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# RELATIONSHIP BETWEEN FOOD SKILLS AND HEALTHY FOOD PREFERENCE AMONG THE FEMALE ADOLESCENT IN ENUGU STATE, NIGERIA

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## ABSTRACT

Previous studies have underscored the relevance of healthy food choices. However, the increasing dependence on convenient food among individuals at a younger age requires further inquiry on food choice. The present paper examined the relationship between food skills and healthy food preferences among adolescents. The participants comprised one hundred and ten (n=110) female students pooled from public and private tertiary institutions in the Enugu state of Nigeria. The respondents completed self-report measures. A correlational research design was employed for the study. The data collected from the respondents were analyzed using the statistical package for social sciences (SPSS version 23). A Pearson's product-moment correlation was performed to determine the correlation between food skills and healthy food preference. The analyses a statistically significant, moderate positive correlation between food skills and healthy food preference, r (108) = .41, p < .001. The result indicated that food skills explained about 21% of the variation in healthy food preferences.

KEYWORDS: FS, HFP, females, adolescents

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### BACKGROUND

In recent years, eating behavior in adolescents has attracted research attention (El-Shahed et al., 2019). Also, the increasing contracted growth across many societies has propelled much research (Ishak et al., 2016). Good eating behavior in the teenage years creates the path for healthy development and intellectual growth (Centre for Disease Control, 2011; Ishaq et al., 2020; Staner, 2004; Verma et al., 2016) and averts health-related issues in later life. Indeed, instilling healthy eating behavior in adolescents is challenging (Barwood et al., 2020). Still, the dietary status of young people is commonly described as an essential component in later health and well-being (Wrottesley et al., 2020). Similarly, disparate studies suggest that poor eating behavior and lack of quality nutrition in adolescence have long-term health and developmental consequences (Christian, 2017; Jenkins & Horner, 2005; Konwar et al., 2019; Misra, 2010; Prangthip et al., 2021). In particular, adolescent food behaviors are critical in modern-day society owing to improved nutrition shifts. Indeed, food behaviors acquired in the early years tend to be stable through adulthood. Also, adolescents' eating behavior in recent years has increasingly transited into a formless eating pattern, with convenient foods and outdoor meals emerging as a preference (Ishak et al., 2020). The nutritional quality of diets and food preference of many adolescents has raised concerns among dieticians and nutritionists.

Food choice describes an individual's deliberated pattern of sourcing and eating food. It involves obtaining, cooking, storing, dispensing, and eating foods (Sobal et al., 2006). Thus, food choices relative to diet represent a determinant of individual health status (Souza et al., 2016). Accordingly, food choice is operationalized in this paper as the preference between healthy homemade meals and ultra-processed fast foods. Growing evidence suggests that the universal food systems and food supply have significantly affected the food choice of most individuals, resulting in a shift toward the increased intake of unwholesome food (Jacka et al., 2014). Hence, Zobel et al. (2016) noted that the change in the global food industry had impacted the food ecosystem. For instance, the ultra-processed food's low-priced, easy access, and marketing strategies have suggestively influenced food preferences (Crino et al., 2015; Thavarajah, 2018). Similarly, Demmler et al. (2018) stressed that the ever-increasing presence of superstores in most developing countries might affect consumer food choices and impact nutritional outcomes. The trend provides a cycled relationship between food such a discussion of processed foods and obesity, including increased body mass index (Monteiro et al., 2013; Crino et al., 2015; Poti et al., 2017).

Research in Nigeria has emphasized the growing trend of preference for ultra-processed foods, including fast foods, snacks, and fizzy drinks (Adedini, 2015; Adegboye et al., 2016; Arisukwu et al., 2019; Arulogun & Owolabi, 2011; de Brauw & Herskowitz, 2021; Olusanya & Omotayo, 2011; Mapis, 2020; Mekonnen et al., 2021; Opara et al., 2010; Sosanya et al., 2021). This implies poor nutritional knowledge and the need for continued exploration of correlating variables. Perhaps, homemade foods are linked to improved diet quality and weight control (Wolfson et al., 2020). Nevertheless, several factors such as time, social norms, peer influence, modeling, and perceived affordability of healthy products impact food choices, especially among young people. However, a growing insinuation suggests that most young people lack the necessary skills to prepare homemade nutritional food (Soliah et al., 2012).

