Age at Emergence of Gender Inequalities in Prescribed Psychotropic Use: A Longitudinal Retrospective Cohort Study

European child and adolescent psychiatry

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Table S2. Hazard ratio (HR) estimates by age period for AHS (A) and antidepressant (B) use, stratified by sex and income level.

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Appendix S1. STROBE checklist for cohort studies

STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

	Item No	Recommendation	Page
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	4
Methods			
Study design	4	Present key elements of study design early in the paper	5
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	5, Figure S1
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed	NA
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	6
Bias	9	Describe any efforts to address potential sources of bias	5-6, Figure S1
Study size	10	Explain how the study size was arrived at	5
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6

Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	6
		(*b*) Describe any methods used to examine subgroups and interactions	6
		(*c*) Explain how missing data were addressed	5, Figure S1
		(*d*) If applicable, explain how loss to follow-up was addressed	5, Figure S1
		(*e*) Describe any sensitivity analyses	NA
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	7, Figure S1
		(b) Give reasons for non-participation at each stage	5, Figure S1
		(c) Consider use of a flow diagram	Figure S1
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	7
		(b) Indicate number of participants with missing data for each variable of interest	NA
		(c) Summarise follow-up time (eg, average and total amount)	Table 1
Outcome data	15*	Report numbers of outcome events or summary measures over time	Table 1
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	7-9
		(*b*) Report category boundaries when continuous variables were categorized	NA
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	9
Discussion			

Key results	18	Summarise key results with reference to study objectives	10
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	13
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	10-13
Generalisability	21	Discuss the generalisability (external validity) of the study results	13
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	20

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.

Figure S1. Cohort construction flowchart

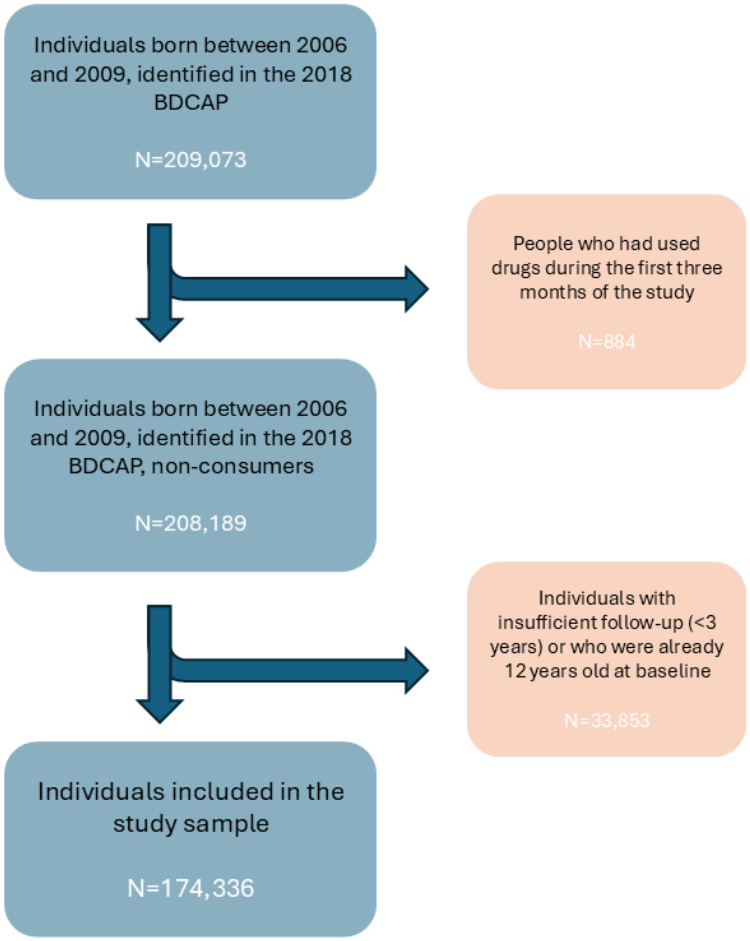
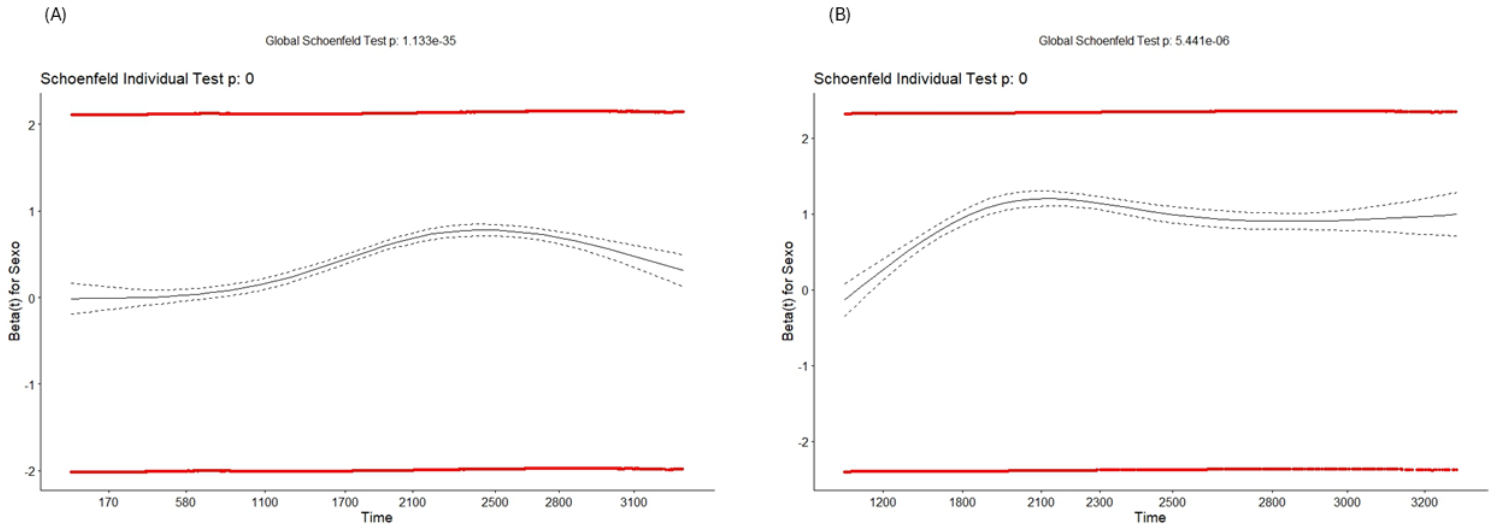


