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Nutritional Status and Food Intake Behavior of Salty Food and Snack in Children

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Abstract: Background: Food intake and salty food preference behaviors surveyed in children 6 months to 6 years of ages at the Pediatric Clinic, Suranaree University of Technology Hospital in 2015-2017 with the questionnaire by trained interviewers. Nutritional assessment made according to national criteria of Weight for Age, Height for Age, and Weight for Height. The food frequency questionnaires recorded including snacks and salt added foods. Sodium intake calculated by the Immucal Thai program. The Pearson product-moment correlation used to determine the relationship between nutritional status and salt intake behavior.

Results: Four hundred children enrolled in the study. The age group classification was 0-6 months, 7 months-3 years and over 3-5 years old group, which accounting for 8.5, 13.0, 48.8 and 29.8% respectively. The first time of complementary feeding were the crushed rice 32.7%. Child salty taste favoring behavior from parent perception was 32.5% from the interview questions. The data from food frequency questionnaire found child eating snack was 32%. The average daily sodium intake was higher than the requirement for children aged 3-5 years group (980±1200 milligrams/day). Obesity prevalence was 8.5% and stunting prevalence was 9.5%. No significant relationship was showed between the nutritional status and salty food favoring behaviors.

Conclusion: The sodium intake from salt added foods and snacks was higher than the requirement for preschool children. Limitation of salty food intake in toddler and preschool children must be encourage in routine childcare including the pediatric clinic, school, and communities.

Key words: food behavior, salty food and snack, children, and nutritional status

1. Introduction

The top cause of death all around the world is cardiovascular disease. Salt reduction diet, fruits and vegetables intake, regular physical activity, avoiding use of alcohol and no smoking have been shown to reduce the risk of cardiovascular disease. The main source of sodium in our diet is salt. Most people consume too much salt around twice the recommended maximum level of intake. An estimated 2.5 million deaths could be prevented each year if global salt consumption were reduced to the recommended level. Reduce the global population's intake of salt by a relative 30%, by 2025 is World Health Organization (WHO) member state agreement. The recommendation for adults, consume less than 5 g (just under a teaspoon) of salt per day. For children: WHO recommends that the recommended maximum intake of salt based on their energy requirements. This recommendation for children does not address the period of exclusive breastfeeding (0-6 months) or the period of complementary feeding with continued breastfeeding

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(6–24 months) [1]. Based on the Thai Recommend Daily Intake (Thai RDI), recommended sodium requirement for infant to 5 months depend on breast milk, 6-11 months, 1–3-year-old and 4–8-year-old should be approximately 175-550 mg/day, 225-675 mg/day (not exceed 1500 mg/day), 300-950 mg/day (not exceed 1900 mg/day) [2]. Childhood nutrition affects health. The first 2 years of a child's life are particularly important, as optimal nutrition and social interaction during this period lowers morbidity and mortality, reduces the risk of chronic disease, and better growth and development outcome. Early initiation of breastfeeding within 1 hour of birth, exclusive breastfeeding for the first 6 months of life, and introduction of adequate and safe complementary foods at 6 months together with continued breastfeeding up to 2 years of age or beyond are the recommendation. However, many infants and children do not receive optimal feeding. For example, only 44% of infants aged 0-6 months worldwide were exclusively breastfed over the period of 2015-2020 [3]. Many evidence were shown improper infant and toddler feeding around the world [4, 5].

National policy was adapted and developed for infants and children health. Few studies have been conducted in northeast Thailand that can contribute to our understanding of the food behavior of salty food and snack in children, parental perception and salt added ingredients in food process behaviors potentially leading to this early childhood nutrition. Our aim was to evaluate food behavior of salty food, snacks, and assessment nutritional status for children in northeast Thailand. Another propose was encourage salt limited food in routine child clinic, school, and communities.

2. Material and Methods

Food intake and salty food preference behavior were a cross-sectional surveyed in children 6 months to 6-year-old at the Pediatric Outpatient Department (OPD) of Suranaree University of Technology Hospital, located in Nakhon Ratchasima province, North-east Thailand in 2015-2017 via a questionnaire with trained interviewers. The protocol was approved by the Human Ethics Committee of Suranaree University of Technology (EC-56-5). All parents or caregivers gave a written informed consent. 400 participants were randomly selected. Nutritional assessment was made according to national criteria for Weight for Age, Height for Age and Weight for Height. The food frequency questionnaire recorded snacks and salt added in foods. Sodium intakes were calculated by the Immucal Thai program (Mahidol University).

