

ORIGINAL RESEARCH

Consumption of traditional food and self-perceived health among elderly Sámi in Sweden

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ABSTRACT

Introduction: Traditional food plays a vital role in the health and cultural identity of Indigenous populations worldwide. However, little is known about whether the traditional food of the Sámi (the only Indigenous people in the European Union) is associated with positive physical and mental health outcomes. This study examines the relationship between the consumption of traditional Sámi food - specifically reindeer and elk meat - and self-perceived physical and mental health among older Sámi adults in Sweden.

Methods: Using data from the 2021 SámiHET survey (n = 3,617), we analysed the consumption of traditional meat alongside health outcomes across different age and sex groups. Logistic regression models were used to assess associations between frequent consumption of reindeer or elk meat (more than once per week) and self-reported poor physical health or poor mental wellbeing.

Results: Although consumption of traditional meat declined slightly among the Sámi aged 75 and over, it remained significantly higher than the national average. Women and older adults reported lower intake than men and younger participants. Frequent consumption of reindeer or elk meat was associated with lower odds of poor mental wellbeing across all subgroups, even after adjusting for age, sex, education, and income.

Conclusion: These findings suggest that traditional Sámi food is associated with improved mental wellbeing, particularly among older Sámi adults. However, as this is a cross-sectional study, the association cannot be interpreted as causal. The underlying link may relate to the cultural significance of traditional foods. In this context, food could also serve as a proxy for cultural strength, a factor that previous research has identified as being important for the mental health of Indigenous peoples. Further research is needed to clarify the mechanisms behind these associations.

Keywords: Sámi, traditional food, reindeer, Indigenous, mental, diet, elderly, Sweden.

Abstract in Español at the end of the article

INTRODUCTION

The relationship between traditional food consumption and health has been studied in various Indigenous populations worldwide. International research indicates that Indigenous diets rich in locally sourced and minimally processed foods contribute to better metabolic health, a reduced risk of chronic diseases, and improved well-being [1, 2]. Furthermore, the psychosocial aspects

of traditional food consumption, such as a sense of belonging, a connection to nature, and the transmission of intergenerational knowledge, play a significant role in perceived wellbeing [3].

Among older adults in particular, diet is crucial for maintaining physical health and wellbeing [4, 5]. For instance, recent nursing research suggests that older adults in nursing homes should be encouraged to participate in

food-related decision-making to improve their quality of life [6]. In addition to the nutritional aspects of diet, the importance of culturally tailored health strategies, including dietary advice, is increasingly acknowledged in elderly care [7]. This has also been supported by qualitative studies focusing on Sámi older adults in Norway, Sweden, and Finland [8-11].

The Sámi, recognized as the only Indigenous people within the European Union, inhabit the northernmost regions of Norway, Sweden, Finland, and the Kola Peninsula in Russia [12]. Their traditional food system, deeply rooted in self-sufficiency, has historically provided a reliable nutritional supply through fishing, hunting, reindeer herding, gathering of herbs and berries, and small-scale farming [13]. For reindeer-herding Sámi, however, elk meat is supplementary to reindeer meat. For non-reindeer-herding Sámi, elk plays a similar role in the food system to that of reindeer [14]. Furthermore, the nutrient composition of meat from the two species is comparable [15].

To the best of our knowledge, there is currently no epidemiological evidence demonstrating the health benefits of a traditional Sámi diet. In contrast, substantial research supports the health benefits of other traditional dietary patterns, such as the Mediterranean diet [16]. Methodological challenges, such as the need for culturally adapted dietary assessment tools and larger study populations, combined with the relatively small size of the Sámi population, make large-scale longitudinal studies highly resource-intensive and difficult to implement.

Nevertheless, the Sámi diet, which includes nutrient-rich reindeer and elk meat, wild-caught fish, and vitamin-rich herbs and berries, has been suggested to have potential health benefits [15, 17]. While the evidence may never be as robust as that from large cohort studies, further indications of such benefits would be highly valuable.

