

## Association of Harsh Physical Disciplining and the Mental and Behavioral Health Problems among Pre-School Children in Ethiopia

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### Abstract

**Background:** Harsh physical discipline may have an impact on the emotional and behavioral health and cognitive abilities of children and adolescents. There is little understanding of the association between harsh physical discipline and mental health issues in populations where harsh disciplinary measures are culturally normal.

**Objective:** The primary objective of this research was to investigate the potential correlation between the use of harsh physical discipline methods and the development of mental and behavioral health issues in children. By examining the impact of these disciplinary practices on the psychological well-being of children, this study sought to shed light on the potential long-term consequences of such parenting strategies. Through a thorough analysis of data collected from a diverse sample of families, the researchers aimed to provide valuable insights into the effects of harsh physical disciplining on child mental health outcomes.

**Methods:** A cross-section survey was conducted on 358 pre-school children preschool children and their primary caregivers in ten randomly selected elementary schools in Addis Ababa. The Strengths and Difficulties (SDQ) questionnaire was used to measure the mental and behavioral health of the children. The Parent-Child Conflict Tactics Scale measured the primary caregivers' experience of harsh physical discipline.

**Result:** The study found that more than two of the three primary caregivers witnessed the harsh physical discipline of pre-school children in their lifetime. The study also showed that the likelihood of having any of the mental or behavioral problems was higher among children who experienced harsh physical discipline. AOR = 5.8; 95% CI, 1.7, 17.4). It was also higher among preschool children in the second (AOR = 2.9; 95% CI, (1.2, 7.0)) order of birth and children perceived to have a moderate AOR = 5.0; 95% CI, (1.1, 23.4) and a lower AOR = 17.0; 95% CI, 17.0 (1.3, 218) school performance.

**Conclusion** This study has revealed a concerning connection between the physical discipline of preschool-aged children and the development of mental and behavioral health issues. The findings underscore the importance of policymakers and stakeholders in implementing interventions to prevent harsh verbal and physical discipline of young children. Society as a whole must prioritize the well-being and emotional health of our youngest members, and taking steps to promote positive and nurturing forms of discipline is essential in safeguarding their overall development and future success. [*Ethiop. J. Health Dev.* 2024; 38(1): 00-00]

**Keywords:** Physical discipline, mental/ behavioral health problem, preschool children,

### Introduction

Harsh physical discipline is a global public health problem and is highly prevalent in low-and middle-income countries (LMIC). Violence against children within the family is one of the most common forms of child maltreatment and often occurs due to harsh punishment methods being used to discipline children (1). Physically and mentally harmful acts that are used as part of harsh punishment are seen as child abuse or violence against children (2).

Various studies have established that physical and humiliating punishments are highly prevalent in Ethiopia, with a long and deep-rooted historical background, and have wide social acceptance as a means of disciplining. According to cultural standards, physical punishment is seen to be a desirable and necessary tool for imparting moral conduct to children and preparing them for their future in Ethiopia (3). Ethiopia is a signatory to both the UN Convention on the Rights of the Child (4) and the African Charter on the Rights and Welfare of the Child (5), both of which recognize the protection of children from cruel and degrading treatment as one of their fundamental rights.

Children shall not be physically punished in schools or childcare facilities, according to the Federal Democratic Republic of Ethiopia's Constitution (6). Harsh physical punishment is a common practice in Ethiopia, as it is in many other low-income nations. In a recent cross-sectional survey, primary caregivers of 1139 preschool children aged 4-6 years from four regions were assessed using the Parent-Child Conflict Tactics Scale. The results revealed that 52.5% of the children had been subjected to harsh physical discipline, while an additional 12.7% had experienced moderate physical discipline at some point in their lives (7). Discipline has been there since the origin of humankind. Traditionally, communities set standards, values, beliefs, and norms to be followed and respected. When children are born into these communities, they abide by the rules and regulations of that particular community. Historically, to date, and in some instances, families have been sharing the upbringing of children. Among the Menderin of Ethiopia, both boys and girls run errands, clean the house, make beds, make fire, prepare food, and cook (8).

Discipline is suitable for children and is necessary for their happiness and well-being in their future life (9). Correcting a child is vital for healthy child develop-

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ment with firm but loving guidance such as nutritious food, physical and cognitive exercises, love, and other basic needs. Without discipline, children lack the tools necessary to navigate relationships, overcome challenges in life, have self-discipline, respect others, and cooperate with peers (9, 10).

