

Father Involvement and Adolescents' Internalizing and Externalizing Behaviors: Maternal Depressive Symptom as a Mediator and Maternal Social Support as a Moderator

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A significant ambiguity remains regarding whether maternal depressive symptoms mediate the relationship between father involvement and adolescents' internalizing and externalizing behaviors, particularly within Ethiopia's patriarchal cultural context. Addressing this research gap, the present study aimed to investigate the mediating role of maternal depressive symptoms in the association between father involvement and adolescents' internalizing and externalizing behaviors, as well as the moderating influence of maternal social support on this mediation pathway. The study utilized data from a sample of 404 adolescents ($M_{age} = 15.81 \pm 0.71$; 51.7% male). Structural equation modeling analyses revealed that maternal depressive symptoms partially mediated the relationship between father involvement and adolescents' internalizing and externalizing behaviors. Additionally, maternal social support significantly moderated the role of father involvement on maternal depressive symptoms and the role of maternal depressive symptoms on adolescents' internalizing and externalizing behaviors.

Key words: father involvement, maternal depressive symptom, adolescents, internalizing behaviors, externalizing behaviors, maternal social support

Introduction

In order to be successful and improve the well-being of everyone involved, especially the children, parenting is a difficult job that requires collaborative effort. In Ethiopia, as in many other nations where men are seen as

the head of the household, there are deeply ingrained cultural norms that define a father's duty as primarily being the provider of income. Fathers are typically not involved much with their children nor do they participate in the routine of daily living at home (Hill, 2020). The Amharic proverb, "Rejoice while you have a father; work hard before it is too

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late,” in particular represents how fathers can positively count on ensuring opportunities for celebration as well as opportunities for their children’s survival and development (Tefera & Solomon, 2015). An analysis of research on fatherhood conducted over the previous forty years reveals that father involvement in their children’s life is increasing globally (Achenbach et al., 2016; Diniz et al., 2021; Havewala et al., 2021; Pleck, 2007). Fatherhood experts, such as Cabrera et al. (2018), Benton et al. (2021), and the UN (2011), characterize fathers’ roles as providing care, engaging in play with their children, imparting knowledge, and serving as mentors or authority figures. According to previous research (Michiels et al., 2010; Newland et al., 2013; Sarkadi et al., 2008), fathers’ participation has a favorable impact on adolescents’ overall development in domains like academic success, social, behavioral, psychological, and cognitive outcomes. More studies have additionally demonstrated that when it comes to an adolescent’s degree of joy, contentment with life, and alcohol intake, fathers have a bigger impact than mothers (Diniz et al., 2021; Goncy & van Dulmen, 2010). Conversely, the lack of a father was linked to children’s involvement in criminal activities, feelings of worry and sadness, and disruptive behaviors (Charles et al., 2018; Markowitz & Ryan, 2016; Le Roux, 2009; Day & Lamb, 2010; Allen & Daly, 2007). Along with ensuring children’s rights to protection, survival, education, development, and participation, father involvement also reduces risky and delinquent behaviors in adolescents (Miller, 2011; Pleck, 2007; Sarkadi et al., 2008; Hiwot Ethiopia, 2015; Lamb, 2010; Volker, 2014). However, fathers’ participation in childcare has not advanced as much as expected, even in developed nations, where women have been drawn into paid employment since the 1970s (Adler & Lenz, 2015; Tiumelissan et al., 2020). In Ethiopia, where patriarchal parenting is prevalent, there is still

much work to be done before fathers participate more in parenting. Patriarchy refers to a gender system that allows and validates the domination of men over women (Debabu, 2000). Men who live in patriarchal cultures have certain privileges that are not extended to women (Dickerson, 2013). This domination is seen in many areas of life, such as domestic duties, where women bear disproportionately heavy responsibilities even when they engage in productive work outside the home (Abera, 2015; Adler & Lenz, 2015; Tiumelissan et al., 2020). Women, due to the persistence of patriarchal norms, perform almost all domestic tasks, including childcare from early childhood to late adolescence (Tiumelissan et al., 2020; Pankhurst, 2020; Chuta, 2017; Pankhurst et al., 2018). The importance of focusing on father’s involvement in child rearing responsibilities in developing nations cannot be overstated, as it has wide-ranging benefits for society as a whole, not just women and adolescents.

