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Perceptions of the Eating Behaviors of the Benin Female National Handball Team in the Run-Up to the Challenge Trophy 2019

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Abstract

Inappropriate eating behavior (EB) can sometimes explain athletes' under-performance. Players' perceptions of the shortcomings of their eating behavior can guide nutrition education aimed at changing them. Awareness of the risks involved in adopting inappropriate EB facilitates acceptance of the change process. The aim of this study is to assess the perception of eating behavior among young female handball players in the Benin national team, both at home and during a training camp in preparation for international competitions. This is a qualitative study conducted with 21 female handball players aged 13 to 19, via individual interviews during the first training camps (TC) of the 2019 Challenge Trophy. Two variables were studied: the perception of EB, whose dimensions related to the physiological, social, cultural and psychological determinants of EB, and the willingness of athletes to change EB. The results showed that the majority of players prefer the frequency of family meals (4 to 5 times a day) to that of the training camp (3 times a day). They felt that family meals were more balanced than training camp meals, despite the absence of one to four of the eight food groups recommended in both contexts. The players appreciated the fact that they ate with their hands in the family, unlike the use of cutlery at the training camp. For all participants, the presentation, taste and smell of family meals were judged better. In conclusion, players perceive family meals and their consumption conditions more positively than those at training camp, despite the similar shortcomings conveyed by their eating behavior in both contexts. Nevertheless, they are willing to change their eating behavior if this will lead to better sporting performance.

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Keywords

Eating habits, female handball team, balanced diet, behavior change, Republic of Benin.

Introduction

Proper eating behavior are a key factor in maintaining good health and optimizing sports performances. (1, 2). In Benin, the EB of athletes, particularly that of the young handball players on the national team, varies during the sporting season, but does not always meet standards (1). Previous works has not sufficiently addressed the issue of athletes' perception of eating behavior. Most have focused on imbalances between energy intake and expenditure, vitamin and mineral deficiencies (3) and fluid imbalances observed before, during and after exercise (4). Those that have addressed EB are rare and reveal poor EB as well as EB disorders in athletes (1, 5, 6). Action should therefore be taken to improve the EB of athletes, especially those involved on the international stage. But before initiating changes in dietary habits, it is important to understand their perception to promote ther adherence. The aim of the present research is to explore young female handballers' perceptions of their family EB compared with that adopted during a training camp for the 2019 Continental Challenge Trophy.

Materials and Methods

Research Protocol

This cross-sectional, qualitative and analytical study was carried out using individual interviews with young female handballers from the Benin national team during the training camp of the 2019 Challenge Trophy. The players were housed at the National Institute for Youth, Physical Education and Sport and fed by external caterers selected by the Benin Handball Federation (BHF). Training, accommodation and catering conditions were identical for the entire squad.

Study Population and samPling

The target population consisted of handball players from Benin's elite women's national team, aged between 13 and 19, selected for the Challenge Trophy tournaments in 2019. The sample was drawn using the non-random method and the exhaustive technique, so that all 21 players present during the survey period were included in the sample.

Data Collection Techniques and Tools

Qualitative data were collected through individual semi-directive interviews, using an interview guide structured around seven items relating to the four dimensions of eating behavior: physiological, social, cultural and psychological, as well as readiness to change. The reliability of the guide was tested with 10 female handball players not included in the main sample, and validated by experts from the University of Abomey-Calavi.

The interviews, conducted by three trained interviewers, were recorded using an Infinix Note 5 X604 cell phone. Each interview lasted an average of 30 minutes.

Studied Variables

Two variables were examined: perception of eating behavior and willingness to change.

- Perceived eating behavior is a composite variable comprising the following four sub-variables:

- Physiological determinant: includes feelings of hunger, meal consumption and composition, and satiety. The players evaluated the composition of their meals according to the eight food groups recommended (7). These groups are 1- cereals/legumes/tubers, 2- sugar/sweet products, 3- raw or cooked vegetables, 4- raw or cooked fruit, 5- fish/meat/eggs, 6- dairy products/milk, 7- animal fats and 8- vegetable fats (butter).

- Social determinant: encompasses commensality, meal frequency and mealtimes.

- Cultural determinant: concerns the use of cutlery, compliance with hand hygiene rules, food prohibitions, place of consumption.

- Psychological determinant: concerns the presentation, taste and smell of meals.

- Willingness to change was used to assess players' willingness to change their eating behaviors. 2.5. Data processing and analysis.

