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ORIGINAL ARTICLE

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**EFFECT OF CONSUMPTION OF LAOR CAPSULES (*Polychaeta*) ON THE
DECREASE OF TOTAL CHOLESTEROL LEVELS IN CHOLESTEROL PATIENTS
IN THE WORKING AREA OF THE TOBELO HEALTH CENTER, NORTH
HALMAHERA REGENCY 2020**

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ABSTRACT

Background: Total cholesterol is the total count of all types of cholesterol in the blood. Total cholesterol is an arrangement of many substances, including triglycerides, LDL, and HDL. High cholesterol level or hypercholesterolemia is a state disturbance rate of fat in the blood, where the rate of cholesterol in the blood is more than 240 mg/dl. Meanwhile, the rate of cholesterol should in the body is <200 mg/dl. Cholesterol levels risky currently are 200-240 mg/dl and risky height >240 mg/dl. **Objective** Know influence consumption capsule laor (*Polychaeta*) against drop rate total cholesterol. **Method** This type of research uses *a queasy experiment*, (*One group pretest*, namely before giving treatment) and (*posttest design i.e* which has been treated). Measurements were taken before intervention and measurements after administration (Capsules) Laor intervention and design form. **Results** characteristics respondents consisting of from group age, education and work, where on table 1 can be seen that group age 33-40 years as many as 3 people (60%), 5 respondents (80%) the average mother House ladder normal, as well respondent Most have junior high school education (60.0%),

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PRELIMINARY

Cholesterol is a substance of fat circulating inside the blood, color yellowish and in the form of candles, produced by the liver. Cholesterol includes a lipid group that does not hydrolyze and is the main sterol in-network body of a human. Cholesterol is the ingredients formation of several steroids such as bile, acid folate, adrenal cortex hormone, estrogen, and progesterone.¹

Cholesterol is fat Neutral required for synthesis compounds important in the body as a hormone and cholesterol in the heart Cholesterol is on the network and plasma as cholesterol-free or in shape savings. In plasma, both shape the transported by lipoproteins.²

According to the World Health Organization (WHO) 2018, the global prevalence of *hypercholesterolemia* in adults is 37% for men and 40% for females. Prevalence increase in total cholesterol highest that is in the region Western Europe at about 54% for second type gender, followed by region America 48% for second type sex and 30% for second type gender in Southeast Asia.³

Riskesdes Data (Research Health Base) year 2018 proportion Indonesian population with rate total cholesterol above normal tall on a woman with percentage (39.6%) compared on a man with percentage (30.0%) and in the area urban taller from on countryside. In the year 2017 number of incidents of *hypercholesterolemia* in Indonesia was

as much as 39.8%. In Indonesia, the number of incidents of hypercholesterolemia according to MONICA I (Multinational Monitoring Of Trends terminates in Cardiovascular Disease) study of 13.4 % in women and 11.4% in men. In MONICA II, we get an increase to 16.2% in women and 14% in men.⁴

Based on data from the Public health center Tobelo North Halmahera Regency, the total patient cholesterol year 2021 in the month January as many as 21 people, month February there are 20 people, then in the month June-august as many as 30 cholesterol patients.⁵

According to research carried out by commander simanullang et al (2019). Avocado (*Persea Americana Mill*) includes wrong one fat healthy because dominated by sour famous oleate with omega 9 which is as powerful antioxidants.⁶ Antioxidant prevent oxidation sour fat and LDL in the blood that lowers absorption cholesterol and Upgrade conversion cholesterol Becomes sour bile, so occur elimination rate cholesterol and triglycerides in blood vessels.⁷

METHOD

This type of research uses *queasy experiment*, (*One group pretest*, namely before giving treatment) and (*Posttest design i.e* which has been treated). Measurements were taken before intervention and measurements after administration (Capsules Laor)

intervention and the form of this design are:



The research was conducted in Gosoma Village to look at the effect of consuming laor capsules (*Polychaeta*) on reducing total cholesterol levels in mothers with total cholesterol at Tobelo Public Health Center, North Halmahera Regency.

The population in research this are 10 people with a total sample in the study of 5 people who have met the inclusion criteria. The results of the research in the form of data have been processed into information by the research objectives described in the form of tables and explanations. The data obtained were then processed using the *SPSS For Windows program*, which was distinguished by univariate and bivariate analysis.