On the other hand, parents who are reluctant to discipline their children may be lacking in essential life skills, which may lead to their children engaging in harmful and potentially dangerous behaviors (10). For example, undisciplined children may also not have the social skills necessary for making friends or know how to share and respect their parents or other authority figures. Disobedient children are also more likely to have an unhappy life, be selfish, have unpleasant company, and lack self-control (9, 10).

Greater frequency and severity of physical discipline with a hard spank, hitting, or yelling can cause physical or psychological pain or harm, as well as short- and long-term negative effects on skill development and behavior (11). In addition, children spanked frequently and severely are at a higher risk for mental health problems, ranging from anxiety and depression to alcohol and drug abuse later in life (11–13).

Previous research on child maltreatment, predominantly conducted in Western countries, has shown that physical harm is associated with various emotional and behavioral problems that emerge in early childhood and can continue into adolescence and adulthood (14). Depression, anxiety disorders, drug misuse, and violent or delinquent conduct are among the negative outcomes of child maltreatment (15). For instance, when accounting for lifetime diagnoses of severe depression, conduct disorder, and drug misuse, physical abuse significantly influenced other risk variables (16,17). Additionally, there is evidence between corporal punishment to psychopathology. When compared to people who had not, individuals who had received physical punishment had a higher likelihood of developing psychopathology (18). Studies from both longitudinal and cross-sectional designs revealed that physical punishment is linked to more externalizing and internalizing problems in childhood, adolescence, and adulthood (19). Studies also show an association between corporal punishment and decreased cognitive ability in early childhood (20, 21). Furthermore, studies show that children of mothers who used little or no harsh physical discipline gain cognitive ability faster than children spanked (22).

In societies where harsh discipline is commonly used, such as in Ethiopia, there is a lack of comprehensive understanding of the long-term impact it has on children's mental health, behavior, cognitive functioning, and school performance. Harsh discipline, which may include physical punishment, verbal abuse, or emotional neglect, can have detrimental effects on a child's overall well-being. Therefore, this study aimed to assess the association between harsh physical disciplining and child mental and behavioral problems.

## Methods

**Study design:** - The study used a cross-sectional survey as part of a baseline for an interventional study to address and intervene in harsh disciplining practices by providing alternative, more effective methods of child discipline in Addis Ababa, Ethiopia, from November 2019 to January 2020.

### Study Setting

The study was conducted in selected pre-schools in Addis Ababa, Kaliti Sub-city, the capital city of Ethiopia. According to the national census report of 2007, and projected to 2021, Ethiopia has 117.5 million people. Furthermore, according to a report from the Federal Ministry of Education, in the calendar year of 2011/12, the country had about 17.3 million students in primary schools of grades 1-8, of which 383,000 were attending 3,418 pre-schools. In Addis Ababa, the study population included pre-school children and their primary caregivers from ten pre-schools. The findings revealed that 58% of these children attended non-government schools, while 42% attended government pre-schools. Conversely, outside of Addis Ababa, over 90% of preschoolers attended government schools (23).

The study was undertaken among preschool children and their primary care caregivers. According to a report from the Addis Ababa Education Bureau, in the Ethiopian calendar year of 2011/12, the city had about 1000 preschool programs with 120,918 children (49% were girls). The city's preschool enrollment rate has dramatically improved over the last few years, and currently, it is close to 100% (24).

A baseline study was conducted as part of an intervention program that aimed to enhance the knowledge and skills of parents on child disciplining and improve holistic child development in ten government preschool programs in Addis Ababa city, from Kaliti sub-city. The five pre-schools were selected because of their convenience and location within the poor community in Addis Ababa. The pre-schools were staffed with ten teachers and had 250 kindergarten children coming from disadvantaged homes, and it was conducted from November 2019 to January 2020.

### Source/ study population:

The source population for the study consisted of pre-school children and their primary carers, who were located in the ten pre-schools in Addis Ababa. Only the parents of children who consented were included in the study.

**Sample size:** For the survey, we included a total of 358 preschool children in the larger project (intervention study). The study used sample size determination for proportion in two populations in which it assumed a level of harsh disciplining of 83.0% for primary caregivers' admission to using physical discipline from previous reports in pre-schools in Addis Ababa (7) to detect lower the size of the problem by 13% (the level of harsh disciplining into 70%) due to the intervention at 80% power and 95% confidence level and 5% for non-response.