2.1 Definition

Nutrition assessment and classification: Criteria from the standards of the National Center for Health Statistics (NCHS, 1977) and Thailand weight for age z-score and height for age z-score criteria, Department of Health, Ministry of Public Health, Thailand (1999). The classification of the z-score for the height for age (H/A), weight for age (W/A) and weight for height (W/H) scores was measured and evaluated. Nutritional status was evaluated into grouping; Height for Age: H/A (Tall, H/A >+2 SD, Slightly tall, H/A >+1.5 SD - +2 SD, Normal height, H/A -1.5 SD to +1.5 SD, Slightly short, H/A <-1.5 SD to -2 SD, and Stunting, H/A <-2 SD), Weight for Age: W/A (Obesity, W/A >+2 SD, Overweight, W/A >+1.5 SD to +2 SD, Normal weight, W/A -1.5 SD to +1.5 SD, Underweight, W/A <-1.5 SD to -2 SD, Wasting, W/A <-2 SD), Weight for Height: W/H (Morbid obesity, W/H >+3 SD, Obesity, W/H >+2 SD to +3 SD, Overweight, W/H >+1.5 SD to +2 SD, Appropriate, W/H -1.5 SD to +1.5 SD, Slightly thin, W/H <-1.5 SD to -2 SD, Thin, W/H <-2 SD).

Recommended sodium requirement for infant to 5 months depend on breast milk, 6-11 months 175-550 mg/day, 1–3-year-old 225-675 mg/day, not exceed 1500 mg/day, 4–8-year-old 300-950 mg/day, not exceed 1900 mg/day [2].

Snack and salt ingredients added food intake recorded by the trained interviewer for food frequency

and amounts in the questionnaires.

Salty food favoring behavior in children was recorded from the answer from perception of parents to children's liked behavior.

3. Results and Discussion

A total of 400 children aged between 0-5 years were enrolled in this study. We classified follow the caretaker of children who answered the questionnaire into mother (79%), father (11.6%), and teacher (7.1%). The majority of correspondents were female (42.8%). The children's ages are 0-6 months, 7 months- 3 years, over 3-5 years accounting for 8.5, 13.0, 48.8 and 29.8%, respectively. Preterm delivered was 12.8%, low birth weight was 9.4%, macrosomia was 13.2%, no underlying disease was 89.5%. Nursing care entry was 13.9%, school entry was 38.7%. Onset of antenatal visit before 12 weeks was 85.8%, Child underlying disease was 10.7%, Sibling was 30.9%, Underlying disease of Family was 57.4% (mostly hypertension and diabetes mellitus), Number of family member mostly 4-6 peoples (66%) and family income is average 54,250 bath per month. Demographic information of correspondents was shown in Table 1.

Table 1 Demographic Information of participant.

Information	Number (n = 400)	%
Respondents		
Mother	312	79.0
Father	46	11.6
Cousin	9	2.3
Teacher	28	7.1
Sex		
Female	171	42.8
Male	226	56.5
Age		
0-6 month-old	34	8.5
7-11 month-old	2	13.0
1-3 year-old	195	48.8
> 3–5-year-old	119	29.8
Gestational age		
Term	348	87.2
Preterm	51	12.8
Onset of antenatal visit		
Before 12 weeks	333	85.8
After 12 weeks	55	14.2
Abnormal Antenatal Care		
No	354	88.9
Yes	44	11.1
Birthweight		
< 2500 g.	37	9.4
> 2500-3500 g.	305	77.4
> 3500 g.	52	13.2
Underlying disease		
No	349	89.3
Yes	42	10.7
Sibling		

