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# Effectiveness of the Sowan Program Holistic Nursing Intervention on the Independence of Pulmonary TB Patients

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| Article Info                | ABSTRACT  |
|-----------------------------|---|
| Keywords :                  | Background & Objective: Researchers analyzed the  |
| Tuberculosis, Sowan Program | effect of the SOWAN program on the independence of  |
|                             | TB patients physically, psychological management,   |
|                             | socially and spiritually. <b>Method:</b> The design used was  |
|                             | quasi-experimental with a quantitative approach. With   |
|                             | 40 respondents who met the criteria selected as   |
|                             | samples with 20 people in the intervention group and  |
|                             | 20 others as controls. The intervention created was a   |
| Corresponding Author :      | health education package called SOWAN, an   |
| Ike Nurjana Tamrin          | abbreviation of support, observation, welfare and   |
| E-mail:                     | action. <b>Results:</b> The results showed that there was an  |
| Ikhetamrin26@gmail.com      | increase in the independence of respondents in the  |
| Phone Number : 085299213315 | intervention group after using the SOWAN program  |
|                             | (average before intervention 32.866/ and after  |
|                             | intervention $55.55$ ) and the difference value was   |
|                             | significant $p = 0.000$ . In addition, there was also a significant difference between the intervention group |
|                             | and the control group after the intervention became p   |
|                             | 0.000 This is also soon from the use of the health card   |
|                             | The condition used by respondents in the intervention   |
|                             | group after conducting the SOWAN program for 6  |
|                             | weeks increased from an average of 3 to 4.9 (range of   |
|                             | values 1 - 5) <b>Conclusion</b> : this shows that the SOWAN   |
|                             | program has proven to be effective in making TB   |
|                             | clients independent in physical, psychological, social  |
|                             | and spiritual independence. So this SOWAN program   |
|                             | is recommended for use in Nursing with other chronic  |
|                             | diseases through maternal and child health programs.  |
|                             |   |

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#### Introduction

Pulmonary TB patients must undergo treatment for 6 months, if they are not compliant there is a risk of drug resistance. Pulmonary TB patients in addition to

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having physical problems in treatment, also have problems with social isolation and emotional changes due to their illness. Patient compliance with pulmonary TB patient treatment supported by the DOTS program still has problems because compliance is only imposed on patients. So that the understanding of compliance changes into compliance, namely an agreement between patients and health workers so that patients are more active and responsible.

Compliance is influenced by the Bio psychosocial approach that enables patients to build beliefs and habits. The resulting model is the integration of selfmanagement and nursing services based on the concept of self-care to make patients independent in meeting their basic needs, this model also adopts several selfmanagement concepts that are integrated together in the Supporting, Observation, Well-being, Action and Nursing (SOWAN) model to increase independence, so the research question is "Can the SOWAN Program affect physical independence, psychological independence, social independence and spiritual independence?

### Objective

The purpose of this study was to determine the effect of the SOWAN Program on the independence of pulmonary TB patients by proving the effect of the SOWAN program on physical independence, psychological independence, social independence, and spiritual independence of pulmonary TB patients. Self-efficacy on physical, psychological, social and spiritual independence of pulmonary TB patients.

### Method

This study used a quasi-experimental research design. This study was also combined with qualitative methods because the samples used were patients, so that they were able to strengthen quantitative data supported by qualitative data. The design using the treatment group and control group used was a non-equivalent control group design, because it did not use the same initial conditions of the level of independence. Pre and post measurements were also carried out on the intervention group and control group as seen in the following chart (Campbell and Stanley, 1966).

