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Overview Of Total Cholesterol Levels In Residents Who Consume Seafood (Animal) In Ampenan Tengah Village, Mataram City

Yunkiy Allisa Septiana Putri[1], Erlin Yustin Tatontos[2], Iswari Pauzi[3] ,Urip[4]
[1-4] Jurusan Teknologi Laboratorium Medis, Poltekkes Kemenkes Mataram, Indonesia
allisaseptiana666@gmail.com

ABSTRACT

Background : People living in coastal areas generally consume seafood as part of their daily diet. Seafood as part of protein and various nutrients that are beneficialto health, however,some types of seafood contain relatively high levels cholesterol levels among individals who regulary consume seafood needed. **Objective :** to describe the total cholesterol levels among residents consuming seafood in Ampenan Village, Mataram City. **Research Methods :** The research was carried out as a descriptive observational study employing a cross-sectional approach. The participants consisted of 30 respondent recruited through purposive sampling, with selection based on the established inclusion and exclusion criteria. Total cholesterol was determined by Point of Care Test (POCT) using capillary blood as the specimen. The collected result were evaluated descriptively and reported using frequency distributions and percentage values. **Reasearch result :** The responden consisted of 7 males (23,3%) and 23 females (76,67%). Based on age group, there were 2 adolescent (6,67%), 11 young adults (36,67%), and 17 middle aged adults (56,67%). The result show that 23 respondents (76,7%) had normal total cholesterol levels (≤200mg/dL), while 6 respondents (20%) had high total cholesterol levels (>200mg/dL), and 1 respondent (3,33%) had borderline cholesterol levels (200-239mb/dL). **Conclusion :** Most residents consuming seafood in Ampenan Tengah Village, Mataram City had normal total cholesterol levels within normal category.

Keywords : total cholesterollevels, seafood, POCT.

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Introduction

Cholesterol is an essential lipid produced by endogenous from the liver and exogenous from animals including *seafood. Seafood* is known as one of the food sources that contain protein and nutrients, although some types also have a fairly high fat content. However, it has benefits for the body if consumed in appropriate amounts and patterns (Taylor et.al 2025).

These inconsistent findings show that the impact of *seafood* depends on the frequency of consumption, how it is processed, and the type of *seafood* consumed. This fact shows that an imbalance in cholesterol levels can trigger non-communicable diseases (NCDs) (rizky nur layli muallifa 2025).

Hypercholesterol accounts for 2.6 million heart diseases and 29.7 million *dysdilily adjusted life years (DALYs).* Hypercholesterol in Southeast Asia reaches 30% and in Indonesia there is 35% of the rate, which is high in the world average. Hypercholesterol in Indonesia in women is 24% and men 18.3% (zamzamy 2024 and rikesdes 2018).

In NTB, the inland fisheries sector accounts for 53.7% and marine fisheries account for 46.3%. The availability of fishery resources makes *seafood* one of the sources of animal protein that is easy to obtain and consume by the community. Therefore, it is important to examine the influence of *seafood* on health (Alfarizy et.al 2020).

The ampenan area in the central city of Mataram is around 79.1% of households dependent on the capture fisheries sector, so exposure to *seafood*, both low and high cholesterol levels, can affect health (wilandari et.al 2020).

Research Methods

This study is an *observational descriptive*, to see an overview of total cholesterol levels in residents who consume *seafood* (animal) in Ampenan Tengah village, Mataram City. Based on the time of the study, *using a cross sectional design,* namely collecting data was carried out at a certain time. To obtain total cholesterol levels in residents who consume *seafood* (animal) in Ampenan Tengah Village, Mataram City.

Research and Discussion Results

Data from the examination results on the total cholesterol levels of residents who consume *seafood* (animals) in Ampenan Tengah Village, Mataram City.

Table 4.1 characteristics of respondents based on gender who consume *seafood* in Ampenan Tengah Village, Mataram City.

Gender	Frequency	Percentage
Male	7	23,3%
Women	23	76,7%
Total	30	100%

Table 4.1 shows 7 respondents with male gender (23.3%) and 23 respondents with female gender (76.67%).

The results of this study show the characteristics of respondents who consume *seafood* in Ampenan sub-district in the middle of Mataram city. Male gender in table 4.2 follows:

Table 4.2 Respondents' cholesterol levels based on the gender of men who consume *seafood* in Ampenan Tengah Village, Mataram City.

Male	Frequency	Percentage
Normal(≤200mg/dL)	5	71,4%
Borderline(200-239mg/dL)	0	0%
High(>239mg/dL)	2	28,6%
Total	7	100%

Table 4.2 shows that out of 7 male respondents, there were 2 respondents (28.6%) with high cholesterol levels and 5 respondents (71.4%) had normal cholesterol levels.

The results of the study showed the characteristics of respondents who consumed *seafood* in Ampenan Tengah Village, Mataram City. Based on female gender, it can be seen in the following table 4.3:

Table 4.3 Respondents' cholesterol levels based on the gender of women who consume *seafood* in Ampenan Tengah Village, Mataram City

Women	Frequency	Percentage
Normal(≤200mg/dL)	18	78,3%
Borderline(200-239mg/dL)	1	4,3%
High(>239mg/dL)	4	17,4%
Total	23	100%

Table 4.3 shows that out of 13 female respondents, there were 4 female respondents (17.39%) with high total cholesterol levels, 1 respondent (4.35%) with borderline/high cholesterol levels, and 18 respondents (78.26%) with normal cholesterol levels.

