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Extended Abstract

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Alcohol Ban: Good or Bad?

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Unintended effects of Alcohol Ban on Educational and Learning Outcomes of School Children

ABSTRACT: In this study, we examine the effects of implementing an alcohol ban in the Indian state of Bihar on educational and learning outcomes. Utilizing the difference-in-differences technique, we analyze multiple nationally representative datasets. Our findings reveal a noteworthy rise in school enrollment and improved learning abilities following the implementation of the alcohol prohibition law. These positive outcomes are particularly pronounced among secondary school children aged 11-16 years, while the impact appears to be weaker for primary school children aged 6-10 years. Through heterogeneity analysis, we observe no significant impact on educational outcomes in the border districts. We attribute these changes to increased school attendance and a higher likelihood of attending private tuition.

Keywords: Alcohol Ban, Difference-in-Differences, Education, Human Capital, Gender

INTRODUCTION

Excessive alcohol consumption has numerous detrimental effects, including decreased productivity, reduced academic motivation, increased truancy, adverse health consequences, a higher likelihood of engaging in criminal activities such as road traffic accidents and unintentional injuries, neglect of family responsibilities, and negative personality traits. Despite these consequences, substance use remains prevalent among high school students and college attendees. Alcohol consumption is responsible for nearly 4 percent of the global disease burden, as reported by the GBD 2019 Tobacco Collaborators (2021), and contributes to approximately 3 million deaths annually, according to the World Health Organization (WHO, 2019). The WHO also identifies around 200 health conditions associated with alcohol consumption.

The 2003 National Survey of Adolescent Substance Use conducted by the Monitoring the Future Study reveals that approximately 50 percent of high school students consume alcohol. This excessive and widespread alcohol consumption among school children and college students has significant detrimental health effects, as highlighted by Cochrane et al. (2003), Law & Marks (2020), and Ruitenberg et al. (2002). Consequently, many countries have implemented various measures to address this issue. For example, it is believed that prohibiting alcohol consumption would improve health (Gil & Molina, 2007; Ruitenberg et al., 2002),

enhance academic performance (Duarte & Escario, 2006; Gil & Molina, 2007; Powell et al., 2004), and increase labor productivity (Ásgeirsdóttir et al., 2016; Macdonald & Shields, 2001). However, there is an alternative viewpoint that imposing taxes on ethanol-based products is a more effective approach to reduce alcohol consumption compared to a complete ban (Chaloupka et al., 2002; Elder et al., 2010; Son & Topyan, 2011).

Our research makes significant contributions to the existing literature in three key ways. Firstly, we provide causal evidence of the impact of alcohol consumption on the educational and learning outcomes of school-going children, which is a crucial aspect of human capital development. What sets our study apart is that we examine both the direct effects of alcohol consumption on children's educational and learning outcomes, as well as the indirect effects through parental influences. We are the first to investigate the combined direct and indirect impact of alcohol prohibition laws on the educational and learning outcomes of school children. Secondly, to the best of our knowledge, there have been no causal studies conducted in the context of developing countries that establish a definitive link between alcohol consumption and its effects on the educational and learning outcomes of school children. Our research seeks to bridge this gap by providing valuable insights into this relationship. Thirdly, the implementation of alcohol bans in Bihar represents a significant political milestone. The primary objective of introducing these laws was to address the issue of domestic violence, as already studied by Chaudhuri et al. (2018). However, it is crucial to assess whether the intended outcomes of this policy were realized and embraced by the people of Bihar. The unintended consequence of the alcohol ban law, as our research reveals, is the potential positive impact on investment in human capital, specifically in terms of education.

Overall, our paper sheds light on the direct and indirect effects of alcohol consumption, addresses a research gap in developing country contexts, and explores the unintended consequences of the alcohol prohibition law, highlighting its impact on educational and learning outcomes among school children.

DATA, MODELING, ESTIMATION

We have used ASER household level data (rounds 2013, 2014, and 2016) for enrollment and learning outcomes. We also used NSSO 71 and 75 Round for ever enrollment status. In addition to this, we also used ASER school level data (same rounds as ASER household level data).

To get the clean estimate, we rely on the difference in difference technique. As it takes care of the issues of the selection bias and the unobserved time invariant heterogeneity. For

robustness per se, we used propensity score matching, entropy balancing, and test of exact randomization.

FINDINGS

Our findings reveal a substantial and statistically significant increase in school enrollment among children aged 6-16 years, accompanied by significant improvements in their learning outcomes, specifically in reading ability and arithmetic skills. We conducted various heterogeneity analyses, following the approach of Chaudhuri et al. (2018), such as examining education levels and comparing different neighborhood districts. However, we found no differential impact based on education level, specifically for children aged 6-10 years and 11-16 years. Similarly, there was no significant impact of the alcohol ban on enrollment levels in the districts of Bihar and Jharkhand that share a common border.

We attribute these unintended changes to both direct and indirect effects. The direct effects of alcohol prohibition resulted in a higher likelihood of school attendance among children, particularly those aged 11-16 years who were potential consumers of alcohol. Furthermore, the indirect effects of the alcohol ban prompted parents, who were potential regular alcohol users, to redirect the funds previously spent on alcohol towards their children's education. Our research provides strong evidence of a significant increase in the likelihood of school children, particularly those aged 11-16 years, attending private tuition.

In summary, our study demonstrates the positive impact of the alcohol ban on school enrollment and learning outcomes, specifically in reading and arithmetic skills. We uncover these effects through direct and indirect pathways, highlighting the increased likelihood of school attendance among children and the redirection of alcohol-related expenses towards their education.

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