In 2021, the large-scale public health survey Sámi Health on Equal Terms (SámiHET) was conducted, the first of its kind in Sweden. All Sámi in Sweden who could be identified through various registers were invited to participate [17]. The SámiHET questionnaire included a comprehensive set of questions about health, lifestyle, and living conditions. Four established indicators of healthy or unhealthy eating were included in the section on dietary habits, along with an additional question on reindeer or elk meat consumption. In brief, the SámiHET survey revealed that, compared to the general Swedish population, Sámi people consume fewer vegetables and fruits daily. Fewer Sámi women and men eat fruit or vegetables at least once a day than their non-Sámi counterparts. A slightly higher proportion of Sámi people report drinking sugary beverages at least twice a week, particularly among women. Fewer Sámi people eat fish or seafood weekly than the general population, although the proportion of Sámi men who do so is like that of non-Sámi men. Notably, 73% of Sámi people reported eating reindeer or elk meat at least once a week,

reflecting traditional dietary practices [19].

These results suggest a widespread dietary transition towards a Western-style diet among the Sámi, characterized by a relatively high intake of sugary drinks and a low consumption of fish and seafood.

This study is part of a larger research initiative called “*Healthy ageing for Indigenous communities in India and Sweden with focus on nutritious and culturally adequate food provision*”, which aims to promote culturally appropriate care and support healthy ageing [20]. While the overarching project addresses culturally adapted care more broadly, this sub-study specifically investigates traditional meat consumption among the Sámi people in Sweden and its association with self-reported health outcomes.

This study compares the consumption of the traditional food reindeer and elk meat among younger and older Sámi individuals, stratified by sex, and explores the associations between consuming these foods and self-reported physical health and mental wellbeing.

METHODS

Study design

This study draws on data from the cross-sectional SámiHET survey, which was carried out among the Sámi population of Sweden in 2021. The survey was conducted within the framework of a collaborative agreement involving the Sámi Parliament, the Department of Epidemiology and Global Health at Umeå University, and the Swedish Public Health Agency. Detailed information about the study design and sampling procedures is available in a separate publication [17].

Study population

The selection of the study population is illustrated in Figure 1. In SámiHET, three different administrative sources were used to identify individuals belonging to the Sámi population: the Sámi electoral roll (SER), the reindeer mark register (RMR; which lists individuals who own reindeer marks), and the register of Labour Statistics Based on Administrative Sources (RAMS; including individuals with income from reindeer herding businesses, classified according to the Swedish Standard Industrial Classification). These registers were matched with the Swedish population register using the unique personal identity number. Individuals who were alive, aged between 18 and 84, had a valid postal address, and were residing in Sweden were invited to participate in the survey. Study invitations and up to four reminders were distributed between February and May 2021. Of the 9,249 people contacted, 3,779 responded to the survey. However, 121 respondents did not clearly confirm their Sámi identity and were therefore excluded from the analysis. This left an analytical sample of 3,658 individuals, corresponding to a response rate of 40.9% [17]. A further 41 individuals were excluded for failing to answer questions relating to food indicators, yielding

a final analytical sample of 3,617 participants, 56.6% of whom were women.

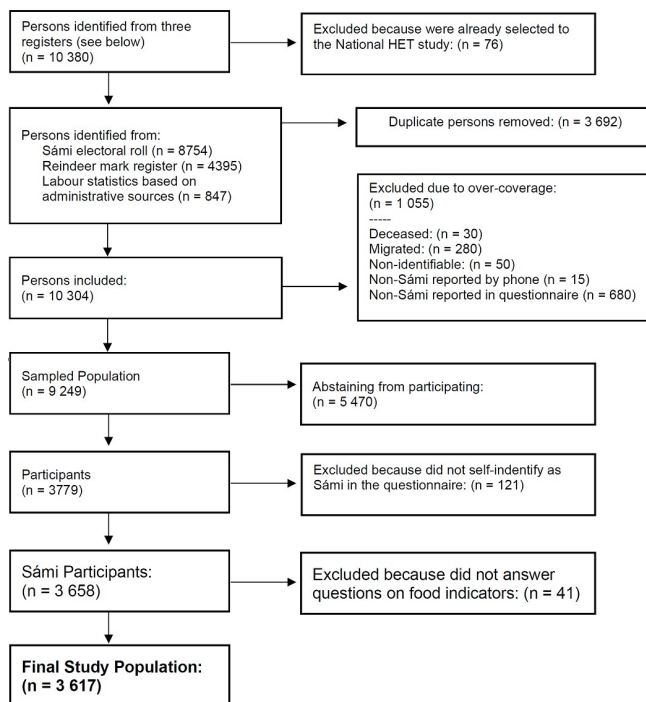


Figure 1. Prisma flow diagram showing the selection of the study population

Variables

Age groups

The SámiHET cohort included adults aged between 18 and 84. Older adults were defined as individuals who turned 65 or older during the survey year of 2021. A subgroup of very elderly individuals, defined as those who turned 75 or over in 2021, was also included in the study.

