Intrahousehold Mental Health Burden and Resilience to Covariate Shocks in Africa: Evidence from Ethiopia

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Abstract

This study examines intrahousehold differences and the burden of mental health disorders by eliciting symptoms of depression and stress from both spouses of a household. We conduct within-household comparisons of mental health outcomes across spouses while also examining the implications of intrahousehold distribution of agency and autonomy in decision-making. Building on a large household survey in Ethiopia, we also systematically examine intrahousehold differences in vulnerability and resilience against various covariate shocks such as drought, armed conflict, and price shocks. We do so by modeling mental health outcomes of spouses in a fixed effects framework by interacting the gender of the respondent with exposure to these covariate shocks. We find that women spouses are more likely to report higher rates of symptoms of depression and stress. Interestingly, such intrahousehold differences in mental health disorders can be explained by differences in the distribution of agency and autonomy in decision-making. While covariate shocks, such as drought, affect both spouses similarly, women tend to be more vulnerable to price shocks, while being relatively resilient to (spared from) armed conflicts involving battles. Identifying varying levels of intrahousehold vulnerability and resilience is crucial to inform adaptation strategies and resilience-building investments. These findings can inform gender-sensitive mental health interventions and responses to shocks.

Key Words: Depression; Stress; Intrahousehold; Shocks, Ethiopia

1. Introduction

Mental health problems remain global public health challenges, affecting around one in seven people worldwide (approximately 1.1 billion individuals) (World Health Organization, 2025). Mental health disorders, including depression and anxiety, rank among the leading causes of disability, with high economic and social costs (1,2). Globally, mental disorders contribute significantly to the burden of disease, accounting for approximately 7 percent of disability-adjusted life years (DALYs) and 23 percent of years lived with disability (YLD) (3). Suicide accounts for over 700,000 deaths each year, making it a leading cause of death among young

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people (World Health Organization, 2025). In low- and middle-income countries (LMICs), this burden is amplified by limited healthcare infrastructure, pervasive stigma, and frequent exposure to covariate shocks such as droughts, economic crises, or pandemics (2). In Africa, mental health challenges are compounded by unique socioeconomic and cultural factors and constraints. Covariate shocks such as drought, armed conflict, and economic crises are the leading causes of mental health disorders (4,5). In the absence of formal insurance mechanisms to protect against covariate shocks, African households often cope by selling productive assets a strategy that undermines livelihoods and can exacerbate mental health problems (6).

Intrahousehold distribution of resources, responsibilities, and associated vulnerability and resilience to stressors can shape mental health outcomes and burdens within households. Economic models and frameworks offer valuable lenses for understanding these interactions. Alternatively, intrahousehold bargaining models emphasize how intrahousehold power disparities influence resource allocation and health outcomes(7–9). In patrilocal communities such as Africa, women bear a disproportional burden of household duties, including caring for those affected by mental health disorders, which generates intrahousehold differences in mental health.

Despite diverging theoretical predictions from the unitary and bargaining models, formal and empirical tests of these predictions in the context of Africa remain scant. More specifically, there are not many studies examining the intrahousehold mental health spillovers in Africa, particularly across rural settings. The specific mechanisms driving these spillovers, such as emotional contagion versus caregiving burdens, remain underexplored in these contexts, with much of the existing research drawn from Western countries and settings (10). This study aims to address these gaps by exploring the correlations between spousal mental health, gender dynamics, and urban–rural differences in these spillovers in Ethiopia.

What remains relatively understudied is the differential intrahousehold burden of these shocks and household members' associated vulnerability and resilience to them. Different types of shocks are likely to influence the mental health outcomes of household members differently. Theoretically, covariate shocks, such as droughts, economic downturns, and armed conflicts, are likely to disproportionately affect women because they often serve as primary caregivers and are responsible for, among other things, managing untreated mental health challenges within the family(11). Gender roles and associated intrahousehold differences in these roles are likely to significantly shape the impact of these shocks. Strong social networks, often present in rural communities, may help buffer psychological distress by fostering collective coping strategies, though these networks might be strained during prolonged shocks like droughts or conflicts (12).