Information	Number (n = 400)	%
No	273	69.1
Yes	122	30.9
Nursery entry		
No	340	86.1
Yes	55	13.9
School entry		
No	241	61.3
Yes	152	38.7
Underlying disease of Family		
No	170	42.6
Yes	229	57.4
- Hypertension	152	
- Diabetes Mellitus	115	
- Cardiovascular disease	16	
- Others	58	
Number of family member (peoples)		
1-3	85	22.8
4-6	246	66.0
7-10	39	10.5
> 10	3	0.8
Family income (THB per month)		
< 9,000	16	4.2
>9,000-18,000	53	13.8
>18,000-30,000	92	23.9
>30,000- 60,000	142	36.9
>60,000-100,000	52	13.5
> 100,000	30	7.8

3.1 Food Behavior in Children

Data correction from the questionnaire, the children had no vegetable intake 15.9%, had no fruit intake 9.2%, had fast food intake 47%. At birth, 94% of infant fed with breast milk. For the percent of breast milk intake longer until 6 months (exclusively breastfeeding) accounted for 19%. Average breast-feeding time for all subjected was 6.78±4.87 months, terminated breast milk feeding at 3 and 6 months were 14.8% and 12.5%, respectively.

Type of the first time started complementary foods in this study were a crude rice, crude banana, instant food in 34.1, 32.2, and 18.8%, respectively as in Table 2.

3.2 Salty Food Favoring Behavior in Children

Child salty taste favoring behavior from parent perception determined by interview was 32.5%, and child eating snack behavior 32%.

Added salt ingredient prevalence in age 0-6 months, 7-11 months, 1-3 years and 3-5 years were 3.7%, 12.2%, 15.9%, and 25.7% respectively. Snacks eating behavior prevalence in age 0-6 months, 7-11 months, 1-3 years and 3-5 years were 8.8%, 23.1%, 74.9% and 93.3%, respectively. Amount of sodium intake per day from the sum of amount from added salt ingredient in age 0-6 months, 7-11 months, 1-3 years and 3-5 years were 256.2±494.51 mg, 389.61±768.60, 743.28±767.73, 979.65±1207.45, respectively.

The preschool children in 3-5-year-old age group have the highest prevalence in salty and sweet added ingredients in 25.7 and 22. 3 percent, respectively. Average sodium intake from salt added ingredient per day is 85.66±158.25 mg/day in 3-5-year-old age group. Additional data in this age group has the highest prevalence of snack like behavior and average sodium intake from snack is 55.25±34.21 mg/day, too. In the sum of sodium from ingredient and snack is 979.65±1207.45 mg/day in 3-5-year-old age group that show more than Thai Recommend Daily Intake (Thai RDI). Sodium intake from salt ingredient added and snack was shown in Table 3.

Table 2 Milk, complementary food and snack behavior.

Milk, complementary food and snack behavior	No. (%)
Breast feeding at birth	
Exclusive Breast feeding	79 (19.5)
Breast feeding and infant formula	297 (74.2)
Infant formula	20 (5.1)
Complementary food (The first time)	
Crushed rice	131 (34.1)
Crushed banana	124 (32.3)
Brand complementary food	72 (18.8)
Others	57 (14.8)
Child salty like behavior from parent perception	130 (32.5)
Eating Snack Behavior	128 (32)

Table 3 Sodium intake from ingredient added and snack in each age group and dietary recommended intake (DRI) for age.

Age	Sodium intake (mg./day)			Total
	DRI	Ingredient Added	Snack	
0-6 Month	Breast milk	249.11±491.05	5.7±19.88	256.2±494.51
6-11 Month	175-550	377.26±767.41	11.69±30.23	389.61±768.60
1-3 Year	225-675	703.91±766.66	38.49±36.63	743.28±767.73
3-5 Year	300-950	924.48±1202.17	55.25±34.21	979.65±1207.45

Available online at: http://www.li.mahidol.ac.th/webportal/category.

Table 4 Nutritional status and salty behavior preference.

