Fish-based Foods Consumption; dissemination of knowledge, health factors and the ability to process and serve

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Abstract

This study aims to determine the influence of knowledge dissemination; fish-based food variations, health factors and the ability to process and serve food toward community interest to consume fish-based food.

Data collection was carried out in November - December 2022, located in Setu Bekasi District. The method uses a questionnaire with test techniques in the form of comparative, case, operational and quantitative analysis studies. Respondents were taken as a sample of 100 respondents obtained randomly. Data analysis using Microsoft Excel software and SPSS software. To find out the factors that influence the level of fish consumption, a statistical test was carried out; F test and T test. The results showed that the dissemination of knowledge of food variations from the family and the ability to process and serve food are two important things to increas the community interest in fish-based foods, while health factors do not have an influence on the interest of the community in food-fish based.

Keywords: *Food, Fish, Consumption, Community.*

INTRODUCTION

A healthy lifestyle has become a new trend in the world community. The world is increasingly aware that the use of hazardous materials and unhealthy food in the long term can affect the quality of health (Sayin et al, 2014; Untari and Satria, 2019). Healthy food patterns have now become a trend with a variety of choices, whether choosing not to consume fast food, consuming low-calorie products, or choosing to become vegetarian. Various types of basic ingredients for healthy food are available, both through cultivation processes that are carried out organically, to choosing food ingredients that contain various nutrients needed by the body (Untari et al, 2020; Elmi et al, 2016).

One type of healthy food is fish. Fish provide various proteins, fats (omega 3 fatty acids), vitamins (vitamin A, vitamin D, vitamin B6, vitamin B12), and minerals (iron, iodine, selenium, zinc, and fluorine) needed by the body (Tiffany et al. al, 2020). The various benefits one gets when consuming fish are: meeting the needs of 10 essential fatty acids, lowering blood pressure, lowering cholesterol levels, losing weight, stimulating brain growth and intelligence, nourishing the eyes, preventing wrinkles and skin aging, and preventing serious diseases such as heart disease. , breast cancer, and prostate cancer.

The World Health Organization (WHO) recommends consuming at least two servings of fish per week (Ulpa, 2018). However, the data shows that the level of fish consumption in Indonesia still tends to be low compared to other countries. Indonesia's fish consumption rate in 2013 was 35.14 kg/cap/year. The level of fish consumption is still low when compared to FAO recommendations (Erwin and Karmini, 2012; Untari, 2020). Indonesia's fish consumption level is also relatively low compared to other European and Asian countries. Fish consumption in Korea is 54 kg/cap/year, the Netherlands is 52 kg/cap/year, Spain is 41 kg/cap/year, and France is 35 kg/cap/year. The Food Security Council (2013) also stated that Indonesia's fish consumption (5 gr/cap/day) is still far from other Asian countries such as Malaysia (50 gr/cap/day), Japan (24 gr/cap/day), Vietnam (22 gr/cap/day), Korea (9 gr/cap/day), and Myanmar (43 gr/cap/day).

Data from the National Socioeconomic Survey (SUSENAS) show that consumption of protein from fish has the largest proportion in the group of animal protein sources consumed per capita per day, namely 53.5% compared to animal protein derived from meat, eggs and milk (Badan Statistics Center, 2018). In addition, the diversity of prices and types of fish in terms of size, shape and taste means that fish can be further processed into various kinds of food products, so that they can touch all segments of

the economic class (Untari, 2019). However, with Indonesia's position as the largest fish producing country in the world after China (Tran et al., 2017), as well as the potential for abundant fish resources which reach 9.9 million tons and the potential area of cultivated land which also reaches 83.6 million hectares, this is in contrast to the achievement rate of fish consumption in Indonesia. WorldFish data shows that Indonesia's per capita fish consumption rate is relatively lower when compared to other ASEAN countries, which is ranked sixth out of eight countries (Chan et al., 2017).

The current community's interest in consuming fish-based foods can be said to be quite low. Many factors influence a person's preference not to consume fish-based foods, including because fish are not usually introduced into family consumption (Untari, 2017), in this case the family is one of the environments that is responsible for introducing a variety of foods for the next generation (Devi, 2004).). The next factor is health awareness (Santika, 2011). Information that is increasingly open opens the eyes of the community to the importance of consuming fish. Then the ability to process and prepare food is an important factor in increasing the interest of the community in consuming fish (Schneider et al, 2014).

