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Research Article

CHILDHOOD OBESITY AND SOCIAL EPIDEMIOLOGY

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Abstract

Obesity is considered a worldwide problem that over the years has reached global dimensions that affect the entire population. This issue is even more worrisome in the child population who are exposed to developing chronic non-communicable diseases in adulthood. The World Health Organization (WHO) has generated various strategies to reduce the prevalence of this pathology, however there are other aspects that are relevant to consider and that directly influence this problem, such as social epidemiology. This collective phenomenon affects families, communities and the territory in which they develop. Under this scenario, it is imperative to know how these aspects shaped by social, cultural, political and historical structures influence and how they contribute to the obesogenic results of the child population. Being able to understand the problem from its structure will allow to address the various biopsychosocial dimensions as a collective process that requires a multidisciplinary vision, a work with the communities allowing to have a vision of the complexity and comprehensiveness of this public health problem.

Keywords: Nutrition, Public Health, Pediatric Obesity, Food, Culture.

INTRODUCTION

Obesity is a disease of great relevance to society. This public health problem affects not only adults but children and adolescents in the same way. According to data provided by the nutritional map of JUNAEB 2019, Chile maintains a curve with rates of overweight and obesity in this last age group[1]. This pattern can continue into adolescence and adulthood, having a greater probability of suffering noncommunicable diseases at an early age. Figures provided by various studies indicate that obesity is the main cause of cancer followed by tobacco[2]. Likewise, the World Health Organization [3] states that childhood obesity is associated with a higher probability of premature death and disability in adulthood. According to the latest National Health Survey (ENS) in Chile, obesity and overweight reached a figure of 74.2%; 39.8% of the population being overweight and 31.2% obese. This is a very important matter when compared with data obtained in previous years[4]. This topic does not only lead to a health concept or a biomedical model, but also to a collective phenomenon called social epidemiology. Through this phenomenon, certain patterns can be represented by various dimensions of social distinction, such as rates or risks of different outcomes, by categories of variables in education, income or ethnicity [5] and to communities and territories where individuals are located in. It is necessary to review how certain social and cultural factors are relevant in this whole process, what context this concept responds to, and the perception of children's health that involves aspects of social acceptance. Lastly, it would be necessary to review the various evidence carried out in the United States and Europe that show the great rejection of the fat body [6]. The structural context that considers symbolic, cultural [7] and social dimensions that impact the health of the population, specifically the nutritional status of the child population, must be taken into account, to understand how this concept is socially constructed and to investigate how the voluptuous body is described without assuming or presupposing that it is a disease [6].

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Cultural aspects and food

Overweight and obesity are conditions that reflect social and gender inequalities in society[8]. Along these lines, body fat is not judged in the same way for men and women, according to their socioeconomic level. Women with a high socioeconomic level tend to distinguish themselves through a slim body[9]. This is how it becomes relevant to analyze the social causes of obesity and to work on proposals that combine individual interventions with changes made in the environment and society[10]. A society that is inserted in a territory that responds to beliefs, customs, and certain social patterns, originate from family experiences and influenced by the child's biopsychosocial development that responds to a parenting structure. As Izzedin and Pachajoa point out <<Parenting is defined as the knowledge, attitudes, and beliefs that parents assume about certain aspects such as health, nutrition, the importance of physical and social environments, opportunities for children learning at home and how this social being is built[11]>>. Parents being one of the main actors and influences on their children [12] have important implications for their eating behaviors and perceptions of what is considered healthy. Thus, it is necessary to understand experiences in different environments and contexts with a vision of medical anthropology that considers cultural, social, biological and health aspects [13] of the child population. In addition, it is important to reflect on the narrative regarding nutritional foods that children eat because they may adjust to a child's growth and malnutrition, responding to patterns of culture and the existing perception of food. Certain celebrations or relevant events in a family, community, and social group reflect in <<eating>>, thus creating patterns acquired by future generations that will be prone to repeat these customs in adulthood through cultural memory[14]. This cultural and nutritional memory is influenced by folklore, religious beliefs, political-economic issues, customs and fashions[15]. On the other hand, some misconceptions regarding nutrition continue to prevail in the child population, concerning weather a "fat" boy or girl is healthy and happy while visualizing a disease in a

"thin" boy or girl, a tendency to overeat in addition to the consumption of vitamins[16].

