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Prevalence of daily family meals among children and adolescents from 43 countries

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Prevalence studies about family meals, including large and representative samples of children and adolescents on this topic, are scarce. Therefore, the aim of this study was twofold: first, to determine the prevalence of daily family meals in large and representative samples of school-going children and adolescents from 43 countries, and second, to identify the sex, age, socioeconomic status (SES), family structure, immigrant status and parental labour market status inequalities associated with this prevalence. Using data from the 2017/2018 wave of the Health Behaviour in Schoolaged Children study, a total of 179,991 participants from 43 countries were involved in this cross-sectional study. Family meals were assessed by the following question: 'How often do you and your family usually have meals together?'. Participants had five different response options: 'every day', 'most days', 'about once a week', 'less often', and 'never'. The meta package was utilized for conducting a meta-analysis of single proportions, specifically applying the *metaprop* function. The analysis involved pooling the data using a random-effects model and presenting the outcomes through a forest plot generated using the inverse variance method. Moreover, we applied generalized linear mixed models to explore the relationships between the studied sociodemographic factors as fixed effects, country as a random effect and the status of daily family meals as an outcome. Overall, the prevalence of daily family meals was 49.12% (95% confidence interval [CI]: 45.00–53.25). A greater probability of having daily family meals was identified for children aged 10-12 years (61.55%; 95% CI: 57.44%-65.49%), boys (61.55%, 95% CI: 57.44%-65.49%), participants with high SES (64.66%, 95% Cl: 60.65%-68.48%), participants with both parents at home (65.05%, 95% CI: 61.16%-68.74%) and those with both unemployed parents (61.55%, 95% CI: 57.44%-65.49%). In the present study, which included large representative samples of school-going children and adolescents from 43 countries, more than half of the participants did not have daily family meals.

KEYWORDS

family dinners, family structure, immigrant status, parental employment, sex, socioeconomic status

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1 | INTRODUCTION

A family meal is a communal dining experience at home, where caregivers prepare homemade food, and most family members gather around the table in a relaxed atmosphere for conversation (Daragan et al., 2023). Eating meals at home together as a family plays a relevant role for both children and parents (Brown et al., 2024). Family meals have long been acknowledged in numerous Western cultures as fundamental elements of family life (Walton et al., 2021). By serving as a unique window of opportunity, a family meal allows for the nourishment of family members, facilitates communication among them, and fosters the development of family relationships (Skeer et al., 2018). Recognized as a platform for role modelling and social learning of eating habits and behaviours (Berge et al., 2013), a family meal, given its regular occurrence, creates an environmental setting that can influence children's eating behaviour, nutrition and overall development (Middleton et al., 2020). With its potential for positive outcomes and the feasibility for most families to partake in this activity, the family meal is suggested as an ideal opportunity to enhance the health and well-being of both families and children (Fiese & Schwartz, 2008).

The definitions of family meals vary in the literature (Daragan et al., 2023; Kasper et al., 2019; McCullough et al., 2016; Middleton et al., 2020). These variations include definitions based on the presence of specific individuals, such as most or all family members, or the requirement of at least one parent being present during a meal (Hammons & Fiese, 2011; Horning et al., 2016; Robson et al., 2020). Alternatively, family meals have been described as occasions at designated times of the day when a significant proportion, if not all, of the members of the immediate family, share a meal together (Middleton et al., 2020). The predominant focus in the literature has been on characterizing family meals in terms of frequency, with less emphasis on detailing structural aspects such as meal type, location, duration and the identification of individuals present during the family meal (McCullough et al., 2016). Additionally, comprehension of the types and quality of foods consumed during family meals is further limited, particularly considering the added complexity of family meals occurring at dining establishments outside the home (Fulkerson et al., 2014).