Despite these complex intrahousehold vulnerabilities and interactions, the literature appears to lack comprehensive analyses of how different shocks (environmental, economic, and conflict-related) affect spousal mental health dynamics across urban and rural Africa. Few studies explore intrahousehold spillovers in mental health burdens, as well as potential intrahousehold differences in vulnerability and resilience to different types of shocks. This study seeks to address these gaps by examining the intrahousehold distribution of mental health outcomes and associated vulnerabilities and resilience to covariate shocks. Such an analysis is important to

inform the development of gender-sensitive mental health interventions and violence prevention strategies in shock-prone contexts such as those in Africa and Ethiopia.

This study aims to fill these gaps by examining the intrahousehold burden of mental health by eliciting symptoms of depression and stress from both spouses within the household. Building on a large household survey in Ethiopia, we measure mental health outcomes among married couples using the Patient Health Questionnaire-9 (PHQ-9) and Cohen's Perceived Stress Scale (PSS). Beyond analyzing intrahousehold mental health differences, we also empirically examine the implications of the distribution of intrahousehold agency and autonomy in decision-making. Finally, we systematically test intrahousehold differences in vulnerability and resilience against covariate shocks, such as drought, armed conflict, and price shocks, on mental health. We conduct within-household comparisons of mental health outcomes as well as fixed effects regressions characterizing potential intrahousehold differential vulnerability and resilience. We also compare within-household and intrahousehold responses to covariate shocks, including drought and conflict. We do so by modeling mental health outcomes of spouses in a fixed effects framework by interacting the gender of the respondent with exposure to these covariate shocks.

We contribute to this literature by shifting the focus to within-household mental health disparities. Existing studies largely treat the household as a unitary entity and focus on average mental health outcomes at the individual or household level. However, less is known about the distribution of mental health disorders within the same household, particularly across couples who share the same economic environment, shocks, and coping mechanisms. This paper contributes to the literature by examining whether there is a systematic difference in mental health outcomes between couples within the same household and by analyzing how covariate and idiosyncratic shocks shape intrahousehold disparities in mental health. By focusing on within-household variation, the study provides new insights into the unequal mental health burden borne by household members and the mechanisms through which shocks translate into gendered and intrahousehold mental health inequalities.

Our findings can be summarized as follows. First, women are more likely to report higher rates of symptoms of depression and perceived stress. Interestingly, such intrahousehold differences in mental health disorders can be explained by differences in the distribution of agency and autonomy in decision-making. Lack of autonomy in decision-making is associated with an increase in mental health disorders. Second, we find that mental health outcomes of spouses are only weakly correlated, especially in rural areas. Third, spousal correlations and spillovers in mental health outcomes are relatively stronger among urban households, suggesting potentially improved sharing of household burdens in urban areas. Fourth, while covariate shocks, such as drought, affect both spouses similarly, women tend to be comparatively more vulnerable to price shocks yet relatively resilient to armed conflicts involving battles. Identifying this varying level of intrahousehold vulnerability and resilience has critical implications for adaptation strategies and resilience-building investments, including gender-sensitive policies and responses to shocks.

2. Context, Data, and Measurement

2.1. Context

Ethiopia provides a suitable setting for analyzing intrahousehold mental health burdens. The country faces a high prevalence of mental health challenges in Africa (World Health Organization, 2020), with women being disproportionately affected (14,15) In addition, access to mental health care and related services remains limited, making mental health disorders an important public health concern(16).

2.2. Data

We embed mental health instruments in a large household survey interviewing about 20 randomly selected households from 180 enumeration areas (EAs). The household survey was collected between November 2023 and January 2024 by the International Food Policy Research Institute (IFPRI). The survey covers most regions of Ethiopia, including Tigray, Afar, Amhara, Oromia, Dire Dawa, Somalia, and the former Southern Nations, Nationalities, and Peoples' Region (SNNPR) region. The final sample includes 1,916 couples (3,832 individuals)**.**To Mental health modules were administered to both spouses within each household to capture intrahousehold differences. Beyond eliciting mental health outcomes, we also administered detailed modules capturing agency and autonomy in decision-making within the household. We collected self-reported measures of autonomy in income-related decision-making for both spouses.