Obesity and psychosocial aspects

In a study carried out in Costa Rica (2013), a review based on an ethnographic model on beliefs was made regarding the concept of obesity in children and their parents. Due to this, it is of great relevance to know how this concept takes force and affects the psychosocial point of view of boys and girls. For instance, certain derogatory adjectives are used to describe girls with obesity. On the other hand, there are boys and girls that do not believe that obesity is a disease, but rather a phenotypic expression [17] that is maintained over time because of how normalized the concept of << fat >> has become. Unlike the parents in this study, it is evident that they consider obesity to be a state that can be reversed through control, which is contradicted by what another study stated where mothers blame their children for the type of food they eat and the sedentary lifestyle they have. In this particular study, mothers use certain positive synonyms to refer to child's obesity such as, "he is robust, he is full, but not fat"[18]. To a certain extend, a mother's denial on their child's health condition does not only affect the child population but as mentioned above, it responds to sociocultural patterns, parenting styles and opportunities that are often conditioned by existing socioeconomic situations represented by poverty, vulnerability, social inequalities and how they play a determining role in the environment of the child, the family and community.

In this regard, it is essential to consider both individual behaviors and the social determinants of health to identify populations at risk[19], especially populations with a lower education and socioeconomic level[20]. These populations have difficulty accessing the system that is currently considered a marker of health inequities, a concept defined as <<avoidable inequalities in health presented in society>>. By sustaining that all social and economic conditions have repercussions on the life of the population, it can determine the risk of the population becoming ill and the measures adopted to treat it or prevent it from happening[21]. However, these measures may be affected by various socioeconomic scenarios presented. For instance, in Chile, vulnerable populations are often affected by the high inequalities found in the income distribution[22]. In this context, I cite the relevance of social determinants in health as a strategy to create social and physical environments that promote good health for all, as proposed by Healthy People 2020[23]. Considering how each aspect of the biopsychosocial approach is affected by obesity, a qualitative concept identified by the body mass index (BMI), weight, centimeters, it can also reflect an emotional aspect and probability that overweight and obese children may find a negative impact on their psychological well-being and quality of life[24]. Therefore, this can generate various psychosocial and emotional problems that will be causal factors for the maintenance of obesity [25] and /or fat, leaving them more exposed to developing other pathologies, such as cardiovascular diseases (CVD) including coronary disease, heart failure, hypertension, stroke, atrial fibrillation, and sudden cardiac death[26]. In addition, it may also lead to mental health pathologies, such as depression, since evidence supports that girls affected by this condition of excess malnutrition have a significant probability of suffering from depression compared to girls of normal weight, this being a risk that may persist into adulthood[27]. Likewise, certain social factors pertaining to a <<fat>> individual is highly rejected and perceived as disgust [28]. This is how various aspects that influence collective health are evident to not only the concept of health and disease but also to social epidemiology that is defined as << a social process that assumes different human characteristics in society[29]>>. Therefore, it invites us to reflect and analyze the different biopsychosocial dimensions of obesity that could be seen as a risk factor or a disease in the child population, generated from the social determinants in health and a collective process that requires a multidisciplinary vision and interventions at the intersectoral level to comprehend the complex public health problem.

Discussion and reflection

A reflective analysis of the concepts that affect childhood obesity has been made, responding to a collective health problem that does not only impact those who suffer it but also at the family and community level. It is evident how aspects ranging from nurture, culture, and food are conceived and how social and gender stereotypes and economic and health inequalities are related to aspects of health/disease. In that sense, certain patterns of childhood obesity are represented through social epidemiology displaying social distinction from rates or risks of different outcomes and categories of variables such as culture, education, income, or ethnicity[30]. Culture plays a fundamental role in the explanation of obesogenic outcomes considering that most perceptions of childhood obesity will be shaped by cultural, social, political, and historical structures[31]. Therefore, it will be necessary to have a broader vision of this concept, by applying how it is built in society and the relationships it has with each of its dimensions that could potentially generate effective health education strategies 32 to control childhood obesity.

Conclusion

Epidemiological data regarding obesity in the world demonstrate the relevance of a problem, specifically in younger populations, a multifactorial problem that is considered a social problem[33]. We are living a transition by leaps and bounds in health issues and exiting epidemiological and demographic patterns. In this sense, the structural context must be understood considering the various dimensions and the existing social inequalities found in the social determinants of health to comprehend how these concepts affect the health of the population, specifically the child population. This calls us to reflect on the importance of valuing every aspect of the human being, its environment, and the environment in which it is developed. To create strategies that guarantee universal access to health care under equal conditions for the different segments of the population, especially in the most vulnerable populations, social, economic, and cultural variables must be mitigated.

