

Reporting Summary

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Statistical parameters

When statistical analyses are reported, confirm that the following items are present in the relevant location (e.g. figure legend, table legend, main text, or Methods section).

n/a Confirmed

- The exact sample size (n) for each experimental group/condition, given as a discrete number and unit of measurement
- An indication of whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
- The statistical test(s) used AND whether they are one- or two-sided
Only common tests should be described solely by name; describe more complex techniques in the Methods section.
- A description of all covariates tested
- A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
- A full description of the statistics including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
- For null hypothesis testing, the test statistic (e.g. F , t , r) with confidence intervals, effect sizes, degrees of freedom and P value noted
Give P values as exact values whenever suitable.
- For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
- For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
- Estimates of effect sizes (e.g. Cohen's d , Pearson's r), indicating how they were calculated
- Clearly defined error bars
State explicitly what error bars represent (e.g. SD, SE, CI)

Our web collection on [statistics for biologists](#) may be useful.

Software and code

Policy information about [availability of computer code](#)

Data collection

The data were collected through web-based or mailed questionnaires, and no software was used in data collection.

Data analysis

All statistical analyses were performed in SAS 9.4. The analysis code is available from the corresponding author upon request.

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors/reviewers upon request. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Research [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A list of figures that have associated raw data
- A description of any restrictions on data availability

Data of The Nurses' Health Study II and the Growing Up Today Study are not publicly available. Requests to access the data will need to be approved by the Channing Division of Network Medicine at Brigham and Women's Hospital. The authors are willing to share the SAS codes of this study upon request.

Field-specific reporting

Please select the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

Life sciences Behavioural & social sciences Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/authors/policies/ReportingSummary-flat.pdf](https://www.nature.com/authors/policies/ReportingSummary-flat.pdf)

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	Longitudinal observational study
Research sample	<p>The Nurses' Health Study II (NHSII) cohort was initiated in 1989 when 116,430 U.S.-based registered nurses aged 25 to 42 years were enrolled. In 1996, NHSII participants with children aged 9 to 14 years were invited to have their children participate in another cohort study known as Growing Up Today Study (GUTS1). A total of 16,882 male and female GUTS1 participants completed questionnaires about their health. In 2004, a second group of the NHSII children (N=10,920) aged 10 to 17 years were enrolled into the Growing Up Today Study 2 (GUTS2). NHSII and GUTS 1 and 2 participants continue to be followed annually or biennially.</p> <p>The analytic samples for this study were drawn from participants who responded to both the GUTS2 2008 and 2011 questionnaire (for analyses on parent-child relationship satisfaction and parenting styles), and from participants who responded to both the GUTS1 1997 and 2007 questionnaire (for analyses on family dinner frequency).</p>
Sampling strategy	<p>This study performs secondary analyses of data from the The Nurses' Health Study II and the Growing Up Today Study 1 and 2. Details of the sampling strategy were reported in prior work (Bao et al., 2016; Field et al., 1999).</p> <p>Bao, Y., Bertola, M. L., Lenart, E. B., Stampfer, M. J., Willett, W. C., Speizer, F. E., & Chavarro, J. E. (2016). Origin, methods, and evolution of the three Nurses' Health Studies. <i>American journal of public health</i>, 106(9), 1573-1581.</p> <p>Field, A. E., Camargo Jr, C. A., Taylor, C. B., Berkey, C. S., Frazier, A. L., Gillman, M. W., & Colditz, G. A. (1999). Overweight, weight concerns, and bulimic behaviors among girls and boys. <i>Journal of the American Academy of Child & Adolescent Psychiatry</i>, 38(6), 754-760.</p>
Data collection	This study performs secondary analyses of data from the The Nurses' Health Study II and the Growing Up Today Study 1 and 2. Details of the data collection procedures were reported in prior work (Bao et al., 2016; Field et al., 1999).
Timing	<p>The Nurses' Health Study II (NHSII) was initiated in 1989. The Growing Up Today Study (GUTS1) was initiated in 1996, and the Growing Up Today Study 2 (GUTS2) was established in 2004. The NHSII, GUTS1 and GUTS2 participants have been followed annually or biennially.</p> <p>The analytic samples for this study were drawn from participants who responded to both the GUTS2 2008 and 2011 questionnaire (for analyses on parent-child relationship satisfaction and parenting styles), and from participants who responded to both the GUTS1 1997 and 2007 questionnaire (for analyses on family dinner frequency). We used outcome variables assessed at the most recent waves (mainly GUTS2 2013 wave [if not available in 2013 wave, we used outcome data from the 2010 wave] for analyses on relationship satisfaction and parenting styles; mainly GUTS1 2010 wave [if no available in 2010 wave, we used outcome data from the 2007 or 2013 wave] for analyses on family dinner).</p>
Data exclusions	For analyses on relationship satisfaction and parenting styles, we drew the analytic sample from respondents of both the GUTS2 2008 questionnaire (in which the exposures were assessed) and the 2011 questionnaire (the earliest wave in which the outcomes were assessed). Similarly, For analyses on family dinner frequency, we drew the analytic sample from respondents of both the GUTS1 1997 questionnaire (in which the exposures were assessed) and 2007 questionnaire (the earliest wave in which the outcomes were assessed). We used multiple imputation to impute missing data on all variables.
Non-participation	Non-participation and the response rate in the original Nurses' Health Study II and The Growing Up Today Study 1 and 2 were reported previously (Bao et al., 2016; Field et al., 1999). Around 90% response rate has been maintained for follow-up questionnaires in these cohorts.
Randomization	This is an longitudinal observational study. We controlled for a wide range of sociodemographic characteristics, maternal health and baseline values of the outcome variables wherever data were available, with the aim to make the comparison groups exchangeable.

Reporting for specific materials, systems and methods

Materials & experimental systems

n/a	Involvement	Involved in the study
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Unique biological materials
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Antibodies
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Eukaryotic cell lines
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Palaeontology
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Animals and other organisms
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Human research participants

Methods

n/a	Involvement	Involved in the study
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ChIP-seq
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow cytometry
<input checked="" type="checkbox"/>	<input type="checkbox"/>	MRI-based neuroimaging

Human research participants

Policy information about [studies involving human research participants](#)

Population characteristics

The sample characteristics of the original Nurses' Health Study II and The Growing Up Today Study 1 and 2 were reported previously (Bao et al., 2016; Field et al., 1999).

In this study, the sample for analyses on relationship satisfaction and parenting styles was primarily white and slightly higher percentage female, with the mean age of 17.75 years (SD=1.90, range: 12-22) at the study baseline. The analytic sample for family dinner had similar characteristics, with the mean age of 12.78 years (SD=1.69, range: 10-17) at the study baseline.

Recruitment

The recruitment procedures of the original Nurses' Health Study II and The Growing Up Today Study 1 and 2 were reported previously (Bao et al., 2016; Field et al., 1999). All participants of the Nurses' Health Study II were female nurses, and all participants of the Growing Up Today Study 1 and 2 had a mother who worked in the nursing field. Therefore, results of this study may not be generalizable to other populations.