Father Involvement and Adolescent Internalizing and Externalizing Behaviors

Father involvement has been connected to lower levels of adolescents’ depressive and anxious behavioral problems and it has been shown to prevent the occurrence of upcoming behavior problems in adolescents. Absence of father involvement limits adolescent physical and psychological growth (Cabrera et al., 2018; Lamb et al., 2010).

Father involvement can both reduce young people’s emotional and behavioral problems and improve psychological, social, and interpersonal performance (Jones et al., 2018; Carlson, 2006; Chang et al., 2007; Burt et al., 2008; Hay et al., 2004; Williams, 2013). Internalizing and externalizing behavioral problems was less common in adolescents who had positive relationships with their fathers (Bronte-Tinkew et al., 2006; White & Gilbreth, 2001;

Bireda, 2013). Another study conducted on 508 ethnically diverse children and their parents from low-income families in the United States revealed that children who experienced positive interactions with their fathers demonstrated fewer internalizing and externalizing behaviors, as well as stronger peer relationships (Cabrera et al., 2011; Luijten et al., 2021). Adolescents' poor social competence as well as higher likelihood of depression, withdrawal, and other maladjustments were predicted by low father involvement (Zhang, 2013).

Maternal Depressive Symptom as Mediator

Fathers are increasingly expected to assist in caring for their children in addition to being the family's bread provider and moral leader, as mothers are no longer viewed as the only ones in charge of childcare and child well-being (Lamb & Lewis, 2010). However, there is still a tendency for each parent to participate in the child's and the family's activities in an uneven manner, with women still often handling childcare and household tasks (Cabrera et al., 2018; Craig, 2006; Kato-Wallace et al., 2014; Kotila et al., 2013). Because of this, mothers have the dual burden of job, childcare, and housework, which could explain why they feel more stressed than other people (Nomaguchi & Milkie, 2020; Bianchi et al., 2007). The burden on mothers is greater in developing nations like Ethiopia than it is in developed nations. Empirical research reveals that increased father participation in child-related activities reduces the childcare load on women, which is linked to improved mental health and reduced stress levels in mothers (Cabrera et al., 2018; Nomaguchi et al., 2017; Pleck, 2010). Study findings reveals that high father involvement in parenting is associated with low maternal depressive symptom (Smith & Johnson, 2019). The Family Systems Theory emphasizes the interdependence

among family members, suggesting that when fathers are less involved, the emotional burden on mothers increases, potentially leading to depression. This, in turn, may negatively impact adolescent behavior. Similarly, the Ecological Systems Theory considers the family environment and parental mental health as influential on adolescent outcomes.

Maternal Social Support as Moderator

According to various studies, social support is a very important variable in reducing depression and stressful events in human life, and low levels of social support are expected to lead to depression and anxiety (Qi et al., 2020; Kim & Kihl, 2021; Li et al., 2020; Scardera et al., 2020). According to Shin et al. (2019), there is a substantial correlation between a mother's social support and decreased maternal stress, which is linked to better child development.

Children of mothers who were well connected in the community had superior cognitive growth. It is likely that mothers who engaged in local social interactions gave their children more possibilities for play-dates with other children or greater stimulation through social activities (Shin et al., 2019). Empirical study results show that less maternal social support is linked to a higher chance of behavioral problems in children and a higher chance of internalizing and externalizing behaviors, while advanced levels of maternal support from the husband, family, and friends are connected with lower levels of maternal anxiety and the anxiety of the couples' children (Murakami et al., 2023).