METHOD

Data collection was carried out in November - December 2022, located in Setu Bekasi District. The method uses a questionnaire with test techniques in the form of comparative, case, operational and quantitative analysis studies (Syarief et al, 2021). Respondents were taken as a sample of 100 respondents obtained randomly. Data analysis using Microsoft Excel software and SPSS software. To find out the factors that influence the level of fish consumption, a statistical test was carried out; F test and T test.

RESULTS AND DISCUSSION

Based on the calculation results, the R2 value shows a magnitude of 0.476, the value of the independent variables is in the form of family knowledge dissemination (X1), health (X2), ability to process and present (X3) fish consumption interest of 48.6%. While 51.4% of the total level of fish consumption is determined in other variables outside the independent variables that are not included in the model. Then the F test was carried out with the aim of knowing the level of influence simultaneously or partial; the independent variables on the dependent variable. The results carried out with the F test can be seen in table 1 below,

Table 1. Anova

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	95,015	3	19,021	16,712	,001
	Residual	104,549	97	1,138		
	Total	199,651	100			

Source: Data processed, 2022

Then a T-test was carried out to determine the dominant factors that influence fish consumption patterns in the community in Setu District. From the results of data calculations, the t-table value is 1.989 (Table 2).

Table 2. T Test

Coefficents						
Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constants)	-4,466	1,251		3,421	,000
	Dissemination of knowledge (X1) ,	,102	,117	,080	2,196	,001
	Health factors (X2)	,050	,072	,055	,698	,487
	Ability to process and serve food (X3)	,546	,094	,628	7,601	,000

The independent variables shows a significant level of 5% (0.05). The value obtained from the F table, F = (k ; n-k) F = (3 ; 97) F table = 2.70. Based on the table above, the significant value of the independent variables simultaneously (F) = 0.001. The Sig value is 0.001 <probability 0.05, it can be concluded that H0 is rejected. In addition, the results of the F test using a comparison of the F value with the F table show that the F value is 16.712 > F table 2.70. Based on statistical tests proving that H0 was rejected, it was concluded that there was an influence of dissemination by family (X1), health (X2) and processing and serving abilities (X3) on the interest in consuming fish-based foods in the community in Setu District.

Based on the results of the independent variables, it shows the value of t table with degrees of freedom (db) t = (α/2 ; n-k-1) t = (0.05:2 = 0.025 ; 100-3-1 = 95) . T table = 1.985. Partial hypothesis testing on variable X1 obtained a t value of 2.196 and a sig value of 0.001. So, with t value = 2.196 > t table (1.985) it can be concluded that the dissemination variable from the family influences the interest in consuming fish-based foods. The factor that determines the pattern of children's recognition of a variety of types of food is the pattern of parenting, one of which is parental feeding in the form of parental feeding (Dewajanti and Patricia, 2017; Untari et al, 2017). The pattern of parenting that is applied by the mother or parents to the child (Parental Feeding) is the behavior of parents which shows that parents feed their children through consideration or without consideration, such considerations as, age, child's needs, child's preferences and so on (Boucher, 2014). This habit is then unconsciously brought back by the child and influences preferences in choosing food (Untari and Satria, 2021).

In variable X2 it is known to have a t value of 0.698 and a sig value of 0.487 > probability of 0.05. With a t value of 0.698 <t table = 1.985, the health variable has no effect on the interest in consuming food. This shows that awareness of the nutritional content contained in fish-based foods is still not a concern for the community. Developing countries generally have malnutrition problems, where 80% of food energy consumed by people comes from carbohydrates (Almatsier, 2010; Sediaoetama, 2012). In Indonesia, the nutritional problem being faced is the problem of undernutrition but overnutrition problems are starting to emerge simultaneously (a double burden). An even

bigger problem is nutritional problems in certain age groups such as adolescents which, if left unchecked, will be passed on to the next generation (intergenerational impact) (Anwar, 2004; Yang Z, et al, 2016). In general, the adolescent age group is a period of nutritional vulnerability due to increased physical growth and rapid development. In addition, adolescents need sufficient energy to carry out various physical activities (Almatsier, 2010; Almatsier et al, 2011). Poor intake patterns will have an impact on growth and development that is not optimal, and are more vulnerable to chronic diseases such as cardiovascular disease. , cancer, and osteoporosis in adulthood (Yang Z, et al, 2016).