Hunger assumes the principal factor governing the motive for eating. However, nutritional and physiological needs are not necessarily the only determinant of eating motivation. The process of making meals and the characteristics associated with foods are essential components in deciding food preferences. Food skills (FS) entail the overall knowledge that enables an individual to choose and process nutritionally balanced, satisfying, and age-appropriate meals with available ingredients (Kennedy et al., 2019; McGowan et al., 2017; Perry et al., 2017; Vidgen & Gallegos, 2014). Indeed, food skills encompass several mechanisms relative to preparing food, including nutritional mindfulness, health-related concerns, budgeting, planning, and considerations for safety (Kennedy et al., 2019; Vidgen & Gallegos, 2014). Previous reports indicate that improved food skills exacerbate better nutrition. The lack of adequate food skills might negatively impact healthy eating and promote obesity, especially among young females.

There are increasing concerns about the declining consumption of homemade foods among younger individuals in contemporary society. Healthy food preference (HFP) entails the propensity to select healthy dietary meals. Food preferences are a primary basis of dietary intake and behaviors, and they persist from early childhood into later life. Acquiring preferences for healthy foods at a young age seems promising in improving the quality of diets and encouraging a healthy lifestyle. However, HFP has been increasingly declining in recent times. Though the trend is widespread across gender, the present paper is concerned with female adolescents. Indeed, females are more widely considered kitchenfriendly than males and the primary provider of family meals (Nelson & DeVault, 1992), hence the common consensus that they must be accustomed to cooking. Regrettably, many young girls fail to embrace the culture of making nutritionally balanced meals, which seems economical. Indeed, the food business has responded by increasing the supply of plentiful convenience food. However, the increasing consumption of these convenience products reduces the time and frequency of making homemade meals from essential and fresh components. In particular, easy access to economical, pre-prepared, and convenient fast foods might decline food skills or weaken existing skills and ability to prepare a meal and threaten healthy food preferences by the youngsters. The primary resolve of the present paper is to explore the correlation between food skills and healthy food preferences among female adolescents.

**Hypothesis:** Food skills would positively correlate with healthy food preferences among female adolescents.

### Method

#### Participants

The purpose of the present paper is to focus on female adolescents. In particular, young girls between the late adolescent stage (18 to 21 years) were targeted as the study participants. They were mainly students enrolled in different academic disciplines in public and private tertiary institutions in Enugu State. A formal request was sought from the authorities of the selected institutions, and approval was granted. Participants included only female students conveniently chosen due to the study's purpose. The respondents were approached in hostels, departments, and school environments between February and April 2022 and were asked to partake in the survey to understand their food preferences. Thus, the respondents who agreed to participate completed a consent form and were handed the study questionnaire to fill on the spot. In all, 110 questionnaires were appropriately filled and returned.

#### Questionnaire

Food skills were assessed using a modified version of the Food Skills Questionnaire initially developed by the Ottawa Public Health, intended to evaluate food knowledge, food techniques, and planning. Some items were simplified to fit the present context. A pilot study was performed to determine the reliability and validity of the questionnaire. A Cronbach alpha of 0.78 was recorded. A higher score specifies a high food skill.

Food preference was measured using the Food Choice Questionnaire developed to examine respondents' food choices. The Linkert type scale measured in a 5-point scale contains items seeking to establish the importance of numerous variables influencing food choice such as: "health," "convenience," "sensory appeal," "price," "mood," "natural content," "weight control," "familiarity" and "ethical concern." The scale recorded a 0.76 reliability coefficient in the present study.