2.3. Measuring mental health

We measure mental health outcomes using two commonly used measures: indicators of depression and stress. We measure depression using the Patient Health Questionnaire-9 (PHQ-9)(17), an instrument widely used for screening depressive symptoms. We also elicited stress levels using Cohen's Perceived Stress Scale (PSS) (18), a widely used instrument that includes 10 questions that capture respondents' feelings of symptoms of stress. The PHQ-9 and PSS instruments were administered to each spouse separately. To ensure cultural sensitivity, women respondents were interviewed by women enumerators.

2.4. Measuring exposure to covariate shocks

In line with the literature, drought, armed conflict, and price surge represent the major covariate shocks frequently experienced by our sample households, with drought exposure measured through rainfall deviations from long-term CHIRPS data, armed conflict exposure assessed via Armed Conflict Location and Event Data (ACLED) battle events within a 15-km radius of households, and price shocks quantified by changes in a composite staple price index between 2019 and 2023.

2.5. Descriptive Statistics

Table 1 reports the descriptive statistics associated with the households and spouses included in our sample. For the main estimation sample, the couple sample, the average household head in our sample is 45 years old with an education level of approximately 3.6 years. About 11 percent of the households are located in urban areas. Nearly half of our sample experienced drought, and

47 percent of households have experienced a battle event within a 15-km radius of their residence. Additionally, 37 percent of households are classified as living below the national poverty line, and 25 percent participate in the Productive Safety Net Programme (PSNP).

The summary statistics for the couple sample are comparable to the full sample across most of the observed covariates, as shown in columns 1 and 2 of Table 1. On average, the depression score is 3.57 points.

Table 1: Descriptive statistics

Household and individual characteristics	(1) Full sample Mean	Standard deviation	(2) Couple sample Mean	Standard deviation
Household characteristics				
Age of household head	47.826	16.282	46.341	15.362
Education of household head	6.498	4.923	6.463	4.790
Urban	0.115	0.319	0.110	0.312
Tropical livestock unit	3.317	5.124	3.803	5.512
Household size	4.980	2.206	5.716	1.931
Wealth index	2.979	1.431	2.962	1.430
Loss of off-farm income	0.187	0.390	0.194	0.395
Land ownership	0.870	0.336	0.896	0.306
Poor household (based on national poverty line)	0.363	0.481	0.368	0.482
PSNP participation	0.265	0.441	0.250	0.433
Covariate shocks				
Drought shock	0.475	0.499	0.491	0.500
Battle dummy 15km	0.452	0.498	0.458	0.498
Composite price (using national weights)	22.507	7.651	22.441	7.700
Change in composite price (using national weights)	18.712	5.122	18.750	5.077
Mental health outcomes				
Depression score	3.758	4.029	3.576	3.873
Depression: Mild/moderate/severe symptoms	0.349	0.477	0.333	0.471
Depression: Moderate or severe symptoms	0.126	0.332	0.116	0.320
Stress score	16.546	5.848	16.278	5.858
Stress: Medium or high	0.766	0.423	0.753	0.432
Stress: High stress	0.036	0.187	0.034	0.180
Autonomy in decision-making				
Lack autonomy in income-related decision-making	0.532	0.499	0.532	0.499
Number of observations	4,933		3,832	

Note: This table provides descriptive statistics associated with our sample. The first two columns report the mean and standard deviation associated with the full sample, while the last two columns report corresponding statistics for the couple sample.