REFERENCIES

1. Informe mapa nutricional 2019. Junaeb. Chile.
2. Casanello P. Krause B. 2016. Epigenética y obesidad. Revista Chilena de pediatría, 87(5):335-342. Santiago. Chile.
3. Estrategia mundial sobre régimen alimentario, actividad física y salud. ¿Por qué son importantes el sobrepeso y la obesidad infantiles? Organización Mundial de la salud.

4. Encuesta Nacional de Salud (2016-2017). Departamento de Epidemiología. Ministerio de Salud. Chile.
5. Kaufman, Jay S, & Mezones-Holguín, Edward, 2013. Una epidemiología social para América Latina: una necesidad más allá de la reflexión sobre las inequidades en salud. Revista Peruana de Medicina Experimental y Salud Publica, 30(4), 543-546. Recuperado en 12 de agosto de 2020, de http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1726-46342013000400001&lng=es&tlng=es).
6. Sprovera, María Alejandra Energici, Gonzáles, Elaine Acosta, Grancelli, Florencia Borquez, & Paredes, Macarena Huaiquimilla, 2017. gordura, discriminación y clasismo: un estudio en jóvenes de santiago de chile. Psicologia & Sociedade, 29, e164178. Epub December 07, 2017. https://dx.doi.org/10.1590/1807-0310/2017v29164178
7. Cordero, María Laura y Cesani, María Florencia Sobrepeso, obesidad y salud percibida en contextos de pobreza de Tucumán, Argentina. Salud Colectiva [online]. 2018, v. 14, n. 3 [Accedido 12 Agosto 2020] , pp. 563-578. Disponible en: <https://doi.org/10.18294/sc.2018.1309>. ISSN 1851-8265. https://doi.org/10.18294/sc.2018.1309.
8. Cruz Sánchez, Marcelina, Tuñón Pablos, Esperanza, Villaseñor Farías, Martha, Álvarez Gordillo, Guadalupe del Carmen, & Nigh Nielsen, Ronald Byron, 2013. Sobrepeso y obesidad: una propuesta de abordaje desde la sociología. Región y sociedad, 25(57), 165-202. Recuperado en 12 de agosto de 2020, de http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1870-39252013000200006&lng=es&tlng=es.
9. Energici, M. A., Acosta, E., Huaiquimilla, M., & Bórquez, F. 2016. Feminización de la gordura: estudio cualitativo en Santiago de Chile. *Revista de Psicología,* 25(2), 1-17. http://dx.doi.org/10.5354/0719-0581.2016.44771
10. Blüher M. 2019. Obesity: global epidemiology and pathogenesis. *Nat Rev Endocrinol,* 15(5):288-298. doi:10.1038/s41574-019-0176-8
11. Infante Blanco, Alejandra, & Martínez Licona, José Francisco, 2016. Concepciones sobre la crianza: El pensamiento de madres y padres de familia. Liberabit, 22(1), 31-41. Recuperado en 12 de agosto de 2020, de http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1729-48272016000100003&lng=es&tlng=es.
12. Frankel, L. A., Powell, E., & Jansen, E. 2018. The Relationship between Structure-Related Food Parenting Practices and Children's Heightened Levels of Self-Regulation in Eating. Childhood obesity (Print), 14(2), 81–88. https://doi.org/10.1089/chi.2017.0164
13. Panter-Brick, C. & Eggerman, M. 2018. The field of medical anthropology in Social Science & Medicine. Social science & medicine (1982), 196, 233–239. https://doi.org/10.1016/j.socscimed.2017.10.033
14. Sánchez Martínez, Alicia Verónica, 2006. La fiesta del gusto: La construcción de México a través de sus comidas. Opción, 22(51), 9-25. Recuperado en 16 de agosto de 2020, de http://ve.scielo.org/scielo.php?script=sci_arttext&pid=S1012-15872006000300002&lng=es&tlng=es.
15. Murillo-Godínez G, Pérez-Escamilla LM. Los mitos alimentarios y su efecto en la salud humana. Med IntMéx. 2017 mayo; 33(3):392-402.
16. França Tarragó, Omar, Crestanello, Francisco, Müller, Augusto, Silveri, Asdrúbal, & Pons, José Enrique, 2017. El problema del sobrepeso y la obesidad en la niñez y adolescencia. Una mirada desde la Bioética. Anales de la Facultad de Medicina, 4(1), 14 71. https://dx.doi.org/10.25184/anfamed2017.4.1.4
17. Núñez Rivas, Hilda Patricia, Campos Saborío, Natalia, Alfaro Mora, Flory Virginia, & Holst Schumacher, Ileana. 2013. Las creencias sobre obesidad de niños y niñas en edad escolar y las de sus progenitores. Actualidades Investigativas en Educación, 13(2), 01-30. Retrieved August 18, 2020, from http://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S1409-47032013000200001&lng=en&tlng=es.
18. García Rodríguez, Keytel, 2018. Influencia de los factores psicológicos y familiares en el mantenimiento de la obesidad infantil. Revista mexicana de trastornos alimentarios, 9(2), 221-237. https://doi.org/10.22201/fesi.20071523e.2018.2.503
19. Himberg-Sundet, A., Kristiansen, A. L., Gebremariam, M. K., Moser, T., Andersen, L. F., Bjelland, M., & Lien, N. 2019. Exploring the workplace climate and culture in relation to food environment-related factors in Norwegian kindergartens: The BRA-study. PloS one, 14(12), e0225831. https://doi.org/10.1371/journal.pone.0225831
20. Aranceta-Bartrina, J., and Pérez-Rodrigo, C. 2016. Determinants of childhood obesity: ANIBES study. Nutricionhospitalaria, 33(Suppl 4), 339. https://doi.org/10.20960/nh.339
21. Conceptos claves. Comisión sobre Determinantes Sociales de la salud. OMS. Disponible en:https://www.who.int/social_determinants/final_report/key_concepts/es/
22. Azar, Ariel, Franetovic, Gonzalo, Martínez, Matías, & Santos, Humberto, 2015. Determinantes individuales, sociales y ambientales del sobrepeso y la obesidad adolescente en Chile. Revistamédica de Chile, 143(5), 598-605. https://dx.doi.org/10.4067/S0034-98872015000500007
23. Social Determinants of Health. Healthypeople.gov.
24. Pakpour, A. H., Chen, C. Y., Lin, C. Y., Strong, C., Tsai, M. C., & Lin, Y. C. 2019. The relationship between children's overweight and quality of life: A comparison of Sizing Me Up, PedsQL and Kid-KINDL. *International journal of clinical and health psychology,* IJCHP, 19(1), 49–56. https://doi.org/10.1016/j.ijchp.2018.06.002
25. Sagar, R., & Gupta, T. 2018. Psychological Aspects of Obesity in Children and Adolescents. Indian journal of pediatrics, 85(7), 554–559. https://doi.org/10.1007/s12098-017-2539-2
26. Koliaki, C., Liatis, S., & Kokkinos, A. 2019. Obesity and cardiovascular disease: revisiting an old relationship. Metabolism: clinical and experimental, 92, 98–107. https://doi.org/10.1016/j.metabol.2018.10.011
27. Sutaria, S., Devakumar, D., Yasuda, S. S., Das, S., & Saxena, S. 2019. Is obesity associated with depression in children? Systematic review and meta-analysis. Archives of disease in childhood, 104(1), 64–74. https://doi.org/10.1136/archdischild-2017-314608
28. Energici, María Alejandra, 2018. Afectividad y subjetividad femenina: análisis de la gordura como código moral. Límite (Arica), 13(43), 17-28. https://dx.doi.org/10.4067/S0718-50652018000300017
29. Parra-Cabrera, Socorro, Hernández, Bernardo, Durán-Arenas, Luis, & López-Arellano, Oliva, 1999. Modelos alternativos para el análisis epidemiológico de la obesidad como problema de salud pública. *Revista de Saúde*