### Sampling

To ensure a representative sample, the study utilized a multi-stage sampling approach. Specifically, 10 government pre-schools were selected conveniently as a primary sampling unit from Kaliti sub-city. From each school, a total of 36 students were chosen using systematic sampling, with the school register serving as the sampling frame. The main focus of the study was to assess the discipline of the selected preschool children, as well as gather information about their mental health behaviors. For this purpose, the primary caregiver of each selected Child was considered as the study subject. The primary caregivers were made to come to school for an interview.

### Data Collection and Management

The study employed a questionnaire to collect information on socio-demographic characteristics, preschool children's mental and behavioral problems, and child discipline. Seven trained for three days psychiatric Nurses collected the data after pretesting the instrument in nearby houses having mothers with a preschool children. A validated instrument essential to measure the different domains of mental and behavioral disorders of the Child, child discipline behaviors, of the primary caregiver's, perception of using harsh physical discipline was used in the survey. The study assessed preschool children for behavioral and mental illness using the Strengths and Difficulties Questionnaire (SDQ). The SDQ is a screening tool designed for evaluating social, emotional, and behavioral functioning in children and adolescents aged between 3–16 years (25-27). The SDQ has been used internationally and is translated into more than 60 languages, of which Amharic is one.

Responses to each of the 25 items consisted of 3 options: not true, somewhat correct, or undoubtedly valid. Twenty SDQ's 20 items cover four clinical domains of disorders: attention deficit hyperactivity disorder (ADHD), emotional symptoms, peer-relationship problems, and conduct problems. In contrast, the fifth domain has five item questions that enquire about the CChild's prosocial behavior. In this study, we included children having any of the four domains of disorder as having mental or behavioral disorders. This approach also supports other exploratory analyses that classify internalizing, externalizing, and prosocial domain structures from scholars in the US, Belgium, and Finland (28-30). Most SDQ studies report to have Cronbach's alpha coefficients ranging between 0.70-0.90 (31,32).

The Parent-Child Conflict Tactics Scale (PC-CTS) was used to evaluate primary caregivers' type of child discipline pattern. The PC-CTS is a questionnaire with 12-item questions assessing physical corporal punishment. The 12 item questions are divided into a moderate physical discipline that includes asking whether the primary caregiver took any of the following four actions on their pre-school children: 1) 'shook him/her'; 2) 'spanked him/her on the bottom with your bare hand'; 3) 'pinched him/ her'; and 4) 'slapped him/ her on the face or head or ears. The second group of ques-

tions, comprising eight items, are used to measure the harsh physical discipline.

Care providers were considered to be using harsh physical discipline when they responded yes to any of the eight-item questions. The eight-question items measuring harsh physical punishment include 1) 'Did you hit the Child on the bottom with something like a belt, hairbrush, stick, or other hard objects?' 2) 'Did you hit him/her with a fist or kick him/her hard.' 3) 'Did you grab him/her around the neck and choked him/her'; 4) beat him/ her up, that is, you hit him/ her over and over as hard as you could. 5) 'Did you burn or scale him/her on purpose.' 6) 'Did you hit him/ her on some other part of the body besides the bottom with something like a belt, hairbrush, stick, or other hard objects?' 7) 'Did you slap him/her on the hand, arm, or leg.?' and 8) 'Did you throw or knock him/her down.' The 'yes' response to the question was proceeded by further questions to assess the action's timing and frequency.

### Data quality assurance

The study paid careful attention to the recruitment and three-day training of data collectors in order to minimize any potential inter-observer bias. Seven experienced and trained psychiatric nurses collected the data. At the field level, the collection of data was closely monitored to ensure its completeness and consistency. To achieve this, the collected data was carefully assessed. Additionally, two data clerks entered the data into a programmed data entry template twice to minimize errors, and the validity of the entered data was thoroughly checked. Furthermore, the data was cleaned by sorting and conducting a frequency distribution analysis for each variable.

### Data analysis

Crude odds ratio with its 95% confidence interval was estimated to assess the association between the preschool CChild's common socio-demographic characteristics and the primary caregiver experiencing harsh physical discipline. Explanatory variables having a P-value <0.25 during the crude analysis were included in the multivariable model. A P-value < 0.05 was used to declare the level of statistical significance in the multivariable analysis, and adjusted odds ratios (AORs) along with 95% CIs were estimated. The Pearson chi-squared and Hosmer–Lemeshow goodness-of-fit tests were used to test for model fitness. The explanatory variables were tested for multi-collinearity before entering them into multivariable models using the variance inflation factor (VIF) values of less than 10. The analysis result was presented using appropriate tables and figures. Analyses were conducted using SPSS for Windows version 23.

