



## Implementing Guide Imagery for Elderly with Diabetes Mellitus Post Covid-19 who Experiencing Respiratory Disorders

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### ABSTRACTS

The success of health development in Indonesia has had an impact, among others, on increasing the life expectancy of the elderly. One of the health problems that often occur in the elderly is diabetes mellitus. Various complications from diabetes mellitus can very easily occur, especially during the current Covid-19 pandemic. Preliminary studies conducted by WHO on the relationship between diabetes and Covid-19 showed that around 25 percent of Covid-19 patients in hospitals with poor conditions had diabetes. With advanced age, of course it is very risky if you depend only on drugs, therefore non-pharmacological therapy is needed, one of which is relaxation techniques. The National Safety Council says guided imagery is a distraction technique that can be used to reduce stress and increase feelings of calm and peace and is a sedative for difficult situations in life. Purpose: to determine the effectiveness of guided imagery therapy in the elderly with post-covid-19 diabetes mellitus who experience respiratory tract disorders. Method: case study conducted by observation. Results: After 7 days, 2 hours after the intervention, the authors measured blood pressure, checked SPO2 and calculated the respiratory system back to Mr.A. The results obtained were 120/80 mmHg, SPO2 95% and respiration 20x/minute. Patient said he was not short of breath, Patient looks no longer limp & pale like the first day the assessment was carried out. Conclusion: there is an effect of guided imagery therapy in the elderly with post-covid-19 diabetes mellitus who experience respiratory tract disorders.

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## 1. INTRODUCTION

The mental health problem in Indonesia is enormous and creates a significant health burden. It is proven by the data reported in RISKESDAS 2013, that the prevalence of mental emotional disorders (depression and anxiety) is 6% for those aged 15 years and over, this means that more than 14 million people suffer from mental emotional disorders in Indonesia. As for serious mental disorders the prevalence is 1.7 per 1000 population, this means that more than 400,000 people suffer from serious mental disorders. Furthermore, it was also reported that the number of shackling for serious mental disorders was 14.3% or around 57,000 cases of mental disorders experienced shackling (Ministry of Health, 2015).

Mental disorders and drug abuse are also associated with behavioral problems that harm yourself, such as suicides. Data from the National Police Headquarters in 2012 found that the suicide rate was around 0.5% of the 100,000 population, which means that there were around 1,170 suicides reported in one year (Ministry of Health, 2015). The main priority of the Ministry of Health in the 2015-2019 Strategic Plan is to develop Community-Based Mental Health Efforts (UKJBM) by prioritizing the role of Puskesmas and working with the community, preventing the increase of mental disorders in the community.

Mental health problems during the early years can have lasting consequences if left unresolved not only by placing the individual at increased risk of adversity in adult life, but also by placing increased pressure on the limited resources of community services. Early identification of children with behavioral disorders, and individuals at risk of developing mental health problems, is essential. Psychiatrists, based on their training and experience, have an important role to play in the early detection, assessment and treatment of mental disorders and problems in children and adolescents. Working with parents, children, families, service providers and early childhood educators, mental nurses need to raise awareness of prevention and early intervention for mental illness (Sawyer et. Al, 2000).

The first symptoms of psychosis usually appear in late adolescence and early adulthood. Before the psychosis problem arises, it will first cause awa symptoms called prodromal symptoms. However, routine early detection services are not always provided and very limited. The development of this disease is associated with reduced quality of life for clients and families, but also associated with higher costs in public services including health, social services and criminal justice (Knapp, McDaid and Parsonage, 2011).

One of the policies in preventing the increase in mental disorders in the community is the existence of a strategy of strengthening promotive, preventive and community empowerment as a strategy for the pillars of the healthy paradigm which is one of the three main pillars of the Healthy Indonesia Program launched by the Ministry of Health (Kemenkes, 2015).

