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RESEARCH

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Maternal autonomy, caste system, and children's school enrollment in India

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Abstract

Objective: This study examined the relationship between maternal autonomy and children's school enrollment in India and assessed how caste-based social stratification moderates this association.

Background: Maternal autonomy, encompassing financial control, decision-making power, and mobility are key determinants of child development. In India, gender and caste-based inequalities constrain women's autonomy, potentially limiting its benefits for children's education.

Method: Using data from 340,006 mother–child pairs in the National Family Health Survey (NFHS-5), maternal autonomy was modeled as a latent construct from nine indicators across three domains. Probit regression models estimated its association with school enrollment, with interaction terms assessing caste-based moderation.

Results: Maternal autonomy positively influences school enrollment, with financial autonomy showing the strongest effect. However, the benefits are significantly lower for children from marginalized caste groups (Scheduled Castes, Scheduled Tribes, and Other Backward Classes). No gender-based variation was observed.

Conclusion: Maternal autonomy enhances school enrollment, but its effectiveness is moderated by caste-based disparities.

Implications: Policies should integrate gender empowerment with caste-sensitive reforms to ensure equitable access to resources, mobility, and decision-making opportunities for disadvantaged women.

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KEYWORDS
caste system, child development, developing countries, India, intersectionality, maternal autonomy, school enrollment

INTRODUCTION

Women's autonomy and empowerment are crucial catalysts for society's holistic advancement and sustainable development. This necessity extends beyond the general discourse on gender equality, fundamentally shaping economic growth, health improvement, educational advancement, and political stability. Beyond being a matter of human rights, women's empowerment directly impacts societal progress by fostering environments where all individuals can prosper (United Nations Development Programme [UNDP], 2021). Recognizing this, the Sustainable Development Goals (SDGs) place gender equity and women's empowerment at the core of global development agendas. Women contribute significantly, as wage earners, entrepreneurs, caregivers, and decision-makers, to both household well-being and broader economic and social progress (UN Women, 2016).

The relationship between women's autonomy in family decision-making and child development has long been scrutinized and is particularly relevant for developing nations. Women's empowerment and the expansion of women's ability to make strategic life choices are of intrinsic value (Ebot, 2015; Jones et al., 2019; Nath & Das, 2025; Santoso et al., 2019). Additionally, women's empowerment is of instrumental value. It is one means by which societies can improve child nutrition, particularly in the early days of life (Chatterjee & Dubey, 2024; Santoso et al., 2019).

Autonomy versus empowerment

The study of women's autonomy has been complicated by the frequent conflation of autonomy and empowerment. Whereas empowerment refers to the process through which women gain resources, decision-making power, and control over their lives, autonomy is the outcome of this process (Arulampalam et al., 2024). Understanding this distinction is critical in evaluating how autonomy influences child outcomes, particularly in stratified societies like India, where systemic inequalities shape women's decision-making abilities.

Among the multiple dimensions of women's empowerment, autonomy within the household has profound implications for child well-being. The ability of women to make strategic life choices, whether financial, social, or household related, defined in terms of financial independence, social mobility, and decision-making power, is a key determinant of children's educational outcomes (Chakraborty & De, 2011). A study across 26 African countries found that higher levels of maternal autonomy were strongly associated with improvements in children's literacy and numeracy (Ewerling et al., 2020). However, limited research has examined the specific effects of maternal autonomy on children's school enrollment in India, where the intersection of caste and gender plays a critical role. Existing studies have largely focused on the impact of maternal autonomy on health and nutrition outcomes (Angel-Urdinola & Wodon, 2010; Mondal et al., 2020; Tesfaye et al., 2022), with relatively less attention paid to its educational implications.

Maternal autonomy and child development

There are many pathways in which maternal autonomy can significantly improve various child development indicators. The most important channels are resource allocation, healthcare access

and use, nutritional practice, and improved awareness. Mothers with higher autonomy tend to allocate more household resources toward children's needs, such as nutrition, healthcare, and education, leading to better developmental outcomes (Chatterjee & Dubey, 2024; Mondal et al., 2020; Tesfaye et al., 2022). Autonomous mothers are more likely to seek timely healthcare for their children (e.g., immunizations, treatment during illness), which improves survival and health rates. Greater maternal control is associated with better feeding practices, such as breastfeeding and dietary diversity, which are crucial for early childhood development (Saaka, 2020). Autonomous women are typically better informed and more proactive in adopting beneficial practices related to child welfare.

The study

This study investigates the association between maternal autonomy and children's school enrollment within the Indian context. Unlike previous studies, we differentiate between various dimensions of autonomy, such as financial decision-making and mobility, and explore their differential effects. Specifically, we address three key research questions: (a) Does maternal autonomy influence children's school enrollment in India? (b) Do different dimensions of autonomy exert distinct effects on school enrollment? (c) Does caste moderate the impact of maternal autonomy on school enrollment outcomes? Given the hierarchical social structure in India, we hypothesize that caste origin significantly interacts with maternal autonomy, thereby altering its effects.

To test these hypotheses, we analyzed data from the National Family Health Survey (NFHS-5), a nationally representative data set covering 636,699 households across all the states and union territories of India (International Institute for Population Sciences & ICF, 2021). The findings highlight the complex interplay between gender and caste in shaping educational access and suggest that policy interventions must address both autonomy and systemic barriers to educational inclusion.

The Indian context

Status of Indian women

Traditionally, with the patriarchal mindset and gender inequality in India continuing to prevail, women mostly play their traditional roles of nurturers as daughters, mothers, wives, and daughters-in-law (Chakrapani & Kumar, 1994). The present status of women in India is characterized by a complex interplay of progress and ongoing challenges. Some significant achievements have been made toward gender equality and women's empowerment (Priyadharshini et al., 2016; Singh, 1998; Waghamode & Kalyan, 2014). However, deeply entrenched societal norms, economic disparities, and political challenges mean that gender disparity continues to exist in India (Singh, 1998). In Indian societies, women often face social challenges relating to (a) discriminatory social norms, especially in rural regions, (b) role stereotyping, (c) low literacy, and (d) safety concerns against different gender-based violence.

On the Gender Inequality Index (GII) 2022, India ranks 108 out of 193 countries, reflecting a persistent gender gap in economic, political, and social participation (United Nations Development Programme [UNDP], 2024). The current position of women in India reflects a nuanced landscape of progress interwoven with enduring challenges across various sectors. Significant advancements have been made, yet deep-seated cultural norms and systemic barriers persist, impeding the full realization of gender equality.

The World Values Survey (WVS; Haerpfer et al., 2022) captured Indian women's autonomy, and this survey reflects the complex interplay of cultural, social, economic, and institutional factors. The WVS conducts representative national surveys in many countries on people's values and beliefs, including those about gender roles, women's rights, and autonomy. Data from WVS-7 (2017–2022) indicate that, in India, a notable share of respondents continue to hold traditional beliefs about gender roles, including the view that men should have the ultimate authority in household decisions. The WVS reveals that although Indian society is gradually shifting toward greater support for women's autonomy, especially among younger, urban, and more educated groups, traditional gender norms still significantly constrain women's independence in many spheres. Autonomy is not uniform and is deeply shaped by class, caste, region, and religion.

