

## Perceptions of "Tinuktuk" The Traditional Food The Simalungun Ethnic, North Sumatra

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### ABSTRACT

In the Simalungun Batak community, known and commonly consumed is Tinuktuk. Tinuktuk is a local Simalungun cultural heritage that is usually given to Simalungun women who have just given birth so that they are strong and able to care for their babies and provide optimal breastfeeding. This study aims to determine the public's perception of tinuktuk. The data collection method is divided into two, namely the online method using social media researchers and the direct method carried out in 3 villages in Simalungun Regency. The results obtained showed that more than half of the respondents obtained tinuktuk by buying it, consuming tinuktuk in the form of chili sauce or mixing it with soup. That tinuktuk makes the body warm and fresh, shows that the combination of ingredients for tinuktuk synergistically functions as an antioxidant. Of the 10 questions regarding perceptions of tinuktuk, 80% of respondents agreed. Tinuktuk needs to be popularized and developed in a practical form to be consumed at any time. Further studies are needed on the bioactive compounds contained in tinuktuk.

**Keywords:** tinuktuk, perception, traditional food

### INTRODUCTION

At this time people tend to choose food not only aspects of taste, but food is expected to maintain health, fitness, prevention of early aging, and decrease negative effects on the body (Judiono, 2017). According to Harmayani that Asia is rich in traditional foods, but there is an erosion of knowledge between generations which results in the younger generation being less familiar with traditional foods (Harmayani, E., Anal, A.K., Wichienchot, 2019). Many local food products in Indonesia have not been studied and developed, even though they have the potential to be functional foods (Gardjito et al., 2013).

In the Batak community of Simalungun, known and commonly consumed is Tinuktuk. Tinuktuk comes from the word "ti" which means "which" while the word "nuktuk" means "mash", so the meaning of the word tinuktuk is the smoothed one (Sianipar & Sihotang, 2010). Tinuktuk is Simalungun's local cultural heritage which is usually given to Simalungun women who have just given birth to be strong and able to take care of their babies and provide maximum breast milk (Hasairin, 2010). Although most tinuktuk is consumed by women who have just given birth,

tinuktuk can be used or consumed by anyone. How to consume it is eaten directly with side dishes, mixed in soup or drinks (S. N. Saragih & Pasaribu, 2021).

The material for making tinuktuk varies from region to region, as well as how to process it. There are ingredients that are processed or ground directly in a fresh state, some are roasted first. Next, the materials are ground on wooden or stone mortars. The ingredients used include kencur, red ginger/white ginger/yellow ginger, onion, garlic, black pepper, candlenut, chives, galangal, andaliman, dried pumpkin seeds, dried cucumber seeds, cloves, combrang fruit, lime/lemon, and salt (Damanik et al., 2021) (I. L. Saragih, 2020).

Some time after the COVID-19 pandemic, people are increasingly aware of the importance of maintaining health and immunity. Tinuktuk is widely discussed and is starting to be consumed again by the community, both new mothers and other age groups. Perhaps this is because considering the benefits of tinuktuk so far, which has long been consumed by the community, especially women who have just given birth. As is known new women need to recover and relieve fatigue, also at that time are breastfeeding and often awake at night to take care of their babies. People who lack sleep usually have a very decreased immune system. This study aims to determine the perception of Simalungun's ethnic traditional food tinuktuk.

## **RESEARCH METHODS**

The study was an observational study with a cross sectional design, conducted in 2021, data was collected using online and in-person methods. The online method was collected using the researcher's social media. While the direct method, data is collected directly in 3 villages, namely Saribudolok, Tigarunggu and Raya. The criteria for inclusion of respondents in the online method are more age equal to 17 years, have consumed tinuktuk, while the direct method, mothers of toddlers who come to the posyandu and have consumed tinuktuk.