Pública, 33(3), 314-325. https://dx.doi.org/10.1590/S0034-89101999000300014

30. Kaufman, Jay S. and Mezones-Holguín, Edward, 2013. Una epidemiología social para América Latina: una necesidad más allá de la reflexión sobre las inequidades en salud. *Revista Peruana de Medicina Experimental y Salud Publica,* 30(4), 543-546. Recuperado en 19 de agosto de 2020, de http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1726-46342013000400001&lng=es&tlng=es.
31. Figueroa, R., Saltzman, J., Jarick Metcalfe, J., & Wiley, A. 2017. "Culture Is So Interspersed": Child-Minders' and Health Workers' Perceptions of Childhood Obesity in South Africa. *Journal of obesity,* 2017, 9629748. https://doi.org/10.1155/2017/9629748)
32. Gupta, N., Goel, K., Shah, P., & Misra, A. 2012. Childhood obesity in developing countries: epidemiology, determinants, and prevention. Endocrine reviews, 33(1), 48–70. https://doi.org/10.1210/er.2010-0028
33. Suárez-Carmona, Walter, Sánchez-Oliver, Antonio Jesús, & González-Jurado, José Antonio, 2017. Fisiopatología de la obesidad: Perspectiva actual. *Revista chilena de nutrición,* 44(3), 226-233. https://dx.doi.org/10.4067/s0717-75182017000300226