However, despite these efforts, significant problems remain. According to the World Bank, the female labor force participation rate in India was approximately 20.3% in 2019, a decline from previous years. This low participation is partly attributed to sociocultural norms prioritizing women's domestic roles, limited access to child care, and inadequate job opportunities in the formal sector. Additionally, a substantial portion of working women are engaged in the informal sector, which lacks job security, fair wages, and social protection. The National Sample Survey Office (NSSO) data indicate that a significant proportion of women workers are employed in the informal sector, highlighting their economic vulnerability (National Statistical Office, 2023; Raveendran & Vanek, 2020).

Despite policy initiatives such as "Beti Bachao Beti Padhao [Save the Daughter, Educate the Daughter]" and the "Pradhan Mantri Matru Vandana Yojana [Prime Minister's Maternity Welfare Scheme]," women's workforce participation remains low, and sociocultural norms continue to restrict mobility and decision-making (National Statistical Office, 2023). These limitations have direct implications for maternal autonomy, particularly among marginalized women who face both gender-based and caste-based restrictions. Understanding this context is essential in evaluating how autonomy translates into improved child outcomes.

Women's autonomy and child development in India

Although ample studies are showing the significant impact of women's autonomy on children's development outcomes across countries, only a few of them are available in the Indian context. Furthermore, most of these studies are primarily focused on children's nutritional development and found a positive linkage between maternal autonomy and child nutritional status (for example, Arulampalam et al., 2024; C. Malhotra et al., 2014; Paul & Saha, 2022; Sethuraman et al., 2006; Shroff et al., 2009, 2011).

Whereas past research has extensively examined the impact of maternal autonomy on child nutrition and health, relatively few studies have analyzed its role in educational outcomes (C. Malhotra et al., 2014; Nath & Das, 2025; Paul & Saha, 2022). A recent study by Nath and Das (2025) using primary data from the northeastern state of Assam in India showed that maternal empowerment has a positive impact on children's educational well-being. Other evidence suggests that higher maternal autonomy was positively associated with girls' schooling outcomes (Afridi, 2010) but not with boys' education. The study by Alfano et al. (2011) examining the relation between maternal autonomy and school entry age in three states in India found that female autonomy had an ambiguous effect on school starting age across these states. Although female autonomy was significant in influencing the school starting age in Uttar Pradesh, it was less important in Andhra Pradesh and not significant at all in Kerala. Additionally, Das (2015) found that the effect of a mother's autonomy on educational expansion was limited to only young children.

Caste- and gender-based variation in maternal autonomy in India

In India, caste serves as a structural determinant of maternal autonomy, with women from disadvantaged castes experiencing greater economic and social restrictions (Desai & Kulkarni, 2008). The caste system, a fundamental social stratification mechanism in India, categorizes individuals into hierarchical groups that significantly influence their socioeconomic status, access to resources, and opportunities. Historically, women from lower castes, such as Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC), have faced compounded discrimination arising from their intersecting identities of gender and caste. This dual burden manifests in various forms, including limited access to education, healthcare, economic opportunities, and decision-making power within the household (Desai & Kulkarni, 2008; Thorat & Newman, 2010).

Caste-based discrimination against women in India perpetuates socioeconomic inequalities that significantly impede their autonomy. Women from marginalized castes often experience restricted mobility and limited participation in decision-making processes, both within their families and in broader community contexts (Duflo, 2012). These restrictions directly undermine their capacity to advocate for their children's education and well-being. For instance, traditional patriarchal norms often dictate that women, particularly from lower castes, must seek permission from male family members to engage in economic activities or make significant household decisions (Kabeer, 1999). This lack of autonomy curtails their ability to prioritize and invest in their children's education.

Additionally, gender disparities in child outcomes, particularly in education, health, and nutrition, remain a persistent challenge in many low- and middle-income countries, including India. In this context, maternal autonomy has emerged as a critical factor influencing the well-being and development of children, especially daughters. A growing body of literature suggests that when mothers have greater autonomy, they are more likely to allocate resources equitably, or even preferentially, toward daughters. For instance, studies by Hendrick and Marteleto (2017) and Luz and Agadjanian (2015) have shown that maternal decision-making power is positively associated with girls' school enrollment and educational attainment but not necessarily with boys'. This suggests that empowered mothers may act as corrective agents in gender-biased environments, using their influence to counteract societal preferences for sons.

Afridi (2010) further supported this view by demonstrating that increased maternal empowerment reduces gender disparities in educational investment, particularly in caste-stratified societies like India. Similarly, Saleemi and Kofol (2022) found that in rural Pakistan, women's participation in household decisions is linked to higher educational spending on daughters. These findings underscore the transformative potential of maternal autonomy in promoting gender equity in child outcomes.

However, the relationship is not universally consistent. Contradictory evidence from Quisumbing and Maluccio (2003) and Mansuri (2006) indicates that in some contexts, empowered mothers may still favor sons, possibly due to internalized gender norms or economic considerations tied to sons' perceived future returns. These mixed findings highlight the importance of contextual factors, such as caste, class, and regional norms, in shaping how maternal autonomy translates into child outcomes. Therefore, an in-depth examination and discussion on gender differentials in child outcomes and the effect of maternal autonomy are necessary.

School enrollment as a child outcome

In India, school enrollment is compulsory for children aged 6 to 14 years under the Right of Children to Free and Compulsory Education Act 2009, which guarantees free and compulsory education for all children in this age group. This mandate applies to both government and

private schools and has contributed to consistently high enrollment rates at the elementary level, with over 98% of children aged 6–14 enrolled in school as of 2024 (Ministry of Education, 2025). In contrast, preschool education for children aged 3 to 6 years is not compulsory, although enrollment has steadily increased.

In India, although primary enrollment has reached near-universal levels, disparities remain in secondary and tertiary education, particularly for girls, due to entrenched patriarchal norms, early marriage, and socioeconomic constraints (Ministry of Statistics and Programme Implementation, 2023; World Bank, 2024). The financial burden of education also plays a significant role in limiting access. According to recent estimates, the average annual cost of preschool education in urban India is approximately ₹12,000–₹18,000, and private primary and secondary schooling can range from ₹25,000 to over ₹60,000 per year, depending on the institution and location (World Bank, 2024). These costs often exclude additional expenses such as uniforms, books, transportation, and tutoring, which disproportionately affect low-income and rural families.

Beyond financial considerations, logistical requirements, such as a mother's ability to accompany her child to school or engage with school officials, also play a significant role. These elements can be particularly pronounced in rural or patriarchal environments, where women's mobility and access to resources may be limited. Consequently, we view enrollment as a proxy for maternal autonomy in household resource allocation and logistical planning. Given these underlying demands, school enrollment emerges as a meaningful educational outcome, particularly concerning girls and children from marginalized castes.