	Nutritional status					Salty behavior preference Correlation Coefficient (r)	p-value
	Boy N (%)	Girl N (%)	Total N = 378 (%)	SUT 2013 % 1-6 year [6]	Thailand 2014 % 1-5 year [7]		
Underweight	11 (5.0)	7 (4.2)	18 (4.7)	4.3	5.5	-0.218	0.400
Wasting	23 (10.6)	11 (6.9)	34(9.0)	5.7	5.6	-0.016	0.935
Stunting	16 (7.3)	15 (9.1)	31 (8.1)	8.9	5.4	0.060	0.751
Obesity	26 (11.9)	6 (3.8)	32 (8.5)	9.2	6.2	0.031	0.870

*$p < 0.05$ considered significant

3.3 Nutritional Status

Nutrition assessment using the z-score for the height for age (H/A), weight for age (W/A) and weight for height (W/H) scores were evaluated according to the standards of NCHS (1997) and Thailand weight for age z-score and height for age z-score criteria, Department of Health, Ministry of Public Health (1999). We found the prevalence of underweight was 4.7%, wasting was 9.0%, obesity was 8.5%, stunting was 8.1%. Boys has more

prevalence of malnutrition in all aspects than girls. Nutritional status was shown in Table 4.

Nutrition status, weight for age, height for age, and weight for height and salty food favoring behavior by Pearson Correlation. No significant relationship was seen as shown in Table 4.

3.4 Discussion

Breastfeeding is one of the most important nutrition for the development of quality of humans' life from the time of birth. Thailand set the goal relevance to the WHO goals[1] and now Thailand facing a low rate of breastfeeding, because mothers are relying more on powdered milk. We found exclusive breast-feeding until 6 months in this study was only 19.5%. This result was not differed from the Multiple Indicator Cluster Surveys (MICS) in 2015-2016, 23.1%, which is the lowest rate in Asia. Compare with the data from Bureau of Health Promotion which Thailand exclusive breast feeding rate was the lowest rate in southeast Asia (Vietnam, Malaysia, Philippine, Lao, Indonesia and Cambodia had the exclusive breast-feeding rate 24.3, 29, 34, 40.4, 41.5 and 65.2%, respectively) [8]. The others studies showed factors related stop breast-feeding needed support from professional, media exposure for powered milk or prenatal meetings developments and the attuite in woman should work outside [9].

The recent national policy by the Ministry of Public Health includes maternity leave (3 months), mandatory code of marketing of breast milk substitute ("Milk Code Act"), supervision for breastfeeding supports in health service system, capacity building of health personnel and lactation support management, breastfeeding place in workplace, and public awareness campaigns. Enthought implementation the policy, in many area for practice is needed to strengthen program implementation through build behavior culture in the Thai context [10].

Type of complementary foods in this study were crude rice, crude banana, instant food in 34.1, 32.2, and 18.8%, respectively. These results were the same as 2011 in the research in the area around Suranaree university of Technology university [6] which as the recommendation from Thai complementary feeding guideline 2009[2]. However, some instant food has sweet favor that may cause sweet intake behavior and developed chronic disease in the future. The use of complementary foods also appears to be delayed in FITS 2008 compared to 2002 data. Significant reductions in the percentage of infants and toddlers consuming any desserts or candy, sweetened beverages, and salty snacks were seen in 2008. Fruit and vegetable consumption remains lower than desired [4].

In this study, vegetable prefer in children was around 41.1% and no vegetable intake was around 15.9%. Same as the previous national survey on vegetable intake for children 0-5 year-old reported that vegetable intake in Thai children less than 1 standard portion per day was 74.8% and fruit intake less than 1 standard portion per day was 54.8% [7].

National Health Examination Survey [NHES] in 2017, Thailand still has double malnutrition [7]. In the past from 1995 to 2018, prevalence of malnutrition was decreasing in the aspect of stunting, underweight and wasting, oppositely with increasing obesity prevalence. The communities survey around Suranaree university of technology in 2013 [6] versus this study 2018 has nearly malnutrition prevalence, prevalence of stunting 8.9 vs 8.1, obesity 9.2 vs 8.5 wasting 5.7 vs 9.0, underweight 4.3 vs 4.7, respectively due to the subjects are the same area of selection. Comparing nutritional status by gender. In this study we found prevalence of obesity, underweight, wasting and stunting prevalence in boy more than girl. National surveyed data in 1-5-year-old demonstrated that boy and girl have nearly prevalence

[1] Available online at: http://hp.anamai.moph.go.th.

