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Spousal support and work performance during the COVID-19 pandemic among elected women representatives in rural Bihar, India: A cross-sectional, mixed-methods study



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Summary

Background This study examines family support for professional work and domestic labour among Elected Women Representatives' (EWR) in rural Bihar, India, and associations of this support with EWRs' professional performance during the COVID-19 pandemic.

Methods We conducted a cross-sectional, mixed-method study, surveying 1338 EWRs and conducting in-depth interviews with 31 EWRs (Oct 14- Nov 6, 2020). Purposive sampling was used to select the participants. Our team has been working for more than a decade with EWRs across 10 districts in Bihar, providing them with capacity building and community interventions. All EWRs are part of our network, and around 2000 were reached out for the survey. Of these, 1338 consented to participate. Four survey participants from each district were randomly selected and invited for the in-depth interviews. Independent variables for our quantitative analysis included help from husband and other family members on a) EWR work and b) domestic work. Dependent variables, dichotomised as yes/no, assessed EWR workload, COVID-19 work, intervening on violence against women or child marriage, and belief EWRs can have impact. Separate multivariate logistic regression models assessed the hypothesised relationships. All models were adjusted for socio-demographic variables and indicators related to EWR's work experience and community perception or respect.

Findings Most women (76%; n = 1016 EWRs) received help from their husbands with EWR work while 39% reported husband help with domestic labour. Receipt of help from husband with domestic work was associated with increase in official work since the pandemic (aOR: 2.62; 95% CI: 1.84–3.71), arrangement of needed services during COVID-19 (aOR: 2.54; 95% CI: 1.65–3.90), and self-belief regarding possibility of EWR impact (aOR: 3.49; 95% CI: 2.25–5.43). Husband's help with EWR work was related to increased odds for intervening to stop violence against women only (aOR: 2.18; 95% CI: 1.32–3.60). In-depth interviews with the selected 31 EWRs underscored an increase in their EWR work under COVID-19. The increase in EWR workload under the pandemic created time constrictions for EWR's domestic labour responsibilities, even as domestic labour responsibilities increased.

Interpretation Our study highlights the importance of husband's help and support in strengthening EWRs outcomes at work in India, with help in domestic work being related to a relatively wider range of outcomes that are indicative of EWR's performance, compared to husband's help with EWR work. These findings emphasize the need for building male responsibility for domestic labour, to improve women's professional performance and outcomes. Our study has few key limitations such as lack of causal interpretations due to reliance on cross-sectional research design, potential for social desirability bias in self-reported data, and absence of information related to changes in patterns of spousal and family support received by the EWRs as a result of the pandemic. Nonetheless, our findings are important, particularly for the context of Bihar, India, where appalling gender gaps still persist in all social and economic aspects of society.

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Keywords: COVID-19; Gender; India; Elected women representatives; Spousal support

Research in context

Evidence before the study

Limited existing evidence published prior to the pandemic indicates the presence of a positive relationship between family support and women's professional outcomes, although this research is not specific to community-level women political leaders. Additionally, little is known about the role played by spousal support in particular, with respect to women leader's labour productivity and impact.

Added value of this study

Our study findings emphasize the important role played by Elected Women Representatives (EWR), in addressing the impact of the pandemic in rural communities in Bihar, India. Around half of the EWRs in our study reported an increase in the time they devoted to official work since the pandemic. Results underline the importance of spousal and family

support in unpaid work, in determining women's professional performance and impact. Although, support received from family was in gender stereotypic ways; support offered for EWR work came mainly from male family members, whereas support in domestic work came from female members of the family for most EWRs.

Implications of all the available evidence

Elected local representatives require support from their families, and people in their constituencies, to fulfil their role as a leader, particularly during a global pandemic. Ensuring the provision of support for EWRs in the form of transport, access to mobile technologies and IT support, and administrative paperwork that can be managed with low literacy might help yield greater independence for EWRs.

Introduction

The COVID-19 pandemic has upended societies and resulted in millions of deaths across the globe. Research suggests that variability in severity of socio-economic as well as health consequences of the pandemic at the national level is in part attributable to political leadership, with some data suggesting that female leaders of state have managed the pandemic more effectively and more equitably than their male counterparts in the early periods of global outbreaks.^{1,2} We have less research on the role of elected women officials at the subnational level, though one multinational study indicates that female relative to male leaders show greater emphasis on prevention management, health equity, and social welfare at the subnational level.³ These findings correspond to other multinational research documenting that grassroots women leaders are guiding COVID-19 relief and rebuilding activities within their communities.⁴⁻⁷ At the same time, women regardless of leadership positioning face greater gender divides and increased domestic labour due to the pandemic,⁸ and disproportionately bear the burdens of caring for the sick.⁹ These burdens can compromise elected women's work, especially for those from more low resource circumstances. Instrumental spousal support for women's labour may be an important lever for women's labour productivity and impact,¹⁰ but studies on instrumental spousal support for elected women under the pandemic are woefully lacking. This study examines male spousal support for elected women officials in rural India during

the first wave of the COVID-19 pandemic and assesses the associations between this support and these officials' work on COVID-19 management and women and girls' safety, as well as their perceptions of impact in Bihar, India.