Therefore, by focusing on enrollment, this study aims to highlight the structural inequalities that prevent many children, especially girls, from even entering or remaining in the educational system. However, we acknowledge the importance of complementary indicators such as grade progression, learning outcomes, and access to educational resources and suggest that future research should integrate these dimensions to provide a more holistic understanding of educational equity. This study builds on existing research by examining the relationship between maternal autonomy and children's school enrollment, providing a more nuanced understanding of intersectionality in educational access. Moreover, by disaggregating outcomes by gender and caste, the study aims to extend our understanding of how empowerment operates within intersecting systems of social stratification.

THEORETICAL FRAMEWORK

Women's autonomy and its indicators

Defining and measuring women's autonomy presents methodological challenges due to the absence of a standardized framework (Santoso et al., 2019). However, these dimensions may not operate uniformly across different social groups. In patriarchal societies, autonomy may be constrained by systemic inequalities, limiting the extent to which women can exercise control over their lives. Previous research has used varying measures of autonomy, from direct survey responses to latent constructs that estimate autonomy as an underlying trait (Arulampalam et al., 2024; Jensen & Oster, 2009). This study adopts the latter approach, treating autonomy as a multidimensional concept influenced by both structural and individual factors.

In literature, autonomy is usually summarized as (a) the process by which a woman achieves agency and (b) a process that emphasizes a change from one state (gender inequity) to another (gender equity) over time (A. Malhotra & Schuler, 2005; Santoso et al., 2019; Sen, 2017; Soharwardi & Ahmad, 2020). Among existing measures of autonomy, some treat autonomy as a directly observed attribute and measure it using an arithmetic average of binary answers to a set of questions (Jensen & Oster, 2009; Paul & Saha, 2022). Alternatively, others include the

answers to these questions directly in the analysis (Dancer & Rammohan, 2009; Imai et al., 2014). Another set of literature considers easily measurable variables, such as education and health (e.g., Imai et al., 2014), as proxies for autonomy. A different strand of research considers autonomy as not directly observable, treating the answers to autonomy-related questions as proxies that provide mismeasured information about autonomy. Thus, they constructed a measure (index) of autonomy (Arulampalam et al., 2024; Chakraborty & De, 2011). In this paper, we treat autonomy as a latent trait and assume that only fallible measures of this trait are available to researchers.

Explaining the dynamics of women's autonomy

Women's autonomy plays a critical role in shaping child development outcomes, influencing everything from health and nutrition to education and emotional well-being. To understand the mechanisms behind this influence, three theoretical frameworks offer valuable perspectives: modernization theory of development, resource allocation theory, household decision-making theory, and intersectionality theory. These theories collectively highlight how societal progress, economic empowerment, and intra-household dynamics contribute to a woman's ability to make decisions that directly affect her children's growth and future. By examining these frameworks, we gain deeper insight into how enhancing women's autonomy can serve as a powerful lever for improving child development across diverse contexts.

The modernization theory of development

The dynamics of women's autonomy can be well explained using the modernization theory of development. This theory argues that the process of modernization allows new ways of thinking and doing things. This leads to the replacement of focus from group welfare to a new emphasis on self-determination and the achievement of individual-level goals (Inkeles & Smith, 1974; Kuznets, 1973; Moore, 1979). The processes of industrialization and urbanization, the spread of literacy and communications, and widespread exposure to the media have all been identified as vehicles of modernization. The theory, thus, implies that female autonomy is an innovative response to, as well as a consequence of, the processes of modernization and economic development. The degree of autonomy desired and exercised by women depends not only on their own characteristics but is also influenced by the characteristics, practices, and norms of each of the specific groupings of which they are members (Kishor, 1995).

The resource allocation theory

Furthermore, several other theoretical constructions, for example, the resource allocation theory and the household decision-making theory, can explain how a mother's economic independence and decision-making power within the family influence the allocation of resources and thus affect children's educational opportunities. Resource allocation theory (Becker, 1981) has posited that decision-making autonomy influences household resource distribution, directly impacting child well-being.

In the Indian context, although primary education is officially free, enrollment still involves significant direct and indirect costs, including uniforms, books, transportation, and opportunity costs of child labor or domestic help. These costs are particularly relevant in rural and low-income households, where mothers may have limited autonomy over financial decisions.

When mothers have greater financial control, they are more likely to allocate resources toward their children's education, nutrition, and healthcare (Thomas, 1990). However, if autonomy is constrained, particularly in marginalized caste groups, resource allocation decisions may be dominated by male family members, potentially prioritizing boys' education over girls' (Afridi, 2010).

Resource allocation theory also explains indirect costs to school enrollment by emphasizing how households must make trade-offs when distributing limited resources—not just money, but also time, labor, and mobility. In the Indian context, these indirect costs can significantly influence whether a child, especially a girl, is enrolled in school. This theory provides a lens through which we can analyze the mechanism linking maternal autonomy to school enrollment outcomes.

Household decision-making theory

Building on the previous perspective, household decision-making theory (Lundberg & Pollak, 1996) examines intra-household bargaining power and its effects on child-related investments. According to this theory, when women hold greater decision-making power, they are more likely to advocate for educational investments. In contrast, patriarchal household structures often limit mothers' influence over school-related decisions, particularly in conservative and caste-restrictive settings. Thus, we hypothesize that increased maternal autonomy leads to higher school enrollment, but the strength of this relationship may vary depending on caste-based constraints.

The intersectionality theory

Furthermore, to fully grasp the complexities of maternal autonomy, the intersectionality theory (Crenshaw, 2013) can be a helpful tool. This framework highlights how multiple social identities, such as gender, caste, and class, intersect to shape women's autonomy. In the Indian context, caste-based discrimination further constrains maternal decision-making, often exacerbating existing gender disparities (Desai & Kulkarni, 2008). Women from lower castes face structural barriers that limit their financial independence and household authority, reducing their ability to prioritize children's education. This theory underscores why autonomy does not have uniform effects across different caste groups, warranting a closer examination of how caste moderates the relationship between maternal autonomy and school enrollment.

In this paper, we have taken three dimensions to evaluate the mother's autonomy: (a) access to resource, (b) household decisions, and (c) freedom of movement. We have used existing literature to come up with these three dimensions. The first challenge was how to measure women's autonomy. Chilinda et al. (2021) employed a composite score as a proxy for maternal autonomy, incorporating indicators of decision-making power, tolerance of domestic violence, and financial independence. Arulampalam et al. (2024) assumed that autonomy is a latent trait that gets expressed in how one thinks or acts. They created an index using decision-making power, mobility, control over resources, level of education, occupation, and so forth. Chakraborty and De (2011) have created an index on each spouse's perception on household decision-making on a set of variables. They defined female autonomy as the "ability of women taking decision over domestic decision relative to the husband." Kabeer (1999) defined empowerment as the process by which individuals who were previously denied the ability to make strategic life choices gain that capacity. It involves the expansion of their freedom to make meaningful choices (decision-making), control over resources, and well-being outcomes.

