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Factors That Influence The Occurrence of The Disease Tuberculosis in The Clinic of Tubercolosis

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Abstract

Introduction: *Tuberculosis is a desease caused by mycobacterium tuberculosis, this desease transmitted by people who affect tuberculosis positive thtough the air. Mycobacterium tuberculosis invades the body's respiratory tract and affects others organs through blood circulation.* ***Objective:*** *To know the factors that influence the occurrence of the disease tuberculosis in the clinic of tubercolosis Klibur Domin Tibar, Liquisa Municipality, Timor-Leste in 2023.* ***Method:*** *The method used by the researcher is analytical quantitative with a Cross Sectinal approach. Sampling technique: The sampling technique that the researcher uses is non probability sampling with a total sampling approach. Instrument: The instrument that the researcher uses in this research is the questionnaire. Data analysis technique: Data analysis technique using spearman rank correlation formula, using spss formula, version 23.0.* ***Result and Discussion:*** *Based on the results of the pearson correlation analysis, the probability value of 0,5 is greater than the value of sig (1-tilled) 0,05> 0,000, this result show that two variables are ralated.* ***Conclusion:*** *Based on result of te research the researcher concludes that; enviroment factors is retated with occurrence of tuberculosis disease, attitude factors is retated with occurrence of tuberculosis disease, nutritional factors is retated with occurrence of tuberculosis disease.*

Keyword: Factors; Influence Tuberculosis; Disease Tuberculosis;

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Introduction

Tuberculosis (TB) is a global health problem that almost affects all health facilities around the world and TB cases are a major cause of mortality, especially in impoverished and developing countries (Nurjana, 2015). Although TB can be prevented and cured, it still affects millions of people worldwide. Approximately 10 million people were affected by TB globally in 2019, with 5.6 million men, 3.2 million women, and 1.2 million children affected (WHO, 2020).

Geographically, according to the World Health Organization (WHO) in 2020, Southeast Asia had the highest TB cases at 43%, followed by Africa at 25%, Western Pacific at 18%, and the smallest percentages were found in Eastern Europe (8.3%), the Americas (3.0%), and Europe (2.3%) (PALLUNAN & WULANDARI LANGAN, 2023). Indonesia is one of the Southeast Asian countries with the highest number of TB cases. Almost 969,000 cases were reported, with 93,000 deaths and at least 11 deaths every hour (OMS, 2019). Timor Leste, being a small, newly independent nation in the process of development, also faces the problem of TB. Every day, 3 to 4 Timorese children die due to TB, making it the second highest TB rate in Southeast Asia in 2019 with an estimated incidence rate of 498 per 100,000 of the population affected by TB (MdS, 2020).

In the Domin Tibar TB clinic in 2018, there were a total of 100 TB cases, in 2019 there were 155, in 2020 there were 104, and in 2021 there were 519. In the community, factors such as environment and attitude can influence the prevalence of TB, where poor ventilation is a major environmental factor. Ventilation, density of occupancy, temperature, light, and humidity. While attitude factors include smoking habits, spitting, mating, using pesticides and not sneezing down and behavior not opening windows. (Ministry of Health of RI, 2017) (Maksum & KM, 2022).

Efforts to combat tuberculosis include continuing health promotion programs on tuberculosis in the community, as well as continuing to motivate communities affected by tuberculosis to consume bitter tea based on tuberculosis programs to prevent factors that influence the occurrence of tuberculosis (Faradis & Indarjo, 2018)

1.2 Justification of the Study Based on previous research data from the MDS of Timor Leste, which indicates that every day three to four Timorese children die of tuberculosis due to the increasing number of cases in the determined area, this study aims to investigate the factors influencing the occurrence of tuberculosis in Klibur Domin Tibar, Liquisa Municipality in 2023.1.3 Formulation of the Problem Based on the introduction, the formulated problem is "to search for factors that influence the occurrence of tuberculosis in Klibur Domin Tibar, Liques Municipality, Timor-Leste".

Method

The method used by the researcher is analytical quantitative with a Cross Sectinal approach. Sampling technique: The sampling technique that the researcher uses is non probability sampling with a total sampling approach.

Instrument**:** The instrument that the researcher uses in this research is the questionnaire. Data analysis technique: Data analysis technique using spearman rank correlation formula, using spss formula, version 23.0

Result and Discussion
Result

Univariate Data Analysis The respondents for this research are patients with tuberculosis who are undergoing treatment at the Klibur Domin Tibar clinic in the year 2023, with a total of 45 sampled respondents based on the inclusive criteria that have been determined. The research was conducted from the 10th to the 21st of July 2023, for a period of two weeks. The characteristics analyzed in this research include tuberculosis patients, gender, age, profession, level of education, environment, attitude, and nutrition status at the Klibur Domin Tibar Clinic.