3. Empirical strategy

We start by descriptive characterization of differences and correlations in mental health outcomes across spouses. For these purposes, we conduct simple mean comparisons and estimate pairwise correlations to identify potential spillovers and spousal dependence in mental health outcomes. We conduct these non-parametric comparisons and estimations for the full sample as well as for various groups in our sample, rural versus urban households.

$$Y_{ih} = \alpha_h + \alpha_1 Gender_{ih} + \varepsilon_{ih} \quad (1)$$

Where Y_{ih} stands for mental health outcome (depression and stress) of spouse *i* belonging to household *h.* α_h stands for household-specific fixed effects capturing all differences across households. $Gender_i$ stands for gender of the spouse, assuming a value of 1 for women respondents and 0 for men respondents. ε_{ih} captures remaining unobserved differences in mental health outcomes. Our parameter of interest in equation (1) is α_1, which captures intrahousehold differences in mental health outcomes. A positive value of α_1 implies that women spouses are more likely to report mental health problems and symptoms, while a negative value of α_1 implies the reverse. To uncover potential factors that may explain these differences, we extend the expression in equation (1) and include additional controls and interaction terms. Most importantly, we hypothesize that intrahousehold distribution of agency and autonomy in decision-making and associated deprivations can explain the intrahousehold differences in mental health disorders. To test this, we estimate the following interacted fixed effects specification:

$$Y_{ih} = \gamma_h + \gamma_1 Gender_{ih} + \gamma_2 Autonomy_{ih} + \gamma_3 Gender_{ih} * Autonomy_{ih} + \epsilon_{ih} \quad (2)$$

where all terms expect $Autonomy_{ih}$ are as defined above. $Autonomy_{ih}$ Stands a binary variable equal to 1 if the respondent reports lacking decision-making autonomy over income use. γ_3 captures potential differential mental health implications of lack of autonomy in decision-making among women and men spouses. If women lacking autonomy are more likely to report higher rate of mental health disorders, we expect γ_3 to be statistically significant.

$$Y_{ih} = \alpha_h + \beta_1 Gender_i + \beta_2 Gender_i * Shock_h + \mu_{ih} \quad (3)$$

where all terms except $Shock_h$ are as defined in equation (1). $Shock_h$ represents an indicator and continuously measures exposure to the three types of shocks we consider in this paper: drought, armed conflict, and price shocks. We note that with the objective of uncovering potential differential vulnerabilities across various types of shocks, we separately estimate equation (3) for each type of shock. β_2 is our main parameter of interest in equation (3), which captures differential intrahousehold vulnerabilities or resilience to different types of shocks. A positive and significant value of β_2 implies higher vulnerability among women spouses, while a negative value of β_2 suggests higher resilience among women spouses than men. As we are controlling household fixed effects in all our specifications, the parameters from equations (1) through (3) capture intrahousehold differences across spouses. Thus, the within-household comparison we conduct in this study accounts for any differences across households. In all our estimations, we cluster standard errors at the village level to account for within-village correlations in error terms, including those driven by local norms.

4. Results and Discussion

5.1 Intrahousehold differences and spousal spillovers in mental health burden

Table 2 presents a comparison of depression and stress symptoms using between women and men spouses. Women report a higher average depression score of 3.86 points compared to 3.29 points for men, indicating that women report higher symptoms of depression than men.

Similarly, 36 percent of women report mild or moderate depressive symptoms compared to 30 percent of men. However, about 4.5 percent of women report high stress compared to 2.2 percent of men, implying that women experience relatively higher perceived stress levels.

Table 2: Comparing mental health outcomes of women and men spouses

Mental health outcomes	Women	Men	Mean difference
Depression score	3.860	3.289	0.570***
Depression: Mild/moderate/severe symptoms	0.364	0.301	0.063***
Depression: Moderate or severe symptoms	0.126	0.106	0.020*
Stress score	16.198	16.360	-0.162
Stress: Medium or high	0.728	0.777	-0.049***
Stress: High stress	0.045	0.022	0.022***
Number Observations	1916	1916	

We then estimate pairwise correlations between mental health outcomes of spouses. Table 3 shows these pairwise correlations in depression and stress symptoms.

Table 3: Within-household pairwise correlations in mental health outcomes across spouses

		Women		
		Depression score	Mild/moderate/severe symptoms	Moderate or severe symptoms
Men	Depression score	0.131 (0.000)		
	Mild/moderate/severe symptoms		0.087 (0.000)	
	Moderate or severe symptoms			0.084 (0.000)
		Stress score	Stress: medium or high	Stress: high
Men	Stress score	0.146 (0.000)		
	Stress: Medium or high		0.146 (0.000)	
	Stress: High			0.035 (0.123)

Note: This table reports within-household pairwise Pearson correlations in mental health outcomes across spouses. P-values are reported in parentheses.