## Result

#### Table 1:

A correlational research design was adopted for the study. The data collected from the respondents were analyzed using the statistical package for social sciences (SPSS version 23). A Pearson's product-moment correlation was conducted to determine the correlation between food skills and healthy food preferences. One hundred and ten participants were employed. The analyses indicated that the relationship is linear, both variables were normally distributed as calculated by Shapiro-Wilk's test (p > .05), and there were no outliers. There was a positive, statistically significant correlation between FS and HFP, r (108) = .41, p < .001, with FS explaining 21% of the variation in HFP.

#### Table 1:

Table showing correlation between the main variables

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Variables		М	SD	1	2		
1.	FS	3.29	0.34	.12**			
2.	HFP	4.71	0.42	33	.41**		
$R^2$		.31					
	<i>Note.</i> $N = 110$ , ** = $p < .01$ (two-tailed).						

#### Discussion

This study investigated the correlation between food skills and healthy food preferences among female adolescents in Enugu state, Nigeria. The findings suggest that food skills were positively correlated with beneficial food preference. Thus, higher food skills were associated with the likelihood of cooking and sourcing healthy meals, while poor food skills are presumably linked to the tendency to consume convenience foods. The present finding represents few studies exploring the association between food skills and the variation in healthy food preferences among female youngsters. Although, the discovery might not be compared with any related research in the Nigerian context. And there is no consensus on categorizing low or high food skills (Lavelle et al., 2016, 2017). Nonetheless, previous research proposes that cooking abilities are considered contextual in that it varies based on socio-demographic factors (Perry et al., 2017; Vidgen & Gallegos, 2014).

An essential outcome of the present study is that food skills accounted for 21% of the variation in healthy meal choices among the respondents. Thus, the result supports previous findings suggesting that the ability to prepare a well-balanced meal governs the motivation to use available ingredients to prepare healthy meals than consuming convenient, fast foods. However, the ability to cook might not guarantee self-cooking, especially when budgets are insufficient (Daly & Kelly, 2015; Hammelman, 2018; Power et al., 2018). Food skills are considered a form of embodied cultural characteristics involving the deployment of psychomotor potentials. From the present result, food skills appear to be an artistic feature that can alleviate the growing trend of ultra-processed food consumption.

However, it is crucial to be cautious in concluding that food skills alone can determine food choice. Previous studies indicate the role of situational factors in food choice. For instance, situations relating to inadequate cooking resources could decrease the relevance of food skills (Begley et al., 2019; Buck-McFadyen, 2015; McLaughlin et al., 2003). Also, a lack of kitchen infrastructure can contribute to the diminished effect of food skills.

#### Conclusion

The study investigated food skills as a motivating factor in predicting healthy food preferences. The result indicates a positive relationship between food skills and beneficial food preferences. However, the study is challenged with limitations. For instance, the convenience sampling approach used to employ the respondents restricts the generalization of the outcome. The self-reported food skills might undermine objective measures and reflect individual perceptions. Still, the study provides valuable information on food skills and food choices among female adolescents in Enugu state, Nigeria. The findings from this study can be relevant for promoting initiatives bettering the food preference among this group. Also, the study provides information that reflects the need to boost food skills among the girls with limited knowledge of meal preparation. These can be done by making home economics a compulsory subject in the educational curriculum of Nigeria.