In India, elected village governments – known as Panchayats, play a critical role in the social, economic, and health outcomes of communities, and are coordinating and implementing the state's response to the pandemic in rural areas.¹¹ Extensive scholarship exists on the important role Elected Women Representatives (EWR), serving at Panchayat level, have in community development and safety (from family violence and child marriage) of women and girls in rural India.^{12,13} While there is limited empirical evidence on the impact of family dynamics on these rural women's political activities, one qualitative study from southern India shows that family encouragement and tangible support (e.g., campaigning, transport) play a key role in women's entry into Panchayat elections.¹⁴ Unfortunately, this research also shows a decline in family support once the woman is elected.¹⁴ Other research from the region has shown that women leaders in other positions, such as frontline health workers and community organizers, show higher productivity and receive greater community respect when they receive domestic labour or occupational support (e.g., transportation) from family.^{15,16} Examination of these issues may be particularly important in contexts such as Bihar, one of the poorest states of India, is one of the hardest hit regions with

respect to the economic and social impacts of the pandemic, in addition to high infection rates.¹⁷

Bihar experienced an early and severe burden from the pandemic, as it witnessed the second largest number of returning poor migrants after the lockdown, making rapid testing and infection management a priority in early 2020.¹⁸ Elected officials were a vital component to the state response, and 50% of these officials are women due to the state policy regarding reservation of seats for women.¹⁹ However, Bihar is also known for its stringent social and gender norms, often manifested in a wider gap across classes, castes and gender groups.²⁰ Consequently, there have been concerns with this mandated reservation policy, as many women and thus women representatives in the state have alarmingly low levels of literacy, constrained access to resources, restricted mobility, and negligible stake in crucial issues of local governance and electoral politics.²¹ The existing systemic gender inequalities such as poor accessibility of public transport, lack of safety in public spaces, and lack of adequate skills, make EWRs' dependence on their families, especially male kin, almost inevitable, in rural India.²² Concerns persist that EWRs are proxies for their husbands, though growing evidence suggests that this is not the case, and in fact, that EWRs' work is growing in reputation and impact under the pandemic, as families rely on and trust these officials for infection management as well as for financial and social welfare supports.²³

This study examines tangible support from husbands and families for EWRs' labour as an elected official and in the domestic sphere, using quantitative and qualitative data from EWRs in rural Bihar. The study also examines quantitatively whether such supports are associated with EWRs' performance during the pandemic, which includes participation in COVID-19 prevention and relief efforts, their engagement in prevention of violence against women and child marriage, and their perceptions regarding their capacity for positive community impact. Findings can offer important insight into how husbands' and families' support for women's labour and leadership can benefit community health and well-being generally and in times of crisis such as pandemics.

Methods

Study design and data collection

We conducted a cross-sectional, mixed methods study with EWRs in October and November 2020, as part of a larger community-based study on effects of the COVID-19 pandemic in Bihar, India. The purpose of the study was to understand how the pandemic affected EWRs' experiences and position as leaders in their local communities. The study included survey data collected from $N = 1338$ EWRs and in-depth interview (IDI) data

collected from a subsample of $n = 31$ EWRs who also provided survey data. The study was conducted in keeping with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines.²⁴

Sampling and recruitment

We used a purposive sampling technique to select Elected Women Representatives (EWRs) working in 10 districts of Bihar, India; we selected districts to represent each of the north, south, east, and west regions of the state. Our team has been working in these 10 districts for more than a decade, providing capacity-building to EWRs and community interventions. During the period of recruitment, we reached out to all EWRs in the study site districts and were able to reach 1972 EWRs and invite them into the study. Of these, 1338 EWRs (67.8%) agreed to participate, constituting the final sample of survey participants. We then randomly selected 4 EWR survey participants from within each district and invited these to participate in an in-depth (IDI) semi-structured interview that aimed to gather information regarding EWRs' experiences of working as a leader during the pandemic. Of the 40 survey participants approached for IDI recruitment, $n = 31$ EWRs (77.5%) agreed to participate in the IDIs. Nine EWRs could not participate in the IDIs because of poor network connectivity and prior engagements at the time of interview. Nonetheless, the sample of 31 IDI participant EWRs represented all 10 study districts. Appointments were made for interviews subsequent to recruitment calls. We conducted all surveys and IDIs telephonically, with each survey and IDI taking approximately 60 min to complete, respectively.

Procedure and ethics

We had 10 female interviewers conduct all survey data collection between Oct 14th and Nov 6th, 2020. All interviewers had graduate level education in social sciences and training from our team on survey and IDI data collection. Interviewers worked 8-h days for five days a week to complete all surveys within the designated study period using telephonic interviews, allowing for rapid data collection. We used telephonic interviews to reduce risk for COVID-19 exposure for both staff and participants. A doctoral-level qualitative researcher with over 10 years' experience of working with EWRs then followed up with the subsample of IDI participants within two weeks of survey data collection to collect qualitative data through semi-structured IDIs. IDIs were audio-recorded, with participant consent. The research staff member provided information on the purpose of the study, as well as risks and benefits, and obtained verbal consent prior to data collection.