Table 1
Distribution of Frequency of Respondents based on Age

Age	Frequency	Percentage (%)
17-41	24	53%
42-66	15	33%
67-91	6	13%
Total	**45**	**100%**

Based on table 1, most tuberculosis patients undergo treatment at the Klibur Domin Tibar clinic are between the ages of 17 41, with 24 respondents making up 53% of the total, while the minority are between the ages of 67 9, with 6 respondents making up13 %.

Table 2
Analysis of Characteristics of Respondents based on Gender

Gender	Frequency	Percentage
Male	23	51%
Female	22	48%
Total	**45**	**100%**

Based on table 2, most tuberculosis patients undergoing treatment at the Klibur Tibar clinic are male, with 23 respondents making up 51% of the total, while the minority are female, with 22 respondents making up 48%

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Table 3
Analysis of Characteristics of Respondents based on Level of Education

Education level	Frequency	Percentage (%)
Illiterate	16	35%
Primary	6	13%
Pre-sekundary	3	6%
Secundary	11	24%
University	6	13%
Bachelor's degree	3	6%
Total	**45**	**100%**

Based on table 3, it shows that most TB patients undergoing treatment at Clinic Klibur Domin Tibar are illiterate with a total of 16 respondents and a percentage of 35%. A minority of patients with pre secondary and bachelor's degree education level have a total of 3 respondents each with a percentage of 6%.

Table 4
Analysis of Respondent Characteristics Based on Profession

Profession	Frequency	Percentage (%)
Student	11	24%
Farmer	16	35%
Government	6	13%
Housewife	10	22%
Seller	2	4%
Total	**45**	**100%**

Based on table 4, it shows that most tuberculosis patients undergoing treatment at the Klibur Tibar clinic are farmers with a total of 16 respondents (35%), and the minority are sellers with a total of 2 respondents (4%).

Data analysis of variety

Table 5
Environment

Environment	Frequency	Percentage (%)
High influence	15	33%
Moderate influence	16	36%
No influence	14	31%
Total	**45**	**100%**

Based on table 5., it shows that the environmental factor has an influence on the occurrence of tuberculosis in patients undergoing treatment at the Klibur Tibar clinic, with the majority being the moderate influence category with 16 respondents (36%), and the minority being the no influence category with 14 respondents (31%).

Table 6

Behavior

Behavior	Frequency	Percentage (%)
High influence	22	49%
Moderate influence	13	29%
No influence	10	22%
Total	**45**	**100%**

Based on table 6, it shows that the attitude factor influences the occurrence of tuberculosis disease in patients who receive treatment at the Kibur Tibar clinic, with the majority falling into the "high influence" category with a frequency of 22 respondents and a percentage of 49%, while a minority falls into the "low influence" category with a frequency of 10 respondents and a percentage of 22%.

Table 7

Nutrition

Nutrition	Frecuency	Percentage (%)
High influence	15	33%
Moderate influence	16	36%
No influence	14	31%
Total	**45**	**100%**

It shows that the nutrition factor also influences the occurrence of tuberculosis disease in patients who receive treatment at the Kibur Tibar clinic, with the majority falling into the "moderate influence" category with a frequency of 16 respondents and a percentage of 36%, while a minority falls into the "low influence" category with a frequency of 14 respondents and a percentage of 31%.

Regarding the correlation analysis
Factor environment influence occurrence of tuberculosis
Correlations

			Ambientes	Okorensia_tuberkuloze
Spearman's rho	Environment	Correlation Coefficient	1.	.552
		Sig. (2-tailed)		.000
		N	45	45
	occurrence of tuberculosis	Correlation Coefficient	.552*	1.000
		Sig. (2-tailed)	,000	.
		N	45	45

**. Correlation is significant at the 0.01 level (2-tailed).

in table 7, the Spearman's rank test result with a significant p value of 0.000 indicates that the environmental factor significantly influences the occurrence of tuberculosis disease in patients at the Klibur Domin Tibar clinic, with a correlation

coefficient value of r=0.552 which falls into the "moderate positive correlation" category with a range of 0.40 - 0.599.

Factor of attitude influences the occurrence of tuberculosis disease Correlations Attitude Occurrence_of_TB

Correlations

		Attitude	Okorensia_tuberkuloze
Attitude	Correlation Coefficient	1.000	.940
	Sig. (2-tailed)		.000
	N	45	45
Occurrence_of_TB	Correlation Coefficient	.940	1.000
	Sig. (2-tailed)	.	.
	N	45	45

**. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 8 of the analysis results of the Spearman rank statistical test which has a significant p value of 0.000, it shows that the value 0.000 <0.05 means that the factor of attitude significantly influences the occurrence of tuberculosis disease in the Domin Tibar Clinic, with the correlation value of r= 0.940 which falls under the stronger category of 0.80 1.00.