Current Study and Hypothesis

While it is reasonable to assume that maternal depressive symptoms may mediate the relationship between father involvement and adolescents' internalizing and externalizing behav-

iors, this relationship has not been thoroughly examined in Ethiopia, where patriarchal parenting norms are prevalent. Furthermore, the moderating role of maternal social support in this relationship remains underexplored. Existing literature lacks comprehensive evidence on how these family dynamics interact to influence adolescent mental health outcomes in culturally specific contexts. Therefore, the current study aimed to examine a moderated mediation model where maternal depressive symptoms mediate the relationship between father involvement and adolescents' internalizing and externalizing behaviors, and maternal social support moderates this mediation pathway (see Figure 1).

Hypothesis

To achieve the aim of the research the following hypotheses were tested:

H1: Father involvement will be negatively associated with adolescents' internalizing and externalizing behaviors.

H2: Father involvement will be negatively associated with maternal depressive symptoms.

H3: Maternal depressive symptoms will be positively associated with adolescents' internalizing and externalizing behaviors.

H4: Maternal depressive symptoms will mediate the relationship between father involvement and adolescents' internalizing and externalizing behaviors.

H5: Maternal social support will moderate the direct and indirect paths of the model:

H5a: The association between father involvement and maternal depressive symptoms will be moderated by maternal social support.

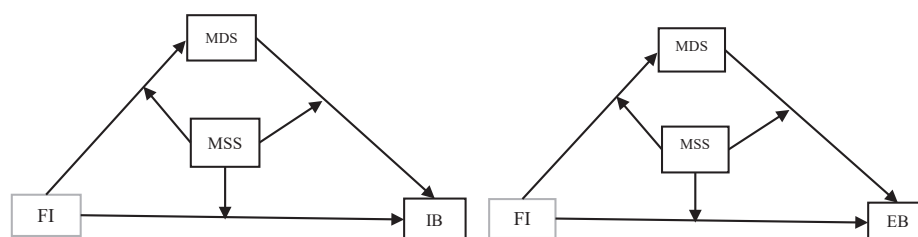
H5b: The association between maternal depressive symptoms and adolescents' internalizing and externalizing behaviors will be moderated by maternal social support.

Methods

This study utilized a cross-sectional research design to examine the mediating role of maternal depressive symptoms in the relationship between father involvement and adolescent internalizing and externalizing behaviors, using data collected through questionnaires. Additionally, it explored how maternal social support moderates this mediation pathway.

Participants

From April to May 2023, a cross-sectional survey was conducted involving adolescents



Note. Moderated mediation model, FI refers father involvement, MDS maternal depression symptom, MSS maternal social support, IB internalizing behaviors and EB externalizing behaviors.

Figure 1 Model of the study.

and their mothers. The researcher's university ethics committee granted ethical approval for the study. Inclusion criteria required that adolescents have fathers, mothers and live together. Participants were recruited from three public schools and one private school in the capital city of Southern Ethiopia, which is located 385 kilometers away from Addis Ababa, the capital of Ethiopia. The survey was introduced to students by school principals, classroom teachers, and psychology graduates. The study included 404 adolescents, with an average age of ($M_{\text{age}} = 15.81 \pm 0.71$) from grades 9-12 and their mothers filled out the survey. Among the participants, 209 (51.7%) were male, and 195 (48.3%) were female. The sample size was determined proportionally based on the population of each school.

Procedure

Two senior language instructors, who are native speakers and teach at language departments, translated the questionnaire into the nation's official language. Following Brislin's (1986) guidelines, the survey measures were translated and back-translated to ensure conceptual equivalence. A pilot test was conducted to check the reliability of the items across different cultures. Written permission was obtained from the principals of participating schools, who communicated the research purpose to the head teachers. Participants were stratified by grade level and sex, and a consent letter was sent to all participants and their mothers. Adolescents completed questionnaires assessing their father's involvement and their own behaviors, while the mothers filled out questionnaires regarding their anxiety symptoms and social support. Data confidentiality was strictly maintained, ensuring that the data from adolescents and their mothers would be used exclusively for scientific research and not shared without their explicit consent.

