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Letter to the Editor

Factors associated with vaccination against hepatitis B in adolescents and young adults from an urban settlement

Dear Editor,

Estimates are that approximately 240 million people are chronically infected by the hepatitis B virus (HBV).[1] This infection is transmitted through vertical, horizontal/intrafamily, parenteral, and sexual routes, and represents an important cause of hepatic disease, including cirrhosis and hepatocellular carcinoma.[2] Vaccination is the most effective method to reduce the prevalence of this infection,[3] impacting significantly on endemicity rates globally.[1] Hence, the objective of this study was to assess factors associated with self-reported adherence to the complete schedule of vaccination against hepatitis B of adolescents and young adults living in an urban settlement in the central region of Brazil. A cross-sectional study was conducted with individuals aged 15–24 years, between June and July of 2013. The study sample consisted of students attending a school located in a socioeconomically deprived area, predominantly of low-income (81.0%, monthly family income up to US$ 792.00), factors negatively associated with non-adherence to completing the vaccination schedule.[4,5] A standardized questionnaire was used to collect sociodemographic data, number of doses of hepatitis B vaccine, and potential predictors associated with adherence to the vaccine. Adherence to the complete vaccination schedule against hepatitis B (at least three doses) was defined as the outcome variable. The collected data were analyzed using the Stata software, version 8.0. Univariate and multivariate analyses were performed to assess the association between the outcome variable and the potential predicting variables. The research proposal was approved by the Human and Animal Research Ethics Committee of the Federal University of Goiás, protocol no. 365/11. Of all the participants ($n = 105$), only 37.1% (95% CI: 28.5–46.7%) reported to have completed the vaccination schedule. The outcome was statistically associated with age between 19 and 24 years (OR: 2.5; 95% CI: 1.1–6.2), history of blood transfusion (OR: 2.8; 95% CI: 2.1–3.8), and sexual initiation (OR: 3.1; 95% CI: 1.3–7.3). There were no significant association between family income and sex with adherence to the vaccination schedule ($p > 0.05$). Low rates of vaccination against hepatitis B were found among adolescents and young adults in the present study, highlighting the need for preventive actions towards this population segment, vulnerable and a potential disseminator of this infection. The identified factors associated with a full vaccination schedule in this study may contribute to improve adherence to the vaccine among people living of urban settlements, vulnerable group for the acquisition and dissemination of hepatitis B.

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Contributors

MAdM and RAG contributed to study concept, design, statistical analysis, intellectual content and approved the final version of the manuscript.

Conflict of interest

We declare that there is no conflict of interest.

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