- a. Mother respondents with total cholesterol aged 25-40 years in Gosoma Village, North Halmahera Regency
- b. Respondents are willing to sign the consent form
- c. Respondents are aware and can be invited to communicate well.

RESULTS

Age	N	%
25-32	2	40.0
33-40	3	60.0
Total	5	100

Based on table 1 above, explains that 5 respondents (100%) found that the majority of respondents in this study were mostly aged 33-40 years, namely 3 people (60.0%) and at least 25-32 years old. as many as 2 people (40.0%).

Education	N	%
SMP	3	60.0
SMA	1	20.0
BACHELOR	1	20.0
Total	5	100

2020 primary data source

Meanwhile, education in this research is related to the last education or the last diploma owned by the respondent. Based on table 2 above, explains that of the 5 respondents (100%) it was found that the majority of respondents had a junior high school education level, namely 3 people (60.0%), and at least a high school and undergraduate level, namely 1 person (20.0%).

Occupation	N	%
Household Heads		
IRT	4	80.0
Civil Servants	1	20.0
Total	5	100

2021 primary data source

As for the occupations of the respondents from table 3 above, it is explained that of the 5 respondents (100%), the respondents in this study mostly had jobs as IRT (80.0%), and respondents who had a profession as a civil servant (20.0%).

a. Univariate Analysis

Table 4. Distribution gift capsule laor Before given capsule laor (Polychaeta)

Variable P*	N	Mean	Standard Deviance
Before Intervention	5	217,000	8.3666 0.050

2020 primary data source.

From Table 4 above could be seen that the drop rate total cholesterol mean value of 217,000 with standard deviance of 8.3666 with a p-value of 0.050.

Table 5. Distribution of gift capsule laor After given capsule laor (Polychaeta)

Variable P*	N	Mean	Standard Deviance
Before Intervention	5	210,200	10.2811 0.050

2020 primary data source

From table 5 it can be seen that, the mean value after the given capsule laor of 210,200, with standard deviance of 10.2811, and a p-value of 0.050.

a. Bivariate Analysis

Table 6. Distribution gift capsule laor Before and after given capsule laor (Polychaeta)

Standard Mean	Variable	t sig.	(2-tailed)
Before-after	2811	2,600	0.050

2020 primary data source

From Table 6 above the obtained mean value of grade cholesterol before the gift and after gift capsule laor is 210.200 mg/dl with P-value = 0.050>

0.05 means no there is an influence drop rate cholesterol on sufferer cholesterol before and after given capsule laor.

DISCUSSION

In research, this done intervention on mothers with total cholesterol with doing gift capsule laor (Polychaeta) in 5 mothers. By criteria inclusion research this aim to know, yes / no influence consumption capsule laor to drop rate total cholesterol. Characteristics of respondents consisting of group age, education, and work, we're on the table. 1 can be seen that group aged 33-40 years as many as 3 people (60.0%), 5 respondents (80%) the average mother House ladder normal as well respondent Most have junior high school education (60.0%). With Higher education, somebody will tend easy get information good from other people and the mass media. Otherwise level Lack of education will hinder the development and attitude of somebody to new values introduced.

Women age productive already own cholesterol tall will be more susceptible to experiencing Things similar at menopause. Women own more HDL levels tall compared to men because the hormone estrogen also takes a role, however along with increased age, the hormone estrogen is not again dominant so the rate of cholesterol wicked precisely increases and cholesterol well decreased.²⁰

Habit-style life that doesn't healthy also role, if somebody no

diligent exercise, and no guard pattern eat with consuming foods that contain fat wicker as meat cow which fat, food ready serve such as burgers, fried junk food, and foods light.

Bivariate analysis was done for know shape connection second variable (variable *independent and dependent*). For the study, this used test *T-dependent* that is procedure testing *parametric* mean on same group and compare before and after the intervention, with level meaning is $P < 0.05$. based on table .6 above obtained mean value of grade cholesterol before the gift and after the gift capsule, laor is 210.200 mg/dl with $P\text{-value} = 0.050 > 0.05$ means no there is an influence drop rate cholesterol on sufferer cholesterol before and after given capsule laor.

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