Measures

Father Involvement

Father involvement was assessed using a revised inventory of 26 items developed by Hawkins et al. (2002). Participants rated items such as "teaching you to be responsible for what you are doing" on a five-point Likert scale, ranging from "almost never" to "very often." The items were averaged, with higher scores indicating greater father involvement. The measure demonstrated a high level of internal consistency, with a Cronbach's alpha of 0.92. Confirmatory factor analysis (CFA) was also performed to evaluate the fit of the translated father involvement measure, showing a good fit with the data: $\chi^2/df = 2.98$, CFI = 0.954, TLI = 0.96, SRMR = 0.03, and RMSEA = 0.07.

Internalizing Behavior

Internalizing behaviors were evaluated using a set of 12 items recommended by Su & Miller (2017). Participants rated items such as "I experienced feelings of loneliness in the past three months" on a 5-point Likert scale, ranging from "none" to "extremely severe." Higher scores indicate a greater presence of internalizing behaviors. The scale demonstrated strong reliability, with a Cronbach's alpha of 0.87. Confirmatory factor analysis (CFA) was used to assess the fit of internalizing behavior model, revealing a good fit with the data: $\chi^2/df = 3.58$, CFI = 0.96, TLI = 0.95, SRMR = 0.029 and RMSEA = 0.06.

Adolescents Externalizing Behavior

Externalizing behaviors were assessed using a set of 7 items identified through factor analysis. Students reported the frequency of en-

gaging in specific behaviors over the past year, such as skipping class, on a Likert scale ranging from 1 (never) to 5 (always). The scores for these seven items were averaged, resulting in a final score range from 1 to 5, where higher scores indicate a greater occurrence of negative externalizing behaviors. The scale's reliability was strong, with a Cronbach's alpha of 0.86. Confirmatory factor analysis (CFA) confirmed a good fit for the externalizing behavior measure, with the data; $\chi^2/df = 2.50$, CFI = 0.99, TLI = 0.98, SRMR = 0.03, and RMSEA = 0.061.

Maternal Depression Symptom

Mothers of the adolescents participating in the study reported their symptoms of maternal depression using the Center for Epidemiological Studies Depression Scale (CES-D) (Carleton et al., 2013). This scale consists of 20 items, such as "I was bothered by things that do not usually bother me," rated on a 4-point Likert scale from "rarely" to "most of the time." Confirmatory factor analysis (CFA) indicated that the 20 items had a good fit to the data, with a χ^2/df ratio of 3.1, CFI of 0.956, TLI of 0.947, SRMR of 0.04, and RMSEA of 0.072. The Cronbach's alpha coefficient was 0.833, demonstrating strong reliability.

Maternal Social Support

Mothers completed the Maternal Social Support Scale, which was developed by Minnebo (2005). The scale consisted of 12 items that

measured the variable of maternal social support. Participants rated each item on a 5-point Likert scale, ranging from "never" to "always". Confirmatory factor analysis (CFA) was conducted to assess the fit of the scale to the data. The results indicated an excellent fit ($\chi^2/df = 1.77$, CFI = 0.986, TLI = 0.965, SRMR = 0.028, RMSEA = 0.044). The Cronbach's alpha coefficient for this scale was 0.79, indicating sufficient reliability.

Test of Measurement Invariance across Female and Male Participants

As shown in Table 1, the results of the gender-based group comparisons indicated complete measurement invariance. All configural models were found to have acceptable fits, indicating configural invariance, and all metric invariance models demonstrated non-significant model misfit statistics. The factor loadings and intercepts are equivalent across gender groups.