### Ethical Consideration

The study has ethical clearance from the Institutional Review Board (IRB) of the College of Health Sciences, Addis Ababa University (053/19/Psych). Informed consent was obtained from the study participants. Participant's strict confidentiality was ensured, and there were no identifiers marked on the questionnaires. Project coordinators ensured that participants would not be interviewed by someone they might have known. Par-

Participants were reassured that the data would be used only for research purposes. The interviewers were trained to offer information about medical services if the family needed such services.

## Results

### Socio-Demographic Characteristics

A total of 339 (94.5%) preschool children were surveyed to assess the mental and behavioral disorders and their primary caregivers' perceived disciplining of the children. Above three-quarters of the primary caregivers were aged below 40 years, female-dominated, of

which two-thirds were educationally elementary or with no education. Almost four of the five primary caregivers were currently married, and three-quarters were lower-perceived poverty line. About 77% of the primary care providers claimed to live in common with the CChild's parent. Similarly, half and one in three care providers described their social status as moderate or lower perceived compared with their neighborhoods (Table 1).

**Table 1. Socio-demographic characteristics of primary caregivers of preschool children in Addis Ababa, Ethiopia, July 2021**

Characteristics	Frequency	Per cent
Age		
18-29	123	36.5
30-39	136	40.4
40+	78	23.1
Sex		
Male	82	24.2
Female	257	75.8
Education		
Not educated	65	19.2
Elementary	163	48.1
Secondary	59	17.4
Tertiary	52	15.3
Religion		
Orthodox	260	76.7
Protestant	27	8.0
Muslim	52	15.3
Marital status		
Married	271	79.9
Divorced/ Sep/ widow	68	20.1
Occupation		
Housewife	128	37.8
Employee (paid)	76	22.4
Business (own)	44	13.0
Other small enterprises	91	26.8
Parents living together		
Yes, together	261	77.0
No, separated, divorced	68	20.1
No, widowed	10	2.9
Perceived social status (n=338)		
Higher	42	12.4
Moderate	173	51.2
Lower	123	36.4
Perceived Poverty		
Higher/ Moderate	79	23.3
Lower	260	76.7

The study included 65% of children under five years of age, and 54% were male. About 48% of the preschool children included were the first Child to the primary caregiver, and the majority (57.7%) of the caregivers had one or two children. A higher proportion of the

study population (53%) claimed to have a financial problem purchasing simple materials like pens and pencils for their children. About half of the primary caregivers also perceived their children to have a moderate or low school performance (Table 2).

**Table 2. Socio-demographic characteristics of the preschool children in Addis Ababa, Ethiopia, July 2021**

Characteristics	Frequency	Percent
Age (n=273)		
Less than 5yrs	39	14.3
5 years	178	65.2
More than 5 yrs	56	20.3
Sex		
Male	182	53.7
Female	157	46.3
Order of Birth (n=337)		
Firstborn	162	48.1
Second	96	28.5
Third or more	79	23.4
Total children in the house		
1-2 children	225	57.7
Three or more	114	42.3
Presence of financial problem (n=338)		
Yes	179	53.0
No	159	47.0
Perceived school performance		
Higher	171	50.4
Moderate	162	47.8
Lower	6	1.8

The study found that 65% (95% CI: 60.1, 70.3) of primary caregivers experienced moderate physical discipline in their lifetime. The magnitude of harsh physical punishment in life was 55% (95% CI: 49.6, 60.2). The

prevalence of any form of mental or behavioral disorder among preschool children was 9.7% (95% CI: 6.6, 12.9) (Table 3).

**Table 3. The magnitude of reported physical disciplining against their pre-school children in Addis Ababa, Ethiopia, July 2021**

Level of problem	Incidents	Prevalence	95% CI
Moderate physical disciplining			
Lifetime	221	65.2	60.1 – 70.3
Last 12 month	211	62.2	57.1 – 67.4
Harsh physical disciplining			
Lifetime	186	54.9	49.6 – 60.2
Last 12 month	176	51.9	46.6 – 57.2
Any mental/behavioral problem			
Yes	33	9.7	6.6 – 12.9

The study assessed the primary caregiver and preschool child-related socio-demographic correlates of any mental or behavioral health problem among preschool children. The study found none of the caregiver-related factors to be associated with any form of mental or behavioral health problem. However, the CChild's birth

order and perceived school performance were associated with the mental and behavioral health status of the preschool Child, after adjusting for the care provider and the child's socio-demographic characteristics, Tables 4 and 5.