Mounting evidence has highlighted that a greater frequency of family meals could serve as a protective factor for various aspects of children's and adolescents' well-being, including nutrition (Robson et al., 2023; Snuggs & Harvey, 2023), weight status (López-Gil et al., 2024; Robson et al., 2023; Snuggs & Harvey, 2023), risk behaviours (Snuggs & Harvey, 2023), overall well-being (Snuggs & Harvey, 2023) and academic performance (Snuggs & Harvey, 2023). A systematic review and meta-analysis by Dallacker et al. (2018) revealed a consistent association between frequent family meals and more desirable nutritional health in both younger and older children. This association was consistent across different countries and socioeconomic groups. In addition, regular family meals are inversely related to disordered eating, alcohol and substance use, violent behaviour and experiences of depression or suicidal thoughts in

Key messages

- In the present study, which included large representative samples of school-going children and adolescents from 43 countries in Europe and North America, more than half of the participants were not having daily family meals.
- Given the potential benefits of daily family meals during adolescence, these results suggest that further global, national, regional and local actions are required to increase children and adolescents family meals.
- Policymakers should develop public awareness campaigns, supportive policies, and school-based programs to emphasize the importance of daily family meals.
- Families should prioritize shared mealtimes, involve children in meal preparation, and create a distraction-free environment to foster better communication and bonding.

adolescents (Harrison et al., 2015). Considering the relationships between family meals and less fussiness and emotional eating, greater enjoyment of food and more desirable nutrient intake, family meals represent a significant opportunity to encourage healthy eating habits among young individuals (Verhage et al., 2018).

Regarding sociodemographic factors, an umbrella review conducted by Snuggs and Harvey (2023) indicates a general association between more frequent family meals and certain sociodemographic characteristics, such as being younger, having dual-parent families, possessing higher socioeconomic status (SES) and potentially having parents with higher educational levels. However, a review by Dwyer et al. (2015) revealed mixed evidence for factors such as children's sex, parents' age, marital status, parents' education, number of children in the household, parents' employment and urban versus rural location. Similarly, another systematic review by Glanz et al. (2021) reports mixed evidence for ethnicity, parent/child sex, parent/ child age, SES and educational level. Given the inconsistencies in the literature, it is crucial to enhance our understanding of sociodemographic factors associated with family meals.

Despite numerous studies examining the relationship between family meals and various health-related outcomes (Dallacker et al., 2018; Robson et al., 2023; Snuggs & Harvey, 2023; Verhage et al., 2018), prevalence studies including large and representative samples of children and adolescents on this topic are scarce. This knowledge could be useful for better describing healthy eating behaviours in this age group. Similarly, identifying sociodemographic inequalities that can reduce the probability of the transmission of family meal practices to future generations and its potential health benefits is crucial (Trofholz et al., 2018). Therefore, this study aims to determine the prevalence of daily family meals in large and representative samples of school-going children and adolescents from 43 countries and to identify the sex, age, SES, family structure, immigrant status and parental labour market status inequalities associated with this prevalence.

2 | METHODS

2.1 | Study design and population

This cross-sectional study incorporated data from 43 countries, including Albania, Armenia, Austria, Azerbaijan, Belgium (Flanders and Wallonia), Bulgaria, Canada, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Germany, Greece, Greenland, Hungary, Iceland, Israel, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, North Macedonia, Norway, Poland, Portugal, Moldova, Romania, Russia, Scotland, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine and Wales. The study utilized information from the 2017/2018 wave of the Health Behaviour in School-aged Children (HBSC) study (Moor et al., 2020), encompassing nationally representative samples of school-going children and adolescents aged 10-17 years. A total of 179,991 participants were involved in the study from 43 countries. Ireland and Switzerland were excluded because they had no information about family meals. The selection of children and adolescents for the study involved a random sampling method from various schools. The participants completed a standardised survey anonymously and the assessment was conducted in their native language. Students had the option to choose not to answer specific questions. Institutional ethics approval was obtained from each participating country and written informed consent forms were signed by the schools, children and adolescents, and their parents or legal guardians. It is important to note that, as the current study involved a secondary analysis of anonymized data, formal approval from an ethics committee was not deemed necessary. Ethical approval was the responsibility of the organizations in charge of conducting the original survey.

2.2 | Procedures

2.2.1 | Family meals

Family meals were assessed by the following question: 'How often do you and your family usually have meals together?'. Participants had five different response options: 'every day', 'most days', 'approximately once a week', 'less often', and 'never'. Furthermore, the daily family meal status of participants was subsequently recategorized as follows: daily family meals ('every day') and 'nondaily family meals' ('most days', 'about once a week', 'less often', or 'never').