Nutrition factor influences the occurrence of tuberculosis disease

Correlations

			Nutrias	Okorensia_tuberkuloze
Spearman's rho	Nutrias	Correlation Coefficient	1.000	.578**
		Sig. (2-tailed)	.	.000
		N	45	45
	Okorensia_tuberkuloze	Correlation Coefficient	578	1.000
		Sig. (2-tailed)	.000	
		N	45	45

**. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 9 of the analysis results of the Spearman rank statistical test which has a significant p value of 0.000, it shows that the value 0.000 <0.05 means that the factor of nutrition significantly influences the occurrence of tuberculosis disease in the Domin Tibar Clinic, with the correlation value of r= 0.578 which falls under the weaker category of 0.40-0.599.

Discussion
1.   Characteristics of Respondents
Based on the research process carried out on the factors that influence the occurrence of tuberculosis in Klibur Domin Tibar clinic in 2023. Table 1 shows that most of the tuberculosis patients who receive treatment at the Klibur Domin clinic are

aged between 17 41, with a majority of 24 respondents at a percentage of 53%, and a minority aged between 67 91 with a total of 8 respondents at a percentage of 13%. According to researcher Antonio Bobo in 2021 at the Klibur Domin Tibar Clinic, the results show that most respondents aged between 14 24 have a frequency of 9 at a percentage of 30%, and the minority aged between 58 68 have a frequency of 4 at a percentage of 13%. Thus, the 2023 research results are based on age, showing a higher percentage compared to the 2021 research results.

Based on table 2, it is shown that most tuberculosis patients who receive treatment at the Klibur Tibar clinic are male, with a total of 23 respondents at a percentage of 51%, while the minority are female, with a total of 22 respondents at a percentage of 48%. According to researcher Antonio Bobo in 2021 at the Klibur Domin Tibar Clinic, the results show that most male respondents have a frequency of 18 at a percentage of 56%, while the minority of female respondents have a frequency of 12 at a percentage of 43%. Thus, the 2023 research results are based on gender, showing a higher percentage compared to the 2021 research results. Based on table 3, it is shown that most tuberculosis patients who receive treatment at the Klibur Domin Tibar clinic have an illiterate education level, with a total of 16 respondents at a percentage of 35%, while the minority have a pre-secondary and bachelor's education level, each with a total of 3 respondents at a percentage of 6%. According to researcher Antonio Bobo's study in 2021 at Klinika Klibur Domin Tibar, the results show that most respondents with a secondary education level had a frequency of 12 with a percentage of 40%, while a minority with a university education level had a frequency of 3 with a percentage of 10%. Therefore, the results of the 2023 study are based on the level of education showing that most respondents are illiterate in comparison to the results of the 2021 study.

Based on table 4, the results show that most patients with tuberculosis who received treatment at Klinika Klibur Tibar have a profession in agriculture, with a total of 16 respondents and a percentage of 35%. A minority of patients had a profession as a vendor with 2 respondents and a percentage of 4%. According to the researcher Antonio Bobo's study in 2021 at Klinika Klibur Domin Tibar, the results show that most respondents had a profession in agriculture with a frequency of 16 and a percentage of 53%, which is the same as the result of the 2021 study.

2. Independent Variables (X1)

Based on Table 7 show that the environmental factor influences the occurrence of tuberculosis in patients undergoing treatment at Kibur Tibar clinic, mostly with the category "influenza nation" at a frequency of 16 respondents with a percentage of 36%, and a minority with the category "not influenza" at a frequency of 14 respondents with a percentage of 31%.

According to researcher Antonio Bobo with the title "Analysis of Factors Influencing Patients with Tuberculosis Treatment at Klibur Domin Tibar Clinic in 2021", the result of research on the Environmental factor indicates that most respondents fall into the category "not influenza" with a frequency of 3 and a percentage of 6%, showing a difference compared to the 2021 research results.

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Research Results on Independent Variables (X2) Based on Table 8 show that attitude factors influence the occurrence of tuberculosis in patients undergoing treatment at Kibur Tibar clinic, mostly falling into the high influence category with a frequency of 22 respondents and a percentage of 49%, and a minority with the "not influenza" category with a frequency of 10 respondents and a percentage of 22%. According to researcher Antonio Bobo's analysis of the influencing factors for tuberculosis treatment on patients at Klibur Domin Tibar clinic in 2021, most respondents fall into the high influence category with a frequency of 13 and a percentage of 43%, showing a higher percentage than the 2021 research results.