In the online method, questionnaires are compiled in an online display and distributed to social media group networks for 10 days. On the information page, an explanation was prepared before the study and respondents were asked to choose whether or not to agree to participate in the research. If the respondent agrees, it will continue to fill in the instrument. Respondents are only allowed to fill in the instrument once and at the end get feedback that the answer has been recorded. Meanwhile, data collection was directly carried out in 3 villages/villages purposively for mothers under five who came to the posyandu. Mothers of toddlers are given questionnaires containing a number of questions and asked to answer them. The number of respondents who filled out answers on the online method was 66 people, and the direct method was 150 mothers of toddlers who answered the questions. The collected data is examined, completed and coded, and analyzed descriptively. This research protocol has been approved by the Health Research Ethics Commission of the Medan Ministry of Health's Poltekkes Number: 01.1589 / KEPK / Poltekkes Kemenkes Medan.

## **RESULTS AND DISCUSSION**

### **Characteristics of respondents**

The characteristics of respondents who answered the questionnaire with online and direct methods can be seen in table 1. In table 2 can be seen the distribution of respondents in the online method, respondents who gave responses to tinuktuk, namely the length of consuming the most is more equal to 4 weeks as much as 33.3%, and as many as 30.3% who consume less

than 1 week. As many as 59.1% of respondents get money by buying, almost as many as those who make their own. Furthermore, how to consume tinuktuk, as many as 50% of respondents stated that it was eaten as chili sauce. While the benefits felt after consumption of chili sauce spices tinuktuk is a warm and fresh body as much as 68.2%. While the direct method of consuming the most tinuktuk is more equal to 4 weeks. How to get followuktuk as much as 68% said buying. The method of consumption of tinuktuk is dominated by mixing into soup as much as 52%. The benefits felt as much as 52.7% stated the body was warm and fresh

**Table 1.** Characteristics of respondents based on online and in-person methods

No	Variable	Online methods		Direct method	
		n	%	n	%
1	<b>Province of residence</b>				
	Bantam	3	4,5	0	0
	Jakarta	6	9,1	0	0
	West Java	5	7,6	0	0
	East Java	1	1,5	0	0
	East Kalimantan	1	1,5	0	0
	Riau Islands	1	1,5	0	0
	Lampung	1	1,5	0	0
	North Sumatra	48	72,7	150	100
2	<b>Gender</b>				
	Man	7	10,6	0	0
	Woman	59	89,4	150	100
3	<b>Age</b>				
	<20 years	2	3,03	5	3,3
	20-30 years	5	7,57	66	44,0
	30-<50 years	30	45,5	79	52,7
	>=50 years	29	43,9	0	0
4	<b>Education</b>				
	Elementary/Junior High School	0	0	22	14,6
	School	6	9,1	74	49,4
	High School / Vocational School	25	37,9	34	22,7
	School	21	31,8	20	13,3
	IN/II/III	14	21,2	0	0
	S1				
	S2/S3				
5	<b>Work</b>				
	IRT	2	3,0	62	41,3
	PNS/Polri/TNI	38	57,6	11	7,3
	Lecturer/Teacher	10	15,2	8	5,3
	Merchant/farmer	2	3,0	56	37,3
	Private employees	10	15,2	13	8,6

Student	4	6,1	0	0
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**Respondents' perceptions**

Of the 10 questions about the respondent's perception of tinuktuk, the results were presented in table 3, namely the first 5 questions and then in table 4 for the next 5 questions. In table 3 can be seen respondents' perceptions of tinuktuk, from 5 questions, namely: tinuktuk is not village food, easy to obtain, good for all ages, very meaningful and important, respondents' answers more than half answered in the affirmative, both in online methods and direct methods. In the direct method, as many as 40% of respondents expressed doubts that tinuktuk was not village food. Likewise, in the online method, as many as 22.7% expressed doubt on the question that was easy to obtain, while the direct method 12.7% answered undecided. On the question of very meaningful and important, respondents answered in the affirmative above 89%

**Table 2.** Distribution of respondents based on the length of consumption, how to obtain, How to consume and perceived benefits