To ensure confidentiality, the study maintained strict anonymity of all participants, and no identifying information was stored. The Institutional Review Board of Social Research Institute approved these study procedures (IRB Number: 16/SRI-IRB/20).

Survey measures

Our survey included measures built from the EMERGE Gender and COVID-19 survey modules, which offers theory and evidence-based survey measures on gender and COVID-19 for rapid use in the pandemic.²⁵ We adapted the EMERGE measures to our context and population and developed survey items related to EWR work specifically for this study. Prior to the main quantitative survey, we conducted a pilot survey with 130 EWRs, which found our questionnaires to be comprehensible and appropriately capturing the relevant indicators of interest. Based on the pilot survey, minor changes were made to the language for some of the questions.

Dependent variables (DV) for quantitative analysis

Our study included six dichotomous variables created for this study and designed to assess EWR work under the pandemic and their perception of EWR impact. We asked whether their *official work increased since the pandemic*, which allowed for the responses: “increased”, “decreased”, or “stayed the same”. Given small reporting of a decrease in work, we dichotomised this variable as “increased” or “no increase” (DV 1). We also enquired about EWR work related to COVID-19 to create two variables: *EWR raised awareness on COVID-19 prevention and government relief resources and schemes* (DV 2), and whether the *EWR arranged for needed services during COVID-19* (health, livelihoods) (DV 3). Response options for these items included “very easily”, “fairly easily”, “with great difficulty”, and “unable”; we dichotomised responses as yes (very or fairly easily) no (with great difficulty or unable) to raise awareness. Our next two dependent variables focused on EWR intervention in cases of gender based violence (GBV), based on research documenting increases in these concerns²⁶: *EWR intervened to stop violence against women from husband or family* (DV 4), and *EWR intervened to stop child marriage* (DV 5). Our variables on EWR gender-based violence intervention assessed experiences over the past 12 months, thus including time before the pandemic, and used a yes/no response. Our final dependent variable assessed *perceived possibility of EWR impact* (DV 6) by asking the EWR if she believes people like her can improve things in the community.

Independent variables (IV) for quantitative analysis

Our analysis included two key independent variables on husband and family support: a) gets help with EWR work, and b) gets help with domestic work. We first

asked whether any family member or relative helps the EWR with any of her professional work (IV 1) “such as support with paperwork, commuting long distances, raising awareness in the community etc.” We then asked whether any family member or relative helps the EWR with domestic work (IV 2). For those responding yes to each of these yes/no questions, we then asked who helped them with this work, with responses including husband, daughter(s), son(s), etc. We categorized responses for each of these variables to be: a) help from husband [with or without help from other family members], b) help from other family members [no help from husband], and c) no help from family [ref group in our analyses]. For each of these variables, we also include descriptive data from a follow-up question regarding the nature of the EWR help or support provided by family, to help contextualize quantitative findings.

Covariates for quantitative analysis

We included standard demographic covariates: a) Age (categorized as less than equal to 35 years, between 35 and 46 years, and more than 46 years), b) Caste (categorized as General, Other Backward Caste and Scheduled Caste/Scheduled Tribe), and c) Education (categorized as never went to school, completed primary or middle school, and completed secondary or more). Age was constructed as a categorical variable instead of a continuous variable for ease of interpretation. As a sensitivity check, we ran our models with a continuous variable for age, and found no difference in results. We also included d) other paid work as a covariate and e) increased financial hardship under the pandemic, as other work and household financial stressors can impede EWRs’ availability for and focus on EWR work. Additionally, given literature on perceptions in India that women politicians are more trustworthy than are men, particularly on health and welfare issues,²⁷ we included two additional items on EWR experience and community perception: whether the EWR was previously elected, and if the EWR had experienced improved community respect subsequent to the pandemic. We considered the inclusion of district as a covariate to account for any potential geographical variance. However, we did not observe significant bivariate associations between district and any of the outcomes and thus decided not to include this variable as a covariate in our analysis. Age at marriage was another variable considered for inclusion as a covariate. However, due to its high correlation with age of EWR, we decided to drop it from the models.

Quantitative analysis

We conducted descriptive analyses for all survey data and used chi-square tests to examine associations between each independent and dependent variable. We

then used multivariate logistic regression models to examine the associations between our independent variables on husband and family support for EWR work (IV 1) and for domestic work (IV 2) with each of our six dependent variables, adjusting for covariates. We ran separate regression models for each dependent variable. We conducted all statistical analyses using Stata 15.0.

In-depth interview (IDI) guide

Our IDI involved a semi-structured interview in which participants were asked open-ended questions about their roles and responsibilities as an EWR, challenges they faced during COVID-19 in their EWR work, how their family supports them in their EWR work, and impacts of the pandemic felt by their community. We reviewed the IDI tool with staff working with EWRs to ensure clarity of items and relevance prior to implementation.

Qualitative analysis of IDIs

We audiotaped all IDIs, and transcribed all audiotapes for analysis. Trained female research staff managed and analysed all study data. We used a priori themes for coding, with themes generated directly from the questions in the IDI protocol. Two coders independently coded all data and worked to reach consensus on all cases where there was disagreement between coders on a given theme. We present findings from the question on family support for EWR work, in line with the focus on this paper.