Table 4. **Primary caregiver-related socio-demographic correlates of any mental health problem among preschool children in Addis Ababa, Ethiopia, July 2021**

Characteristics	Frequency	Any mental/behavioral problems	
		Prevalence N (%)	Crude OR (95% CI)
Age			
18-29	123	12 (9.8)	1.0
30-39	136	16 (11.8)	1.2 (0.6, 2.7)
40+	78	5 (6.4)	0.6 (0.2, 1.9)
Sex			
Male	82	4 (4.9)	1.0
Female	257	29 (11.3)	2.5 (0.8, 7.3)
Education			
Not educated	65	5 (7.7)	1.0
Elementary	163	18 (11.0)	1.5 (0.5, 4.2)
Secondary	59	7 (11.9)	1.6 (0.5, 5.4)
Tertiary	52	3 (5.8)	0.7 (0.2, 3.2)
Religion			
Orthodox	260	25 (9.6)	1.0
Protestant	27	2 (7.4)	0.8 (0.2, 3.4)
Muslim	52	6 (11.5)	1.2 (0.5, 3.2)
Marital status			
Married	271	24 (8.9)	1.0
Divorced/ Sep/ widow	68	9 (13.2)	1.6 (0.7, 3.6)
Occupation			
Housewife	128	16 (12.5)	1.0
Employee (paid)	76	5 (6.6)	0.5 (0.2, 1.4)
Business (own)	44	2 (4.5)	0.3 (0.1, 1.5)
Other small enterprises	91	10 (11.0)	0.8 (0.4, 2.0)
Perceived social status			
Higher	42	2 (4.8)	1.0
Moderate	173	20 (11.6)	2.6 (0.6, 11.6)
Lower	123	11 (8.9)	2.0 (0.4, 9.2)
Perceived Poverty			
Higher/ Moderate	79	6 (7.6)	1.0
Lower	260	27 (10.4)	1.4 (0.6, 3.5)

Table 5. Pre-school related socio-demographic correlates of any mental health problem among preschool children in Addis Ababa, Ethiopia, July 2021

Characteristics	Frequency	Any mental/behavioral problems	
		Prevalence N (%)	Crude OR (95% CI)
Age			
3-4	39	4 (10.3)	1.0
5	178	16 (9.0)	0.9 (0.3, 2.7)
6-8	56	5 (8.9)	0.9 (0.2, 3.4)
Sex			
Male	182	22 (12.1)	1.0
Female	157	11 (7.0)	0.5 (0.3, 1.2)
Order of Birth			
Firstborn	162	9 (5.6)	1.0
Second	96	14 (14.6)	2.9 (1.2, 7.0)
Third or more	79	10 (12.7)	2.5 (0.9, 5.3)
Perceived school performance			
Higher	171	12 (7.0)	1.0
Moderate	162	19 (11.7)	5.0 (1.1, 23.4)
Lower	6	2 (33.3)	17.0 (1.3, 218)
Moderate verbal disciplining			
Yes	207	16 (8.2)	0.6 (0.3, 1.3)
No	132	17 (12.1)	1.0
Harsh verbal disciplining			
Yes	204	26 (12.7)	2.7 (1.1, 6.3)
No	135	7 (5.2)	1.0
Moderate physical disciplining			
Yes	221	25 (11.3)	1.8 (0.8, 4.0)
No	118	8 (6.8)	1.0
Harsh physical disciplining			
Yes	186	24 (12.9)	2.4 (1.1, 5.2)
No	153	9 (5.9)	1.0

The study found that preschool children in the second (AOR = 2.9; 95% CI, 1.2, 7.0) and third (AOR = 2.5; 95% CI, (0.9, 5.3) order of birth were more likely to have a mental or behavioral health problem than the first. Similarly, children perceived to have a moderate (AOR = 5.0; 95% CI, (1.1, 23.4) and lower (AOR = 17.0; 95% CI, 17.0 1.3, 218) school performance by their care provider were more likely to have the mental health problem than high scorers.