2.2.2 | Sociodemographic factors

Participants provided self-reported information on their sex and age. SES was assessed using the Family Affluence Scale (FAS-III) (Currie et al., 2008). This version included items that captured market dynamics, economic trends, technological advancements and cultural, social and geographical norms in family consumption patterns across Europe and North America (Currie et al., 2024). To ensure that the new

items were relevant and appropriate for all cultural contexts included in the study, all 43 countries participating in the HBSC study were consulted to generate new candidate items for FAS-III (Currie et al., 2024). FAS-III comprises six questions with responses ranging from 0 to 13 points. The total scores were calculated by summing the individual responses, with a higher score indicating a higher SES. The FAS-III addresses six aspects of family material assets: the number of bathrooms (0, 1, 2, 3 or more), the number of cars (0, 1, 2, 3 or more), nonshared bedrooms (yes/no), dishwashers (yes/no), the number of computers (0, 1, 2, 3 or more) and the number of foreign vacations taken in the last 12 months (0, 1, 2, 3 or more). In accordance with international standards, ridit scores specific to sex and age groups were determined for each participating country in the HBSC study (Boyce et al., 2006). These ridit scores were subsequently utilized to classify children and adolescents into three SES groups: the bottom 20% (low SES), the middle 60% (medium SES) and the top 20% (high SES) (Torsheim et al., 2016). Family structure was determined according to the children' and adolescents' reports on who they lived with most of the time as follows: 'living with two parents', 'one parent' or 'others'. Individuals were considered to have an immigrant status if they met at least one of the following conditions: (a) were both immigrant parents, (b) were born outside the country of residence or (c) had at least one parent from another country. Finally, parental labour market status was coded as follows: 'both parents employed', 'both parents unemployed', 'unemployed father' or 'unemployed mother'.

2.3 | Statistical analysis

All the statistical analyses were carried out using R statistical software (version 4.3.2) (R Core Team) and RStudio (2023.09.1 + 494) (Posit). A p < 0.05 indicated statistical significance. The data in this study are reported as counts (n) and percentages (%). The meta package was utilized for conducting a meta-analysis of single proportions, specifically applying the *metaprop* function. The analysis involved pooling the data using a random-effects model and presenting the outcomes through a forest plot generated using the inverse variance method. The determination of 95% confidence intervals (CIs) for proportions in individual studies was performed using the exact or Clopper-Pearson method (Newcombe, 1998). Before calculating the pooled proportion, a Freeman-Tukey double arcsine transformation was applied to normalize the results (Barendregt et al., 2013). A continuity correction of 0.5 was incorporated in both the calculation of individual study results with confidence limits and the overall meta-analysis. To assess inconsistency among the selected studies, the I^2 statistic and its associated p value were used. The l^2 was interpreted as 'not important' (0%-29.9%), 'moderate' (30%-59.9%), 'substantial' (60%-74.9%), or 'considerable' (75%-100%) (Higgins et al., 2019). In addition, to reveal inequalities in the prevalence of daily family meals as a function of sociodemographic variables, dumbbell plots were used. On the other hand, we applied generalized linear mixed models to explore the relationships between the studied sociodemographic factors as fixed effects, country as a random effect and the status of daily family meals

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as an outcome. Moreover, we computed the predictive probabilities of having daily family meals based on the different sociodemographic factor. Additionally, to address potential bias arising from excluding participants with missing data, we used multiple imputation methods. To identify and handle missing values, we assumed that the missing data were random and employed the *mice* package to substitute these missing values via chained equations (van Buuren & Groothuis-Oudshoorn, 2011). To ensure adequate precision, we generated a total of 26 data sets with multiple imputations, following the recommendation to set the number of imputations to be >100 times the highest proportion of missing information (White et al., 2011).

3 | RESULTS

Figures 1 and 2 display the prevalence of daily family meals in the different countries examined among children and adolescents aged 10–17 years. Overall, the prevalence of daily family meals was 49.12% (95% CI: 45.00–53.25). The highest prevalence of daily family meals was observed in the Czech Republic (76.59%, 95% CI: 75.81–77.37). In contrast, the lowest prevalence of daily family meals was identified in Azerbaijan (18.33%, 95% CI: 17.21–19.50). Descriptive data about sociodemographic factors according to daily family meal status can be found in Table S1. A considerable inconsistency among the examined countries was observed (l^2 = 99.8; p < 0.001).

Figure 3 shows the prevalence of daily family meals in relation to different sociodemographic factors. The greatest prevalence of daily family meals was shown for boys (51.6%), aged 10–12 years (55.6%), with high SES (51.7%), with two parents at home (50.8%) and with both parents employed (63.6%).