Role of the funding source

The funding sources had no role in the study design; in the collection, analysis, and interpretation of data; and in the writing of the report. The corresponding author (AP) had full access to all data in the study and all authors had responsibility in submitting the paper for publication.

Results

The majority of participants (66.2%) were aged 35 years and older, and 22.9% had never formally attended school (Table 1). More than one-fourth of the participants (27.8%) were scheduled caste/scheduled tribe, and another 63.2% belonged to Other Backward Caste. More than one in 10 EWRs (12.9%) were re-elected officials. The majority of participants (88.3%) faced financial hardship due to the pandemic, and 21.2% had other paid employment beyond their EWR work. Participants largely (88.8%) reported that community respect for them increased under the pandemic.

Almost half of the participants (46.3%) reported an increase in their official work under the pandemic, with 37.4% reporting involvement in raising awareness on

COVID-19 prevention and awareness schemes and 21.2% reporting that they were arranging needed health and livelihood services due to the pandemic. Chi-square tests showed a perceived increase in community respect to be significantly associated with increase in official work. More than one in three EWRs (38.8%) had intervened in cases of marital or family violence against women in the past year, and 6.0% had intervened in cases of child marriage in this same period. Less than one in four EWRs (22.7%) believed that women like them could create impact in the community.

With regard to family support for EWRs in their professional EWR work, the majority (76.1%) reported receipt of help from husbands, with or without assistance from other family members. An additional 17.0% reported receipt of help from family members other than the husband. For the subsample of those reporting EWR help received from any family member, we assessed types of support reported and found the following: maintaining files and documents (80.1%), understanding financial documents (75.3%), outreach work (68.3%), help with transport or commuting (56.2%), and support in accessing the internet (10.8%) [not shown in tables]. With regard to family support for EWRs in their domestic labour responsibilities, 38.9% reported receipt of help from husbands, with or without assistance from other family members and 43.7% reported domestic labour help from other family members alone. We found that less than half of participants reporting husband support for EWR work also report help with domestic labour (46.6%; $n/n = 474/1018$), though the vast majority of EWRs reporting husband support for domestic labour also report husband support for EWR work (91.2%; $n/n = 474/520$).

Multivariate logistic regression models that adjusted for selected covariates found a significant and positive association between receiving family help with professional EWR-related work and intervening to stop violence against women (husband's EWR help aOR: 2.18; 95% CI: 1.32–3.60; EWR help from other family members aOR: 1.76; 95% CI: 1.01–3.08) (Table 2). We found no other significant effects for associations with family help with EWR work.

We found significant positive associations between husband's help with domestic work and increase in official work since the pandemic (aOR: 2.62; 95% CI: 1.84–3.71), arrangement of needed services during COVID-19 (aOR: 2.54; 95% CI: 1.65–3.90), and self-belief regarding possibility of EWR impact (aOR: 3.49; 95% CI: 2.25–5.43), and a negative association with intervening in cases of violence against women (aOR: 0.60; 95% CI: 0.42–0.85).

Findings from qualitative interviews

The results from our qualitative surveys substantiate our findings from the quantitative analysis. Participants