DATA AND METHOD

Data

We used data from the National Family Health Survey of India, 2019–21 (NFHS-5; International Institute for Population Sciences & ICF, 2021), which is a cross-sectional nationally representative survey of households. The data provide information on population health (mainly maternal and child health), nutrition, and family welfare for each of the states and union territories in India. The NFHS-5 survey was conducted from 17 June 2019 to 30 April 2021, and information was collected from 636,699 households, 724,115 women, and 101,839 men across all the states and union territories of India. There are four schedules in this survey: (a) Women's, (b) Men's, (c) Household, and (d) Biomarker Schedules. The Household Schedule collects information on the socioeconomic status of the household and children's schooling. The Women's Schedule collects information regarding women's marriage and reproductive health, children's immunization, domestic violence, and women's empowerment.

Because the focus of this study is on children's school enrollment, the primary empirical sample comprises matched child–parent pairs. In accordance with the Prohibition of Child Marriage Act, 2006, which sets the legal minimum age for marriage at 18 for women, we restricted our final sample to women aged 18 years and above who have at least one child. Furthermore, as school enrollment data are only available for children aged 2 years and older, we excluded children younger than 2 years from the final sample. The resulting sample consists of 340,006 respondent women and their 340,006 children.

Measures

Autonomy

Although the NFHS-5 survey does not specifically ask questions regarding women's autonomy, it includes questions on various decision-making aspects that were asked to female adult members of the household. There were about 14 such questions (see Appendix 1 in the supplemental materials for a list of questions) about women's decision-making in daily life, and their possession of assets such as mobile phones, houses, or agricultural land. Based on the literature, we found nine items that could strongly represent women's autonomy. Therefore, we included these nine items for constructing autonomy in this study. In this study, we consider three aspects of women's empowerment provided in the NFHS-5 data: (a) control over resources, (b) participation in household decisions, and (c) freedom of movement. Therefore, all nine items were divided into these three aspects of autonomy.

A woman is considered to have control over family resources if she participates in decisions alone or jointly with her husband about (a) how to spend her earnings, (b) access to her husband's earnings, and (c) having her own bank account. Additionally, a woman is considered to participate in household decisions if she makes decisions alone or jointly with her husband in all three of the following areas: (a) the woman's own healthcare, (b) major household purchases, and (c) visits to the family or relatives. Freedom of movement consists of indicators such as whether a woman is usually allowed to go alone to (a) the market, (b) the health facility, and (c) places outside the village or community.

For each of these indicators, the responses were captured by different categories, such as respondent alone, respondent and husband or partner together, partner alone, someone else, and others. We transformed these autonomy indicators as a binary where the value 1 denotes women's individual or joint involvement in the event (i.e., actual response category 1 or 2), and the value 0 otherwise. Table 1 provides a glimpse of the response frequencies for each of the

TABLE 1 Indicators for mothers' autonomy.

Dimension	Indicators	*N*	Mean (*SD*)	Min	Max
Access to resources	Decision to spend own earnings	12,021	.84 (.36)	0	1
	Decision to spend husband's earnings	49,815	.76 (.42)	0	1
	Having one's own bank account	51,672	.79 (.40)	0	1
Household decisions	Decision on own healthcare	50,496	.81 (.39)	0	1
	Decision on household purchases	50,496	.80 (.40)	0	1
	Decision on visiting family/relatives	50,496	.82 (.39)	0	1
Freedom of movement	Going to market	51,672	.56 (.48)	0	1
	Going to health facilities	51,672	.51 (.49)	0	1
	Going outside village	51,672	.49 (.49)	0	1

Note: The total number of participants was 804,769. The reported values are frequencies based on binary indicators ranging from 0 to 1. Data are from the National Family Health Survey (NFHS-5; International Institute for Population Sciences & ICF, 2021).

nine items. Considering the total number of participants, which was about 0.8 million, the responses were significantly lower for each of the autonomy indicators. The response to the "decision to spend one's income" was lowest among all indicators.

We further disentangle the decision-making behavior within the household to explore what proportion of women made their decisions completely alone. Table 2 provides some interesting insights regarding household decision-making, where, on most occasions, women's independent decision-making was lower compared to decisions made together with their husbands or partners. Whereas only 15% of women reported making decisions alone on their earnings, 70% of women decided together with their husbands or partners. The percentages were higher (over 50%) for components relating to freedom of movement.

Table 5 in the supplemental materials shows a strong within-group correlation in that the indicators representing access to resources are strongly correlated with each other; however, they were weakly correlated with indicators of freedom of movement and household decisions. Similar patterns were evident for other aspects of autonomy as well. This motivated us to individually investigate each of the three aspects of autonomy, as there might be differences in how each of these aspects affects children's school enrollment.

At the next level, we created latent variables for aspects of autonomy using these indicators. As our indicators are binary, a factor analysis of a Pearson correlation matrix can be misleading (Kubinger, 2003). Rather, a factor analysis of a matrix of tetrachoric correlations is more appropriate under these conditions. Tetrachoric correlations assume a latent bivariate normal distribution for each pair of variables (e.g., $v1$, $v2$), with a threshold model for the manifest variables, $vi = 1$ if and only if $Xi > 0$. The means and variances of the latent variables are not identified, but the correlation, r, of $X1$ and $X2$ can be estimated from the joint distribution of $v1$ and $v2$ and is called the tetrachoric correlation coefficient. Therefore, tetrachoric correlations are typically used to model complex relationships or to find patterns in data where nonlinear dependency exists between inputs and outputs (El-Hashash & El-Absy, 2018; StataCorp, 2023).

We first computed a correlation matrix of the binary indicator variables using tetrachoric correlation coefficients in STATA 17. Second, we deployed factor analysis using this correlation matrix to generate the latent variable overall autonomy, where we considered all nine indicators. The factor analysis was conducted using the eigenvalue 1 criteria (Jolliffe, 2002; J. R. King & Jackson, 1999), where factors with eigenvalue 1 or higher were retained. There were two factors with eigenvalues greater than 1 (see Appendix 2 and Appendix 3 in the supplemental materials), and these two factors explained all the variation in autonomy items (i.e., cumulative 100%). The factor loading matrix (Supplemental Appendices 1 and 2) shows a

TABLE 2 Proportion of decision-making.

Dimension	Indicators	Decided alone	Decided with husband
Access to resources	Decision to spend own earnings	13	71
	Decision to spend husband's earnings	5	71
	Having one's own bank account	—	—
Household decisions	Decision on own healthcare	8	73
	Decision on household purchases	6	73
	Decision on visiting family/relatives	6	74
Freedom of movement	Going to market	56	—
	Going to health facilities	52	—
	Going outside village	50	—

Note: Values are in percentages. Data are from the National Family Health Survey (NFHS-5; International Institute for Population Sciences & ICF, 2021).

relatively strong factor loading of Factor 1 (over 80%) for all three items of decision autonomy and the last two items of financial autonomy, whereas Factor 2 loaded more for items relating to freedom of movement. As we also intended to investigate any differential effect due to different dimensions of women's autonomy, we created separate variables named decision autonomy, financial autonomy, and mobility autonomy using the same method mentioned above. Eventually, all autonomy variables were standardized (mean 0 and standard deviation 1) for the empirical analysis.