The results of the study showed the characteristics of respondents who consumed *seafood* in Ampenan Tengah Village, Mataram City. Based on age, it can be seen in 4.4 as follows:

Table 4.4 characteristics of respondents based on age consuming *seafood* in Ampenan Tengah Village, Mataram City.

Age	Frequency	Percentage
Teen (13-18)	2	6,67%
Young adults (19-39)	11	36,67%
Mature (40-59)	17	56,67%
Total	30	100%

Table 4.4 shows the age of respondents from adolescents as many as 2 respondents (6.67%), young adults as many as 11 respondents (36.67%), and intermediate adults as many as 17 respondents (56.67%).

The results of the study showed the characteristics of respondents who consumed seafood in Ampenan Tengah Village, Mataram City. Based on age (adolescents) which can be seen in the following table 4.5:

Table 4.5 Respondents' cholesterol levels based on age (adolescents) who consume *seafood* in Ampenan Tengah Village, Mataram City

Teenagers	Frequency	Percentage
Normal(≤200mg/dL)	2	100%
Borderline(200-239mg/dL)	0	0%
High(>239mg/dL)	0	0%
Total	2	100%

Table 4.5 shows that 2 adolescent (13-18 years) (100%) respondents had normal cholesterol levels.

The results of the study showed the characteristics of respondents who consumed *seafood* in Ampenana Tengah Village, Mataram City. Based on age (young adult) which can be seen in the following table 4.6:

Table 4.6 Respondents' cholesterol levels based on age (young adults) who consume *seafood* in Ampenan Tengah Village, Mataram City

Young adults	Frequency	Percentage
Normal(≤200mg/dL)	11	100%
Borderline(200-239mg/dL)	0	0%
High(>239mg/dL)	0	0%
Total	11	100%

Table 4.6 shows that of the 11 respondents aged young adults (29-39 years) (100%) had normal total cholesterol levels.

The results of the study showed the characteristics of respondents who consumed *seafood* in Ampenan Tengah Village, Mataram City. Based on (intermediate adult) which can be seen in the following table 4.7:

Table 4.7 total cholesterol levels of respondents based on age (intermediate adult) who consume *seafood* in Ampenan Tengah Village, Mataram City

Mature Mature	Frequency	Percentage
Normal(≤200mg/dL)	10	58,8%
Borderline(200-239mg/dL)	1	5,9%
High(>239mg/dL)	6	35,3%
Total	17	100%

Table 4.7 shows the total cholesterol levels of 17 respondents aged in middle age (40-59 years), there are 10 respondents (58.8%) with normal cholesterol levels, 1 respondent (5.9%) with borderline/high cholesterol levels, and 6 respondents (35.3%) with high cholesterol levels.

The results of the research of residents who consume *seafood* in Ampenan Tengah Village, Mataram City. The cholesterol levels of the respondents can be seen in the following table 4.8:

Table 4.8 of the cholesterol levels of respondents who consume *seafood* in Ampenan Tengah Village, Mataram City.

Kolesterol total	Frequency	Percentage
Normal(≤200mg/dL)	23	76,67%
Borderline(200-239mg/dL)	1	3,33%
High(>239mg/dL)	6	20%
Total	30	100%

Table 4.8 shows that of the 30 respondents examined, most of them had total cholesterol levels in the normal category, namely 23 respondents (76.7%), 1 respondent (3.33%) were in the boderline/high, and 6 respondents (20%) were in the high category. Thus, the majority of respondents had total cholesterol levels in the normal category.

A. Conclusion

1. Characteristics of residents who consume *seafood* (animals) in Ampenan Tengah Village, Mataram City respondents based on gender are dominated by women as many as 23 respondents (76.7%), and men (23.3%). Based on age groups, most of the respondents are in the category of intermediate adults

with 17 respondents (56.7%), followed by young adults as many as 11 respondents (36.7%), and adolescents as many as 2 respondents (6.6%).

2. The results of the measurement of total cholesterol levels in residents who consume *seafood* (animal) in Ampenan Tengah Village, Mataram City showed that most of the respondents had normal cholesterol levels as many as 23 respondents (76.7%), 1 respondent (3.33%) with boderline/high cholesterol levels, and high cholesterol levels as many as 5 respondents (20%).

3. Based on the results of the study, the majority of residents who consume *seafood* (animals) in Ampenan Tengah Village, Mataram City have total cholesterol levels in the normal category.

B. Advice

1. The results of the research on total cholesterol level data of residents who consume *seafood* (animal) can be study data and an overview in Ampenan Tengah Village, Mataram City.

2. To be a reference and resource for students for the development of research in the fields of nutrition, public health, medical laboratory technology, related to *seafood*.

3. The community is expected to implement a balanced diet and pay attention to the amount and frequency of daily food consumption, including *seafood*. The public is also advised to check cholesterol levels regularly as an effort to monitor health conditions.

4. It is hoped that all health agencies will continue to improve health education to the public regarding the management of food and beverages that enter the body with a balanced frequency, as well as conducting regular health checks can continue to be improved as an effort to detect early cholesterol level disorders.

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