	Total	Official work increased since COVID-19			Raised awareness on COVID-19			Arranged for needed services (health, livelihoods) during COVID-19			Intervened to stop violence against women			Intervened to stop child marriage			Perceived possibility of EWR impact		
	100% (N = 1338)	46.3% (n = 620)			37.4% (n = 501)			21.2% (n = 284)			38.8% (n = 519)			6.0% (n = 80)			22.7% (n = 304)		
		No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value
		53.7%	46.3%		62.6%	37.4%		78.8%	21.2%		61.2%	38.8%		94.0%	6.0%		77.3%	22.7%	
Gets help with EWR work from:																			
No help	6.88	7.1	6.6	0.47	6.8	6.9	0.91	6.9	6.7	0.50	7.8	5.3	0.21	6.8	8.7	0.02	7.3	5.3	0.16
Help from husband	76.08	74.8	77.6		76.5	75.5		76.7	73.9		75.7	76.7		76.9	63.7		76.5	74.7	
Help from other family members	17.04	18.1	15.8		16.7	17.6		16.4	19.4		16.5	17.9		16.4	27.5		16.2	20.1	
Gets help with domestic work:																			
No help	17.41	21.2	13.1	<0.0001	17.6	17.2	0.11	18.3	14.1	<0.0001	17.5	17.3	<0.0001	17.7	13.7	0.11	19.2	11.5	<0.0001
Help from husband	38.86	30.5	48.6		36.8	42.3		34.6	54.6		45.8	27.9		39.4	31.3		33.4	57.6	
Help from other family members	43.72	48.3	38.4		45.6	40.5		47.1	31.3		36.8	54.7		43.0	55.0		47.5	30.9	
Covariates																			
Increased community respect during COVID-19																			
No	11.2	16.6	5.0	<0.0001	11.2	11.2	0.97	10.3	14.4	0.05	9.9	13.3	0.06	11.7	3.8	0.03	11.2	11.2	0.98
Yes	88.8	83.4	95.0		88.8	88.8		89.7	85.6		90.1	86.7		88.3	96.3		88.8	88.8	
Has paid work other than EWR																			
No	78.8	79.5	77.9	0.47	74.6	85.8	<0.0001	76.9	85.9	<0.0001	80.1	76.7	0.13	79.0	75.0	0.39	76.7	85.9	<0.0001
Yes	21.2	20.5	22.1		25.4	14.2		23.1	14.1		19.9	23.3		21.0	25.0		23.3	14.1	
Faced financial hardship during COVID-19																			
No	11.7	11.0	12.6	0.37	11.8	11.6	0.89	13.3	6.0	<0.0001	14.3	7.7	<0.0001	11.1	21.3	0.01	14.1	3.6	<0.0001
Yes	88.3	89.0	87.4		88.2	88.4		86.7	94.0		85.7	92.3		88.9	78.7		85.9	96.4	
Elected as EWR for second or more time																			
No	87.1	87.2	87.1	0.96	86.7	87.8	0.57	87.1	87.3	0.92	89.1	84.0	0.01	87.0	88.8	0.66	87.8	84.9	0.17
Yes	12.9	12.8	12.9		13.3	12.2		12.9	12.7		10.9	16.0		13.0	11.3		12.2	15.1	
Education																			
Never went to school	22.9	24.7	20.9	0.04	23.2	22.6	0.56	23.6	20.4	0.52	23.6	21.9	<0.0001	22.7	27.5	0.27	22.9	23.0	0.82
Completed primary or middle school	54.9	51.8	58.6		53.9	56.7		54.5	56.7		58.4	49.5		55.5	46.3		55.3	53.6	
Completed secondary or more	22.1	23.5	20.5		22.9	20.8		21.9	22.9		18.1	28.5		21.9	26.2		21.8	23.4	
Caste																			
General	9.0	8.8	9.2	0.66	9.8	7.6	0.31	8.9	9.2	0.99	9.7	7.7	0.20	9.2	5.0	0.43	8.9	9.2	0.95
Other Backward/backward Class	63.2	62.4	64.2		62.0	65.3		63.3	63.0		63.9	62.2		63.0	66.2		63.4	62.5	
SC/ST	27.8	28.8	26.6		28.2	27.2		27.8	27.8		26.4	30.1		27.8	28.7		27.7	28.3	
Age																			
Less than equal to 35 years	31.8	31.1	32.7	0.78	30.5	34.1	0.03	31.9	31.3	0.08	29.7	35.3	0.09	31.6	36.2	0.14	32.8	28.6	0.01
Between 35-46 years	44.1	44.3	43.7		43.1	45.5		42.7	48.9		45.2	42.2		43.7	48.8		41.9	51.3	
More than 46 years	24.1	24.7	23.6		26.4	20.4		25.3	19.7		25.2	22.5		24.7	15.0		25.3	20.1	

(Table 1 continues on next page)

Total	Official work increased since COVID-19			Raised awareness on COVID-19			Arranged for needed services (health, livelihoods) during COVID-19			Intervened to stop violence against women			Intervened to stop child marriage			Perceived possibility of EWR impact			
100% (N = 1338)	46.3% (n = 620)			37.4% (n = 501)			21.2% (n = 284)			38.8% (n = 519)			6.0% (n = 80)			22.7% (n = 304)			
	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value	
	53.7%	46.3%		62.6%	37.4%		78.8%	21.2%		61.2%	38.8%		94.0%	6.0%		77.3%	22.7%		
(Continued from previous page)																			
Age at marriage																			
Less than equal to 15 years	13.8	15.3	11.9	0.11	14.1	13.2	0.65	13.5	14.8	0.84	12.5	15.8	0.22	13.8	13.7	0.31	13.1	16.1	0.30
Between 15-18 years	53.8	53.8	53.8		54.4	52.9		53.9	53.2		54.7	52.4		53.3	61.3		54.7	50.7	
More than 18 years	32.4	30.9	34.2		31.5	33.9		32.5	32.0		32.8	31.8		32.9	25.0		32.2	33.2	
p-values provided for chi-square tests.																			
Table 1: Sample characteristics, overall and by Elected Women Representative's (EWR) activities in the community (N = 1338).																			

described an increase in their EWR work under COVID-19, as they supported government relief efforts including food relief and prevention activities like distribution of masks and sanitizers. They described this work both in terms of it being their duty and as an expectation from women with families in crisis from the economic downturn (Table 3). The increase in EWR workload under the pandemic created time constrictions for EWR's domestic labour responsibilities, even as domestic labour responsibilities increased. Husbands and children took on greater domestic labour responsibilities as needed. Daughters, in particular, were recognized for their domestic labour support. While family support for domestic labour allowed EWRs more time to undertake their EWR responsibilities, for some, there is still stigmatization of women who seek domestic labour support from husbands and other male members of the household.