Whereas in the variable X3 it is known that the t value is 7.601 and sig. ,000. Thus, it can be concluded that the ability to process and serve fish-based food is one of the influential factors in increasing the interest of the community in consuming fish-based food (Ali et al, 2016). Processing and serving fish-based foods delights has its own challenges, considering that fish has a distinctive aroma that not everyone likes. Often the inability to process, adapt recipes and serve food made from fish, further distorts the preferences of the community in consuming fish-based foods.

CONCLUSION

Based on the results of the study, it was found that the dissemination of knowledge of food variations from the family and the ability to process and serve food are two important things in increasing the interest of the community in fish-based foods. The magnitude of the benefits of consuming fish from an early age on their cognitive abilities and the low rate of fish consumption in Indonesia, of course, can and needs to be improved. Dissemination of the benefits of nutritional content obtained from fish to mothers can be a solution to encourage the dissemination of knowledge of fish-based food variations to children. Children who are accustomed to consuming fish from an early age will enjoy the taste and aroma more, and will continue to get used to it until the child is an adult. In addition, information about the benefits of fish content can be used as learning material in preschool education as an introduction to nutrition to children from an early age. In addition, exploration activities on processing patterns, recipes and food preparation patterns can be improved so that variations in fish-based foods are not monotonous.

Reference

Ali,H.,Limakrisna, N.,Jamaluddin,S. (2016).MODEL OF CUSTOMER SATISFACTION : THE EMPIRICAL STUDY AT BRI IN JAMBI. International Journal of Applied Business and Economic Research, 14(6),p.3527-3534

Almatsier S. (2010). Prinsip Dasar Ilmu Gizi. Jakarta: PT Gramedia Pustaka Utama.

Azwar, A. (2004). Kecenderungan Masalah Gizi Dan Tantangan Di Masa Datang. Disamping dalam advokasi perbaikan gizi menuju kadarzi. Boucher, N. 2014. Feeding Style and The Body Weight Status of Preschool age Children. Kirby Mall : Elsevier

Almatsier S, Soetardjo S, Soekarti M. (2011). Gizi Seimbang Dalam Daur Kehidupan. Jakarta: PT Gramedia Pustaka Utama.

Badan Pusat Statistik. (2018). Konsumsi Kalori dan Protein Penduduk Indonesia dan Provinsi, Maret 2018. Badan Pusat Statistik.

Chan, C. Y., Tran, N., Dao, D. C., Sulser, T. B., Philips, M. J., Batka, M., Wiebe, K., &

Preston, N. (2017). Fish to 2050 in the ASEAN Region (No. 01)

Dewajanti, Maria dan Patricia. (2017). Hubungan pengetahuan, Sikap, perilaku Ibu tentang gizi dengan status gizi siswa kelas IV dan V di SDN Tarakanita Gading Serpong. Jurnal Kedokteran Vol. 23. No. 61.

Devi, Mazarina. (2004). Tingkat Pendidikan Ibu, Hubungannya dengan Perilaku Makan dan Status Gizi Siswa Sekolah Dasar. Bogor : Institut Pertanaian Bogor

Elmi,F.,Setyadi,A.,Regiana,L., Ali, H. (2016). EFFECT OF LEADERSHIP STYLE, ORGANIZATIONAL CULTURE AND EMOTIONAL INTELLIGENCE TO LEARNING ORGANIZATION On the Human Resources Development Agency of Law and Human Rights, Ministry of Law and Human Rights. International Journal of Economic Research, 13(8),p.3635-3654

Mukhtar., Risnita.,Saifillah,M,S.,Ali, H. (2016) EFFECT OF KNOWLEDGE MANAGEMENT AND WORK COMMITMENT TO EMPLOYEES SATISFACTION SERVICES (Study on Teacher Madrasah Aliyah Country Jambi Province). International Journal of Economic Research, 13(5),p.2251-2264

Erwin, P., & Karmini, N. (2012). Pengaruh Pendapatan, Jumlah Anggota Keluarga, dan Pendidikan Terhadap Pola Konsumsi Rumah Tangga Miskin di Kecamatan Gianyar. E-Jurnal Ekonomi Pembangunan Universitas Udayana, 1(1), 1-60.