Traditional food consumption

Consumption of reindeer or elk meat, used as a proxy for traditional food consumption, was the independent variable. It was defined through a semi-quantitative question asking how often participants consumed reindeer or elk meat as a main dish. The response options included: four times per week or more, two to three times per week, once per week, less than once per week, or never. These answers were recalculated into times per day to enable comparability with national statistics on meat consumption in Sweden. In the regression analysis, individuals who consumed reindeer or elk meat more than once per week were compared with those who consumed it less frequently.

Dependent variables

Self-reported poor physical health was assessed using the following question: ‘How do you rate your general health?’ Participants responded using a five-point scale ranging from “very good” to “very bad”. For the purposes of this study, these responses were categorised as either “good” or “poor”. Those who answered “very

good” or “good” were classified as having good physical health. All other responses (e.g. “fairly good”, “bad”, or “very bad”) were categorised as indicating poor physical health.

Poor mental wellbeing was self-reported and assessed using the Short Warwick-Edinburgh Mental Wellbeing Scale [18], which comprises seven statements reflecting positive aspects of mental health. Participants were asked how often, over the past two weeks, they had experienced each of the following: having a positive view of the future, feeling useful, feeling calm, handling problems well, thinking clearly, feeling close to others, and being able to make their own decisions. The response options ranged from “always” to “never” and were scored on a 5-point scale. Total scores ranged from 7 to 35 points. For the purposes of the analysis, a total score of 24 or higher was classified as indicating good mental wellbeing, while scores below 24 indicated poor mental wellbeing.

Covariates

The covariates used in the analyses included i) income, which was defined as individual disposable income, that is, the amount available for consumption or savings after taxes and all transfers (both positive and negative) had been accounted for. This variable was divided into quintiles, ranked from the highest to the lowest income group; ii) education, categorized according to the classification system used by Statistics Sweden. This categorization was performed without adjustment for sex or age. Educational level was grouped into three categories based on code ranges: low (codes 100–206), medium (codes 310–527), and high (codes 530–640); iii) age, defined as the age in years of the participants December 31st 2021 and iv) sex was defined as the registered sex of men or women. This variable was only used in analyses that were not stratified by sex.

Statistical analyses

The sample was described stratified by sex and age groups (18–64, 65–74, and 75–84 years). ANOVA was used for continuous variables and Chi-square tests for categorical variables to assess differences in baseline characteristics across age groups. Odds ratios (ORs) and 95% confidence intervals (CIs) were estimated to investigate the associations between the consumption of reindeer and elk meat and the risk of reporting poor physical health or poor mental wellbeing using a binary logistic regression. Consumption of reindeer meat once a week or more was used serving as the reference category. In the regression analyses, the two oldest age categories were merged to obtain adequate numbers for reliable statistical estimation.

To account for potential confounders, we constructed a multivariable model adjusting for sex, education, age, and income. All analyses were performed using IBM SPSS Statistics, version 28. All p-values were two-tailed, and p-values ≤ 0.05 were considered statistically significant.

Ethics

In the SámiHET study, all participants provided informed consent prior to their inclusion. The study received ethical approval from the Swedish Ethical Review Authority [Dnr 2020-04803, Ö 70-2020/3.1], and the research was conducted in accordance with the Norwegian Ethical Guidelines for Sámi Health Research (17). The Sámi Parliament (Sámediggi) authorised the implementation of the study and granted permission for Statistics Sweden to carry out register linkages on its behalf. To ensure the protection of participants’ privacy, Statistics Sweden conducted a pseudo-anonymisation process by replacing personal identity numbers with serial codes. The final dataset was stored on a secure server at Umeå University.

RESULTS

Table 1 presents an overview of the baseline characteristics and dietary habits of Sámi women and men in

Sweden, categorized by age group.