In contrast, participants were more likely to report support for EWR work from husbands and sons rather than daughters, often because of men having greater access to or control over transportation to more distal sites. EWRs discussed that husbands were instrumentally supportive in situations of family violence. Some participants described their husband or father intervening in situations of family violence. However, many describe intervening only in severe cases of marital and family violence, or in these cases involving community organisations and even police. Though EWRs also discussed their keeping sensitive topics confidential, managing family violence and child marriage situations without social services or judicial supports. We did not observe any significant differences with regards to age, caste category, and religion between those who participated in the IDIs and those who refused. Reasons for refusal were due to time constraints and mobile phone access, and these are concerns with which many EWRs contend.

Discussion

Around half of the EWRs in our study reported an increase in the time they devoted to official work, including work on COVID-19 prevention and management and family violence, since the outbreak of the pandemic. Our quantitative and qualitative evidence further indicates that most women receive help from family toward their professional role, largely in the forms of paperwork support, transportation, and constituent outreach and mostly provided by husbands and sons (i.e., male family members). Reliance on male family members for work is not surprising given the stark gender inequalities in literacy, education, mobility, and access to digital technology disadvantaging women in Bihar.^{28,29} Qualitative evidence further highlights the need for reliance on husbands and other family members to assist in professional work in cases where the

	Official work increased since COVID-19	Raised awareness on COVID-19	Arranged for needed services (health, livelihoods) during COVID-19	Intervened to stop violence against women	Intervened to stop child marriage	Perceived possibility of EWR impact
	Adjusted Odds Ratio (AOR) (95% CI)	Adjusted Odds Ratio (AOR) (95% CI)	Adjusted Odds Ratio (AOR) (95% CI)	Adjusted Odds Ratio (AOR) (95% CI)	Adjusted Odds Ratio (AOR) (95% CI)	Adjusted Odds Ratio (AOR) (95% CI)
Gets help with EWR work:						
No help	REF	REF	REF	REF	REF	REF
Help from husband	0.72 (0.44–1.14); p = 0.17	0.80 (0.49–1.29); p = 0.37	0.70 (0.39–1.25); p = 0.23	2.18 (1.32–3.60); p < 0.01	0.54 (0.22–1.33); p = 0.18	0.87 (0.47–1.63); p = 0.68
Help from other family members	0.79 (0.46–1.36); p = 0.79	1.01 (0.59–1.73); p = 0.95	1.22 (0.64–2.32); p = 0.54	1.76 (1.01–3.08); p = 0.04	1.22 (0.46–3.25); p = 0.68	1.67 (0.85–3.28); p = 0.13
Gets help with domestic work:						
No help	REF	REF	REF	REF	REF	REF
Help from husband	2.62 (1.84–3.71); p < 0.0001	1.22 (0.86–1.72); p = 0.26	2.54 (1.65–3.90); p < 0.0001	0.60 (0.42–0.85); p = 0.01	1.21 (0.55–2.65); p = 0.64	3.49 (2.25–5.43); p < 0.0001
Help from other family members	1.33 (0.95–1.87); p = 0.09	0.90 (0.64–1.26); p = 0.56	0.84 (0.57–1.38); p = 0.62	1.60 (1.14–2.23); p = 0.01	1.73 (0.83–3.62); p = 0.14	1.06 (0.67–1.66); p = 0.81

Models adjusted for increase in community respect, has paid work other than EWR, faced financial hardship during COVID-19, elected as EWR for second or more time, caste, age, and education.

Table 2: Multivariate logistic regression models to examine the relationship between help received by Elected Women Representatives (EWR) and their activities.

EWR is required to be at home for a sick child or other domestic responsibilities. However, quantitative evidence shows no association between receipt of this help with EWR work and increased EWR workload, provision of COVID-19 supports, or faith in potential for EWRs to have community impact. These findings highlight that the instrumental support offered by family for EWR work comes from male family members in gender stereotypic ways that reinforce the lesser knowledge or power the EWR holds relative to the men in their lives. This may explain why these supports from men are not translating into women's greater work productivity or belief in their potential for impact. Building EWRs' independent capacities with regard to administrative management, transport and use of technology may be more beneficial than family help in EWR work.

Notably, husband and family support in EWR work was significantly associated with intervening in situations of violence against women. Qualitative respondents typically described this in the form of husbands' violence against wives and indicated the value of male or community-level intervention in such cases. In contrast, husband's help with domestic labour was negatively associated with intervening on violence, where family help with domestic labour was positively associated with this outcome. EWRs reported discomfort with approaching situations of violence alone in qualitative interviews, a reasonable response given that intervening during an incident of violence can cause escalation and place interveners as well as the victim at greater risk.³⁰ In such cases, the presence of someone with higher-level authority (e.g., a male rather than female, and perhaps a more traditional male who would not assist his wife in domestic responsibilities) or a group response can quell immediate violence.³¹ Our

qualitative data do indicate women and communities seeking out EWRs to assist in cases of marital violence. These findings highlight a missed opportunity for effective marital violence intervention from EWRs, due to absence of evidence-based training and protocols on how to reach and support women outside of situations of immediate threat of violence. Such trainings and protocols for EWRs may offer an effective means for marital violence prevention in contexts such as rural Bihar where awareness about intervention programs like helpline and shelters for women is very low.