School enrollment

The outcome variable is whether a child has attended school in the current year. It was derived by combining information on preschool enrollment for children aged between 2 and 4 years and school enrollment for children aged 5–17 years. We excluded children under 2 years old, as there was no school enrollment information available for them. We acknowledge that school enrollment is not compulsory for preschool-aged children in many contexts. However, we included this age group to capture early patterns of educational investment and access, which can be indicative of broader household decision-making and resource-allocation strategies. Including these children allows us to examine disparities that may emerge even before formal schooling begins, which is particularly relevant in settings where early childhood education is increasingly recognized as foundational for long-term outcomes.

School enrollment was constructed as a binary variable where attended during the current school year was denoted as 1 and not enrolled as 0. There were over 0.7 million responses to the enrollment question (out of 0.8 million total participants), and about 70% of children aged between 2 and 17 years attended school. As shown in Table 3, about 10% of the enrollment data were missing.

However, one limitation of the school enrollment–related information available in the NFHS-5 data was that students were classified only into two broad age-based categories: 2–4 years old and 5–17 years old. These groups seem fundamentally different in their development; additionally, the group of 5 years and above is too diverse in many ways. Unfortunately, no further information was available to classify children into smaller age categories to observe such differences in our outcomes.

In this regard, one might be concerned about policy contamination when estimating the effect of maternal autonomy on school enrollment, especially in the context of India's Right to

TABLE 3 School enrollment of children.

	N	Percentage
Attended	226,704	33
Not attended	113,267	67
Missing data	35	—
Total	340,006	100

Note: Data are from the National Family Health Survey (NFHS-5; International Institute for Population Sciences & ICF, 2021).

Education (RTE) Act, which mandates free and compulsory education for children aged 6 to 14. Children younger than 6 years (e.g., in preschool) are not covered by the law. So, if we observe higher enrollment among 6- to 14-year-olds, it may be due to policy enforcement, not maternal autonomy. To approach this analytically, we took a two-prong approach: (a) include age and policy interaction terms and (b) age-based subgroup analysis. Our goal was to estimate the causal effect of maternal autonomy on children's school enrollment, while partialing out the effect of compulsory schooling laws.

Other covariates

Based on the literature and the context, several other household characteristics were taken into consideration. The social status of the mother was captured by caste and religious origin. Caste was divided into four categories: Scheduled Caste (=1), Scheduled Tribes (=2), Other Backward Caste (=3), and general caste (=4). Religion was coded into three categories including Hindu (=1), Islam (=2), and others (=3). The mother's and father's education levels were defined as up to primary (=1), over primary to secondary (=2), and higher secondary and above (=3). The economic status of the family was measured using the wealth scale of 1 (*poorest*) to 5 (*richest*). Place of residence was defined as rural (=0) or urban (=1).

Tables 6 and 7 in the supplemental materials provide the descriptive statistics for other covariates used in the analysis. The *t* statistics shown in Table 6 depict significant differences in women's age, number of family members, and age of the child according to the school enrollment scenario. Furthermore, the mothers of enrolled children are older than those of nonenrolled children, and the children in the enrolled group are also older. This could simply reflect a timing effect, where nonenrolled children may transition to enrollment as they grow older. Table 7 also shows significant variations in socioeconomic status, such as education, wealth, and ethnic origin.

Empirical strategy

This study's main objective is to investigate the possible association between maternal autonomy and children's school enrollment. Because school enrollment is denoted as dichotomous, the relation between maternal autonomy and school enrollment can be presented in a nonlinear probability form as follows:

$$\mathrm{Ei} = 1\{\alpha + \beta \mathrm{Ai} + \lambda \mathrm{Pi} + \rho(\mathrm{Pi} \quad \mathrm{Ai}) + \gamma \mathrm{Xi} + \varepsilon \mathrm{i} \geq 0\} \tag{i}$$

Where Ei is a binary variable denoting school enrollment of the child of the ith mother, Ai denotes the autonomy score of the ith mother, Xi is the vector for all other socioeconomic and location-specific controls, and εi is the random error term. Xi consisted of the mother's age

and age square; mother's education, religion, and caste origin; financial status denoted by wealth index; father's education; and rural–urban residence. We further controlled for the sex and age of the child. Considering the regional variation in social and cultural aspects of women's autonomy as well as variation in existing public policies, we also introduced state-fixed effects for all 37 states and union territories.

To address potential contamination from the RTE policy in our estimation strategy, we incorporated interaction terms between age and policy exposure in our model. Specifically, in Equation (i), Pi is a binary indicator equal to 1 if the child is aged between 6 and 14 years—the age group directly targeted by the RTE Act. The interaction term Pi Ai, where Ai denotes the autonomy measure, captures the heterogeneous effects of autonomy conditional on policy exposure. This allows us to isolate the differential impact of autonomy on outcomes for children who are likely to be affected by the RTE policy compared to those who are not.

To further explore the potential masking effect of the RTE policy on the relationship between maternal autonomy and children's outcomes, we estimated the effect of maternal autonomy separately for two age groups: children below age 6 and those aged 6 and above. This stratification allows us to assess whether the autonomy effect differs by policy exposure. If the estimated effect of maternal autonomy is stronger for preschool-aged children (i.e., those under 6), it would suggest that the RTE policy may be attenuating or overshadowing the influence of maternal autonomy among older children who are directly targeted by the policy. Results are provided in Supplemental Appendix 6. We also included the interaction between the sex of the child and autonomy to explore potential variation in the effect of maternal autonomy on school enrollment. The results are shown in Supplemental Appendix 7.

The model was estimated separately for overall autonomy and each of the dimensions of autonomy—decision autonomy, financial autonomy, and mobility autonomy—using probit estimation (Wooldridge, 2010).

FINDINGS

The relationship between mothers' autonomy and children's school enrollment status is shown in Table 4. As already mentioned, Equation (i) is estimated separately for overall autonomy (Model 1), decision autonomy (Model 2), financial autonomy (Model 3), and mobility autonomy (Model 4). The columns in Table 4 show the coefficients and corresponding standard errors from these estimations. For the confidence intervals (CI) associated with each regression coefficient, please see Appendix 4 in the supplemental materials.

The overall autonomy and all three aspects of autonomy show statistically significant association with children's school enrollment. This implies that, after controlling for socioeconomic characteristics, increased maternal autonomy is related to higher school enrollment of children. Interestingly, the magnitude of the effect of autonomy varies across different autonomy types, and decision autonomy had the smallest effect.

Additionally, we found a partially consistent effect of the caste origin of the household on school enrollment. In comparison to the general caste, children from SC, ST, and OBC families had a lower probability of school enrollment. However, the effects differ across castes and autonomy types. For example, for all caste-types (SC, ST, and OBC), the caste effects were statistically significant for decision autonomy and mobility autonomy. However, for ST households, the effect was statistically negative across all autonomy types.

We were further interested in investigating any possible intersectional effect of caste on women's autonomy, as we have already seen in the literature that caste-based discrimination against women in India may significantly affect their autonomy (Desai & Kulkarni, 2008; Thorat & Newman, 2010). The interaction dummy between caste and autonomy represents this combined effect between caste origin and the autonomy of women. The coefficient of the

TABLE 4 Probit estimation of different dimensions of autonomy on children's school enrollment.