[2] Available online at: http://www.pednutrition.org/books.

in obesity, underweight; boy more than girl, wasting; girl more than boy, stunting; boy more than girls [7].

Most young children are in childcare and school, we found 13.9% entries in childcare center, 38.7% in school. Child-care centers and schools are the important places for provide healthy food for children. Surveyed nutritional quality of meals compared to snacks in child-care centers in two urban counties of southwestern Ohio still lack whole fruits and low carbohydrate vegetables and contain added sugars and fats [5].

Based on the Thai Recommend Daily Intake (Thai RDI), recommended sodium requirement for infant to 5 months depend on breast milk, 6-11 months, 1-3-year-old, 4-8-year-old should be approximately 175-550 mg/day, 225-675 mg/day, (not exceed 1500 mg/day), 300-950 mg/day (not exceed 1900 mg/day) [2]. In average, complementary food as instant food contain sodium in average 100-180 mg per 100 grams, crispy snacks contain sodium in average 495 mg per 100 grams. In the way, if the children always have intake of instant food or crispy snacks addition to food, the sodium intake will over the dietary reference intake for age and leading to the cause of cardiovascular diseases in the future.

In this study, we had the limitation of information from 24-hour dietary records to calculated exact fiber and sodium intake from meal and snack so in this study analyze for sodium added from ingredients and snack. Our study showed the data for added salt and sugar in 3-5-year-old group had the highest prevalence in age (25.7 and 22.3% respectively). The average daily sodium intake calculated by Immucal program form the salt added in ingredients added food and snacks intake, the sodium intake was higher than requirement for age in the 3-5 years old age group (980±1200 milligrams/day) as in Table 3.

The snack intake in children in this study is the same as previous studies which suggest that children may receive insufficient vegetables, foods and beverages with added sugars, fats, and sodium. In childcare center, sweet and salty foods at snack 3 times per week, but rarely at lunch [5, 11, 12]. Thailand has the Network of "Thai children do not eat sweet" which surveyed snack for children in 2014 presented favor snack for children are crisps, ice cream and sweet soda. High calories from carbohydrate and fat more than recommendation from Food, candy, milk and beverage classification guide according to the nutritional standards for children[3]. Environmental survey for food at the schools and around the schools, food behavior for school age children 2013-2014. The subjects were 1245 schools in 51 provinces. Factors related overweight were many aspects, for examples; no computer-based calculation for lunch (1.13 times), insufficient budgets (1.07 times), breakfast at school (1.23 times), and biscuit sell at the schools (1.21 times). In northeast, the prevalence of crispy snack, juice, seaweed and sweet beverage sale at the school 25%, more than the others part of Thailand. The urban school sell the crispy snack, a half by own school and a half by outsources.[13]

We found some surprising unappropriated snack behavior, the started time for intake of crispy snack was in 3-6-month-old in 3 subjects. Important insights to the content of messages and create effective type of interventions that are still needed to improve the diets of infants and toddlers. as in some previous study in 2014, the breakfast, lunch, and dinner pattern, plus snacks, emerged at 7 to 8 months and was well established by 9 to 11 months [14]. National and state organizations' policies related to the nutritional quality of snacks served in after-school programs (ASP; 15.00-18.00 hours) in the USA. The most widely recognized snack policy was the US Department of Agriculture (USDA) reimbursement programs which endorsed serving fruits/vegetables, whole grains and milk/dairy products, and limiting foods high calories (fats and energy) and sugar [15].

[3] Available online at: http://nutrition.anamai.moph.go.th.

Eating behavior results from the interplay of multiple influences across different contexts. An ecological framework depicting the multiple influences on what people eat including individual, social environment, physical environment, and macrolevel environments that all interact, both directly and indirectly, to impact eating behaviors [16]. Strategies for salt reduction should be include government policies, salt consumption at home. Salt consumption at home ex. not adding salt during the preparation of food, not having a salt shaker on the table, limiting the consumption of salty snacks, choosing products with lower sodium content [1]. Other local practical actions ex. integrating salt reduction into the training curriculum of food handlers, removing salt shakers and soy sauce from tables in restaurants, Introducing product or shelf labels is making it clear that certain products are high in sodium, providing targeted dietary advice to people visiting health facilities, advocating for people and educating children and providing a supportive environment for children so that they start early with adopting low salt diets [1]. The all strategies should be recognizing by professional and repeating encourage in the setting of health care visiting for the parents and family members. Implementation for eating behavior in children should be evaluate of nutrition environments and the need for action to improve health.