We also undertake further analyses (not reported here) where we disaggregate the within-household pairwise correlations both across geography (rural vs urban) and poverty levels (poor vs non-poor). The results from the geographic analysis reveal that the spousal correlation in depression scores and stress scores are twice as high as in rural areas. Similarly, the spousal correlation in depression and stress scores for non-poor households is about twice that of the pairwise correlations among poor households.[§]

Next, we report parametric results associated with equation (1). The results in Table 4 show that women report a depression score 0.57 points higher and a 6.3 percentage point higher likelihood

[§] Estimation results are available upon request

of reporting mild, moderate, or severe depression symptoms. Similarly, women have a 2.2 percentage points higher likelihood of reporting higher perceived stress levels. These results suggest women consistently report higher depression across all measures but exhibit a varied stress pattern, with a lower likelihood of stress above the threshold and a higher likelihood of more intense stress, indicating gender-specific differences in stress experiences.

Table 4: Are women more likely to report a higher level of depression and stress?

	(1) Depression score	(2) Mild/moderate/severe symptoms	(3) Moderate or severe symptoms	(4) Stress score	(5) Stress: medium or high	(6) Stress: high
Respondent: Women	0.574***	0.063***	0.020*	-0.164	-0.049**	0.022***
	(0.149)	(0.017)	(0.012)	(0.275)	(0.020)	(0.007)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.57	0.55	0.54	0.57	0.57	0.52
Observations	3832	3832	3832	3832	3832	3832

Note: This table examines whether women respondents are more likely to report higher levels of depression and stress. It presents within-household fixed effects estimations. The dependent variables include continuous measures of depression and stress, as well as binary indicators for different levels of depression and stress. The coefficient on "Respondent: women" represents the average difference between women and men respondents. Standard errors, clustered at village (*kebele*) level, are given in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

5.2 Mechanisms to explain intrahousehold differences in mental well-being

To test whether lack of autonomy explains mental health outcomes, we report results associated with the household fixed-effects model specified in equation (2). Panel A of Table 5 reports results without interacting gender with spousal autonomy, while the results in Panel B present estimation results using the fully interacted specification described in equation (2). The results in Panel of Table 5 show that the lack of autonomy contributes to a higher mental well-being disorder. Spouses who lack autonomy report significantly higher levels of depression (0.623) and perceived stress scores (0.946). The results in Panel B of Table 5 offer more striking patterns. First, among those spouses with autonomy in decision-making, the gender differences in mental health burden disappear or reverse (for the case of stress). Second, women who lack autonomy report disproportionately higher levels of symptoms of mental health disorder as also reflected by the significant coefficients associated with the interaction terms. This implies that much of the intrahousehold differences in the distribution of mental health burden can be explained by differences in the level of autonomy spouses have within their household.

Table 5: Intrahousehold mental well-being differences by gender and autonomy

	(1) Depression score	(2) Mild/moderate/severe symptoms	(3) Moderate or severe symptoms	(4) Stress score	(5) Stress: Medium or high	(6) Stress: High
Panel A: Results without interactions (of gender and lack of autonomy)						
Women	0.531***	0.059***	0.018	-0.226	-0.052**	0.023***
	(0.147)	(0.017)	(0.012)	(0.284)	(0.020)	(0.007)
Lack autonomy	0.623***	0.061***	0.041**	0.946***	0.043**	-0.002
	(0.186)	(0.022)	(0.016)	(0.315)	(0.020)	(0.009)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

R-squared	0.57	0.55	0.54	0.58	0.58	0.52
Observations	3828	3828	3828	3828	3828	3828
Panel B: Results with interactions (of gender and lack of autonomy)						
Women	0.023	-0.020	-0.012	-1.822***	-0.154***	0.009
	(0.253)	(0.026)	(0.018)	(0.421)	(0.029)	(0.010)
Lack autonomy	0.150	-0.012	0.013	-0.540	-0.052*	-0.015
	(0.260)	(0.031)	(0.020)	(0.402)	(0.030)	(0.012)
Women # Lack autonomy	0.954**	0.148***	0.056**	3.001***	0.192***	0.026*
	(0.369)	(0.043)	(0.027)	(0.573)	(0.044)	(0.015)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.57	0.55	0.55	0.58	0.58	0.52
Observations	3828	3828	3828	3828	3828	3828

