#### **Title**

# Relationship of household composition with sedentary behavior and eating habits of 102,072 adolescents: A representative sample of Brazil (PeNSE Study)

#### **Abstract**

Purpose: The household composition is important for adolescents and understanding its relationship with their lifestyle habits is essential. This study aimed to analyze the relationship of household composition with sedentary behavior and eating habits of adolescents. Methods: This study analyzed data from the Brazilian National Scholar Health Survey—PeNSE 2015. The sample was composed by 102,072 adolescents (11-17 years). The independent variable of the study was the household composition (living with both parents versus living with only one parent or none of them), whereas outcome variables were eating habits and sedentary behavior patterns. Logistic regression models were used to analyze the association between variables. Results: Adolescents living with both parents were less likely to have high sedentary behavior ( $\geq 2$  h OR = 0.89;  $\geq 4$  h OR = 0.86), eat while watching TV for ≥5 days/week (OR = 0.88), frequent fried foods (OR = 0.89), sweets (OR = 0.92), soft drinks (OR = 0.86) and ultra processed foods (OR = 0.97)consumption, as were more likely to have lunch with parents (OR = 1.87), frequent vegetables (OR = 1.12), beans (OR = 1.14) and fruits (OR = 1.11) consumption than those who live with one parent or none of them. Conclusion: Households composed by both father and mother was associated with lower sedentary behavior and healthy eating habits in Brazilian adolescents. © 2024 Wiley Periodicals LLC.

#### **Authors**

Tebar W.R.; Rosa C.C.; Exupério I.N.; Pinheiro J.L.; Beretta V.S.; Akimoto A.N.; da

Silva C.C.M.; Ferrari G.; Christofaro D.G.D.

#### **Author full names**

Tebar, William R. (57148200400); Rosa, Camila C. (57339022000); Exupério, Isabella N. (57209100956); Pinheiro, Julia L. (58860355300); Beretta, Victor S. (56966542400); Akimoto, Amanda N. (57217491656); da Silva, Claudiele C. M. (57215865291); Ferrari, Gerson (57208326105); Christofaro, Diego G. D. (24723405400)

## Author(s) ID

57148200400; 57339022000; 57209100956; 58860355300; 56966542400; 57217491656; 57215865291; 57208326105; 24723405400

## Year

2024

## **Source title**

Public Health Nursing

#### Volume

41.0

Issue
3
Page start
367
Page end
373
Page count
6.0
DOI
10.1111/phn.13289
Link
https://www.scopus.com/inward/record.uri?eid=2-s2.0-85183883018&doi=10.1111 %2fphn.13289&partnerID=40&md5=04a8fcc702102fdf9b299d4443e5ae1a

## **Affiliations**

Centre of Clinical and Epidemiological Research, University Hospital, University of

Sao Paulo, Sao Paulo, Brazil; Departament Physiotherapy, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Department of Physical Education, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Department of Education, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Faculty of Health Sciences, Universidad Autónoma de Chile, Providencia, Chile

## **Authors with affiliations**

Tebar W.R., Centre of Clinical and Epidemiological Research, University Hospital, University of Sao Paulo, Sao Paulo, Brazil; Rosa C.C., Departament Physiotherapy, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Exupério I.N., Departament Physiotherapy, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Pinheiro J.L., Departament Physiotherapy, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Beretta V.S., Department of Physical Education, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Akimoto A.N., Departament Physiotherapy, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; da Silva C.C.M., Department of Education, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; Ferrari G., Faculty of Health Sciences, Universidad Autónoma de Chile, Providencia, Chile; Christofaro D.G.D., Department of Physical Education, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil

# **Author Keywords**

dietary pattern; food intake; parents; physical activity; screen time; youth

# **Index Keywords**

Adolescent; Brazil; Feeding Behavior; Female; Humans; Sedentary Behavior; Socioeconomic Factors; Vegetables; adolescent; Article; bean; Brazil; candy; controlled study; eating habit; educational status; female; food intake; fruit; household; human; male; meal; physical activity; sedentary lifestyle; soft drink; television viewing; ultra-processed food; vegetable; Brazil; feeding behavior; socioeconomics; vegetable