Income disparities increase with age among the Sámi, particularly among women ($p \leq 0.001$ for both sexes). While 18.6% of the Sámi women aged 18–64 fall within the highest income quintile, this proportion drops to just 4.2% among those aged 75 and older. A similar pattern is observed among Sámi men, with 31.9% of those aged 18–64 in the top income quintile compared to only 6.8% of those aged 75 and above. At the same time, the proportion in the lowest income quintile rises with age, from 16.5% to 31.7% among Sámi women, and from 17.8% to 35.7% among Sámi men.

Educational level also shows a clear generational divide. Older Sámi adults are more likely to have a low level of education, whereas younger adults more often hold a higher education degree. Among Sámi women aged 18–64, 20.4% have a low educational level, compared to 38.8% among those aged 65–74 and 46.0% among those aged 75 and older. The corresponding figures for Sámi men are 35.5%, 53.5%, and 66.1%, respectively.

Table 1. Baseline characteristics

Age (years)	18 - 64	18 - 64	65 - 74	65 - 74	75 - 84	75 - 84
Sex	Women	Men	Women	Men	Women	Men
Participants, N	1,489	1,023	371	324	189	221
Income, N (%)						
Highest	276 (18.6)	326 (31.9)	39 (10.5)	61 (18.8)	8 (4.2)	15 (6.8)
Higher	377 (25.4)	237 (23.2)	58 (15.6)	35 (10.8)	6 (3.2)	9 (4.1)
Medium	359 (24.1)	159 (15.5)	98 (26.4)	54 (16.7)	21 (11.1)	34 (15.4)
Lower	229 (15.4)	119 (11.6)	104 (28.0)	91 (28.1)	94 (49.7)	84 (38.0)
Lowest	246 (16.5)	182 (17.8)	72 (19.4)	83 (25.6)	60 (31.7)	79 (35.7)
Education, N (%)						
Low	304 (20.4)	362 (35.5)	144 (38.8)	174 (53.7)	87 (46.0)	146 (66.1)
Medium	581 (39.1)	440 (43.2)	130 (35.0)	107 (33.0)	52 (27.5)	46 (20.8)
High	602 (40.5)	217 (21.3)	97 (26.1)	43 (13.3)	50 (26.5)	29 (13.1)
Consumption of traditional food (times/day): mean (SD)						
Reindeer or elk	0.29 (0.21)	0.32 (0.20)	0.29 (0.20)	0.32 (0.19)	0.27 (0.19)	0.29 (0.19)
Poor health, N (%)						
Physical health	376 (25.3)	240 (23.5)	103 (27.8)	92 (28.4)	56 (29.9)	87 (39.7)
Mental wellbeing	235 (15.8)	122 (11.9)	14 (3.8)	21 (6.5)	21 (11.1)	18 (8.1)

The pattern is reversed for higher education: 40.5% of Sámi women aged 18–64 hold a college or university degree, compared to just over 26% of women aged 65 and older. Among Sámi men, 21% of those aged 18–64 have completed higher education, compared to just over 13% among those aged 65 and older. The difference in educational attainment between age groups was statistically significant ($p \leq 0.001$).

Consumption of traditional food differs across gen-

erations ($p \leq 0.05$). A slight decline is observed among older adults, although differences are minor. Older Sámi women consume reindeer and elk meat an average of 0.29 times/day (SD = 0.21). Women aged 65–74 report the same frequency (SD = 0.20), while those aged 75 and older consume it slightly less often, at an average of 0.27 times/day (SD = 0.19). Among men, those aged 18–64 and 65–74 consume reindeer and elk meat 0.32 times/day on average (SD = 0.20 and 0.19, respectively),

while those aged 75 and older consume it 0.29 times/day on average (SD = 0.19).

Regarding self-reported poor physical health, there was no statistically significant difference between women in different age groups, although there was a tendency for it to increase with age: from 25.3% in the 18–64 age group to 29.9% among those aged 75–84. Among men, however, the differences were more pronounced: 23.5% in the 18–64 age group reported poor physical health, compared to 28.4% in the 65–74 age group and 39.7% in the 75–84 age group.

In terms of self-reported poor mental well-being, the pattern was more varied. The lowest proportions were found among women and men aged 65–74, at 3.8% and 6.5%, respectively. The highest levels of poor mental well-being were reported by participants aged 18–64: 15.8% among women and 11.9% among men. Among those aged 75–84, 11.1% of women and 8.1% of men reported poor mental well-being.