Early detection services aim to identify early symptoms of psychosis, reduce the risk of transitioning to a psychotic disorder and shorten the duration of psychosis for those who are not treated. These services include the provision of cognitive behavioral therapy sessions, psychotropic drugs, and contact with psychiatrists. There is some evidence that these services can reduce the transition rate for psychosis (Knapp, McDaid and Parsonage, 2011).

## **2. METHODS**

### **Patient Information**

Patient was male aged 60 years has a history of DM from 2 years ago, the client complains of shortness of breath and coughing, the client says if the cough does not produce phlegm shortness of breath and sweating. The client looks weak and just lies in bed and the client says he is easily sleepy in the morning. The examination results showed TD: 130/80mmHg, N: 90x/min, S: 37°C Rr: 23x/min SPO<sub>2</sub>: 80%. Laboratory results: GDS 335mg/dl. Appears to use accessory muscles for breathing

### **Clinical Findings**

Patient said that he had diabetes since 2 years ago, and the client was taking Glimipiride 4 mg and Metformin 500 ml. Patient said that now he is experiencing shortness of breath and coughing and weakness. Past health status of patient said he had never been hospitalized. Patient has no allergies to food, drugs and temperature. Patient eats one serving 3 times a day, when his blood sugar begins to stabilize the client says there is no taboo on eating sweets, such as eating cakes, but if it is known that his blood sugar has increased the client avoids foods that contain sweet Patient drink 1200 ml equivalent to 2 bottles of moderate mineral water for a day, frequency of urination: 1500 ml with a frequency of urinating 9-12 times a day. When the study was carried out on July 8, 2021 at 08:00 WIB, subjective data was obtained, namely Patient complains of tightness and a dry cough that doesn't produce phlegm and the client also complains of sweating and weakness. The examination results showed TD: 130/80mmHg, N: 90x/min, S: 37°C Rr: 23x/min SPO<sub>2</sub>: 80%.

Lab : GDS 335mg/dl. Appears to use the auxiliary muscles of breathing and wheezing breath sounds and the client is just lying in bed.

The functional status assessment was assessed using the Kats Index. Kats index value on patient is B because the level of independence in daily activities such as eating, continence, moving, going to the restroom, dressing and bathing is done with the help of others. From the results of the assessment of cognitive and affective status using the Short Portable Mental Questionnaire (SPMSQ) format, patient was included as experiencing good intellectual function because, out of the 10 questions asked to patient and answered 9 questions correctly and 1 question could not be answered correctly. From the results of the examination of cognitive function using the Minimental-state examination (MMSE) the result was 28, which means there was no cognitive change.

Assessment of the psychological and social condition of patient has a good emotional state such as not being easily offended or angry with other people, has good family support, has good inter-family relationships, good relationships with other people because patient is one of those people who often chats with neighbors who are the same age as him or younger than him. Spiritual study Mrs. A found that the client is diligent in worship, and the client is also diligent in attending recitations every week at the majlis near his house.

### **Diagnostic Assessment**

The nursing diagnosis for this client is ineffective airway clearance and instability of blood glucose levels. Nursing care plan carried out by airway management and hyperglycemia management. The general goal after being given nursing intervention for 7 days is that the production of sputum or phlegm does not block the airway and improving in stability of blood glucose levels.

### **Therapeutic Intervention**

By performing chest physiotherapy and encouraging patients to cough productively, the intervention was carried out with the goal of removing sputum or phlegm from COVID-19 patients. The intervention followed by diet management for diabetes mellitus and guided imagery to improve patient relaxation.

### **Follow-up and Outcomes**

The patient reported that he was able to cough effectively after the nursing intervention for chest physiotherapy and cough was effective. The results obtained were 120/80 mmHg, SPO2 95% and respiration 20x/minute. The patient said that he was no longer congested, looked no longer limp & pale and felt more relaxed after periodic guided imagery.