#### **Tradenames**

SPSS Statistical Package version 24.0, IBM

#### **Manufacturers**

**IBM** 

## References

Baek Y.J., Paik H.Y., Shim J.E., Association between family structure and food group intake in children, Nutrition Research and Practice, 8, 4, pp. 463-468, (2014); Beets M.W., Cardinal B.J., Alderman B.L., Parental social support and the physical activity-related behaviors of youth: A review, Health Education & Behavior, 37, 5, pp. 621-644, (2010); Berge J.M., Hoppmann C., Hanson C., Neumark-Sztainer D.,

Perspectives about family meals from single-headed and dual-headed households: A qualitative analysis, Journal of the Academy of Nutrition and Dietetics, 113, 12, pp. 1632-1639, (2013); Carson V., Langlois K., Colley R., Association between parents and child sedentary behaviour and physical activity in early childhood, Health Reports, 31, pp. 3-10, (2020); Chatelan A., Castetbon K., Pasquier J., Allemann C., Zuber A., Camenzind-Frey E., Zuberbuehler C.A., Bochud M., Association between breakfast composition and abdominal obesity in the Swiss adult population eating breakfast regularly, International Journal of Behavioral Nutrition and Physical Activity, 15, 1, (2018); Christofaro D.G.D., Andersen L.B., Andrade S.M., Barros M.V.G., Saraiva B.T.C., Fernandes R.A., Ritti-Dias R.M., Adolescents' physical activity is associated with previous and current physical activity practice by their parents, Jornal De Pediatria, 94, 1, pp. 48-55, (2018); Christofaro D.G.D., Tebar W.R., Mota J., Fernandes R.A., Scarabottolo C.C., Saraiva B.T.C., Delfino L.D., de Andrade S.M., Gender analyses of Brazilian parental eating and activity with their adolescents' eating habits, Journal of Nutrition Education and Behavior, 52, 5, pp. 503-511, (2020); Christofaro D.G.D., Turi-Lynch B.C., Lynch K.R., Tebar W.R., Fernandes R.A., Tebar F.G., Mielke G.I., Sui X., Parents' lifestyle, sedentary behavior, and physical activity in their children: A cross-sectional study in Brazil, Journal of Physical Activity and Health, 16, 8, pp. 631-636, (2019); Claro R.M., Maia E.G., Costa B.V., Diniz D.P., Food prices in Brazil: Prefer cooking to ultra-processed foods, Cadernos De Saude Publica, 32, 8, (2016); Datar A., Nicosia N., Shier V., Maternal work and children's diet, activity, and obesity, Social Science & Medicine, 107, pp. 196-204, (2014); Forkert E.C.O., Moraes A.C.F., Carvalho H.B., Manios Y., Widhalm K., Gonzalez-Gross M., Gutierrez A., Kafatos A., Censi L., De Henauw S., Moreno L.A., Skipping breakfast is associated with adiposity markers especially when sleep time is adequate in adolescents, Scientific Reports, 9, 1, (2019); Haugland S.H., Coombes L., Stea T.H., Associations between parenting and substance use, meal pattern and food choices: A cross-sectional survey of 13,269 Norwegian adolescents, Preventive Medicine