Note: This table reports coefficients from fixed effects regression models examining the implications of gender differences and lack of autonomy on mental health outcomes. The dependent variables include continuous measures of depression and stress, as well as binary indicators for different levels of depression and stress. Standard errors, clustered at village level, are given in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

5.3. Intrahousehold differences in vulnerability and resilience to covariate shocks

Table 6 presents results associated with equation (3), where the differential impact of exposure to alternative shocks on mental health of spouses are measured. Results in Panel A show whether women spouses are differently affected by drought shocks. The results show that, on average, women report levels of depression 0.585 points higher, which is statistically significant. The interaction term between being a woman and experiencing drought appears to be statistically insignificant for most outcomes, suggesting that the adverse mental health effects of drought is likely to be similar across spouses.

Table 6: Intrahousehold differences in vulnerability and resilience against covariate shocks

Variables	(1) Depression score	(2) Mild/moderate /severe symptoms	(3) Moderate or severe symptoms	(4) Stress score	(5) Stress: medium or high	(6) Stress: high
Panel A: Results for drought as covariate shock						
Respondent: Women	0.585***	0.068***	-0.001	-0.102	-0.044*	0.010
	(0.217)	(0.023)	(0.017)	(0.337)	(0.024)	(0.009)
Women # Drought	-0.062	-0.016	0.041*	-0.134	-0.011	0.025*
	(0.291)	(0.033)	(0.023)	(0.555)	(0.040)	(0.013)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.57	0.55	0.54	0.57	0.57	0.52
Observations	3812	3812	3812	3812	3812	3812
Panel B: Results for armed conflict as covariate shock						
Respondent: Women	0.827***	0.091***	0.040***	1.031***	0.024	0.028***
	(0.177)	(0.023)	(0.015)	(0.329)	(0.027)	(0.010)
Women # Battle 15km	-0.548*	-0.061*	-0.044*	-2.547***	-0.155***	-0.013
	(0.298)	(0.034)	(0.023)	(0.508)	(0.037)	(0.013)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.57	0.55	0.54	0.58	0.58	0.52
Observations	3832	3832	3832	3832	3832	3832
Panel C: Results for price changes as covariate shock						
Respondent: Women	-0.967**	-0.148***	-0.003	-1.184	-0.096	-0.004
	(0.412)	(0.049)	(0.036)	(0.809)	(0.059)	(0.027)

Women # change in food price	0.082***	0.011***	0.001	0.054	0.002	0.001
	(0.021)	(0.003)	(0.002)	(0.040)	(0.003)	(0.001)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.57	0.55	0.54	0.57	0.57	0.52
Observations	3832	3832	3832	3832	3832	3832

Note: This table reports coefficients from fixed effects regression models examining the interaction between women respondents' status and exposure to covariate shocks on various mental health outcomes. The dependent variables include continuous measures of depression and stress, as well as binary indicators for different levels of depression and stress. The coefficient on "Respondent: Women" shows the average difference between women and men, while the interaction terms in Panel A captures how the effect of covariate shocks (drought, armed conflict, and price change, respectively) varies across spouses. Standard errors, clustered at village level, are given in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Panel C of Table 6 presents estimation results associated with equation (3), considering a change in food prices as another type of economic shock. Among those households exposed to an increase in food prices, women report slightly higher depression scores and a higher likelihood of reporting depressive symptoms. These findings suggest that rising food prices slightly worsen intrahousehold differences in mental health outcomes. In Ethiopia, women are more likely to be responsible for food purchases and preparation, implying that they are more sensitive to food price shocks.

The differential impact of exposure to the various shocks on couples' mental health outcomes is also analyzed by disaggregating across rural and urban residents. Figure 1 presents the impact of shocks on intrahousehold mental health disaggregated by place of residence (rural and urban). Using both depression and stress scores, we observe negligible differences in vulnerability (resilience) to drought and price shocks between spouses in rural and urban areas. However, exposure to armed conflict is associated with lower mental health scores for women in rural areas compared to men.