### Results

Respondent Characteristics of Tuberculosis Patients The following presents the characteristics of respondents based on gender, type of medicine, religion, age, occupation. In Tuberculosis patients at the Cemape Health Center, Parepare City.

| TABLE 1. Respondent Characteristics |                      |  |  |  |  |
|-------------------------------------|----------------------|--|--|--|--|
| Characteristic                      | Frequency Percentage |  |  |  |  |
| Gender                              |                      |  |  |  |  |
| Male                                | 12 30.0%             |  |  |  |  |

TAPLE 1 Deemondont Characteristics

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| Characteristic       | Frequency | Percentage |  |  |
|----------------------|-----------|------------|--|--|
| Female               | 28        | 70.0%      |  |  |
| Education            |           |            |  |  |
| Elementary School    | 4         | 13.1%      |  |  |
| Junior High School   | 12        | 28.8%      |  |  |
| Senior High School   | 21        | 48.4%      |  |  |
| Bachelor's Degree    | 3         | 9.7%       |  |  |
| Occupation           |           |            |  |  |
| Housewife            | 3         | 7.5%       |  |  |
| Entrepreneur         | 19        | 47.5%      |  |  |
| Civil Servant        | 6         | 15.0%      |  |  |
| Farmer/Fisherman     | 12        | 30.0%      |  |  |
| Treatment Start Time |           |            |  |  |
| > 6 months           | 12        | 30.0%      |  |  |
| < 6 months           | 28        | 70.0%      |  |  |
| Marital Status       |           |            |  |  |
| Married              | 35        | 87.5%      |  |  |
| Single               | 4         | 10.0%      |  |  |
| Widow/Widower        | 1         | 2.5%       |  |  |
| Religion             |           |            |  |  |
| Islam                | 39        | 97.5%      |  |  |
| Christian            | 1         | 2.5%       |  |  |

Based on table 1 characteristics of respondents consisting of gender, most respondents are female 70.0%. Based on education, most respondents have a high school education of 48.4%. The marriage statistic is mostly married, namely 87.5% and most respondents are Muslim, as many as 97.5%.

#### **Independent Health Card**

Respondent assessment from 6 meetings shows the development of the level of independence of pulmonary TB patients as shown in graph 1. There are 16 components evaluated by the respondents themselves, namely physical independence consisting of taking medication, eating, sleeping, preventing exercise/sports transmission, and and overcoming physical symptoms. Psychological independence, namely controlling emotions, self-control, accepting oneself, social independence, communication within the family, with officers, social activities and the ability to divert activities, communication with PMO, spiritual independence, namely the ability to be sincere and surrender and belief in God. Pulmonary TB patients must undergo treatment for 6 months, if they are not compliant, they are at risk of drug resistance. Pulmonary TB patients, in addition to having physical problems in treatment, also have problems with social isolation and emotional changes due to their illness. Patient compliance with the treatment of pulmonary TB patients supported by the DOTS program still has problems because compliance is only imposed on patients. So that the understanding of compliance changes into compliance, namely an agreement between patients and health workers so that patients are more active and responsible. Compliance is influenced by the Bio psychosocial approach which enables patients to build beliefs and habits

### Differences before and after SOWAN program intervention.

Measurement of the level of patient independence using instruments before and after the intervention is as follows:

| Variable                      | Group        | Pre-Test Mean ±<br>SD | Post-Test Mean ±<br>SD | P-Value                        |
|-------------------------------|--------------|-----------------------|------------------------|--------------------------------|
| Self-Efficacy                 | Control      | 39.27 ± *             | 39.53 ± 5.21           | 0.073 <sup>a</sup> (pre)       |
|                               | Intervention | 32.87 ± 6.89          | 55.33 ± 1.03           | 0.000 <sup>ь*</sup><br>(post)  |
| Physical Independence         | Control      | $0.27 \pm 2.84$       | $12.03 \pm 2.34$       | 0.000 <sup>b*</sup> (pre)      |
|                               | Intervention | $22.47 \pm 6.81$      | $12.47 \pm 1.68$       | 0.448 <sup>b</sup> (post)      |
| Social Independence           | Control      | $12.50 \pm 2.19$      | $0.47 \pm 2.47$        | 0.000 <sup>b*</sup> (pre)      |
|                               | Intervention | 15.93 ± 0.25          | $3.47 \pm 1.76$        | 0.000 <sup>ь*</sup><br>(post)  |
| Spiritual Independence        | Control      | $10.40\pm1.57$        | $10.23 \pm 1.63$       | 0.093ª (pre)                   |
|                               | Intervention | 8.07 ± 2.36           | $15.80 \pm 0.41$       | 0.000 <sup>ь*</sup><br>(post)  |
| Psychological<br>Independence | Control      | $-0.17 \pm 0.53$      | $7.80 \pm 1.83$        | 0.000 <sup>b*</sup> (pre)      |
|                               | Intervention | 7.73 ± 2.33           | $6.37 \pm 2.09$        | 0.010 <sup>₅</sup> *<br>(post) |