Table 2 shows the odds ratios (OR) for self-reported poor physical health and poor mental wellbeing in Sámi individuals with high (>1 time/week) versus low (≤ 1 time/week) intake of reindeer or elk meat intake.

In the adjusted model (Model 2), no statistically significant association was observed between high meat intake and poor physical health in the total sample (OR = 0.90, 95% CI: 0.79–1.03), among men (OR = 1.06, 95% CI: 0.86–1.30), or among participants aged 65–84 years (OR = 0.93, 95% CI: 0.74–1.16).

Regarding poor mental wellbeing, consistent and statistically significant associations were observed across all groups in the adjusted model. High intake of reindeer or elk meat was associated with lower odds of poor mental wellbeing in the total sample (OR = 0.64, 95% CI: 0.53–0.78), among men (OR = 0.60, 95% CI: 0.44–0.82), among women (OR = 0.66, 95% CI: 0.52–0.84), and among those aged 65–84 years (OR = 0.54, 95% CI: 0.34–0.86).

Table 2. Odds ratio for lack of self-reported poor physical health and mental wellbeing among Sámi people with a high (> 1 times/week) compared to low (≤ 1 time/week) intake of reindeer or elk meat.

	Model 1			Model 2		
	N	OR	95% CI	N	OR	95% CI
Poor physical health						
All	3617	1.0	0.88-1.13			
Men	1568	1.17	0.96-1.43			
Women	2049	0.89	0.75-1.05			
65 – 84 years	1101	1.03	0.83-1.28			
Poor mental wellbeing						
All	3617	0.70	0.58-0.85*	3609	0.64	0.53-0.78*
Men	1568	0.70	0.51-0.95*	1564	0.60	0.44-0.82*
Women	2049	0.72	0.57-0.92*	2045	0.66	0.52-0.84*
65 – 84 years	1105	0.64	0.40-1.01*	1105	0.54	0.34-0.86*

Model 2, adjusted for age, sex, education and income, except in sex or age stratified analyses. P-values ≤ 0.05 are marked with an asterisk.

DISCUSSION

This population-based, cross-sectional study examined 3,617 Sámi men and women in Sweden. Those aged 75–84 reported consuming slightly less reindeer or elk meat per serving than those under 75. Additionally, across all age groups, Sámi women reported lower consumption of reindeer or elk meat than Sámi men. After adjusting for key sociodemographic factors, a high intake of reindeer or elk meat was consistently associated with lower odds of poor mental wellbeing across all subgroups, including men, women and older adults.

Expressed as servings per week, average consumption of reindeer or elk meat was 2.2 times per week among Sámi men aged 18–74 years, compared to 2.0 times per week among those aged 75–84 years. Among Sámi women, the corresponding figures were 2.0 and 1.9 times per week, respectively.

By way of comparison, the average total meat consumption in Sweden in 2022 was 80.7 kg per person [19], which equates to around 10 servings per week assuming a standard portion size of 150 g. Of this total, consumption of meats other than beef, pork and poultry (including reindeer, elk and other game) accounted for only 5 kg per person per year [19]. This equates to around 0.6 servings per week. Therefore, the average consumption of reindeer and elk meat among the Sámi in Sweden is nearly four times higher than the national average for similar types of meat.

Furthermore, the questionnaire only asks about reindeer or elk meat consumed as part of a meal. Among the Sámi, it is common to eat dried reindeer meat as a snack between meals or with coffee [13]. This consumption is not reflected in the SámiHET questionnaire.

The slightly reduced intake of traditional meat among the oldest Sámi people may have many causes.

From a physiological perspective, the ability to chew food may deteriorate with age due to poor tooth quality or due to joint problems in the jaw [20, 21]. Previous research has shown that Sámi people report poorer dental health than the Swedish general population [22] and that jaw problems are common among Sámi women [23].

Reduced intake of traditional meat may also be influenced by structural factors. For example, older Sámi living in nursing homes, typically have centrally planned meals, with cost and general nutritional requirements being the primary considerations [24]. Such institutional arrangements often prioritize efficiency and standardization over cultural specificity, which may inadvertently restrict access to traditional foods and contribute to dietary acculturation among Indigenous elders. This persists despite the emphasis on person-centred care within gerontological frameworks [25].