Figure 4 shows the predicted probabilities of having daily family meals according to sex, age, SES, family structure, immigrant status and parental labor market status. Concerning sex, boys had a greater likelihood of having daily family meals (61.55%, 95% CI: 57.44%-65.49%) than girls did (58.10%, 95% CI: 53.90%-62.19%) (p < 0.001). A greater probability of having daily family meals was identified for participants aged 10-12 years (61.55%; 95% CI: 57.44%-65.49%) than for those aged 13-15 years (56.92%, 95% CI: 52.70%-61.03%) or for those aged 16-17 years (48.64%, 95% Cl: 44.41%-52.90%) (p < 0.001 for both comparisons). In relation to SES, participants with high SES had the highest probabilities of having daily family meals (64.66%, 95% CI: 60.65%-68.48%), followed by those with medium SES (63.92%, 95% CI: 59.90%-67.75%) and those with low SES (61.55%, 95% CI: 57.44%-65.49%) (p < 0.001 for both comparisons). Regarding family structure, participants with both parents at home had a greater likelihood of having daily family meals (65.05%, 95% CI: 61.16%-68.74%) than did those with only one's father or mother at home (59.31%, 95% CI: 55.22%-63.28%) or those without parents at home (61.55%, 95% CI: 57.44%-65.49%) (p < 0.001 for both comparisons). Finally, in relation to parental labour market



FIGURE 1 Prevalence of daily family meals in school-going children and adolescents aged 10–17 years from 43 countries.

Country		%	95% CI	Weight
Azerbaijan	+ :	18.33	[17.21; 19.50]	2.27%
Kazakhstan	+	23.53	[22.34; 24.76]	2.27%
Ukraine	+	26.95	[25.89; 28.04]	2.28%
Belgium (French)	+	27.92	[26.74; 29.14]	2.27%
Armenia	+	29.36	[28.05; 30.69]	2.27%
Portugal	+	30.29	[29.12; 31.48]	2.27%
France	+	31.24	[30.29; 32.20]	2.28%
Moldova	+	32.79	[31.44; 34.16]	2.27%
North Macedonia	+	40.43	[39.00; 41.86]	2.27%
Albania		40.69	[38.37; 43.04]	2.26%
Turkey	+	41.66	[40.37; 42.95]	2.27%
Luxembourg	+	42.35	[40.81; 43.90]	2.27%
Denmark	—	42.57	[40.84; 44.33]	2.27%
Georgia		44.04	[42.53; 45.56]	2.27%
Italy	+	44.39	[42.87; 45.92]	2.27%
Belgium (Flemish)	+	44.99	[43.49; 46.51]	2.27%
Russia	+	45.20	[43.69; 46.71]	2.27%
Malta		46.22	[44.27; 48.17]	2.27%
Iceland	+	46.37	[45.19; 47.55]	2.28%
Romania	+	46.37	[44.90; 47.85]	2.27%
Bulgaria	+	46.38	[44.91; 47.86]	2.27%
Norway	 	52.06	[50.25; 53.88]	2.27%
Serbia	+	52.25	[50.67; 53.84]	2.27%
Greece	+	52.40	[50.80; 53.99]	2.27%
Israel		53.29	[52.17; 54.41]	2.28%
Lithuania	+	54.03	[52.42; 55.63]	2.27%
Germany	+	54.40	[52.90; 55.90]	2.27%
Canada	+	54.52	[53.65; 55.38]	2.28%
Greenland		54.80	[51.91; 57.67]	2.26%
Sweden	+	55.49	[53.96; 57.02]	2.27%
Latvia	+	57.00	[55.51; 58.47]	2.27%
Estonia	+	58.84	[57.41; 60.25]	2.27%
Austria	+	59.81	[58.29; 61.32]	2.27%
Netherlands	+	59.92	[58.50; 61.33]	2.27%
England	+	60.44	[58.73; 62.13]	2.27%
Wales	+	60.61	[59.83; 61.37]	2.28%
Croatia	+	60.67	[59.30; 62.02]	2.27%
Spain		61.55	[60.08; 63.01]	2.27%
Slovenia		64.00	[62.73; 65.25]	2.27%
Hungary	+	64.52	[62.96; 66.05]	2.27%
Scotland	+	64.62	[63.27; 65.96]	2.27%
Slovakia	+	67.55	[66.19; 68.90]	2.27%
Poland	+	73.79	[72.57; 74.98]	2.27%
Czech Republic	-	76.59	[75.81; 77.37]	2.28%
Random effects model	•	49.12	[45.00; 53.25]	100.00%
Inconsistency: I ² = 99.8%, p < 0.001			-	
	v 20 40 60 80 100			

FIGURE 2 Random-effects meta-analysis of the prevalence of daily family meals in school-going children and adolescents aged 10–17 years from 43 different countries. 95% CI, 95% confidence interval.