#### REFERENCES

- [1] Abd El-Shaheed, A., Mahfouz, N. N., Moustafa, R. S. I., & Elabd, M. A. (2019). Alarming eating behaviors among adolescents in Egypt. *Open Access Macedonian Journal of Medical Sciences*, 7(13). https://doi.org/10.3889/oamjms.2019.583
- [2] Adedini, A. (2015). Stakeholders' views on why child obesity is rising in Lagos, Nigeria. *Pharmacotherapy*, 35(11).
- [3] Adegboye, O. R., Smith, C., Anang, D., & Musa, H. (2016). Comparing and contrasting three cultural food customs from Nigeria and analyzing the nutrient content of diets from these cultures to proffer nutritional intervention. *Critical Reviews in Food Science and Nutrition*, *56*(15). https://doi.org/10.1080/10408398.2013.862201
- [4] Arisukwu, O., Olaosebikan, D., Asaleye, A. J., & Asamu, F. (2019). Feeding habit and the health of undergraduate students: Evidence from Nigeria. *Journal of Social Sciences Research*, 5(2). https://doi.org/10.32861/jssr.52.498.506
- [5] Arulogun, O. S., & Owolabi, M. O. (2011). Fast food consumption pattern among undergraduates of the University of Ibadan, Nigeria: Implications for Nutrition Education. J. Agric. Food. Tech, 1(6).
- [6] Barwood, D., Smith, S., Miller, M., Boston, J., Masek, M., & Devine, A. (2020). Transformational game trial in nutrition education. *Australian Journal of Teacher Education*, *45*(4). https://doi.org/10.14221/ajte.2020v45n4.2
- [7] Begley, A., Paynter, E., Butcher, L. M., & Dhaliwal, S. S. (2019). Examining the association between food literacy and food insecurity. *Nutrients*, *11*(2). https://doi.org/10.3390/nu11020445
- [8] Buck-McFadyen, E. V. (2015). Rural food insecurity: When cooking skills, homegrown food, and perseverance aren't enough to feed a family. *Canadian Journal of Public Health*, *106*(3). https://doi.org/10.17269/CJPH.106.4837
- [9] C.A., M., J.-C., M., G., C., S.W., N., & B., P. (2013). Ultra-processed products are becoming dominant in the global food system. *Obesity Reviews*, 14(S2).
- [10] Centre for Disease Control. (2011). School health guidelines promote healthy eating and physical activity. In *MMWR. Recommendations and reports: Morbidity and mortality weekly report. Recommendations and reports* (Vol. 60, Issue RR-5).
  - http://www.ncbi.nlm.nih.gov/pubmed/21918496%0Ahttp://www.ncbi.nlm.nih.gov/pubmed/21918496
- [11] Christian, P. (2017). Global burden and epidemiology of adolescent nutrition: Issues and risk factors. *Annals of Nutrition and Metabolism*, 71(Supplement 2).
- [12] Crino, M., Sacks, G., Vandevijvere, S., Swinburn, B., & Neal, B. (2015). The influence on population weight gain and obesity of the macronutrient composition and energy density of the food supply. *Current Obesity Reports*, 4(1). https://doi.org/10.1007/s13679-014-0134-7
- [13] Daly, M., & Kelly, G. (2015). Families and Poverty: Everyday life on a low income. In *Families and Poverty: Everyday Life on a Low Income*. https://doi.org/10.1080/13691457.2017.1345172
- [14] de Brauw, A., & Herskowitz, S. (2021). Income variability, evolving diets, and elasticity estimation of demand for processed foods in Nigeria. American Journal of Agricultural Economics, 103(4). https://doi.org/10.1111/ajae.12139
- [15] Demmler, K. M., Ecker, O., & Qaim, M. (2018). Supermarket shopping and nutritional outcomes: A panel data analysis for urban Kenya. World Development, 102. https://doi.org/10.1016/j.worlddev.2017.07.018
- [16] Hammelman, C. (2018). Urban migrant women's everyday food insecurity coping strategies foster alternative urban imaginaries of a more democratic food system. Urban Geography, 39(5). https://doi.org/10.1080/02723638.2017.1382309
- [17] Ishaq, F., Khan, R., Dar, M., Ali, M., Yameen, Z., Rana, I., Ashraf, M., & Abbas, A. (2020). Assessment of eating habits and knowledge regarding daily nutritional requirements among university students. *Journal of Nutritional Health & Food Engineering*, 10(1).
- [18] Olusanya, J.O., & Omotayo, O.A. (2011). Prevalence of obesity among undergraduate students of Tai Solarin University of Education, Ijagun, Ijebu-Ode. *Pakistan Journal of Nutrition*, 10(10).
- [19] Jacka, F. N., Sacks, G., Berk, M., & Allender, S. (2014). Food policies for physical and mental health. BMC Psychiatry, 14(1). https://doi.org/10.1186/1471-244X-14-132
- [20] Jenkins, S., & Horner, S. D. (2005). Barriers that influence eating behaviors in adolescents. *Journal of Pediatric Nursing*, 20(4). https://doi.org/10.1016/j.pedn.2005.02.014
- [21] Kennedy, L. G., Kichler, E. J., Seabrook, J. A., Matthews, J. I., & Dworatzek, P. D. N. (2019). Validity and reliability of a food skills questionnaire. *Journal of Nutrition Education and Behavior*, 51(7). https://doi.org/10.1016/j.jneb.2019.02.003
- [22] Konwar, P., Vyas, N., Hossain, S., Gore, M., & Choudhury, M. (2019). Nutritional status of adolescent girls belonging to the tea garden estates of Sivasagar district, Assam, India. *Indian Journal of Community Medicine*, 44(3). https://doi.org/10.4103/ijcm.IJCM\_357\_18