In contrast with findings regarding the potential utility of family help for EWR work to support EWRs' productivity and COVID-19 work, our findings show that husband support for EWRs' domestic labour responsibilities may be contributing to a wider range of outcomes signifying better performance of EWRs during the pandemic. Women who received help with household chores from husbands were more likely to increase time for their EWR duties, to arrange COVID-19 related health services in the village, and to believe that they can bring about change in their communities under the pandemic. Unfortunately, help from husbands for domestic labour was about half as likely as that seen in terms of husband help for EWR work, and qualitative evidence shows that household chores are more commonly supported by daughters, again showing the gendered burden of unpaid work women carry. These findings build on prior research documenting that the unpaid domestic labour of women compromises women's professional performance and outcomes.³² Changing gender norms to build male responsibility for domestic labour can help strengthen EWR impacts in COVID-19 management and potentially other areas as well.

Themes	Quotes ^a
EWB COVID-19 Work	"In normal days (pre-COVID-19), I also have to finish all this [Panchayat/office related work] every day. But ... yes, during COVID-19 there were several other jobs, cleaning [for disinfecting] I had to work a lot. What can I do ... There wasn't any transport. I had to walk long distances to reach the office or other locations. Sometimes in the day as well as at the night." – Age 48 years, Age at marriage 16 years, Primary School Education, OBC, (ID: 1279)
Family Support for Domestic Labor	<p>"Certainly [workload at home had increased] as everyone was at home [after the lockdown]. I had to cook and clean but my elder daughter helped me out ...he [husband] helps in washing clothes, at times he cooks food when he feels like." – Age 34 years, Age at marriage 16 years, College Graduate, SC/ST, (ID: 1174)</p> <p>"Yes... the household chores were amplified ten times. With these, I had to go to duty every single day ...yes [my husband helped]. Suppose those days when I had to report earlier, which meant preparing breakfast, lunch early. He helped me to do all the chores quickly." – Age 40 years, Age at marriage 18 years, Primary School, Scheduled Caste (ID: 1468)</p> <p>"Certainly [workload at home had increased], as everyone was at home. I had to cook and clean but my elder daughter helped me out ...he [husband] helps in washing clothes, at times he cooks food when he feels like." – Age 34 years, Age at marriage 16 years, College Graduate, SC/ST, (ID: 1174)</p> <p>"My husband and my daughters help me. Hence, the work pressure is divided among us ... [They help by] cooking food and cleaning the house." – Age 36 years, Age at marriage 17 years, Higher Secondary School (11th/12th, OBC (ID: 1266)</p> <p>"Since I became the Ward 'pratinidhi' (representative/member) ... I spend a lot of time there [in the Ward] to do the works for the ward inhabitants. I don't get much time [for domestic work] ... Now they [daughters] take time for household work ..." – Age 42 years, Age at marriage 18 years, Higher Secondary (11th/12th), OBC (ID: 147)</p>
Discomfort with Family Support for Domestic Labor	<p>"We [women] do the household work and we don't tell the male members of the family to do the household work." – Age 45 years, Age at marriage 24 years, Higher Secondary School (11th/12th), OBC (ID: 358)</p> <p>"Yes- workload has increased [after the outbreak of COVID-19] ... I do household work ... No [my husband doesn't help] it is my duty to look after home why I will disturb him; I am his wife it is my duty to do household work." – Age 28 years, Age at marriage 19, Primary school, SC/ST (ID: 1669)</p>
Family Support for EWB Work	<p>"I do all my work on my own and also help people in need and emergency. My husband and son have scotty (transportation/own vehicle) and they go [to faraway places or wherever I can't go] without any problem." – Age 45 years, Age at marriage 17 years, Secondary School (9th/10th), OBC (ID: 1719)</p> <p>"People came to us [about a situation of marital violence], and my husband and I went there [site of violence]. He [husband] made them understand that you should not fight, as we all have [a serious] problem [pandemic] at present...Yes, they listen to us and also respect us a lot. So they will not fight anymore." – Age 45 years, Age at marriage 24 years, Higher Secondary (11th/12th), OBC (ID: 358)</p> <p>"All the quarrels and everything [pertaining to violence] are very problematic. So my husband talks and I just listen to them quietly." – Age 38 years, Age at marriage 18 years, Primary School, OBC (ID: 1336)</p> <p>"If there's a case of violence in our village, then we all [community members and leaders] go there and solve it and explain it to the people that fighting is not good ... All of us try to solve the problem together, if the situation becomes grave enough. When it's not that grave, then people don't get into it." – Age 34 years, Age at marriage 16 years, College Graduate, Scheduled Caste (ID: 613)</p>
EWB Work Independent of Other System Support	<p>"Why I go to others [for help]? I solve the problems on my own. I try to control the situation, as I don't want it to turn into a court case. We verbally discuss the issues. I am the 'pratinidhi' [representative/member] of our locality, people acknowledge me. People listen to me. I have done it earlier as well. They all are now happy. We don't go outside with our issues." – Age 44 years, Age at marriage 17 years, Secondary School (9th/10th), OBC (ID: 807)</p> <p>"They will say that this lady is going to the school (about the child marriage) and at the same time she will go to the Anganwadi and they will also say that we have never seen such a lady. They are fighting with me all the time because of this. This is how I work. I have to fight and work." – Age 38 years, Age at marriage 13 years, Higher Secondary School (11th/12th), OBC (ID: 1244)</p> <p>"So I have been serving as Sarpanch [head of Panchayat/rural local governing body] for 10 years and I have been solving all the problems without money ...I didn't take the matter to police station ... So even now people respect me [for that]. If I don't go to a place [in my constituency], problems won't be solved." – Age 46, Age at marriage 15 years, No Formal School, OBC (ID: 755)</p>

