

SOCIOECONOMIC FACTORS INFLUENCING AGE AT MENARCHE IN WOMEN BORN FROM 1985 TO 1991

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Background: The late 20th and early 21st centuries were a period of significant social and economic transformation in Poland. This makes research on this period extremely important for a better understanding of the impact of socio-economic factors on human biological development.

Objective: This research aimed to evaluate socioeconomic differences in the age at menarche among young women born between 1985 and 1991.

Subjects and methods: The study was cross-sectional and conducted in 2010 among 1,884 females aged 19–24 years. Age at menarche of participants and their mothers was obtained retrospectively. Socioeconomic factors included: mothers' and fathers' education levels, the urbanization level of respondents' place of residence, and the number of siblings. One-way ANOVA and stepwise regression were used.

Results: One-way ANOVAs for each socioeconomic variable showed a significant effect on age at menarche (place of residence – $F=10,693$, $p<0.001$; number of siblings – $F=6,337$, $p<0.01$; mother's education level – $F=192,931$, $p<0.001$; father's education level – $F=152,611$, $p<0.001$). Subsequently, a stepwise regression analysis was performed, including participants' age, their mothers' age at menarche, and socioeconomic variables. The model showed that the most important variable was father's education level ($\beta=-0.260$, $p<0.001$), followed by maternal menarcheal age ($\beta=0.160$, $p<0.001$), and mother's education level ($\beta=-0.201$, $p<0.001$); only the number of siblings was not significant (model's adjusted $R^2=0.25$).

Conclusion: Socioeconomic variables significantly influenced age at menarche among females born between 1985 and 1991, on par with the genetic component, namely, the mother's age at menarche. This underscores the importance of the analysed factors, especially in a period of numerous economic changes.

Keywords: Socioeconomic factors; Age at menarche; Sexual maturation.