4. Conclusion

We concluded that added salty ingredients and snacks still play a critical role in the dietary intake of children. Community caregivers professional need to consider cultural the differences when developing meal and snack patterns and cooperate with the national strategies of health in children. Furthers study, strategies for salt reduction for children should be monitoring and evaluating.

References

[1] WHO, Salt reduction 2020, updated 29 April 2020, available online at: https://www.who.int /news-room/fact-sheets/detail/salt-reduction.

[2] The committee established the daily nutritional requirements for Thai people: Daily nutrient intake, in: Supranee Jangbumrung PS, Prapasripuwasathien, Benjaluck Phonrat, Uraiporn Jitjang, Supatchara Nopachinda et al. (Eds.), *Thai People Daily 2003*, Bangkok: Printing House, Shipping and Package Organization (ROP), 2003, pp. 21-26.

[3] WHO, The World Health Organization's infant feeding recommendation 2020, updated 24 August; cited 2021 24 Jan., available online at: https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding.

[4] A. M. Siega-Riz, D. M. Deming, K. C. Reidy, M. K. Fox, E. Condon and R. R. Briefel, Food consumption patterns of infants and toddlers: where are we now? *Journal of the American Dietetic Association* 110 (2010) S38-51.

[5] K. A. Copeland, S. E. Benjamin Neelon, A. E. Howald and K. S. Wosje, Nutritional quality of meals compared to snacks in childcare, Childhood Obesity 9 (2013) (3) 223-232.

[6] N. Uengarporn, Prevalence and Factors associated with Nutritional status of Pre-school children in area of Suranaree University of Technology, *Thai Journal of Pediatrics* 2556 (52) 70-82.

[7] W. Aekpalakorn, *National Health Examination Survey Report: Child Health*, 2017.

[8] P. Apartsakun, Value of breastfeeding in Thai mothers: Nursing roles, *Journal of The Royal Thai Army Nurses* 19 (2018) Supplement May-August.

[9] K. A. Bonuck, M. Trombley, K. Freeman and D. McKee, Randomized, controlled trial of a prenatal and postnatal lactation consultant intervention on duration and intensity of breastfeeding up to 12 months, *Pediatrics* 116 (2005) (6) 1413-1426.

[10] P. Winichagoon and O. Damrongwongsiri, Breastfeeding situation, facilitators and obstacles, policy and program to promote breastfeeding in Thailand, *Journal of Nutrition Association of Thailand* 55 (2020) (1) 66-81.

[11] John Willman, Salty snack attack on Europe: John Willman on Frito-Lay's $20m campaign to get people to eat more tortilla chips, *Financial Times*, Feb. 2, 1998.

[12] J. Allshouse, B. Frazao and J. Turpening, Are Americans turning away from lower fat salty snack? *Food Review* 25 (2002) (3) 38-43.

[13] Report of environmental survey for food at the schools and around the schools, food behavior for school age children 2013-2014: Food and Nutrition Policy for Health Promotion Program, FHP, Food and Nutrition Policy for Health Promotion Ministry of Public Health, 2014, available online at:

http://ihppthaigov.net/DB/publication/attachresearch/342/chapter1.pdf.

[14] J. D. Skinner, P. Ziegler, S. Pac and B. Devaney, Meal and snack patterns of infants and toddlers, *J. Am Diet Assoc.* 104 (2004) (1 Suppl 1) s65-70.

[15] M. W. Beets, F. Tilley, Y. Kim and C. Webster, Nutritional policies and standards for snacks served in after-school programmes: A review. Public *Health Nutr.* 14 (2011) (10) 1882-1890.

[16] M. Story, K. M. Kaphingst, R. Robinson-O'Brien and K. Glanz, Creating healthy food and eating environments: policy and environmental approaches, *Annual Review of Public Health* 29 (2008) 253-272.