The provision of culturally appropriate food for Sámi people in elderly care has been addressed locally in some of the 27 Sámi administrative municipalities currently established in Sweden. Several of these municipalities have adopted a method developed by Sámi food inspirer Ann Sparrock, which involves serving eight well-prepared Sámi dishes each year. The approach entails preparing one traditional dish for each of the eight Sámi seasons in the municipality's public kitchens [26]. However, even older Sámi residing in nursing homes located in municipalities that have adopted Ann Sparrock's Sámi annual cycle model still have significantly fewer opportunities to eat traditional Sámi food compared to when they lived in their own homes.

The observed association between traditional meat consumption and a decreased likelihood of reporting poor mental well-being should not be interpreted as causal, given that it is based on a cross-sectional study. However, the findings suggest that there could be a potential link, which aligns with qualitative studies in which Sámi individuals describe positive experiences of encountering Sámi food and culture. These studies emphasize the perceived importance of Sámi food and culture for mental well-being both in general [8, 11, 27] and in the context of elder care [9, 10].

The reindeer is not only a crucial part of the Sámi food system. Traditionally, its skin, tendons, antlers, and bones have provided materials for crafts and art, as well as for the production of clothing and other useful items [28]. Access to reindeer meat may therefore reflect a broader dimension of cultural continuity, encompassing language, handicraft traditions, and other aspects of Sámi heritage. Taken together, this may serve as an indicator of cultural safety and could be linked to mental wellbeing [8].

However, it is also possible that the observed association reflects reverse causality, a phenomenon commonly noted in research on the relationship between diet and mental health [29]. People in better mental health may have greater initiative and more economic resources, which could, in turn, facilitate access to nutrient-dense

foods, such as reindeer and elk meat, in the context of this study.

From a broader international perspective, there are also many studies that support the importance of serving traditional and familiar food for the mental wellbeing of older people [5]. For example, focus group interviews with members of the Indigenous Mal Paharia community in Jharkhand, India, emphasize the significant role of traditional food in fostering a sense of cultural security and connection to ancestral lands and waters, elements that are closely linked to mental well-being [30].

The lack of an association between traditional meat consumption and physical health is not surprising in itself, given that such relationships are difficult to establish without detailed dietary records and longitudinal follow-up. Our findings are based on a cross-sectional design and therefore cannot be interpreted as causal. Moreover, studies aiming to establish causal links rarely examine specific subcategories of meat. Nutrition epidemiology research typically focuses on broader food groups, such as red meat, rather than distinguishing between sources like beef, mutton, and reindeer meat [16].

From an international perspective, existing evidence indicates that high red meat consumption is generally not beneficial to health, particularly in relation to the prevention of cardiovascular diseases [31] and cancer [32]. From a Sámi perspective, however, it would be important to know whether these findings also apply to reindeer meat and whether its potential health-promoting properties, related to its high nutrient density and vitamin content, outweigh characteristics that may be less favorable to health. This study design cannot answer that question, but it highlights the need for future research to explore these aspects in greater depth.

Methodological considerations

A key strength of this study lies in its use of the unique SámiHET study, which employs a population-based, questionnaire-driven design using a standardized item that has been validated in similar research contexts [17]. This ensures that socio-economic background factors and standardized indicators of healthy eating follow a clear and consistent methodology. Another strength is that the first author is Sámi and a member of the Lávvuo research group at Umeå University. This group includes both Sámi and non-Sámi researchers who have extensive experience in Indigenous research and who founded the SámiHET study. This is particularly important when contextualising and interpreting Sámi-specific cultural dimensions.

The question on reindeer or elk meat intake was designed to align with the form of other dietary indicators. However, it has not been used in any other large-scale survey, which represents a limitation. That said, a similar question was included in the Health and Living conditions in Survey conducted in Jokkmokk in 2021 [33], albeit with slightly different semi-quantitative response

options (unpublished data), which can be viewed as a strength in terms of conceptual alignment.

Despite these strengths, certain methodological limitations must be acknowledged. The overall response rate in SámiHET was 40.9%, which raises concerns about potential non-response bias. The underrepresentation of certain subgroups cannot be ruled out and, as such, the findings should be interpreted with caution. Moreover, reliance on self-reported questionnaire data introduces the possibility of selection bias, which could influence both exposure and outcome variables. Similar studies have shown that underreporting is a common issue in dietary questionnaires [34].