	Model 1	Model 2	Model 3	Model 4
	Coeff	Coeff	Coeff	Coeff
Autonomy	0.106**	0.0324*	0.0308**	0.0593***
	(0.0467)	(0.0176)	(0.0469)	(0.0178)
Caste origin (Ref: General)				
Scheduled Caste (SC)	0.00650	0.0775***	0.00984	0.0792***
	(0.0610)	(0.0246)	(0.0610)	(0.0243)
Scheduled Tribe (ST)	0.0327	0.0949***	0.0311	0.0984***
	(0.0638)	(0.0285)	(0.0637)	(0.0282)
Other Backward Caste (OBC)	0.0911	0.0642***	0.0886	0.0601***
	(0.0564)	(0.0218)	(0.0563)	(0.0216)
SC Autonomy	0.0956*	0.0237	0.00520	0.0270
	(0.0544)	(0.0225)	(0.0545)	(0.0224)
ST Autonomy	0.0709	0.0105	0.0382	0.0291
	(0.0520)	(0.0231)	(0.0522)	(0.0226)
OBC Autonomy	0.139***	0.0430**	0.0917*	0.0297
	(0.0509)	(0.0201)	(0.0516)	(0.0202)
Policy age (=1)	1.347***	1.196***	1.346***	1.205***
	(0.0511)	(0.0247)	(0.0511)	(0.0243)
Policy Age Autonomy	0.0279	0.0281*	0.0306	0.0280**
	(0.0296)	(0.0144)	(0.0296)	(0.0142)
Mother age	0.181***	0.214***	0.180***	0.210***
	(0.0207)	(0.0100)	(0.0206)	(0.00982)
Mother age 2	0.00275***	0.00336***	0.00273***	0.00331***
	(0.000306)	(0.000152)	(0.000305)	(0.000149)
Mother education (Ref: Up to primary)				
Secondary and above	0.210***	0.178***	0.213***	0.181***
	(0.0380)	(0.0179)	(0.0379)	(0.0176)
Higher secondary and above	0.279***	0.137***	0.286***	0.134***
	(0.0723)	(0.0314)	(0.0722)	(0.0311)
Religion (Ref: Hindu)				
Islam	0.178***	0.283***	0.188***	0.282***
	(0.0626)	(0.0223)	(0.0626)	(0.0220)
Christian and others	0.0583	0.00406	0.0528	0.000354
	(0.0680)	(0.0348)	(0.0680)	(0.0344)
Household size	0.0227***	0.0132***	0.0232***	0.0127***
	(0.00669)	(0.00280)	(0.00668)	(0.00276)
Wealth status (Ref: Poorest)				
Poor	0.171***	0.163***	0.168***	0.163***
	(0.0389)	(0.0196)	(0.0389)	(0.0193)
Middle	0.215***	0.229***	0.216***	0.228***
	(0.0486)	(0.0229)	(0.0485)	(0.0226)
Rich	0.384***	0.315***	0.380***	0.312***

TABLE 4 (Continued)

	Model 1	Model 2	Model 3	Model 4
	(0.0605)	(0.0267)	(0.0604)	(0.0264)
Richest	0.304***	0.375***	0.307***	0.375***
	(0.0772)	(0.0330)	(0.0772)	(0.0326)
Father education (Ref: up to primary)				
Secondary and above	0.160***	0.181***	0.161***	0.184***
	(0.0355)	(0.0173)	(0.0355)	(0.0171)
Higher secondary and above	0.172**	0.162***	0.173**	0.166***
	(0.0672)	(0.0288)	(0.0672)	(0.0285)
Place of residence (Ref: Rural)				
Urban	0.0696	0.0507**	0.0642	0.0498**
	(0.0446)	(0.0199)	(0.0446)	(0.0197)
Control for child characteristics (age, sex)	Yes	Yes	Yes	Yes
State-fixed effects	Yes	Yes	Yes	Yes
Constant	3.351***	3.994***	3.343***	3.925***
	(0.379)	(0.175)	(0.379)	(0.172)
Observations	10,832	47,467	10,832	48,543

Note: Standard errors in parentheses.
***$p < .01$.**$p < .05$.*$p < .10$.

interaction term gives the net effect of autonomy while the household belongs to the lower strata in terms of caste.

The interaction effects for each caste type and autonomy type were negative. This suggests that belonging to socially disadvantaged groups, namely SC, ST, and OBC, is associated with a lower probability of school enrollment with an increasing level of autonomy compared to the general caste (i.e., the privileged class). However, a statistically significant negative coefficient on the interaction dummy for caste with mother's mobility index indicates that mother's mobility autonomy has a lower correlation with child's school enrollment outcome for marginalized castes than for privileged upper castes. Additionally, comparing different caste groups, we also found that the interaction effect was statistically significantly negative for OBC households across three autonomy types. Therefore, if the family belongs to an underprivileged class of society, the association between the mother's autonomy and the child's school enrollment remains significantly positive. Still, the correlation is reduced compared to upper-caste households. In another way, an increase in the mother's autonomy more positively affects the school enrollment of children belonging to the upper caste than children from lower caste households.

To illustrate these findings, we estimated the marginal effects after the estimation of Equation (i), and the figures provided in the supplemental materials show the predicted probabilities of attending school for each caste category at the means of autonomy. In comparison to the general caste (represented by Caste 4), all other caste categories had lower probabilities of school enrollment at the mean of autonomy. Among underprivileged castes, ST (Caste 2) had the lowest probability of enrollment than the others for all autonomy types. It is interesting to note here that the effect size and the pattern varied depending on the autonomy type considered. Whereas the effect pattern for decision autonomy and mobility autonomy is similar, the pattern for financial autonomy differs considerably and matches that of overall autonomy. Supplemental Figure 5 shows the probabilities of school enrollment of different caste categories at different levels of autonomy. Here also we find higher school enrollment for children from the

privileged class for each level of autonomy (the solid line representing the general caste). However, the probability of school enrollment was lower than 1 for all social classes at the lower level of autonomy.

Among other covariates in Table 4, mothers' and fathers' education were found to significantly improve the odds of the child being enrolled in school. Both the mother's education and the father's education are positively significant to the enrollment status of the child. Considering that interactions between the father's education and the mother's autonomy could provide significant insight, we further estimated Model 1 with this interaction effect, and the findings are reported in Supplemental Appendix 6. Although we found a similar positive effect of the father's education on the child's school enrollment, there was no significant effect of the interaction between the father's education and the mother's autonomy. Mother's age had an inverse positive relationship with school enrollment. This implies that as mothers' age increases, children's school enrollment increases up to a certain point and then it decreases. Concerning religion, children of Islamic origin seem to have significantly lower school enrollment compared to Hindu children. There was no such effect for children from Christian and another religious origins. The consistently significant and positive association between a household's wealth quintile and children's enrollment is seen across all four models. It is clear from the results that the wealthier the household, the odds in favor of enrollment increase.

