

Conference Paper

Prevention of Tuberculosis: Literature Review

Vita Lucia

West Java PPNI Nursing College

ORCID:*Vita Lucia*: <https://orcid.org/0000-0002-2093-2927>**Abstract**

This study is a literature review on the control and prevention of Tuberculosis, involving both medical treatment and community behaviour. The journal search produced six journal articles from 2018-2020 that match the inclusion criteria. Based on the articles that have been reviewed, the data shows that there are several preventive methods that can reduce the incidence of tuberculosis, including increasing clean living habits by practicing the correct ethics of coughing and sneezing, using masks, and opening windows every morning so that ventilation and sunlight can enter into the room.

Keywords: prevention, transmission, tuberculosis

Corresponding Author:

Vita Lucia

vitalucyavita@gmail.com

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1. Introduction

Tuberculosis is a global health problem with increasing prevalence and mortality rates. According to the Global Report [11], around 130,000 people each year die from tuberculosis. More than 95% of deaths from TB occur in low and middle income countries. Tuberculosis cases in West Java, (data as of January 31, 2019) were recorded at 99,398.

Tuberculosis is a disease caused by *Mycobacterium tuberculosis*, which spreads from one individual to another through the air [3]. Prevention of tuberculosis is also very important. healthy behavior can reduce the dangers of tuberculosis. prevention is a process, means, action to prevent or act to prevent something from happening. so prevention is an action and is identical with behavior

The factors that can affect someone to suffer from tuberculosis are low immunity, generally due to malnutrition and unhealthy behavior [7]. The behavior towards illness and disease, namely how humans respond, both passively (knowing, behaving, and perceiving diseases and pain that exist in themselves and outside themselves, as well as actively (actions) taken in connection with disease and illness [8]. So it is necessary to conduct an assessment to find out what can be done to prevent tuberculosis from spreading. What changes in behavior support the improvement of public health status in order to avoid tuberculosis. The data is taken for analysis through literature review.

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This study is very important because with the right prevention will reduce tuberculosis. prevention has been done in the past, but by knowing more effective ways, we hope that it can be more optimal and right on target. In the future, we hope that there will be a more technical plan from the government to make policies and train the public to be more aware of tuberculosis

2. Method

This section discusses strategies for finding journals used in review literature, questions used to review journals that are adjusted to PICOT and other journal retrieval limitations.

PICOT in this study is the problem (P) transmission of tuberculosis, intervention (I) is prevention of tuberculosis, control (C) conducts prevention, results (O) are practicing the correct ethics of coughing and sneezing, using masks, opening windows every morning so that ventilation and sunlight can enter into the room. The journals used in the review literature are obtained through a database of international journal providers. The author opens the website www.google scholar.com. the authors wrote keywords prevention of pulmonary tuberculosis transmission in Indonesia. Keywords in the literature review are prevention, transmission, tuberculosis. There are 2,300 findings, and they are narrowed down by several inclusion criteria, namely journals that discuss ways to prevent tuberculosis in the 2018-2020 period. The selected journal is a journal that discusses ways to prevent the transmission of tuberculosis because there are many journals entitled prevention of tuberculosis but they do not describe how to prevent it. In most journal articles do not include instruments and how is the validity and reliability

3. Result

4. Discussion

Based on the literature review analysis that has been carried out, there are 6 articles that meet the inclusion criteria. Obtained all articles conducting research using quantitative descriptive methods. The Research carried out a survey method in the data collection process [1, 4]. The same thing was done in the another research which was conducted using a descriptive research method, but the data was collected through questionnaires distributed to respondents [5].

The research methodology was carried out using a quantitative descriptive method with a cross sectional design and data were obtained from observations and interviews

TABLE 1

Author	year	Method	Sample	Output
Ilham H. Riyanti E, Kusumawati A. (Klaten)	2019	descriptive approach cross-sectional study	50	TB prevention is carried out by daily actions including opening air circulation both doors and windows of the room regularly, washing hands frequently with soap and running water.
Mila Triana Sari, Haffin, Dayana Rahmanyah (Jambi)	2019	Quantitative descriptive with percentage, mean, median, and standard deviation	52	live a healthy life by covering your mouth when you cough, not spitting anywhere, separating cutlery, opening windows every morning.
Ashari A, Sukmana M (Samarinda)	2018	Quantitative descriptive	30	practice the etiquette of coughing and expelling phlegm and saliva in a closed container and dispose of it in the correct place. As well as the use of masks
Suarnianti, Anggriani S (Makasar)	2019	Quantitative descriptive with chi square analysis	37	Tuberculosis prevention is done by opening the air vents and allowing direct sunlight
Dian N, Widianingsih C (Jakarta)	2019	Quantitative descriptive	60	Cover mouth and nose when coughing, throw saliva in place and open ventilation every morning
Sugiarto, Herdianti, Entianopa (Gorontalo)	2018	Quantitative descriptive	68	Tuberculosis disease prevention can be done by doing the right cough etiquette by closing the mouth

[9]. The results of the study were analyzed using frequency analysis to provide an overview of each variable. After the analysis was carried out, there were several ways that were carried out to prevent the transmission of tuberculosis, namely four journals said that cough ethics was something that needed to be done to prevent transmission. When coughing or sneezing, you must cover your mouth so that you avoid transmitting or contracting tuberculosis.

This cough ethic is in accordance with opinion that cough ethics is important even though in his research there is still a lack of awareness to do this [1]. The transmission can occur due to the habit of coughing and sneezing without closing the mouth [9]. This is also in line with government regulations on infection prevention and control guidelines, which states that cough ethics is very important in preventing an infectious disease, one of which is tuberculosis[6]. Controlling tuberculosis is not only in the form of treatment, but also has a close relationship with behavior change.

The main infectious agent in tuberculosis is *Mycobacterium tuberculosis*, this bacterium is an acid-resistant aerobic rod that grows slowly and is sensitive to heat and ultraviolet rays. So that one of the efforts to prevent tuberculosis is to open the window and let air circulation and sunlight enter the room. This is in line with the researches

saying that air circulation by opening windows every morning is to prevent tuberculosis [2, 5, 9].

5. Conclusion

In the journals that have been analyzed, data shows that the best prevention is to do ethics of coughing and sneezing, using masks, opening windows every morning so that ventilation and sunlight can enter into the room. It is hoped that the results of this journal review literature can be used as a basis for the development of nursing science that can be applied to tuberculosis prevention programs in the community. This is correspondence with the aim of analyzing the literature review to obtain information about the prevention of transmission of tuberculosis. The main source of spread is indeed from the sputum or the fluids that are spread through the droplets so that it is really the best way to prevent this spread with ethics of coughing and sneezing, using masks and methods to kill tuberculosis bacteria by opening windows every morning so that ventilation and sunlight can enter into the room

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