Ethical Approval

The authorization’s of the Benin Handball Federation and the Benin National Institute of Youth and Physical Education were obtained. The players also gave their informed written consent after receiving explanations about the study's objectives. They were also informed of the confidentiality and anonymity of the information’s

given. Those information's will be destroyed no later than one year after it has been used.

Data Processing and Analysis

The verbatims were processed by means of a three-phase content analysis, namely condensation, coding and then analysis and interpretation of the information according to Paillé and Mucchielli's discursive approach of reformulating, explaining and theorizing a phenomenon (8).

Results and Discussion

The study of 21 female handball players aged under 20 explored various aspects of EB, including perception of EB (including physiological, social, cultural and psychological dimensions) and players' willingness to change their EB.

Physiological aspects

Regarding the physiological aspects of eating behavior, the majority of participants indicated that they preferred to eat whenever they felt hungry during the day. One player said, "Yes, I always eat when I'm hungry, unless it's close to my training time" (Handballer 11, field data; May 2019). When it comes to a balanced diet, 17 of the 21 players believe they eat a balanced diet at home, but don't perceive the same balance at the training camp. For them, a balanced diet means a meal consisting of pasta, sauce and a drink.

Social Aspects

On a social level, handball players prefer to eat four to five times a day with their families, compared with three times a day at the training camp. They also appreciate eating with their families, with no strict constraints on time or place, rather than in a group at training camp, with fixed schedules.

Cultural Aspects

Of the 21 women interviewed, 17 handball players don't think it's necessary to wash their hands before and after meals, either with their families or at training camp. They justify this attitude by the fact that at home they don't have dirty hands, and at training camp they use cutlery. As one player said of the training camp context: "We eat with cutlery, not with our hands, so why wash our hands! (Handballer 03, field data; May 2019).

Psychological Aspects

Psychologically, 18 of the 21 handball players expressed a stronger preference for the look, taste and smell of family meals over those served at training camp. One of them commented: "It's good! My mother manages to feed us well. We eat well and properly. Everything is controlled" (Handballer 16, field data; May 2019). This underlines the importance of pleasure and satisfaction with meals, which are essential for good food consumption.

In terms of their willingness to change their eating behavior all 21 handballers expressed a desire to change in order to improve their sporting performance. Among them, nine would like to benefit from financial support to facilitate this change within the family. On the other hand, as far as the training camp is concerned, seven believe it is imperative to increase the quantity of meals and improve their taste and smell to facilitate change at the training camp.

The objective of this research was to assess the perceptions of young elite handball players in Benin regarding their eating behaviors in the family setting and during the training camp for the Continental Challenge Trophy 2019. The results are considered valid and reliable, as the study was conducted among a selection of participants involved in the qualification phase of an international competition, under preparation conditions similar to those of Beninese athletes. What's more, information gathered from athletes pre-selected for international competition lends reliability to the data collected.

The survey was conducted using a semi-structured interview guide, which collected data on athletes' perceptions of their eating behaviors. The perceptions collected reflect those of young elite handball players in Benin engaged in international competitions. On a physiological level, the young female handball players have expressed their preferences for eating when they are hungry with their families, unlike the training camp. Hunger pangs are a crucial factor in meeting the body's energy, vitamin, and mineral needs. (9) This sensation is often associated with a prolonged state of energy deficit, which manifests as physical and mental weakness, but is offset by a feeling of relaxation and satisfaction after eating, called satiety. The intensity and duration of this satiety depend in particular on the quality and quantity of energy of the meal preceding the feeling of hunger (10) Consequently, female handball players tend to eat

whenever they feel like it at home, as food is both available and accessible there, which can help them reduce the risk of stunted growth (11). This attitude is considerably different at, despite the higher physiological requirements due to the intense physical exertion in this context.

This attitude is noticeably different during the training camp, despite the higher physiological demands due to the intense physical effort in this context. In terms of dietary balance, analysis of the results revealed that most players confused a balanced meal with one consisting mainly of pasta (a local staple), sauce and drinks, which corresponded more to their taste preferences than to a balanced diet. They therefore confuse the balance of a meal with its hedonic aspect, i.e. the pleasure experienced while eating. For these players, balance means the pleasure of eating, so a balanced meal, in the socio-cultural context of Benin, should include pasta, sauce and a drink. For these players, dietary balance is therefore not associated with the presence of the 8 essential food groups (7). This confusion reflects a lack of nutritional information. Other studies emphasize the need for nutrition education tailored to each population, to ensure that they benefit from a balanced, varied diet in sufficient quantity (12-14).