- [23] Lavelle, F., McGowan, L., Hollywood, L., Surgenor, D., McCloat, A., Mooney, E., Caraher, M., Raats, M., & Dean, M. (2017). The development and validation of measures to assess cooking skills and food skills. *International Journal of Behavioral Nutrition and Physical Activity*, 14(1). https://doi.org/10.1186/s12966-017-0575-y
- [24] Lavelle, F., Spence, M., Hollywood, L., McGowan, L., Surgenor, D., McCloat, A., Mooney, E., Caraher, M., Raats, M., & Dean, M. (2016). Learning cooking skills at different ages: A cross-sectional study. *International Journal of Behavioral Nutrition and Physical Activity*, 13(1). https://doi.org/10.1186/s12966-016-0446-y
- [25] Mapis, G. (2020). The Dietary Decision-Making Process of Women in Nigeria. In *ProQuest Dissertations and Theses*.
- [26] McGowan, L., Caraher, M., Raats, M., Lavelle, F., Hollywood, L., McDowell, D., Spence, M., McCloat, A., Mooney, E., & Dean, M. (2017). Domestic cooking and food skills: A review. *Critical Reviews in Food Science and Nutrition*, 57(11). https://doi.org/10.1080/10408398.2015.1072495
- [27] McLaughlin, C., Tarasuk, V., & Kreiger, N. (2003). An examination of at-home food preparation activity among low-income, food-insecure women. *Journal of the American Dietetic Association*, 103(11). https://doi.org/10.1016/j.jada.2003.08.022
- [28] Mekonnen, D. A., Akerele, D., Achterbosch, T., de Lange, T., & Talsma, E. F. (2021). Affordability of Healthy and Sustainable Diets in Nigeria. *Frontiers in Sustainable Food Systems*, *5*. https://doi.org/10.3389/fsufs.2021.726773
- [29] Misra, M. (2010). Lessons learned from metabolic bone disease associated with disordered eating. *Pediatric Pulmonology*, 45.
- [30] Nelson, M. K., & DeVault, M. L. (1992). Feeding the family: The social organization of caring as gendered work. Social Forces, 71(2). https://doi.org/10.2307/2580050
- [31] Opara, D. C., Ikpeme, E. E., & Ekanem, U. S. (2010). Prevalence of stunting, underweight, and obesity in schoolaged children in Uyo, Nigeria. *Pakistan Journal of Nutrition*, 9(5). https://doi.org/10.3923/pjn.2010.459.466
- [32] Perry, E. A., Thomas, H., Samra, H. R., Edmonstone, S., Davidson, L., Faulkner, A., Petermann, L., Manafò, E., & Kirkpatrick, S. I. (2017). Identifying attributes of food literacy: A scoping review. In *Public Health Nutrition* (Vol. 20, Issue 13). https://doi.org/10.1017/S1368980017001276
- [33] Poti, J. M., Braga, B., & Qin, B. (2017). Ultra-processed Food Intake and Obesity: What Matters for Health-Processing or Nutrient Content? In *Current obesity reports* (Vol. 6, Issue 4). https://doi.org/10.1007/s13679-017-0285-4
- [34] Power, M., Small, N., Doherty, B., & Pickett, K. E. (2018). Hidden hunger? Experiences of food insecurity amongst Pakistani and white British women. *British Food Journal*, *120*(11). https://doi.org/10.1108/BFJ-06-2018-0342
- [35] Prangthip, P., Soe, Y. M., & Signar, J. F. (2021). Literature review: nutritional factors are influencing academic achievement in school-age children. *International Journal of Adolescent Medicine and Health*, 33(2). https://doi.org/10.1515/ijamh-2018-0142