Finally, a further limitation concerns the definition of the Sámi population in the SámiHET study, which was based on official registers. This means that individuals of Sámi heritage who were not included in these registers were excluded from participating in the study. While this introduces some uncertainty regarding the representativeness of the study sample, this approach is likely to remain the most comprehensive approach currently available in the Swedish context.

Conclusion

In this population-based cross-sectional study of Sámi adults in Sweden, we observed age- and sex-related differences in traditional meat consumption, with older individuals and women reporting slightly lower intake than younger participants and men. The findings also suggest a potential link between higher consumption of reindeer and elk meat and better self-reported mental wellbeing, but not for physical health. However, these results should be interpreted with caution, as the cross-sectional design does not allow for causal inference and residual confounding cannot be excluded.

The underlying link between traditional Sámi food and mental well-being may reflect the cultural significance of these foods. In this context, food could serve as a proxy for cultural strength, a factor that previous research has identified as an important determinant of mental health among Indigenous peoples. Further research is needed to clarify the mechanisms behind these associations. Nevertheless, this study highlights the potential cultural and nutritional relevance of traditional foods and underscores the need for longitudinal epidemiologic research to clarify the health implications in Indigenous contexts.

DECLARATIONS

AI utilization

As a group of authors whose first language is not English,

we used AI-based language tools to support linguistic clarity and refinement. All ideas, analyses, and conclusions remain entirely our own.

Competing interests

No potential conflict of interest was reported by the authors.

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Author contributions

LMN initiated, designed, conducted the analyses and drafted the manuscript. All authors contributed to data interpretation and to the critical review and revision of the manuscript. All authors read and approved the final manuscript.

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Indigenous engagement

Sámi people in Sweden have been engaged in the design of the SámiHET study – which this study is based on. One of the PIs of SámiHET is Sámi. SámiHET was developed in dialogue with Sámi and with support from the Sámi Parliament. In the preparation of this submission, Indigenous perspectives have been actively included through the involvement of two Indigenous co-authors: the first author, who is Sámi, and the second author, who belongs to the Santal people in India. In particular, the first author's Sámi cultural expertise has played a key role in shaping the content of this submission.

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ABSTRACT IN SPANISH

Consumo de alimentos tradicionales y salud autopercibida entre personas Sámi mayores en Suecia

Introducción: La comida tradicional desempeña un papel fundamental en la salud y la identidad cultural de los pueblos indígenas en todo el mundo. Sin embargo, se sabe poco sobre si la alimentación tradicional de los Sámi (el único pueblo indígena de la Unión Europea) está asociada con resultados positivos en la salud física y mental. Este estudio examina la relación entre el consumo de alimentos tradicionales Sámi —en concreto, carne de reno y de alce— y la salud física y mental autopercibida entre personas Sámi mayores en Suecia.

Métodos: Utilizando datos de la encuesta SámiHET de 2021 (n = 3.617), analizamos el consumo de carne tradicional junto con los resultados de salud en distintos grupos de edad y sexo. Se emplearon modelos de regresión logística para evaluar las asociaciones entre el consumo frecuente de carne de reno o alce (más de una vez por semana) y la autodeclaración de mala salud física o bajo bienestar mental.

Resultados: Aunque el consumo de carne tradicional disminuyó ligeramente entre los Sámi de 75 años o más, se mantuvo significativamente por encima de la media nacional. Las mujeres y las personas de mayor edad informaron un consumo menor que los hombres y los participantes más jóvenes. El consumo frecuente de carne de reno o alce se asoció con menores probabilidades de bajo bienestar mental en todos los subgrupos, incluso tras ajustar por edad, sexo, nivel educativo e ingresos.

Conclusión: Estos resultados sugieren que la comida tradicional Sámi está asociada con un mejor bienestar mental, especialmente entre las personas Sámi mayores. No obstante, al tratarse de un estudio transversal, la asociación no puede interpretarse como causal. El vínculo subyacente podría estar relacionado con el significado cultural de los alimentos tradicionales. En este contexto, la comida también podría actuar como un indicador de fortaleza cultural, un factor que investigaciones previas han identificado como importante para la salud mental de los pueblos indígenas. Se necesitan más estudios para aclarar los mecanismos que explican estas asociaciones.

Palabras clave: Sámi, comida tradicional, reno, indígena, mental, dieta, personas mayores, Suecia.

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