On the social level, when it comes to eating in groups and using cutlery, young handball players do not seem to hesitate to eat in groups with spoons and forks at training camp. However, their family meals are often eaten in more informal conditions, without set times, and often alone, using their hands instead of cutlery. This is in contrast to the more formal practices of boot training camp, where the use of cutlery and group meals are the norm. Within the family, these girls have no restrictions and can eat as much as they like if food is available. What's more, in Africa, people eat by hand. The feel of the food in the hand enhances its taste. However, during the EB, in addition to fixed meal times, these athletes have to use cutlery such as spoons, forks and knives, tools they don't always master and whose use they don't always appreciate during meals.

Nevertheless, the players have demonstrated an ability to adapt, probably due to the growing influence of Western practices in African cultures, such as in Benin. This adaptation is beneficial for their integration into international competitions, where the use of cutlery at the table is commonplace. Eating in a group has significant advantages: it strengthens social cohesion between group members, and makes it easier to feel full. (15). However, the frequency and quantity of meals vary according to the socio-cultural context.

On a cultural level, the main problem observed is the lack of respect for the rules of hand hygiene before and after meals, both within the family and at the EB. Some handball players don't think it's necessary to wash their hands if they're not visibly dirty, or when they're using cutlery. For these athletes, hand hygiene is not a priority. This perception is widespread in Africa, yet during mealtimes, people don't hesitate to use their hands to pick up food that's a little difficult to handle with a fork, knife or spoon. This neglect increases the risk of non-communicable nutritional diseases, which can impact on their health and sporting performance. Although the use of cutlery can reduce direct contact with food, it is no substitute for good hand hygiene. Washing hands with soap and water before and after meals is essential to prevent foodborne infections (16). The attitude of these young female players is comparable to that observed in the Abobo district of Ethiopia, where around 49% of people have poor food hygiene practices (17). Given the risk of food-borne illnesses in this context, we need to take action to improve the perception of hand hygiene not only among these athletes, but also among the general population, especially children, so that the right reflexes are acquired early in life.

Psychological aspects, such as the presentation, taste and smell of meals, strongly influence eating behavior. The handball players reported that family meals were more appreciated than those offered at the training camp because of their better presentation and taste. Presentation, i.e. the look and smell of the food, whets the appetite. Poorly presented meals, even if tasty, may not attract consumers unless they are motivated to try them (18). Subsequently, taste makes it easier to take the food. These three aspects are therefore the pillars of good food consumption.

Ultimately, the results showed that these athletes had a better perception of their eating behavior in the family than that adopted at the training camp. This observation is in line with the findings of other studies, which suggest that children generally prefer meals eaten in the family (19, 20). The players expressed their willingness to change their eating behavior. This willingness could facilitate nutrition education aimed at behavior change. Future studies should focus on their nutritional education.

In conclusion, the young female handball players prefer family meals to the meals offered at the training camp of

the 2019 continental Challenge Trophy tournament. They particularly appreciate the frequency of family meals and the freedom to eat with their hands, without the hygiene constraints imposed on the training camp. The results also indicate a preference for the presentation, taste, and smell of family meals. In order to improve their sporting performance, it is important to initiate a change in the eating behaviors of young female handball players, which will require appropriate nutritional education.