Note: IDI participants included EWBs representing all caste categories, but certain caste groups are over-represented in the study area, resulting in unequal representation of EWBs by caste in presented quotes. ^aAll quotes indicate the following information about the quoted EWB: age, age at marriage, highest level of education, caste, and unique ID number.

Table 3: Quotes from in-depth interviews (IDIs) by theme.

Limitations

Certain study limitations exist that can affect interpretation of our findings. The study is cross-sectional, impeding assumptions of causality. This analysis uses survey data designed for descriptive purposes only, and thus the sample size was not determined based on a power calculation but rather use of the available sample. Consequently, lack of significant findings may be due to inadequate sample size. Nonetheless, significant findings from this work do reveal correlation between

husband support and EWB performance. Though we hypothesize that family support affects EWB work performance, observed findings in this vein may in fact be in reverse, with EWB work performance resulting in improvements in family support. Longitudinal analysis is needed to clarify directionality of these findings. Additionally, our study does not examine changes in patterns of spousal and family support received by the EWBs as a result of the pandemic. Our study also relies on self-report and are thus subject to recall and social

desirability biases, though use of mixed methods does allow for some validation of measurement and findings. This study is limited in generalisability; findings are specific to EWRs from villages in 10 districts in Bihar, and are not representative of EWRs across the state. Our sample also has a higher representation of marginalized caste categories compared to the general caste. Findings should be interpreted in light of these contextual specifications.

We also have some measurement limitations. We use the term “help” when speaking of husbands and other family members’ role in domestic labour, reinforcing norms of this work being that of the woman. While we do not think this resulted in confusion or measurement error, we do feel that future research should use measure this with men by asking about level of involvement with or primary responsibility for specific domestic labour tasks, rather than using the term “help.” Another important consideration of the paper is that our assessment of male involvement in EWR work, and finding of its normative occurrence, can support misogynist labelling of EWRs as “dependent” or “proxy” representatives, undermining the respect EWRs receive and their capacity for impact.²³ Unfortunately, women’s dependence on men for their ability to work in professional/public spheres compromises community perceptions of their capabilities, despite this not holding true for men who are dependent on women in the domestic/private sphere. We adjusted for community respect in our model, which may address this concern to some degree, but more research, qualitative and quantitative, can help clarify these findings. Additionally, triangulation with data from husbands and other family members as well as community members would offer richer insight into the work and value of EWRs and the role of family in supporting that work.

In conclusion, elected local representatives, whether men or women, both require support from their families, people in their constituencies and government officials, to fulfil their role as a leader, particularly during a global pandemic. However, current findings highlight the importance of gender role shifts, particularly in terms of male responsibility for domestic labour, to strengthen women’s value, productivity, and impact at work. This may be particularly crucial for EWR in times of crisis, whether that be COVID-19 management or incidents of violence against women, as communities look to EWRs for support and access to resources. Considering the appalling gender gap in Bihar, EWRs need more support in their domestic as well as professional work, ensuring that there is lesser reliance on male partners for performance on the latter. While prioritization of women leaders’ education, financial literacy and digital access is crucial for their capacitation, it is also imperative to underscore the pragmatic challenges for EWRs without labelling them as “dependent” or yet to be empowered “proxy

representatives.” Instrumental support for EWRs in the form of transport, access to mobile technologies and IT support, and administrative paperwork that can be managed with low literacy are a few efforts, which may help yield greater independence for EWRs.

Contributors

AP: Writing-original draft, writing-review & editing, conceptualization, methodology design, analysis of qualitative data; ND: Writing-original draft, writing-review & editing, analysis of quantitative data; MJ: Conceptualization, methodology design, writing-review & editing; DS: Conceptualization, methodology design, writing-review & editing; SC: Writing-review & editing, analysis of quantitative data; AR: Conceptualization, writing-review & editing. ND and SC have verified the underlying data used in this manuscript. All authors were responsible for the decision to submit the manuscript.

Data sharing statement

A de-identified quantitative data set from this study can be shared with researchers upon request; please contact the lead author of this paper, Dr. Anamika Priyadarshini (apriyadarshini@c3india.org) to request these data, the survey, and the corresponding data dictionary. We will only share these data for the purposes of research, and sharing will be conditional on a signed study agreement with C3. Qualitative data will not be shared due to concerns related to the confidentiality of participants; however, we can share the in-depth interview protocols upon request. All study consent forms can also be shared upon request.

Declaration of interests

The authors declare no competing interests.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.eclinm.2022.101743>.

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