The study also depicted that the presence of any mental and behavioral health problem was less likely among

preschool children who experienced moderate verbal discipline, and the difference was not statistically significant. However, preschool children who experienced harsh physical, moderate physical, and harsh verbal disciplining were observed to have increased odds of mental and behavioral health problems. However, after adjusting for the primary caregiver and the child factors, the analysis showed that harsh physical disciplining was strongly associated with the CChild's mental and behavioral disorder (AOR= 5.8; 95% CI, 1.7, 17.4), Table 6.

**Table 6. Assessment of verbal and physical discipline on the externalizing forms of mental and behavioral disorder of pre-school children, in Addis Ababa, Ethiopia, July 2021**

Frequency	Any mental health problems		
	Crude OR (95% CI)	Adjusted* OR (95% CI)	Adjusted** OR (95% CI)
Moderate verbal disciplining			
Yes	0.6 (0.3, 1.3)	0.6 (0.3, 1.3)	0.4 (0.2, 1.0)
No	1.0	1.0	1.0
Harsh verbal disciplining			
Yes	2.7 (1.1, 6.3)	3.0 (1.2, 7.9)	<b>2.5 (0.8, 7.8)</b>
No	1.0	1.0	1.0
Moderate physical disciplining			
Yes	1.8 (0.8, 4.0)	1.6 (0.7, 3.6)	2.4 (0.8, 7.5)
No	1.0	1.0	1.0
Harsh physical disciplining			
Yes	2.4 (1.1, 5.2)	2.2 (0.9, 5.0)	5.8 (1.7, 17.4)
No	1.0		
Sex			
Male	1.0	1.0	1.0
Female	2.5 (0.8, 7.3)	1.5 (0.4, 5.6)	2.4 (0.4, 14.4)
Marital status			
Married	1.0	1.0	1.0
Divorced/ Sep/ widow	1.6 (0.7, 3.6)	1.4 (0.5, 3.8)	1.7 (0.5,5.8)
Sex			
Male	1.0	==	1.0
Female	0.5 (0.3, 1.2)	== == ==	1.1 (0.4, 2.9)
Order of Birth			
Firstborn	1.0	==	1.0
Second	2.9 (1.2, 7.0)	== == ==	4.1 (1.3, 12.9)
Third or more	2.5 (0.9, 5.3)		4.3 (1.1, 17.4)
Perceived school performance			
Higher	1.0	==	1.0
Moderate	5.0 (1.1, 23.4)	== == ==	1.9 (0.7, 4.9)
Lower	17.0 (1.3, 218)		14.0 (1.2, 171.1)

**Adjusted\***: model adjusted for primary caregiver's age, sex, marital status, occupation, perceived social and economic position; **Adjusted\*\***: model adjusted for primary caregiver's age, sex, marital status, occupation, perceived social and financial position, and CChild's age, sex, birth order, and school performance.

### Discussion

The study found that more than two of the three primary caregivers witnessed moderate physical discipline, and more than half of the caregivers witnessed the harsh physical discipline of pre-school children in their lifetime. One in ten preschool children was found to have mental or behavioural problems. The study also showed that the likelihood of having any of the mental or behavioral problems was higher among children who experienced harsh physical discipline. Moreover, any mental or behavioral disorders were higher among non-first-born ordered children and perceived lower pre-school CChild's school performance.

The high magnitude of primary caregivers witnessing any form of physical discipline was comparable to

those in low and middle-income countries in sub-Saharan Africa (33). Harsh disciplinary practices were reported to be extremely common in most countries, with an average of 76 percent of children aged 2–14 experiencing some form of violent discipline (physical punishment or psychological aggression) in the past month (33). The magnitude of corporal punishment ranged from as low as 38 percent in Bosnia and Herzegovina to almost 95 percent in Yemen (33). This high magnitude of violent disciplining may be related to the religious scripts' highly rooted belief favoring correcting children's behaviors.

The magnitude of mental or behavioral health problems in preschool children is within a range of other studies conducted in the country (34,35), although somewhat

at variance from studies conducted in less urban settings. Our study showed a higher prevalence of the disorder in preschool children than studies made in Butajira of 3.5% (34), in a rural town of 5.2% (36), and lower than the study done in Ambo of 17.7% (37) and 24% (35). The prevalence in our study was also lower than the pooled prevalence of mental and behavioral disorders in a systematic review and meta-analysis report from sub-Saharan Africa of 14.3% (95% CI, 13.6%-15.0%) (38). However, it was almost similar to a study done by Giel et al. of 11.2% in Addis Ababa (36). This relatively lower magnitude in our study may be related to the instrument we used. We used the Strength and Difficulties Questionnaire (SDQ), which might not be as sensitive as Mulat et al. 1995's use of the Child Behaviour Problem Questionnaire, which found a prevalence of 24 percent (35). Our study's instrument, SDQ, was also different from the instrument used in a survey by Ashenafi Y. et al. 2001 (34).