Figure S2. Schoenfeld residual plots for assessing the proportional hazards assumption for AHS (A) and antidepressant use (B).



Appendix S2. Log-rank test for AHS by sex (A), Antidepressants by sex (B), AHS by sex and income level (C) and Antidepressants by sex and income level (D)

A. AHS by sex

	coef	exp(coef)	lower 95	upper 95	se(coef)	z	p value
Girls	0.42	1.52	1.461	1.574	0.01892	22.01	<0.001

Score (logrank) test = 491.4 on 1 df. p=<0.001

B. Antidepressants by sex

	coef	exp(coef)	lower 95	upper 95	se(coef)	z	p value
Girls	0.90	2.46	2.33	2.61	0.01892	30.56	<0.001

Score (logrank) test = 998.9 on 1 df. p=<0.001

C. AHS by sex and income level

	coef	exp(coef)	lower 95	upper 95	se(coef)	z	p value
Middle-Low Boys	0.374	1.454	1.364	1.550	0.03264	11.46	<0.001
Middle-Low Girls	0.809	2.247	2.113	2.389	0.03128	25.88	<0.001
High-Girls	0.368	1.446	1.346	1.554	0.03671	10.05	<0.001

Score (logrank) test = 907.6 on 3 df. p=<0.001

D. Antidepressants by sex and income level

	coef	exp(coef)	lower 95	upper 95	se(coef)	z	p value
Middle-Low Boys	0.230	1.260	1.134	1.399	0.053	4.292	<0.001
Middle-Low Girls	1.128	3.090	2.807	3.402	0.049	22.998	<0.001
High-Girls	0.913	2.494	2.244	2.771	0.053	17.001	<0.001

Score (logrank) test = 1062 on 3 df. p=<0.001

Table S1. Hazard ratio (HR) estimates by age period for AHS (A) and antidepressant (B) use, stratified by sex.

(A)			
Age	HR	IC 95	p
9	1.025	0.887 - 1.184	0.741
10	1.091	0.969 - 1.228	0.151
11	0.976	0.877 - 1.086	0.657
12	1.242	1.116 - 1.382	**<0.001**
13	1.594	1.435 - 1.771	**<0.001**
14	2.193	1.985 - 2.422	**<0.001**
15	2.036	1.845 - 2.248	**<0.001**
16	1.888	1.681 - 2.12	**<0.001**
17	1.680	1.46 - 1.933	**<0.001**

(B)			
Age	HR	IC 95	p
9	1.123	0.555 - 2.272	0.747
10	0.945	0.617 - 1.447	0.794
11	1.016	0.76 - 1.359	0.912
12	1.576	1.29 - 1.926	**<0.001**
13	2.317	1.99 - 2.697	**<0.001**
14	3.066	2.698 - 3.485	**<0.001**
15	2.991	2.644 - 3.383	**<0.001**
16	2.546	2.203 - 2.942	**<0.001**
17	2.519	2.102 - 3.019	**<0.001**

Table S2. Hazard ratio (HR) estimates by age period for AHS (A) and antidepressant (B) use, stratified by sex and income level.