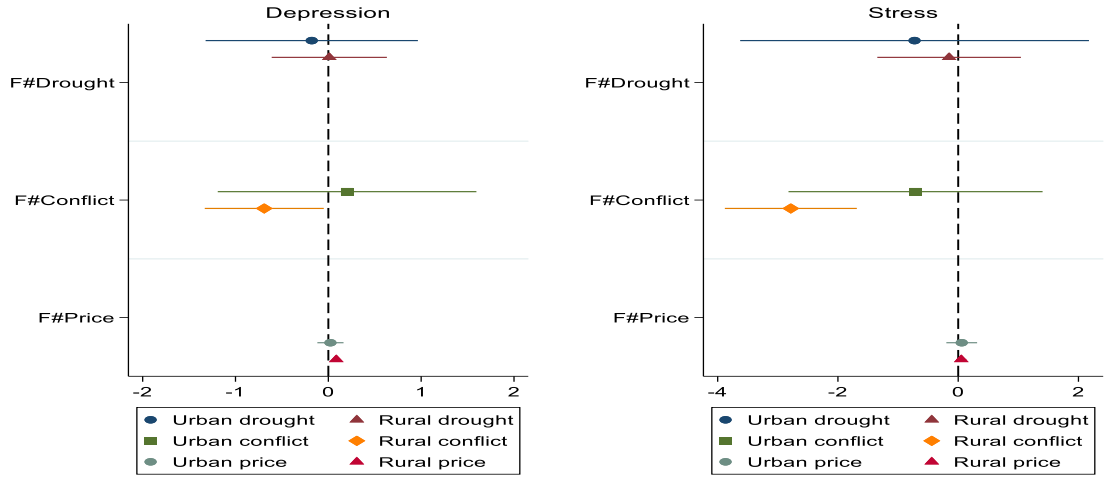

Figure 1: The differential impacts of shocks on mental health disaggregated by place of residence

6. Conclusion

This study aims to uncover the intrahousehold burden of mental health by eliciting symptoms of depression and stress from both spouses of a household. Building on a large household survey in

Ethiopia, we measure mental health outcomes among married couples using the Patient Health Questionnaire-9 (PHQ-9) and Perceived Stress Scale. We conduct alternative analyses that involve within-household comparison of mental health outcomes as well as pairwise correlation analyses. Beyond analyzing intrahousehold mental health differences, we also systematically examine differences in vulnerability and resilience against various covariate shocks such as drought, armed conflict, and price shocks. We do so by modeling mental health outcomes of spouses in a fixed effects framework by interacting the gender of the respondent with exposure to these covariate shocks.

Our findings can be summarized as follows. First, women spouses are more likely to report higher rates of symptoms of depression and stress. Interestingly, such intrahousehold differences in mental health disorders can be explained by differences in the distribution of agency and autonomy in decision-making. Among those spouses with autonomy in decision-making, the gender differences in mental health burden disappear, while women who lack autonomy report disproportionately higher levels of symptoms of mental health disorders. Second, we find that mental health outcomes of spouses are only weakly correlated, especially in rural areas. Third, spousal correlations and spillovers in mental health outcomes are relatively stronger among urban households, suggesting potentially improved sharing of household burdens in urban areas. Fourth, while covariate shocks, such as drought, affect both spouses similarly, women tend to be more vulnerable to price shocks but relatively resilient to armed conflicts involving battles. Identifying this varying level of intrahousehold vulnerability and resilience is crucial to inform adaptation strategies and resilience-building investments.

For example, the finding that much of the intrahousehold differences in the distribution of mental health burden can be explained by differences in the level of autonomy spouses implies that initiatives and policies aiming to improve women's agency and autonomy can improve mental health outcomes. Similarly, these findings can inform gender-sensitive mental health interventions, including gender-sensitive, community-based support systems and safety net programs to reduce the mental health treatment gap and build resilience against covariate shocks.

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