3.   Independent Variable (X3)

Based on table 9, it shows that the nutrition factor influences the occurrence of tuberculosis in patients who received treatment at the Kibur Tibar clinic. Most patients with the national influenza category had a frequency of 16 respondents with a percentage of 36%, while the minority with the non-influenza category had a frequency of 14 respondents with a percentage of 31%. According to the researcher Ana Maria dos Santos Mendes with the title "Assessment of Nutritional Status for Pulmonary Tuberculosis Patients in the Klibur Domin Tibar Clinic in 2021," the results show that patients with tuberculosis who received treatment at the Klibur Domin Tibar clinic mostly fell into the malnutrition category with a frequency of 30 and a percentage of 53.6%. This indicates that the research results are based on nutritional status differences compared to the research results in 2021.

Conclusion

The research results carried out on the factors influencing the incidence of tuberculosis in the Domin Tibar clinic in 2023 are as follows: Respondent Characteristics. Based on table 1, it shows that most tuberculosis patients receiving treatment at the Domin clinic are aged 17-41, totaling 24 respondents with a percentage of 53%. Based on table 2, it shows that most tuberculosis patients receiving treatment at the Domin Tibar clinic are male, with a total of 23 respondents and a percentage of 51%.

Based on table 3, it shows that most tuberculosis patients receiving treatment at the Domin Tibar clinic are illiterate, with a total of 16 respondents and a percentage of 35%. Based on table 4, it shows that most tuberculosis patients receiving treatment at the Tibar clinic are farmers, with a total of 16 respondents and a percentage of 35%. Environment Environmental factors influencing the incidence of tuberculosis with the category "strong influence" totaled 15 respondents with 33%, the category "moderate influence" totaled 16 respondents with 36%, and the category "no influence" totaled 14 respondents with 31%.

Attitude Attitude factors influencing the incidence of tuberculosis with the category "strong influence" totaled 22 respondents with 49%, the category "moderate influence" totaled 13 respondents with 29%, and the category "no influence" totaled 10 respondents with 22%.

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Nutrition Nutritional status factors influencing the incidence of tuberculosis with the category "strong influence" totaled 15 respondents with 33%, the category "moderate influence" totaled 16 respondents with 36%, and the category "no influence" totaled 14 respondents with 31%.

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Reference

Definis. PDF-scribd. (n.d.). https://Creatormedia. My.id>. 12/09/2022, 04:45 otl. (N.d.). http://journal.unnes.ac.id/sju/index.php/higeia. 12/09/2022, 04:58 otl

Eko Budiyanto, S. M. (2020). KINERJA KARYAWAN: Ditinjau dari aspek gaya kepemimpian, Budaya Organisasi dan Motivasi kerja. pendekatan Riset.

Hubungan Pengetahuan, Sikap dan Tindakan Penderita Tuberkulosis dengan Hasil terapi. (2020, November). vol 1.

Karlina, d. (2015). Buku seri etnografi keshatan Batuk Darah 'Holdagho Rea:Derita Pengidap TB Paru etnik Muna. Muna.

Mangkunegara. (2002). Evaluasi Kinerja SDM. . Bandung: PT. Refika Aditama.

Manual: MS-TL. (2020). PTN (Programa Tuberkuloze Nasional)

Maryanti. (2012). Faktor-faktor yang berhubungan dengan kinerja petugas tuberkulosis oleh puskesmas.

Maryum, Y. (2006). Beberapa Faktor-faktor yang berhubungan dengan kinerja petugas program TB Paru terhadap cakuoan penemuan kasus baru BTA (+).

Moeheriono. (2009). Pengukuran Kinerja Berbasis Kompetensi: Competency Based Human Resource Management. Ghalia Indonesia.

Notoadmojo, S. (2018). Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta.

NotoatmodjoSoekodjo, (2014). PengembanganSumberDayaManusia, Jakarta :PT. RinekaCipta.Asesuiha 25/09/2022, 09:20 otl.

Novia Ruth Silaen, d. (2021). Buku Kinerja Karyawan. www. penerbitwidian.com.

Pengertian Program. (n.d.). https://id. Scribd.com>doc>09/10/2022, 02:25 otl.

RI, D. (2002). Pedoman Nasional Penanggulangan Tuberkulosis. 8: 3-47.

Rosário, E. d. (2022). Analiza Fatór Ne'ebé Fó Influensia Ba Pasiente Kona-Ba Eskolha Tratamentu Moras Tb.

Sugiyono. (2019). Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D. Bandung.

Tri Dewi Kristini, R. H. (2020, Mei). Potensi Penularan Tuberkulosis Paru Pada Anggota Keluarga Penderita. vol 15.

WHO. (2020). Global tuberkulosis control WHO report.

World Health Organization. (2021/10/18). (https:/www.who.int/teams/global-tuberculosis-program/date.

World Health Organization. (2021/10/18). (https:/www.who.int/teams/global-tuberculosis-program/date.

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