygen flow or using a nebulizer. When complaints of excessive shortness of breath, patients sometimes no longer pay attention and do not want to understand the therapeutic benefits of breathing techniques because when doing therapy these breathing techniques need calm and concentration to get maximum results, while the patient is in a state of anxiety and wants to get quick and instant treatment (Reni et al., 2024)

Pneumonia is a serious condition that can affect the ability to breathe *Airway* (airway) patient. Actions taken to ensure compliance *Airway* Good is very important in the management of pneumonia. There are several alternative solutions that can be done in patients with pneumonia related to competence *Airway* One of the solution alternatives to increase proficiency *Airway* in pneumonia patients is to use the *Chest Physiotherapy* (chest physiotherapy) (Meisaningsih, 2021). Patients who have difficulty adequately excreting sputum require physiotherapy support. This management aims to reduce airway obstruction caused by secretions occupying the lumen of the airway and thus prevent respiratory tract infections, re-expand the collapsed lung area, thereby increasing gas exchange, and reducing the inflammatory response (Belli et al., 2021)

Chest physiotherapy is a series of physical techniques used to help patients remove mucus from their airways that can block the airway, and improve *airway flexibility.* Commonly used techniques in CPT include *coughing*, *vibration*, *tapping*, and postural drainage. Patients with pneumonia often have difficulty breathing, and supplemental oxygen administration can help increase blood oxygen levels, as well as regularly evaluate the patient's breathing rate to detect changes that require immediate action (Amalia, 2022).

CONCLUSION

After the author conducts a study, diagnosis, planning, implementation, evaluation and documentation of pneumonia nursing care in Mrs. N with *Pursed Lips Breathing* and *Chest Physiotherapy techniques* in the Emergency Isolation Room of Abepura Hospital, several conclusions can be drawn, including the diagnosis that appears according to SDKI, namely Effective airway cleaning related to airway hypersecretion, Gas exchange disorder In relation to changes in the capillary alveolus membrane, ineffective breathing patterns are associated with obstruction of breathing efforts (weakness of the respiratory muscles). The results of the analysis of nursing innovations *in Pursed Lips Breathing* (PLB) and *Chest Physiotherapy* (CPT) nursing in pneumonia patients include The results obtained when measuring the status of oxygenation before *Pursed Lips Breathing therapy* was carried out on Mrs.N, namely oxygen saturation of 94% and breathing frequency of 28 x/minute, after being given the therapy experienced an increase in saturation to 97% and RR changed to 20 x/minute and the patient said shortness of breath is slightly reduced. The results obtained when measuring *airway* proficiency before *Chest Physiotherapy* (CPT) therapy was obtained in Mrs. N with oxygen saturation of 94% and respiratory frequency of 28 x/min, the sound of additional breathing in both lung fields, rapid and shallow breathing, sputum was suppressed, after being given the therapy experienced an increase in saturation to 97% and RR changed to 20 x/min, *the sound of ronchi* breathThere is a decrease in the left chest, the patient is able to expel sputum when coughing without clinging, and the patient says shortness of breath is slightly reduced.

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