Ridwan,M., Mulyani,S.R., Ali,H. (2020). Improving Employee Performance Through Perceived Organizational Support, Organizational Commitmentand Organizational Citizenship Behavior.Sys Rev Pharm,11(12):839-849

Sartika, Ratu Ayu Dewi. 2011. Faktor Risiko Obesitas Pada Anak 5-15 tahun di Indoneia. Depok : Departemen Gizi Kesehatan Masyarakat. Fakultas Kesehatan Masyarakat. Universitas Indonesia

Sayin, C., Emre, Y., & Tas, Y. (2014). Household Fish Consumption Tendency in Antaya Province. Journal of Academic Documents for Fisheries and Aquaculture, 2, 79–84.

Sediaoetama, A. (2012). Ilmu Gizi Jilid II Jakarta: PT Dian Rakyat.

Schneider, W., Niklas, F., & Schmiedeler, S. (2014). Intellectual development from early childhood to early adulthood: The impact of early IQ differences on stability and change over time. Learning and Individual Differences, 32, 156–162. https://doi. org/10.1016/j.lindif.2014.02.001

Syarief, F., Effendi, R., Azrin, A., Suroso I., & Untari, D.T. (2021). Selection of the Best Lecturer in Management Forum Indonesia Chapter DKI Jakarta with Analytical Hierarchy Process (AHP) Method, 18(Special Issue on Computing Technology and Information Management), 619-625

Tiffany, A. E., Mudzakir, A. K., & Wibowo, B. A. (2020). Analisis Tingkat Konsumsi Ikan Laut dan Faktor-Faktor yang Mempengaruhi pada Masyarakat Semarang. Journal of Fisheries Resources Utilization Management and Technology, 9(1), 25-34.

Tran, N., Rodriguez, U. P., Chan, C. Y., Phillips, M. J., Mohan, C. V., Henriksson, P. J. G., Koeshendrajana, S., Suri, S., & Hall, S. (2017). Indonesian Aquaculture Futures: An Analysis of Fish Supply and Demand in Indonesia to 2030 and Role of Aquaculture Using The AsiaFish Model.

Marine Policy, 79(February), 25–32. https://doi. org/10.1016/j.marpol.2017.02.002

Untari,D,T.,Satria,B.,Fikri,A.W.N.,Nursal,M, F.,Winarso, W. (2019). Technology, Social Media And Behaviour Of Young Generation In Indonesia; A Conseptual Paper. INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH, 9(04),p.986-989

Untari, D T & Satria, B. (2021). Integration of supply chain management to business performance and business competitiveness of food micro industry. Uncertain Supply Chain Management, 9(3), 705-710

Untari, D.T & Satria, B. (2019). Measuring website effectiveness in communicating tourism destinations in Jakarta, Indonesia. African Journal of Hospitality, Tourism and Leisure, 8(4), 1-16.

Untari, D.T. (2019). Asean tourist in bali, indonesia; trend analysis the implementation of mathematical methods in tourism sector. International Journal of Scientific and Technology Research, 8(12), 2117–2119

Untari, D.T. (2020). The role of information technology in promotion strategy. Case in taman mini Indonesia indah and ragunan, Indonesia. Journal of Environmental Management and Tourism, 11(4), 960-966.

Untari, DT, Avenzora, R., Darusman, D., & Prihatno, J. (2017). Betawi Culinary; multi-community socio-cultural framework in Jakarta. Advanced Science Letters. 23(9), 8519-8523

Ulpa, Zaida Rahma. (2018) Hubungan Antara Pengetahuan ibu dan pendapatan orang tua dengan status gizi anak SDN 02 Labuhan Haji. Jurnal Kedokteran Vol.1. No. 1-7.

Yang Z, et al. (2016). Nutrition in pregnancy and early childhood and associations with obesity in developing countries. 9 Jan 2013. Diunduh dari: http://www.ncbi.nlm.nih.gov/m/pubm ed/23167588/?i=6&from=/22742617/ related Diakses pada: September 2016.