The interaction term between policy exposure and autonomy was found to be statistically significant in the models for overall autonomy and decision-making autonomy, suggesting that the influence of these dimensions of autonomy on children's outcomes varies by policy exposure for the RTE Act. The significant interaction between decision-making autonomy and policy exposure suggests that maternal involvement in household decisions has a stronger impact on younger children, potentially due to the absence of institutional support before elementary school entry. In contrast, the interaction terms were not statistically significant in the models for financial and mobility autonomy, indicating that the effects of these dimensions may be more consistent across age groups or less influenced by the policy context. Financial autonomy, for instance, may influence household conditions broadly but not in a way that is distinctly moderated by the child's age or school enrollment status.

A further robustness check was performed by using subgroup analysis of Model 1 for different age groups of children, as mentioned in the NFHS-5 data. Therefore, the association between overall maternal autonomy and children's school enrollment was estimated separately for students aged up to 5 years and for students aged 6 years and above. The findings are shown in Supplemental Appendix 5, where differential results can be seen for children of different age groups (aged 2 to 5 years and 6 to 17 years). Whereas autonomy had no significant effect on school enrollment for younger children (up to 5 years of age), it had a significant impact on school enrollment of children aged 5 to 17 years. Neither was there any significant interaction effect between caste groups and autonomy for the younger group of children, except in ST categories, where there was a significant positive effect. Children from ST backgrounds had relatively higher school enrollment (preschool) with increasing maternal autonomy. However, for children aged 6 and above (Column 2), the interaction effects between caste and autonomy were negatively significant, which resembles our findings (presented in Column 1 of Table 4) from the overall sample. Similar findings were observed by Nath and Das (2025) in the context of northeast India, where they found that women's empowerment has a strong and positive direct impact on the well-being of children aged 6 to 18.

Additionally, from Supplemental Appendix 7, we found that the interaction dummy between the sex of the child and autonomy was statistically insignificant for all autonomy types. Therefore, there was no significant gender-based variation in the effect of maternal autonomy on children's school enrollment in the context of this study.

To sum up our findings, we found that all components of maternal autonomy have a substantial impact on child development, as greater autonomy increases children's school

enrollment. We also found that maternal autonomy had a smaller impact on children's school enrollment if a child belonged to an underprivileged caste (i.e., SC, ST, or OBC). Furthermore, subsample analysis shows that the effect of autonomy and social castes on school enrollment may vary depending on the age of the children. Therefore, maternal autonomy may affect school enrollment of relatively older children (who attend compulsory schooling in India) in a different way than those attending preschools.

DISCUSSION AND CONCLUSIONS

Discussion

The study's main objective was to investigate the possible association between mothers' autonomy on children's school enrollment, with a special focus on caste-based social stratification. The empirical findings clearly show that, in the Indian context, mothers' autonomy plays a positive role in children's school enrollment. However, it was also found that such an effect was relatively smaller for the caste-based underprivileged section of society.

There could be several possible mechanisms through which maternal autonomy can affect a child's school enrollment. As already discussed in the literature review, women with greater autonomy and freedom have greater access to resources, make informed decisions, and advocate for their children's needs, creating a cycle of improvement that benefits entire families and communities. Women's control over finances and their ability to make their own decisions often results in the improved well-being of both the mother and child (Arulampalam et al., 2024; Onah, 2021; Tesfaye et al., 2022; van der Meulen Rodgers & Kassens, 2018). Mothers who have control over financial resources are better positioned to allocate funds toward their children's education, covering essential expenses such as school fees, uniforms, books, and other educational materials. This financial independence ensures that resources are effectively directed toward educational needs, thereby facilitating children's school attendance and participation. Economic autonomy is particularly important in contexts where household financial decisions heavily impact educational investments, as it empowers mothers to prioritize their children's schooling (Desai & Kulkarni, 2008; van der Meulen Rodgers & Kassens, 2018).

Furthermore, mothers who possess autonomy in household decision-making can prioritize their children's health and educational needs. This includes making informed choices about healthcare, which directly affects children's health and, consequently, their school attendance and performance. For instance, mothers who can make decisions about major household purchases and healthcare are better equipped to create a supportive environment for their children's education. Decision-making autonomy thus enables mothers to foster conditions that enhance their children's ability to attend and succeed in school (Ewerling et al., 2020; Santoso et al., 2019).

Moreover, mothers who have the liberty to move freely can access markets, healthcare facilities, and other essential services that indirectly support their children's education. For example, the ability to visit markets allows mothers to procure necessary school supplies, and access to healthcare facilities ensures that children receive timely medical attention, reducing absenteeism due to health issues. Freedom of movement also exposes mothers to a broader range of information and resources, which can be leveraged to support their children's educational pursuits (Kabeer, 1999; Sen & Drèze, 1998).

However, the impact of maternal autonomy on children's school enrollment is not uniform across different social strata. Focusing on caste-based variation allows this study to illuminate the intersectional nature of maternal autonomy and its impact on children's educational outcomes. This dual burden limits the extent to which their autonomy can positively influence the

education of children from marginalized social classes. Socioeconomic barriers, such as restricted access to quality education, healthcare, and economic opportunities, further diminish the effectiveness of maternal autonomy for these marginalized groups (Afridi, 2010; Sen & Drèze, 1998; Thorat & Newman, 2010). Understanding the specific barriers faced by women from different caste backgrounds facilitates the development of targeted interventions that address the unique needs of these communities. For instance, policies and programs that enhance financial inclusion, provide legal protection against discrimination, and promote educational opportunities for lower-caste women can significantly improve their autonomy and, by extension, their children's school enrollment (UN Women, 2016).

Interestingly, despite prior literature suggesting that maternal autonomy tends to benefit daughters more than sons (Hendrick & Marteleto, 2017; Luz & Agadjanian, 2015), our analysis found no significant gender-based variation in the effect of maternal autonomy on children's school enrollment. This suggests that, in the context of our study, maternal decision-making power may be exerted more equitably across children regardless of gender. One possible explanation is that broader societal shifts or policy interventions—such as increased awareness of girls' education and targeted government schemes—may have contributed to a more balanced allocation of educational resources within households. Alternatively, it may reflect a context-specific dynamic in which maternal autonomy influences enrollment decisions uniformly, irrespective of the child's sex. This finding adds nuance to the existing literature and underscores the importance of examining maternal autonomy within specific sociocultural and institutional settings.

Although this study examines the impact of maternal autonomy on children's school enrollment, it is important to acknowledge the possible reverse causality, as higher school enrollment may also contribute to greater maternal autonomy. Mothers whose children regularly attend school may have greater exposure to institutional resources, social networks, and decision-making opportunities that, over time, enhance their autonomy. Additionally, mothers of school-enrolled children may experience reduced domestic caregiving burdens, allowing them to engage more actively in economic or community participation, thereby increasing their financial or mobility autonomy.

Another crucial point is that it is often difficult to generalize the findings of such studies, as the indicators for women's autonomy are context sensitive. An indicator used in a particular context may not be a valid instrument for maternal autonomy in another context. For example, the freedom of mobility, such as going to markets, is crucial and represents women's autonomy in South Asian countries, including India, as in these societies women are not allowed to leave home alone without being accompanied by a male member of the household. However, the freedom to visit the market is traditionally considered a responsibility for a woman in some East African societies, where it is expected that women will go to the market (Santoso et al., 2019). Therefore, it is often difficult to find an appropriate set of indicators for women's autonomy. This study, however, used more general attributes of women's autonomy, which cover a larger dimension, including financial freedom and decision-making ability, which can also be used in other developing countries' contexts.