Data Analysis

To address multicollinearity, continuous variables were normalized before analysis. Bi-variate Pearson correlations and descriptive statistics were calculated for each variable. Structural mediation models were then developed to examine whether maternal depression symptoms mediate the relationship between father involvement and adolescents' internalizing and externalizing behaviors. A moderated mediation model was also con-

Table 1 *Measurement invariance for Father Involvement Scale*

Model	χ^2 (CMIN)	df	<i>p</i>	$\Delta\chi^2$ (Δ CMIN)	Δ df	CFI	Δ CFI	TLI	Δ TLI	RMSEA	Δ RMSEA
Configural Invariance	---	---	---	---	---	---	---	---	---	---	---
Metric Invariance	73.785	18	.000	---	---	.93	.012	.90	.000	.060	---
Scalar Invariance	83.793	24	.000	10.009	6	.95	.014	.92	-0.003	.065	.005
Residual Invariance	110.195	45	.000	26.401	21	.96	.018	.93	-0.014	.078	0.013

structured to explore the moderating role of maternal social support. Significance tests and confidence intervals (CIs) were estimated using 5000 bootstrap samples. Data analysis was conducted using Amos 28.0 and SPSS 25.0. Before the analysis, missing data for the main study variables were assessed, and no missing information was found.

Results

Common Method Bias

In this study, all data were collected using self-report measures, which could potentially introduce common method bias (Podsakoff et al., 2003). To address this, a Harman's single-factor test was conducted (Harman, 1976). Common method bias is suggested when a single factor dominates or accounts for more than 40% of the variance in all items loaded together in factor analysis. The factor analysis in this study showed that a single factor accounted for 17.31% of the total variance, indicating no significant common method bias.

Descriptive and Correlation Results

Table 2 presents the means, standard deviations, and correlations among the variables. Paternal involvement is significantly negatively correlated with adolescents' internalizing and externalizing behaviors, as well as with maternal anxiety symptoms, and positively correlated with maternal social support. Maternal depression symptoms show significant positive correlations with adolescents' internalizing and externalizing behaviors, while maternal social support is negatively correlated with these behaviors. Factors such as higher paternal education, urban residence, and government employment are also correlated with internalizing and externalizing behaviors. Therefore, the study controlled for covariates including father's education, occupation, and place of residence (urban/rural). Gender, parental education, and career were not considered, as they did not significantly correlate with adolescents' internalizing and externalizing behaviors.

Table 2 *Descriptive and bivariate correlations results of study variables*

Variable	Gender	P-R	FE	FO	FI	IB	EB	MDS	MSS
Gender	-								
P-R	.09	-							
FE	-.01	-.375**	-						
FO	-.07	.279**	.477**	-					
FI	-.048	-.271**	.340**	.297**	-				
IB	-.071	-.324**	-.202**	.103	-.403**	-			
EB	-.057	.476**	-.323**	.104	-.456**	.523**	-		
MDS	.027	.311**	-.249**	.312**	-.135**	.248**	.268**	-	
MSS	-.122*	-.169**	-.015	-.106	.124*	.055	-.083	-.245**	-
<i>M</i>	-	-	-	-	2.94	2.45	3.03	1.95	2.05
<i>SD</i>	-	-	-	-	.95	.54	.61	.82	.84

Note. "Gender" was a dummy variable, 1 = male, 2 = female; "P-R means urban/rurality"; FE = Father Education; FO = Father Occupation; FI = Father Involvement; IB = Internalizing Behaviors; EB = Externalizing Behavior; MDS = Maternal Depression Symptom; MSS = Maternal Social Support.

* $p < 0.05$, ** $p < 0.01$

Mediation Analysis

The study examined how maternal depression symptoms mediate the relationship between father involvement and adolescents' internalizing behaviors. Without maternal depressive symptoms, father involvement significantly correlated with internalizing behaviors ($b = -0.403$, $SE = 0.045$, $t = -8.36$, $p < 0.001$). The findings showed a significant indirect relationship, indicating that maternal depression symptoms partially mediate this relationship ($b = -0.027$, $p < 0.001$). Even with the mediator, the direct prediction of father involvement on internalizing behaviors remained significant ($b = -0.377$, $p < 0.001$).