FIGURE 3 Sociodemographic inequalities for the prevalence of daily family meals in school-going children and adolescents aged 10–17 years from 43 different countries. SES, socioeconomic status.

status, those with both parents unemployed had a greater likelihood of having daily family meals (61.55%, 95% CI: 57.44%–65.49%) than those with mothers unemployed (58.58%, 95% CI: 54.50%–62.53%), and those with fathers unemployed (55.02%, 95% CI: 50.78%–59.19%) and those with both parents employed (53.39%, 95% CI: 49.23%–57.47%) had lower probabilities of having daily family meals (p < 0.001 for all comparisons).

4 | DISCUSSION

Overall, our findings indicate that half of the individuals in the sample of examined children and adolescents did not have daily family meals. A great disparity was observed among countries, with Czech Republic showing the highest prevalence of family meals (more than seven out of 10 participants) and Azerbaijan showing the lowest prevalence (less than two out of 10 participants). Cultural factors may offer a possible explanation for these results, as food customs and traditions can vary significantly across countries and cultures (Fjellström, 2004). This could explain the considerable differences observed across countries. Certain cultures may have well-established practices of communal dining, while in others, such customs may be less prevalent (Jönsson et al., 2021). Additionally, in societies marked by a fast-paced lifestyle, numerous time demands and less conciliation of family and work life, maintaining daily family meals can prove challenging (Sharif et al., 2017), potentially contributing to the observed prevalence. Individual preferences and priorities of family members may also play a role, with some individuals favouring solitary dining or facing scheduling conflicts due to extracurricular activities or other responsibilities (Middleton et al., 2023).

Finally, parents described the lack of resources (time, effort, confidence), planning and mealtime routines as barriers, along with the need to accommodate different family members' schedules and preferences and the challenge of getting young children to sit for a meal (Martin-Biggers et al., 2014), which could also contribute to explaining these results.

Regarding sociodemographic factors, it was observed that the probability of having daily family meals was greater for boys than for girls. Research has shown that boys are more likely to report having frequent family meals than girls of the same age (Luo et al., 2023). Although the factors explaining these differences have not been fully elucidated, cultural norms and expectations, gender roles, family dynamics and individual preferences could be related to girls' lower likelihood of having daily family meals (Luo et al., 2023). On the other hand, older adolescents (aged 16-17 years) had the lowest prevalence of daily family meals compared with their younger counterparts (aged 10-15 years). As children and adolescents progress through their teenage years, their schedules may become busier, with increased demands such as academic assignments, involvement in extracurricular activities, part-time employment and social commitments. This increased number of tasks can create difficulties in consistently participating in family meals (Harrison et al., 2015). Furthermore, as adolescents seek greater independence, they may develop a preference for dining outside the home or, at times, that differs from the rest of the family (Tripicchio et al., 2023).

Interestingly, participants from families with low SES exhibit a lower likelihood of daily family meals than do those from families with medium or high SES. Research findings also highlight an association between parents' SES and the frequency of family meals, indicating that higher SES parents tend to have more regular family meals



FIGURE 4 Predictive probabilities of having daily family meals for each sociodemographic factor examined in school-going children and adolescents aged 10–17 years from 43 different countries. SES, socioeconomic status.

(Martin-Biggers et al., 2014; Snuggs & Harvey, 2023). The lower prevalence of family meals in low-SES families may be attributed to challenges such as limited access to resources, time constraints, and less flexible work schedules, impacting families' ability to prioritize and participate in shared meals (Serasinghe et al., 2023). This aligns with the idea that low SES is associated with economic hardships and stress (Businelle et al., 2014), potentially leading to fatigue and reduced motivation for family meal preparation and engagement (Crandall et al., 2021). Conversely, as income increases, there is a likelihood of having more resources and flexibility related to food (Kinsey, 1994), which could explain the greater prevalence of family meals in participants from higher SES backgrounds.