Moreover, the results also show that the impact of autonomy on school enrollment may vary depending on the age of the child. This is because the objectives of sending a child to preschool may differ considerably from those of secondary schooling. Besides, the legal framework and regulations concerning schooling differ considerably depending on the level of schooling considered. Therefore, the mechanism between mothers' autonomy and their children's preschool enrollment may differ from that of primary or secondary education (Ghosh & Dey, 2020; Luz & Agadjanian, 2015). Although this is beyond the scope of the present study, studies in the future may focus on disentangling the effect of maternal autonomy on different levels of schooling.

Policy implications

This study is particularly relevant from a policy perspective. The findings of this research indicate that all dimensions of autonomy have significant positive relationships with children's school enrollment. Existing evidence already suggests that the autonomy of women within the household is recognized as one of the key variables for improving women's and child welfare (E. M. King & Mason, 2001; Thomas et al., 2002). Maternal autonomy is found to be positively associated with children's better nutrition levels (Arulampalam et al., 2024; Chatterjee & Dubey, 2024). Our study has found a positive association between a mother's autonomy and a child's school-going status. This will help to identify mothers' autonomy as one of the key determinants to influence the country's future human capital and will also contribute to policymaking.

Government programs may promote women's autonomy by empowering women through various financial inclusion schemes and encouraging the political representation of women. The policy of political reservation for women can help to empower women (Goel & Ravishankar, 2022). But apart from various schemes and legislation, sociocultural differences across the regions of our country also play a pivotal role in forming women's autonomy. Various sociocultural norms, gender norms, and religious conservativeness influence women's autonomy in India (Banerjee & Roy, 2015). Therefore, policy is required to change the stereotypical social norms, give women more power to control household resources, and create work opportunities for women with supportive work environments. Though there are ample government schemes in India to promote gender equity and women's autonomy, the execution should be more efficient to benefit the target population. Most of the programs focus on income generation or access to credit, but income and access to credit alone cannot ensure women's autonomy. Sufficient importance also needs to be given to changing the social norms that are heavily biased toward men.

Our result from the interaction between caste and autonomy suggests that the effect of physical autonomy on educational enrollment reduces if the family belongs to underprivileged castes (like SC, ST, OBC) rather than belonging to the upper caste. Decision-making autonomy and financial autonomy are not significant for interaction terms. Clearly, among these marginalized castes, other factors, not included in the model, may act as barriers to enrollment. We can see from the descriptive summary (Supplemental Table 5) that there is a significant enrollment gap between these disadvantaged social groups and the general upper-caste groups. These other factors may depress the effect of autonomy on these castes. Though there are reservations for the SC, ST, and OBC students in government-owned or sponsored educational institutes, factors like societal deprivation, less access to resources, high drop-out rate due to economic conditions, high failure rates, nature of parental occupation, and distance from the school may be diluting the positive impact of reservations. These factors are reducing the impact of autonomy in the underprivileged castes. Policymakers must focus on enrollment-determining factors for these socioeconomically backward groups. Studies suggest that the availability of schools, parental occupation, and attitude toward education are some of the factors that make a difference in enrollment in different communities (Borooah & Iyer, 2005). Policymakers should ensure that schools are equally distributed in all regions of the country. Often, underprivileged communities live in segregated colonies. These socially deprived communities (SC, ST, OBC) should have easy access to functional schools. Studies find that Dalits (SCs) are less likely to send their children to school due to the practice of untouchability. Though untouchability is constitutionally banned in India, this practice is still dominant in various parts of the country. The policy should target village-level infrastructure development and mass awareness about the importance of education among these communities. Also, there is no lack of laws against discrimination based on caste, but there is a lack of enforcement of the laws. The persisting practice of untouchability by the upper caste should be dealt with by stringent punitive measures.

Additionally, educated parents are more likely to send their children to school. Therefore, raising the literacy rate among the members of society contributes to a reduction in intercommunity differences in school enrollment.

Furthermore, the findings regarding policy exposure to RTE underscore the importance of targeting specific dimensions of maternal autonomy, particularly decision-making and mobility, when designing early childhood interventions. Strengthening these forms of autonomy may be especially beneficial before children enter the formal education system.

Limitations and further research

Although the study uses large-scale NFHS-5 data and the number of participants is significantly large to draw any empirical evidence based on it, one limitation could be the missing information. There was a large portion of missing data on autonomy-related items that, in principle, could bias the regression results.

A further limitation of cross-sectional data, such as NFHS-5, is that it cannot capture temporal changes. Future research could use longitudinal data to further verify the research results. However, robustness tests conducted during analysis in the form of a subsample analysis could be beneficial to ensure the reliability of our results. Future studies could explore longitudinal data to better disentangle these relationships and determine whether maternal autonomy primarily drives school enrollment or whether the relationship is bidirectional. Despite this limitation, our findings provide strong evidence that enhancing maternal autonomy, particularly in financial and decision-making domains, can significantly improve school enrollment outcomes, particularly for children from marginalized caste backgrounds.

Conclusion

The novelty of the study lies in its detailed examination of maternal autonomy, breaking it down into its distinct components—financial freedom, decision-making power, and mobility—and analyzing how each uniquely influences children's school enrollment. Unlike prior research that treats autonomy as a single construct, this study highlights the differential impact of each dimension, offering a better understanding of how autonomy operates within the Indian sociocultural context. Empirical findings strongly support the study's hypothesis that different components of maternal autonomy exert varying degrees of influence on children's educational outcomes. Although financial autonomy emerges as a key driver of school enrollment, decision-making autonomy also plays a critical role, particularly in ensuring sustained participation in education. However, mobility autonomy appears to have a less pronounced effect, possibly due to existing sociocultural restrictions that limit its practical impact in many Indian households.

Overall, maternal autonomy seems to play a crucial role in child development in the Indian context. However, this positive effect is significantly moderated by caste-based disparities, with children from marginalized backgrounds benefiting less from maternal autonomy than their higher-caste counterparts. This aligns with intersectionality theory (Crenshaw, 2013), which suggests that multiple overlapping social inequalities, such as caste and gender, interact to constrain the potential benefits of autonomy for marginalized women. These structural barriers reduce the extent to which autonomy translates into tangible educational gains for their children. This suggests that additional socioeconomic challenges faced by lower-caste women mitigate the benefits of their autonomy on educational outcomes. Therefore, the interaction between caste and autonomy underscores the necessity of addressing broader structural inequalities to enhance the efficacy of maternal autonomy in improving child development.

Promoting maternal autonomy, particularly among women from marginalized sections, seems essential for achieving equitable educational opportunities for all children in India. Policy interventions aimed at enhancing maternal autonomy should consider the intersectional nature of it and focus on mitigating the additional barriers women face. Addressing these disparities is crucial for ensuring that all children, irrespective of their socioeconomic background, can benefit from their mothers' autonomy and achieve better educational outcomes.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available at https://www.data.gov.in/catalog/national-family-health-survey-nfhs-5.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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