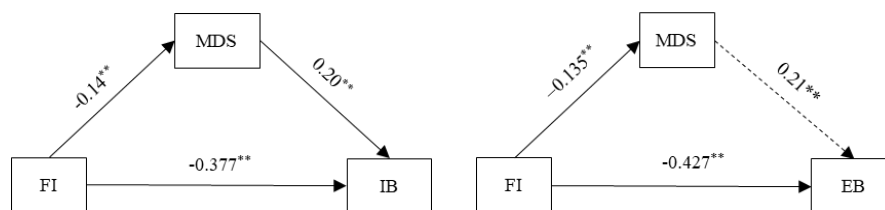
The study also assessed the mediation role of maternal depression symptoms on the link between father involvement and adolescents' externalizing behaviors. Without maternal depressive symptoms, father involvement significantly correlated with externalizing behaviors ($b = -0.456$, $SE = 0.044$, $t = -10.23$, $p < 0.001$). The results confirmed both hypotheses, showing a significant indirect relationship

and underscoring the mediating role of maternal depression symptoms in the relationship between father involvement and adolescents' externalizing behaviors ($b = -0.029$, $p < 0.001$).

A summary of the mediation analysis is presented in Figure 2.

Testing for Moderated Mediation Effect

In this moderated mediation model, maternal depressive symptoms acted as a mediator, while maternal social support moderated the role of father involvement on adolescents' internalizing and externalizing behaviors. The model showed that maternal social support significantly moderates the association between father involvement and maternal depressive symptoms, with a noteworthy interaction (father involvement $\times$ maternal social support) influencing adolescents internalizing and externalizing behaviors ($p < .001$). Specifically, the conditional indirect correlation of father involvement on adolescent internalizing behaviors and externalizing behaviors through maternal depression symptom was



Note. Examining the mediating role of maternal depression symptoms on the correlation between father involvement and both internalizing and externalizing behaviors in adolescents. The coefficients presented are standardized regression coefficients. For conciseness, the figure does not display control variables such as gender, father education, place of residence, and father occupation, since they were included as covariates in statistical analysis (similar information follows). Main variables like father involvement, maternal depression symptoms, internalizing behavior, externalizing behavior and maternal social support.

* $p < 0.05$, *** $p < 0.001$

Figure 2 Mediation summary.

more pronounced at higher levels of maternal social support, suggesting that maternal social support enhances the positive association of father involvement and adolescents' internalizing and externalizing behaviors.

An effect of the significant interaction between father involvement and maternal social support on maternal depressive symptoms was observed in the model (see Tables 2 and 3). A simple slope analysis revealed that the predictive role of father involvement on maternal depressive symptoms was weaker for mothers with higher maternal social support ($B\text{-high} = 0.279$, $SE = 0.05$, $t = 5.02$, $p < 0.001$, $95\% \text{ CI} = [0.170, 0.388]$) compared to those with lower maternal social support ($B\text{-low} = 0.13$, $SE = 0.064$, $t = 1.98$, $p < 0.001$, $95\% \text{ CI} = [0.0012, 0.2532]$). Similarly, an effect was identified of the significant interaction between maternal depressive symptoms and maternal social support on adolescents' internalizing and externalizing behaviors. The simple slope test indicated that the predictive effect of maternal depressive symptoms on adolescents' internalizing behaviors was