Children and adolescents from households in which both parents were unemployed had greater odds of having daily family meals than did those in which only the father, only the mother, or both parents were working. This finding could be explained by the fact that parents who are not employed have more time to spend on household tasks, including meal preparation (Mooi-Reci & Craig, 2020) and less likelihood and economic resources for eating out. In addition, the absence of work-related stress and conflict can contribute to a more conducive environment for family meals (Bauer et al., 2012). Furthermore, the scheduling conflicts that often arise from employment can be a barrier to family meals (Neumark-Sztainer et al., 2000; Prior & Limbert, 2013). It is remarkable that the literature does not consistently support the association between parental labour work status and the frequency of family meals (Dwyer et al., 2015). On the one hand, single-parent households may encounter financial challenges that impact their ability to buy and prepare meals. Limited resources might lead to a reliance on convenient or fast-food options, which may not facilitate regular family meals (Berge et al., 2013). On the other hand, employees often have to deal with longer working hours and atypical, rotating, or unpredictable schedules (Brumley et al., 2021). Dual-earning families may experience heightened work-family conflict as they navigate the demands of family life with both parents engaged in the workforce (Dai, 2016).

Additionally, children and adolescents whose parents were living at home were more likely to have family meals daily than when only one adult was present or when any adults were present, which is in line with the scientific literature (Snuggs & Harvey, 2023). Previous research has shown that households headed by single mothers tend to have fewer family meals (Duriancik & Goff, 2019; Valdés

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et al., 2013). Furthermore, fathers participate in shared meals with their children less frequently than mothers do (Khandpur et al., 2014). This finding could be explained by the fact that single-parent households, especially those with employed parents, frequently contend with substantial time constraints. These constraints arise from the necessity of managing multiple responsibilities, encompassing work, childcare and household chores (Sharif et al., 2017). As a result, the demanding nature of these obligations can restrict the regularity of shared family meals.

The findings of this study should be interpreted in light of its limitations. First, the cross-sectional design prevents us from establishing prospective or causal relationships for the observed outcomes. Therefore, future prospective observational studies and intervention studies are necessary to investigate the temporal trends in daily family meals among children and adolescents. Second, the questions used were concise enough to reduce participant burden, resulting in a lack of in-depth data on the variables under examination. A more detailed measure could offer additional insights into each item, as well as details on other aspects related to family meals, such as who is present, where meals occur and the typical duration of family meals (McCullough et al., 2016). Third, it was not possible to determine the area of residence (i.e., rural or urban), which could also be related to the prevalence of daily family meals. Conversely, the study has certain strengths. The main strength lies in the large and representative sample of children and adolescents from 43 countries, enhancing the external validity of the findings. Furthermore, while the statistical significance of small effect sizes may be present in studies analysing large data sets, this study provides cross-sectional evidence of inequalities in daily family meals according to several sociodemographic factors. Considering the study's large and diverse sample, future research should explore how cultural differences are related to family meal practices and their outcomes. Understanding cultural nuances can help tailor interventions to be more culturally sensitive and effective. Moreover, these findings could inform public health policies aimed at promoting family meals. However, further studies should explore how policies and programs at the community, school and national levels can support families in having regular and guality family meals.

5 | CONCLUSION

In the present study, which included large representative samples of school-going children and adolescents from 43 countries, more than half of the participants did not have daily family meals. Given the potential benefits of daily family meals during adolescence, these results suggest that further global, national, regional and local actions are required to increase children and adolescents' family meals. These findings could be useful for establishing future intervention and policy programs aimed at increasing family meals among children and adolescents. We recommend that policymakers develop public awareness campaigns, supportive policies and school-based programs to emphasize the importance of daily family meals. For families, we suggest prioritizing shared mealtimes, involving children in meal

preparation and creating a distraction-free environment to foster better communication and bonding.

AUTHOR CONTRIBUTIONS

José Francisco López-Gil designed the study, contributed to the interpretation and analysis of the data, and wrote the initial draft. Lee Smith, Mark A. Tully, Julio Álvarez-Pitti, Santiago F. Gómez and Helmut Schröder contributed to the revision of the manuscript. All authors have read and agreed to the published version of the manuscript.

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Not applicable.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in the HBSC Data Management Centre at https://www.uib.no/en/hbscdata.

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