Reports, 14, (2019); Hebestreit A., Internann T., Siani A., De Henauw S., Eiben G., Kourides Y.A., Kovacs E., Moreno L.A., Veidebaum T., Krogh V., Pala V., Bogl L.H., Hunsberger M., Bornhorst C., Pigeot I., Dietary patterns of european children and their parents in association with family food environment: Results from the I.Family Study, Nutrients, 9, 2, (2017); Brazilian Institute of geography and statistic, National Scholar Health Survey—PeNSE 2015, (2016); Jorgensen A., Pedersen T.P., Meilstrup C.R., Rasmussen M., The influence of family structure on breakfast habits among adolescents, Danish Medical Bulletin, 58, (2011); Konigstein K., Klenk C., Appenzeller-Herzog C., Hinrichs T., Schmidt-Trucksass A., Impact of sedentary behavior on large artery structure and function in children and adolescents: A systematic review, European Journal of Pediatrics, 179, 1, pp. 17-27, (2020); Lane M.M., Davis J.A., Beattie S., Gomez-Donoso C., Loughman A., O'Neil A., Jacka F., Berk M., Page R., Marx W., Rocks T., Ultraprocessed food and chronic noncommunicable diseases: A systematic review and meta-analysis of 43 observational studies, Obesity Reviews: An Official Journal of the International Association for the Study of Obesity, 22, 3, (2021); Latomme J., Van Stappen V., Cardon G., Morgan P.J., Lateva M., Chakarova N., Kivela J., Lindstrom J., Androutsos O., Gonzalez-Gil E.M., De Miguel-Etayo P., Nanasi A., Kolozsvari L.R., Manios Y., De Craemer M., The association between children's and parents' Co-TV viewing and their total screen time in six European countries: Cross-sectional data from the Feel4diabetes-Study, International Journal of Environmental Research and Public Health, 15, 11, (2018); Leinonen J.A., Solantaus T.S., Punamaki R.L., Social support and the quality of parenting under economic pressure and workload in Finland: The role of family structure and parental gender, Journal of Family Psychology, 17, 3, pp. 409-418, (2003); Leite J.A., Pompeo E.D.P., Monteiro L.S., Muraro A.P., Nogueira P.S., Rodrigues P.R.M., Association between household composition and dietary consumption in adolescents: A systematic review, DEMETRA Alimentação, Nutrição Saúde, 16, (2021); Malmir H., Mahdavi F.S., Ejtahed H.S., Kazemian E., Chaharrahi A., Mohammadian Khonsari N., Mahdavi-Gorabi A., Qorbani M., Junk food consumption and psychological distress in children and adolescents: A systematic review and meta-analysis, Nutritional Neuroscience, 26, 9, pp. 807-827, (2023); Mello G.T., Bertuol C., Minatto G., Barbosa Filho V.C., Oldenburg B., Leech R.M., Silva K.S., A systematic review of the clustering and correlates of physical activity and sedentary behavior among boys and girls, BMC Public Health [Electronic Resource], 23, 1, (2023); Mielke G.I., Brown W.J., Nunes B.P., Silva I.C.M., Hallal P.C., Socioeconomic correlates of sedentary behavior in adolescents: Systematic review and meta-analysis, Sports Medicine (Auckland, N.Z.), 47, 1, pp. 61-75, (2017); Ramos C.G.C., Andrade R.G., Andrade A.C.S., Fernandes A.P., Costa D.A.D.S., Xavier C.C., Proietti F.A., Caiaffa W.T., Family context and the physical activity of adolescents: Comparing differences, Revista Brasileira de Epidemiologia, 20, 3, pp. 537-548, (2017); Schnettler B., Miranda-Zapata E., Lobos G., Saracostti M., Denegri M., Lapo M., Hueche C., The mediating role of family and food-related life satisfaction in the relationships between family support, parent work-life balance and adolescent life satisfaction in dual-earner families, International Journal of Environmental Research and Public Health, 15, 11, (2018); Letter to the editor: Standardized use of the terms "sedentary" and "sedentary behaviours", Applied Physiology, Nutrition and Metabolism, 37, 3, pp. 540-542, (2012); Souza M.R., Andrade A.C.S., Froelich M., Muraro A.P., Rodrigues P.R.M., Association of household composition with dietary patterns among adolescents in Brazil, British Journal of Nutrition, 130, 7, pp. 1213-1219, (2023); Tebar W.R., Ritti Dias R.M., Scarabottolo C.C., Gil S.C.F., Saraiva C.T.B., Delfino D.L., Vanderlei M.C.L., Christofaro D.G.D., Sedentary behavior is more related with cardiovascular parameters is normal weight than overweight adolescents, Journal Public Health, 42, 3, pp. e215-e222, (2020); Utter J., Denny S., Farrant B., Cribb S., Feasibility of a family meal intervention to address nutrition, emotional wellbeing, and food insecurity of families with adolescents, Journal of Nutrition Education and Behavior, 51, 7, pp. 885-892, (2019); Watts A.W., Loth K., Berge J.M., Larson N., Neumark-Sztainer D., No time for family meals? Parenting Practices associated with adolescent fruit and vegetable intake when family meals are not an option, Journal of the Academy of Nutrition and Dietetics, 117, 5, pp. 707-714, (2017)

## **Correspondence Address**

D.G.D. Christofaro; Department of Physical Education, Universidade Estadual Paulista (UNESP), School of Technology and Sciences, Presidente Prudente, Brazil; email: diegochristofaro@yahoo.com.br

## **Publisher**

John Wiley and Sons Inc

**ISSN** 

07371209

**CODEN** 

**PHNUE** 

**PubMed ID** 

38294421.0

# **Language of Original Document**

English	
	Abbreviated Source Title
Public Health Nurs.	
	Document Type
Article	
	Publication Stage
Final	
	Source
Scopus	
	EID
2-s2.0-85183883018	