References

1. Bio Nigan, I., Kiki, D.M.S, Tonon, B.A., Nouatin, B.K., Gouthon, P. Analysis of the dietary practices of the national team of the republic of benin during the qualifying round of the 2015 under-17 soccer african cup of nations. *Afr J Food Agric Nutr Dev*, 21(5). 18101-4. June. 2021. https://doi.org/10.18697/ajfand.100.19605
2. Luca, A. Besoins nutritionnels de l'adolescent. *J de Pediatrie et de Pueric*; 32(4). 171-80. August. 2019. https://doi.org/10.1016/j.jpp.2019.06.001
3. Gacek, M. Sense of self-efficacy and the content of energy and nutrients in the diet of elite polish basketball players. *Rocz Panstw Zakl Hig*, 73(2). 183-9. 2022. https://doi.org/10.32394/rpzh.2022.0203
4. Donahue, P.T., Wilson, S.J., Williams, C.C., Hill, C.M., Valliant, M., Garner, J.C. Impact of dehydration statut on jump performance in recreationally trained males. *Int J Exerc Sci*, 14(1). 462-72. August. 2020.
5. Kiki, S.M., Bio Nigan, I., Tonon, B.A., Gouthon, G., Gouthon, P., Quenum, C. Effect of a communication programme on dietary behavior of Beninese female handball players. *Agro Sci*, 20(3). 97-8. Junly. 2020. https://doi.org/10.4314/as.v20i3.12
6. Lantillon-Kaestner, V., Allain, M., Ohl, F. Troubles du comportement alimentaire et pratique de sports de remise en forme. *Eat Disord Fitnes Sports*, 4 (110). 75-92. 2015. https://doi.org/10.3917/STA; 110.0075
7. Agence Française de Sécurité Sanitaire des Aliments (AFSSA). Apports nutritionnels conseillés pour les sportifs. Eau et Sport. *Synthèse des recommandations de l'AFSSA, CNERNA-NRS. Maisons-Alford.* Paris.2000. (En ligne) consulté le 15 septembre 2025. Disponible à: http://mapage.noos.fr/nicoach1/download/recommandations_ alimentaires.pdf
8. Mucchielli, A. Les modèles de la communication (En ligne). 2016 (En ligne) consulté le 15 septembre 2025). Disponible à l'URL: https://shs.cairn.info/la-communication--9782361063627-page-54?lang=fr&tab= illustrations
9. Kral, T.V., Rolls, B.J. Energy density and portion size: their independent and combined effects on energy intake. *Physiol Behav*, 82(1). 131-8. August. 2004. https://doi.org/10.1016/j.physbeh.2004.04.063
10. Rebello, C.J., Chu, Y-F., Johnson, W.D., Martin, C.K., Han, H., Bordenave, N., & al. The role of meal viscosity and oat β-glucan characteristics in human appetite control: a randomized crossover trial. *Nutr J*, 28(13). 49-58. May. 2014. https://doi.org/10.1186/1475-2891-13-49.
11. (11) Mwaniki, E.W., Makokha, A.N., Nutrition status and associated factors among children in public primary schools in Dagoretti, Nairobi, Kenya. *Afr Health Sci*, 13(1). 39-46. March. 2013 https://doi.org/10.4314/ahs.v13i1.6.
12. Haldeman L. Culturally Grounded Nutrition Education: Meeting Diverse Needs and Priorities; 9(56). 598. September. 2024. (En ligne) consulté le 15 septembre 2025. Disponible à l'URL: https://www.jneb.org/action/showPdf?pii=S1499-4046%2824%2900400-7
13. Kenefick, R.W. Drinking strategies: planned drinking versus drinking to thirst. *Sport Med*, 48(1). S31-S7. January. 2018. https://doi.org/10.1007/s40279-017-0844-6
14. Agbozo, F., Amardi-Mfoafo, J., Dwase, H., Ellahi, B. Nutrition knowledge, dietary patterns and anthropometric indices of older persons in four peri-urban communities in Ga West municipality, Ghana. *Afr Health Sc*, 18(3).743-55. August. 2018. https://doi.org/10.4314/ahs.v18i3.33
15. Neuman, N. Commensal attraction: Eating together as a social tool. *Journal for the Theory of Social Behavior*. 54(4). 556-570. August. 2024.
16. Lègba, C.S., Yabi, I., Azonhe, T., Osseni, A.A. Analyse des déterminants du choléra dans la ville de Djougou. *Eur Sci J*, 13(18). 171-84. July. 2017. https://doi.org/1p10.19044/esj.2017.v13n171
17. Okugn, A., Woldeyohannes, D. Food hygiene practices and its associated factors among model and non-model households in Abobo District, Southwestern Ethiopia: Comparative cross-sectional study. *Plos One*, 13 (4). 1-9. April. 2018. https://doi.org/10.1371/journal.phone.0194391
18. Menzel, J.E., Reilly, E., Lu, T.J, Kaye, M.D. Conceptualizing the rôle of disgust in avoidant/restrictive food intake disorder:

Implications for the etiology and treatment of selective eating. *Int J Eat Disord*, 52(4). 462-5. January. 2019. https://doi.org/10.1002/eat.23006

19. Roach, E., Viechnicki, G.B., Retzloff, L.B., Davis-Kean, P., Lumeng, J.C., Miller, A.L. Family Food Talk, Child Eating Behavior, and Maternal Feeding Practices. *Appetite*, 117(1). 40-50. October. 2017. https://doi.org/10.1016/j.appet.2017.06.001
20. Wolfson J.A., Bleich, S.N. Is cooking at home associated with better diet quality or weight-loss intention? *Public Health Nutr*, 18(8): 1397-406. November. 2015. https://doi.org/10.1017/S1368980014001943

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