moderated by higher maternal social support ($B\text{-high} = -0.374$, $SE = 0.058$, $t = -6.412$, $p < 0.001$, $95\% \text{ CI} = [-0.488, -0.259]$) compared to lower maternal social support ($B\text{-low} = -0.414$, $SE = 0.063$, $t = -6.583$, $p < 0.001$, $95\% \text{ CI} = [-0.537, -0.290]$). The moderation role is the same for externalizing behaviors ($B\text{-high} = -0.174$, $SE = 0.03$, $t = -6.41$, $p < 0.001$, $95\% \text{ CI} = [-0.227, -0.121]$) compared to lower maternal social support ($B\text{-low} = -0.240$, $SE = 0.021$, $t = -11.592$, $p < 0.001$, $95\% \text{ CI} = [-0.281, -0.199]$). However, the direct correlation of father involvement and adolescents' internalizing and externalizing behaviors was not significantly moderated by maternal social support. These findings suggest that maternal social support not only moderates but also amplifies the beneficial influence of father involvement on adolescent behaviors through reduced maternal depression symptom, highlighting maternal social support's crucial role in family dynamics and adolescent adjustment (Hayes, 2018). For full regression details, please refer to the accompanying Figures 3 and 4 and Tables 3 and 4.

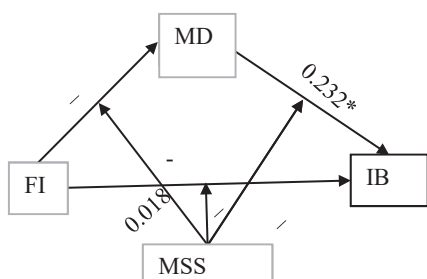


Figure 3 Moderated mediation summary 1.

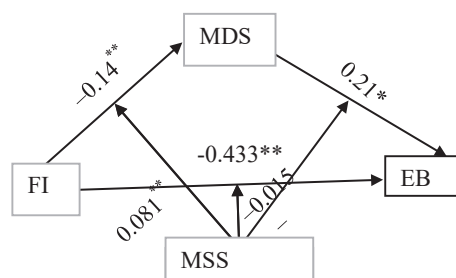


Figure 4 Moderated mediation summary 2.

Note. Moderated mediation model controlled demographic variables, main variables are father involvement, maternal depressive symptom, internalizing and externalizing behaviors, maternal social support.

* $p < 0.05$, *** $p < 0.001$

Table 3 *The moderated mediation effect of maternal depressive symptom and maternal social support on the association between father involvement and adolescents' internalizing behaviors*

Variable	Model a-path (dependent variable MDS)				Model b/c-path (dependent variable ADIB)			
	β	se	t	p	β	se	t	p
FI(X)	-.106	.049	-2.181	.000	-.392	.045	-8.76	.000
MDS					.232	.046	5.058	.000
MSS(W)	-.232	.049	-4.782	.000	.160	.046	3.499	.001
X*W	-.035	.045	-3.77	.000	-.021	.043	-3.489	.001
MDS*MSS					.018	.042	2.43	.003
R ²	.17				.23			
F	10.42**				23.17**			

Note. The control variable (urban/rurality) was displayed in the model, p is the original p -value, FI = Father involvement, MDS = Maternal depressive symptoms, MSS = Maternal social support, ADIB = Adolescents internalizing behaviors.

** $p < 0.01$

Table 4 *The moderated mediation effect of maternal depressive symptom and maternal social support on the association between father involvement and adolescents' externalizing behaviors*

Variable	Model a-path (dependent variable MDS)				Model b/c-path (dependent variable ADEB)			
	β	se	t	p	β	se	t	p
FI(X)	-.106	.049	-2.181	.000	-.433	.044	-9.88	.000
MDS					.210	.045	4.67	.000
MSS(W)	-.232	.049	-4.782	.000	.021	.045	4.46	.002
X*W	-.035	.045	-3.77	.000	-.015	.042	-3.34	.001
MDS*MSS					.080	.041	-1.93	.003
R ²	.17				.26			
F	10.42**				27.77**			

Note. The control variable (urban/rurality) was displayed in the model, p is the original p -value, FI = Father involvement, MDS = Maternal depressive symptoms, MSS = Maternal social support, ADEB = Adolescents externalizing behaviors.