No	Variable	Online methods		Direct method	
		n	%	n	%
1	<b>Long time consuming</b>				
	<1 week	20	30,3	0	0
	1-2 weeks	10	15,2	0	0
	3-4 weeks	14	21,2	45	30,0
	>=4 weeks	22	33,3	105	70,0
2	<b>How to obtain</b>				
	Buy	39	59,1	102	68,0
	Make your own	27	40,9	48	32,0
3	<b>How to consume</b>				
	Added to drinks	3	4,5	12	8,0
	Mixed into soup	17	25,8	78	52,0
	Eaten as chili sauce	33	50,0	41	27,3
	Plus into the cuisine	5	7,6	15	10,0
	Combination	8	12,1	4	2,7
4	<b>Perceived benefits</b>				
	Warm and fresh body	45	68,2	79	52,7
	Increase appetite	16	24,2	34	22,7
	Increase immunity	2	3,0	2	1,3
	Increase milk production	3	4,5	35	23,3

**Table 3.** Distribution of respondents' perceptions of tinuktuk

No	Variable	Online methods		Direct method	
		n	%	n	%
1	<b>Tinuktuk is not village food</b>				
	Agree	48	72,7	80	53,3
	Disagree	12	18,2	10	6,7
	Nervous	6	9,1	60	40,0
2	<b>Tinuktuk is easy to obtain</b>				
	Agree	38	57,6	117	78,0
	Disagree	13	19,7	14	9,3
	Nervous	15	22,7	19	12,7
3	<b>Tinuktuk is good for all ages</b>				
	Agree	49	74,2	101	67,3
	Disagree	10	15,2	27	18,0
	Nervous	7	10,6	22	14,7
4	<b>Tinuktuk means a lot</b>				
	Agree	61	92,4	134	89,3
	Nervous	5	7,6	11	7,3
	Disagree	0	0	5	3,3
5	<b>Important tinuktuk</b>				
	Agree	59	89,4	135	90,0
	Disagree	1	1,5	11	7,3
	Nervous	6	9,1	4	2,7

In table 4, it can be seen in the online method that respondents agreed with more than 97% that tinuktuk tastes good and is free of chemicals, while the direct method is 92%. On the question of whether it is good for health, more online method respondents agree than direct methods, some even hesitate as much as 3.3%. Conversely, on the question of good nutritional value, respondents to the online method and directly answered in agreement as much as 80%, in the online method hesitated as much as 18.2% and the direct method as much as 14.7% disagreed. In the last of the 10 questions about tinuktuk perception, namely whether tinuktuk will still be consumed, online methods agreed as much as 89% and direct methods as much as 82%. Although the percentage is small, there are still respondents who are hesitant.

**Table 4.** Distribution of respondents' perceptions of tinuktuk

No	Variable	Online methods		Direct method	
		n	%	n	%
1	<b>Tinuktuk tastes good</b>				
	Agree	64	97,0	139	92,7
	Nervous	2	3,0	5	3,3
	Disagree	0	0	6	4,0

<b>2</b>	<b>Chemical-free action</b>				
	Agree	64	97,0	138	92,0
	Nervous	2	3,0	6	4,0
	Disagree	0	0	6	4,0
<b>3</b>	<b>Tinuktuk is good for health</b>				
	Agree	63	95,5	134	89,3
	Nervous	3	4,5	11	7,3
	Disagree	0	0	5	3,3
<b>4</b>	<b>Tinuktuk has good nutritional value</b>				
	Agree	53	80,3	122	81,3
	Disagree	1	1,5	22	14,7
	Nervous	12	18,2	6	4
<b>5</b>	<b>Tinuktuk will still be consumed</b>				
	Agree	59	89,4	124	82,7
	Disagree	3	4,5	18	12,0
	Nervous	4	6,1	8	5,3

### Respondent characteristics

Respondents to the online method who live in 9 provinces in Indonesia, indicate that information and consumption of tinuktuk have been spread. More women responding is natural because indeed in terms of providing food in the household that is common is women, so it is easier to respond. In general, someone who has a higher education, be it formal or informal education, will have a broader insight than someone who has a lower education (Mahendra, 2014). The level of education will also affect a person's perception (Normadewi & Arifin, 2012).