(A)

Age	Sex - income	HR	IC 95	p
9	Girls - High	1.013	0.764 - 1.345	0.926
	Boys – Middle-low	1.457	1.157 - 1.834	0.001
	Girls – Middle -low	1.490	1.182 - 1.878	0.001
10	Girls - High	1.004	0.799 - 1.261	0.974
	Boys – Middle-low	1.314	1.09 - 1.586	0.004
	Girls – Middle -low	1.483	1.231 - 1.786	0.000
11	Girls - High	0.967	0.791 - 1.182	0.741
	Boys – Middle-low	1.312	1.113 - 1.546	0.001
	Girls – Middle -low	1.285	1.088 - 1.518	0.003
12	Girls - High	1.090	0.882 - 1.346	0.425
	Boys – Middle-low	1.428	1.197 - 1.704	0.000
	Girls – Middle -low	1.852	1.559 - 2.2	0.000
13	Girls - High	1.409	1.152 - 1.724	0.001
	Boys – Middle-low	1.344	1.122 - 1.61	0.001
	Girls – Middle -low	2.242	1.89 - 2.66	0.000
14	Girls - High	2.281	1.857 - 2.802	0.000
	Boys – Middle-low	1.816	1.496 - 2.204	0.000
	Girls – Middle -low	3.948	3.291 - 4.737	0.000
15	Girls - High	1.983	1.63 - 2.412	0.000
	Boys – Middle-low	1.591	1.325 - 1.91	0.000
	Girls – Middle -low	3.282	2.764 - 3.897	0.000
16	Girls - High	1.714	1.374 - 2.137	0.000
	Boys – Middle-low	1.388	1.131 - 1.703	0.002
	Girls – Middle -low	2.738	2.261 - 3.317	0.000
17	Girls - High	1.949	1.502 - 2.527	0.000

	Boys – Middle-low	1.507	1.179 - 1.926	0.001
	Girls – Middle -low	2.381	1.883 - 3.011	0.000

(B)

Age	Sex - income	HR	IC 95	p
9	Girls - High	0.528	0.097 - 2.884	0.461
	Boys – Middle-low	1.427	0.455 - 4.48	0.542
	Girls – Middle -low	1.907	0.628 - 5.791	0.255
10	Girls - High	1.156	0.51 - 2.619	0.729
	Boys – Middle-low	1.595	0.808 - 3.148	0.178
	Girls – Middle -low	1.398	0.696 - 2.808	0.346
11	Girls - High	0.777	0.464 - 1.302	0.338
	Boys – Middle-low	0.904	0.593 - 1.378	0.638
	Girls – Middle -low	1.043	0.688 - 1.582	0.841
12	Girls - High	1.579	1.104 - 2.258	0.012
	Boys – Middle-low	1.157	0.829 - 1.617	0.391
	Girls – Middle -low	1.823	1.328 - 2.503	0.000
13	Girls - High	2.415	1.831 - 3.185	0.000
	Boys – Middle-low	1.263	0.959 - 1.663	0.097
	Girls – Middle -low	2.866	2.225 - 3.69	0.000
14	Girls - High	3.462	2.719 - 4.408	0.000
	Boys – Middle-low	1.443	1.126 - 1.848	0.004
	Girls – Middle -low	4.213	3.363 - 5.278	0.000
15	Girls - High	2.977	2.375 - 3.733	0.000
	Boys – Middle-low	1.288	1.022 - 1.623	0.032
	Girls – Middle -low	3.861	3.135 - 4.755	0.000
16	Girls - High	2.618	2.011 - 3.407	0.000
	Boys – Middle-low	1.293	0.992 - 1.685	0.057
	Girls – Middle -low	3.259	2.559 - 4.15	0.000
17	Girls - High	2.322	1.696 - 3.18	0.000

	Boys – Middle-low	1.085	0.788 - 1.493	0.618
	Girls – Middle -low	2.851	2.141 - 3.795	0.000

Appendix S3. Availability of Data and Code

The BDCAP database is available upon reasonable request from the Spanish Ministry of Health (bdcap@sanidad.gob.es). For this study, data from 2018 to 2024 were requested, including all records of mental health problems (codes P01–P99 in the ICPC-2 classification) and prescriptions of psychotropic medications, specifically anxiolytics (N05B), hypnotics and sedatives (N05C), and antidepressants (N06A). The analytical code used in this study is publicly available in the project repository on the Open Science Framework (https://osf.io/574r2/overview?view_only=08d3c7d760ec40709c4e09eabb07266f).