From the table, it can be seen that physical independence, the mean value in the pre and post delta test, namely the difference in the mean before and after the intervention with the results of the intervention group is 3.4667 and for the control group is 0.4667 with a p value = 0.000, meaning that there is a significant effect of the intervention on the level of physical independence. Psychological independence, the mean value in the pre and post delta test, namely the difference in the mean before and after the intervention with the results of the intervention group is 7.7333 and for the control group is -0.1667 with a p value = 0.000, meaning that there is a significant effect of the intervention on the level of psychological independence. Social independence, the mean value in the pre and post delta test, namely the difference in the mean before and after the intervention with the results of the intervention group is 5.4667 and for the control group is -0.3000 with a p value = 0.000. Spiritual independence, the mean value in the pre and post delta test, namely the difference in the mean before and after the intervention with the results of the intervention group is 5.8000 and for the control group is -0.0333 with a p value = 0.000. meaning that there is a significant influence of the intervention on the level of spiritual

independence. Based on these data, it is proven that the "SOWAN" program can affect patients' ability in self-care.

#### Discussion

This result is in accordance with research by ElHameed (2012) on self-care programs in pulmonary TB patients, the results are a significant increase in the ability to manage physical and have an impact on the physical, mental and social conditions of adult pulmonary TB patients. This means that programs related to clear results and goals will enable patients to achieve their goals. In the research conducted by researchers, patients who want to recover quickly are able to do their own nursing to speed up the healing process. This is also supported by research on educational support programs for pulmonary TB patients in the community which was also conducted in 2012 in Makassar with the results of the study that the integration model of patient independence and family centered nursing is able to improve family knowledge and family independence skills and care for pulmonary TB patients at home. In carrying out the "SOWAN" The program has an impact on independence, including supportive actions by nurses and families that can provide respondents with confidence that self-care is very important in the healing process. This is supported by the opinion that social support greatly influences the ability to live with chronic diseases, adherence to treatment is influenced by social support, and trust in health services. In social independence, patients are able to increase their ability to reduce stigma.

Patient involvement in the treatment process through their independence can provide patient satisfaction because they can play an active role in decision making, participate in the health service system, avoid shame and stress, and help the government overcome the limited number of health workers in the community. After believing that self-care is very much needed by participants, they will try to increase their knowledge by participants will try to improve their knowledge and skills in self-care. Participants' perceptions of self-efficacy are more consistent with selfmanagement, statistical test results show a relationship between the level of physical, psychological, social and spiritual independence with self-efficacy table 5:3. Selfconfidence turns out to be an important aspect in influencing independent healthy targets, supported by the fact that self-efficacy influences self-management in CRF patients, participants have more confidence in themselves to take action to improve their ability to care for themselves. Self-confidence in pulmonary TB patients is because they want to recover to be able to be responsible as parents, want to work

#### Conclusion

1. The influence of Holistic nursing actions SOWAN Program effectively increases physical independence, psychological independence, social independence and spiritual independence of pulmonary TB patients with a value of p = 0.00

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2. Self-efficacy has an effect on increasing physical, psychological, social and spiritual independence.

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