** $p < 0.01$

Discussion

Adolescents' internalizing and externalizing behaviors are commonly linked to mental health issues (Hunduma et al., 2024), with one in seven adolescents worldwide (ages 10–19) affected by mental health conditions (World Health Organization [WHO], 2020). Building on previous research, this study examined the relationship between father involvement and adolescents' internalizing and externalizing behaviors. It also considered the mediating role of maternal depressive symptoms and the moderating role of maternal social support. The findings revealed that maternal depressive symptoms acted as a mediator in the link between father involvement and adolescent internalizing and externalizing behaviors. Additionally, maternal social support moderated this mediating role, providing deeper insight into the mechanisms through which father absence may contribute to adolescent behavioral issues and maternal depression.

Father Involvement, Adolescents Internalizing, and Externalizing Behaviors

The findings of this study align with previous research (Temmen, 2018; Jones et al., 2018), indicating that father involvement is negatively associated with adolescents' internalizing and externalizing behaviors. Additionally, it is inversely related to maternal depressive symptoms. These results highlight the critical role of father involvement in shaping adolescent behavioral outcomes and supporting maternal well-being. In particular, this study enhances the understanding of the link between father involvement and adolescent internalizing and externalizing behaviors within Ethiopia's patriarchal cultural context. Active paternal engagement enables fathers to participate more in their children's daily lives,

communicate and interact with them more frequently, and reduce the caregiving burden on mothers (Allen & Daly, 2007; Newland et al., 2013; Sarkadi et al., 2008). Overall, this study makes a significant contribution to understanding family dynamics and parental roles in adolescent behavioral development, especially in Ethiopia, where traditional patriarchal structures strongly influence family relationships.

The Mediating Role of Maternal Depressive Symptoms

This study found that maternal depressive symptoms partially mediated the relationship between father involvement and adolescent internalizing and externalizing behaviors. In other words, father involvement was not only directly linked to these adolescent behavioral outcomes but also had an indirect role through maternal depressive symptoms. These findings support the family systems theory and further emphasize the interconnected nature of parental roles, demonstrating how father involvement and maternal depressive symptoms interact and associate with adolescent internalizing and externalizing problems. The findings indicate that active father involvement in parenting is associated with a reduction in maternal depression, which in turn, contributes to healthier adolescent behavioral development. Furthermore, higher levels of maternal depression are linked to increased adolescent internalizing and externalizing behaviors, highlighting the importance of both parental roles in shaping adolescent well-being.

The Moderating Role of Maternal Social Support

The study found that maternal social support moderated both the relationship between

maternal depressive symptoms and adolescent internalizing and externalizing behaviors (the c mediation path) and the relationship between father involvement and maternal depressive symptoms (the b-path). This suggests that mothers who receive greater social support are less likely to experience depression, even when father involvement is low. As a result, they are more likely to engage positively with their children and provide them with the necessary support, which serves as a protective factor against adolescent internalizing and externalizing behavioral problems (Lamb, 2010; Cabrera et al., 2018).

Limitations and Future Research Direction

Despite supporting the hypothesis, certain limitations of this study must be considered. First, social desirability bias, a common issue with self-report data, may have affected participants' responses, leading to a tendency to present themselves favorably (Crowne & Marlowe, 1960). Second, relying solely on adolescent self-reports to assess their perceptions of father involvement and psychological well-being is a limitation. Additionally, maternal anxiety symptoms and social support were measured only through mothers' self-reports. Future research should include reports from adolescents and fathers to provide a more comprehensive view of maternal social support and anxiety.

Conclusions

This study addresses empirical gaps in the existing literature, providing additional data and insights to Ethiopian governments, communities, academics, and practitioners regarding the links between father involvement and adolescents' internalizing behaviors within the Ethiopian patriarchal family system. The findings enhance our understanding of how

father involvement affects adolescents' internalizing behaviors and leads to mothers feeling anxious. It also highlights the significant mediating role of maternal anxiety and moderating role of maternal social support in this relationship between father involvement and adolescents internalizing behaviors.

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