According to our findings, children subjected to harsh physical discipline had higher odds of developmental or behavioral problems. Many researchers from various contexts back this finding (39-41). Physical discipline, as a punishment, always lowers a behavior or provides an unpleasant stimulus to decrease a behavior (42). In this instance, the discipline (a stimulant) may be added to reduce the positive activity. On the other hand, due to the penalty, pleasurable stimulation is removed to decrease the behavior. Thus, as was reported elsewhere, physical punishment may lead to the development of internalizing problems like depression, anxiety, suicidal thoughts, and other mental health difficulties (43). Such childhood physical punishment problems are often ignored and mistreated, and they may have long-term consequences, including affecting the parenting of the next generation (44).

Children who received moderate verbal discipline had a lesser chance of mental or behavioral problems when subjected to physical punishment, but this was not statistically significant. However, preschool children subjected to harsh verbal, moderate physical, or harsh physical punishment were more likely to experience a mental or behavioral health problem, albeit statistically insignificant for experiencing harsh verbal and moderate physical discipline. This may be due to insufficient power in our study to detect smaller differences.

Furthermore, the study showed that preschool kids' birth order and school performance were related to mental and behavioral issues (45,46). The link between poor academic achievement and mental and behavioral disorders appears straightforward and is confirmed by many studies (45-47). The relationship seems to be a two-way connection in which one results in the other, making it difficult to demonstrate a chronological link. The possible explanation could be based on changes in mental and behavioral problems that may result in lesser cognitive and school performance; on the other hand, difficulties in having lower school performance may result in frustration and associated health problems (47).

The link between the birth order of the second and third kid and mental health issues may be challenging to explain with confidence, although it is supported by some studies (46,48). It is essential to demonstrate the routes that contribute to birth order correlations; these may include mistreatment by older siblings and other socioeconomic factors. Some studies have looked at the impact of sibling bullying on mental health issues. Furthermore, one research indicates that sibling bullying might contribute to the development of mental health problems and self-harming behaviors (49). Future research on the frequency of sibling bullying and its role as an alternate route to mental disorders may be necessary.

### Implications

Our study confirmed that harsh form of parental discipline was associated with the mental and behavioral health problems of a child. The current findings have implications for programs that aim to identify and provide support for children at risk of, or experiencing, harsh discipline. Healthcare workers and teachers should be well aware of the effects of even mild harsh discipline on behavioral problems in children. Furthermore, our research underscores the importance of introducing preventative measures such as parenting education programs, support for parents, public awareness campaigns, legal and policy measures, training for professionals, and community support. These efforts can contribute to creating an environment that discourages the use of harsh disciplinary methods and encourages positive, non-violent approaches to parenting and child discipline. By reducing the prevalence of harsh discipline in homes and promoting positive caregiving skills, children can be raised in a nurturing and supportive environment, ultimately enhancing their overall development.

### Study Limitations

The study has certain merits, such as a reasonably representative study population and data gathered by psychiatric nurses using an adapted widely used measure. However, it also has some drawbacks, such as a cross-sectional design that makes it hard to show a temporal association. However, to minimize such a fallacy, we used current mental and behavioral problems in the Child against the lifetime experience of parental Child disciplining. The information on parental disciplinary methods is mainly dependent on parental reports, which makes it potentially biased. The study may also have a relatively lower power to demonstrate an association of some variables. The strength and difficulty questionnaire are somewhat complex and require a degree of literacy for study subjects. The taboo nature of Child disciplining may mean that some care providers may not disclose information about harsh discipline resulting in underestimation.

### Conclusion

The present study found a higher proportion of primary caregivers witnessing the physical discipline of preschool children, which was associated with mental or behavioral problems among preschool children. This high magnitude and association with mental or behavioral problems warrant policymakers and partners who

work in early childhood service to consider interventions to avoid harsh verbal and physical disciplining of children. The present study's findings underscore the importance of raising awareness among the general population about the potential negative outcomes linked to harsh discipline, considering the high prevalence of such disciplinary practices in Ethiopian households.

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