The duration of continuous consumption of more than 4 weeks shows that tinuktuk has been included in the respondent's food menu. In respondents of mothers of toddlers who almost entirely consumed more than 4 weeks. It turns out that more respondents get tinuktuk by buying, indicating that respondents want to consume and want to be available for tinuktuk that is ready for consumption. This shows the opening of opportunities for the promotion of tinuktuk that is ready for consumption, maybe even innovative products that are ready for consumption. That tinuktuk is consumed as chili sauce or mixed into soup, shows the traditional way of consuming tinuktuk. Perhaps if tinuktuk is packaged in the form of ready-to-consume drinks such as drinks that are found in many minimarkets, then tinuktuk will be better known and become one of the choices of health drinks.

What most respondents felt after consuming tinuktuk spice sauce, namely warm and fresh body, was clearly related to secondary metabolites or bioactive compounds found in the herbs and spices of the tinuktuk recipe formulation ingredients. In ginger, black pepper, onion, garlic, kencur, turmeric, andaliman, lemongrass, ginger, combrang, cloves there are phenolic compounds, flavonoids, alkaloids, saponins, terpenoids (Parthasarathy, Va. & Zachariah J., 2008)(Shahidi & Hossain, 2018) (Wang et al., 2021) (Nooreen et al., 2017). In addition, candlenut contains linolenic fatty acids, arachidic acid, and palmitic acid (Wikipedia, 2022). According to (Peter, 2012) herbs and spices as an excellent source of natural antioxidants. It is likely that tinuktuk consumption contributes to daily antioxidant intake, thereby lowering oxidative stress

and balancing free radicals in the body, which in turn keeps the body fresh. Phenolic compounds are the main antioxidants present in spices.

### **Respondents' perceptions**

Each person's perception of an object will vary, therefore perception has a subjective nature. Perception is a process that arises due to sensation, where the understanding of sensation is the activity of feeling or causing an uplifting emotional state. Perception is formed by a person influenced by the mind and surrounding environment (Setiadi, 2015). In this study respondents answered 10 questions about tinuktuk, the first 4 questions many respondents did not agree and hesitated. While the next 6 questions respondents who agreed above 80%. On the question of tinuktuk is not village food, on online and direct methods, many are hesitant. The answer illustrates that respondents are not yet fully convinced that tinuktuk is known and consumed by many people who live in cities. Still have the assumption that tinuktuk is only consumed by village people. This shows that tinuktuk needs to be promoted in order to be known and consumed by many people. The perception of village food is probably due to lack of marketing and education to the community, also due to the global food invasion which is currently very easy to find. This is in line with (Damanik et al., 2021) Tinuktuk suggests that it be developed into other products that are easy to obtain and consume.

Furthermore, the follow-up questions easily obtained in the online method illustrate that respondents have difficulty getting tinuktuk when needed. Although tinuktuk has been widely sold online, perhaps respondents want tinuktuk to be available without having to order, as easily as buying drugs or vitamins at pharmacies. In contrast to the perception of mothers of toddlers because they live in 3 villages where the study is located, it is known that once a week there is a week/market in the village, and tinuktuk is traded in that week/market. Likewise, on the question of whether tinuktuk is good for all ages, respondents disagree and doubt may be due to the spicy taste of tinuktuk derived from spices. Research (Kutresnaningdian & Albari, 2012) Proving that health awareness and attention to food safety have a positive effect on consumer attitudes. Health awareness affects buying interest in foods that are considered to improve health (Pebrianti & Rosalin, 2021).

### **CONCLUSION**

The empirical experience of the Simalungun community that tinuktuk is very beneficial for health, especially for women who have just given birth may affect the perception of respondents in this study. In ancient times, although many children, even gave birth without medical assistance, the mother remained healthy and strong. That respondents want tinuktuk to be easily available for purchase and consumption needs to be facilitated. Furthermore, more in-depth studies that prove that tinuktuk can increase immunity need to be done, with the hope that perceptions about tinuktuk will increase. The taste of tinuktuk makes the tongue "tremble" and increases appetite. For Simalungun people who live in Simalungun Regency Villages, tinuktuk is very necessary, especially for those who farm, requiring them to work very hard and often exposed to rain. A strong and fit body is very supportive of them in carrying out daily activities.

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