### **3. RESULTS AND DISCUSSION**

One of the health problems that often occur in the elderly is diabetes mellitus. According to the American Diabetes Association (ADA) in 2015, diabetes mellitus (DM) is a condition in which the body is unable to use the insulin produced by the pancreas. Diabetes mellitus is included in a group of chronic diseases that occur in millions of people in the world (Rachmaningtyas, 2013). Diabetes mellitus is a chronic disease, so it requires medical treatment for a long time to prevent complications. This case study observed patients for 7 days and performed guided imagery therapy to reduce or relax breathing for diabetes patients. The action steps of guided imagery are:

- a. Puts the individual in a relaxed state
  - Set a comfortable position (sitting or lying down)
  - Cross your legs, close your eyes or focus on a point or object in the room
  - Focus on breathing the abdominal muscles, take the next breath let it be a little deeper and longer and stay focused on breathing and set your mind that the body is getting relaxed and more relaxed
  - Feel the body getting heavier and warmer from head to toe
  - If the mind cannot focus, repeat deep and slow breathing.
- b. Give specific suggestions for imagery - Think of it as if going somewhere fun and feeling good there
  - State what you saw, heard, smelled and felt
  - Take a few deep breaths and enjoy being in that place
  - Then imagine yourself as desired (describe according to the goals to be achieved).
- c. Summarize and strengthen results.
  - Remembering that you can come back to this place, this feeling, this way whenever you want.

- You can do this again by focusing on your breathing, relaxing and imagining yourself in a place that makes you happy.

D. Back to normal

- When you return to the room you were in. - You feel refreshed and ready to continue your activities.
- You can open your eyes and share your experiences when you are ready.

Complications of diabetes mellitus include an increased risk of heart disease and stroke, neuropathy (damage to nerves), diabetic retinopathy and kidney failure. These various complications can affect the life expectancy of people with diabetes mellitus (Tamara, 2014). Various complications from diabetes mellitus can very easily occur, especially during the current Covid-19 pandemic. Even so, until now, there is no adequate data to confirm that people with diabetes are more likely to contract Covid-19 than the general public. The problem that people with diabetes face is the complications that are worse when they get diabetes Covid-19. This risk may be less for people with diabetes who can manage their condition. However, this is very possible due to decreased body resistance, so that the Corona virus can more easily enter and cause infection (Nugraheni, 2020).

Preliminary studies conducted by WHO on the relationship between diabetes and Covid-19 showed that around 25 percent of Covid-19 patients in hospitals with poor conditions had diabetes. The chances of serious complications and death are also greater. One reason is that high blood sugar levels make the immune system weak and it is difficult to fight infection. So if someone has Covid-19 diabetes, it is important to take action immediately (Nugraheni, 2020).

The importance of nursing care for the elderly who have diabetes, especially during the Covid-19 pandemic, is due to the low immunity of the elderly with diabetes. Elderly with diabetes many of the initial symptoms that occur are disruption of the respiratory tract. With advanced age, of course it is very risky if you depend only on drugs, therefore non-pharmacological therapy is needed, one of which is relaxation techniques. Some types of relaxation include guided imagination relaxation and deep breathing relaxation. Respiratory relaxation is relaxation by using slow, conscious and deep breaths. Relaxation meditation (attention-focussing exercises), namely relaxation techniques to clear the mind and drift in the ongoing moment and relaxation of behavior is a psychotherapy that is based on observations, assumptions, beliefs and behaviors that influence emotions. The National Safety Council says guided imagery is a distraction technique that can be used to reduce stress

and increase feelings of calm and peace and is a sedative for difficult situations in life (Smeltzer & Bare, 2013).

After taking action for 7 days, 2 hours after the intervention, the authors measured blood pressure, checked SPO2 and calculated the respiratory system back to patient. The results obtained were 120/80 mmHg, 95% SPO2 and respiration 20x/minute and a gds value of 150mg/dl. patient said he was not short of breath, patient looks no longer limp & pale like the first day the assessment was carried out, so it can be concluded that the client experiences changes every day for the better in terms of the client's breathing and blood sugar levels.

#### 4. CONCLUSION

Guided imagery therapy can increase the ability to reduce stress and increase feelings of calm and peace and is a sedative for difficult situations in life.

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