- [36] Sharif Ishak, S. I. Z., Chin, Y. S., Mohd Taib, M. N., & Mohd Shariff, Z. (2016). School-based intervention to prevent overweight and disordered eating in secondary school Malaysian adolescents: A study protocol. *BMC Public Health*, 16(1). https://doi.org/10.1186/s12889-016-3773-7
- [37] Sharif Ishak, S. I. Z., Chin, Y. S., Mohd Taib, M. N., & Mohd Shariff, Z. (2020). Malaysian adolescents' perceptions of healthy eating: A qualitative study. *Public Health Nutrition*, 23(8). https://doi.org/10.1017/S1368980019003677
- [38] Sobal, J., Bisogni, C. A., Devine, C. M., & Jastran, M. (2006). A conceptual model of the food choice process over the life course. In *The Psychology of Food Choice*. https://doi.org/10.1079/9780851990323.0001
- [39] Soliah, L. A. L., Walter, J. M., & Jones, S. A. (2012). Benefits and barriers to healthful eating: What are the consequences of decreased food preparation? In *American Journal of Lifestyle Medicine* (Vol. 6, Issue 2). https://doi.org/10.1177/1559827611426394
- [40] Sosanya, M., Freeland-Graves, J., Gbemileke, A., Adesanya, D., & Samuel, F. (2021). Why are you so thin? Exploring individual and household level factors of adolescent girls' food consumption in rural Bauchi, Northern Nigeria. *Current Developments in Nutrition*, 5(Supplement\_2). https://doi.org/10.1093/cdn/nzab035\_090
- [41] Souza, S. M. F. da C., Lima, K. C., & Alves, M. do S. C. F. (2016). Promoting public health through nutrition labeling a study in Brazil. *Archives of Public Health*, 74(1). https://doi.org/10.1186/s13690-016-0160-x
- [42] Stanner, S. (2004). Nutrition and teenagers. *Women's Health Medicine*, 1(1). https://doi.org/10.1383/wohm.1.1.6.55412
- [43] Thavarajah, P. (2018). Is Global Food System Causing Obesity and Diabetes? *Current Research in Diabetes & Obesity Journal*, 6(3). https://doi.org/10.19080/crdoj.2018.06.555689
- [44] Verma, S., Mallaiah, P., Kadalur, U. G., & Sharma, R. (2016). Indian Dietary Habits about Dental Caries among 12-15-year-old School Children in Bangalore City. *International Journal of Oral Health and Medical Research Int J Oral Health Med Res*, 33(11).
- [45] Vidgen, H. A., & Gallegos, D. (2014). Defining food literacy and its components. *Appetite*, 76. https://doi.org/10.1016/j.appet.2014.01.010
- [46] Wolfson, J. A., Leung, C. W., & Richardson, C. R. (2020). More frequent cooking at home is associated with a higher Healthy Eating Index-2015 score. *Public Health Nutrition*, 23(13). https://doi.org/10.1017/S1368980019003549
- [47] Wrottesley, S. V., Pedro, T. M., Fall, C. H., & Norris, S. A. (2020). A review of adolescent nutrition in South Africa: transforming adolescent lives through nutrition initiative. In *South African Journal of Clinical Nutrition* (Vol. 33, Issue 4). https://doi.org/10.1080/16070658.2019.1607481
- [48] Zobel, E. H., Hansen, T. W., Rossing, P., & von Scholten, B. J. (2016). Global Changes in Food Supply and the

Obesity Epidemic. In Current obesity reports (Vol. 5, Issue 4). https://doi.org/10.1007/s13679-016-0233-8