



ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH
SCIENCES

MARITAL DISSOLUTION AND ASSOCIATED FACTORS
AMONG PRIMARY CAREGIVERS OF CHILDREN WITH
NEURODEVELOPMENTAL DISORDERS AT DIFFERENT
MENTAL HEALTH SERVICE CENTERS IN ADDIS ABABA,
ETHIOPIA; A CROSS-SECTIONAL QUANTITATIVE STUDY

A THESIS PROPOSAL SUBMITTED TO THE DEPARTMENT OF
PSYCHIATRY, SCHOOL OF MEDICINE, COLLEGE OF HEALTH
SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR A SPECIALITY CERTIFICATE IN
PSYCHIATRY OR MASTER'S DEGREE IN CLINICAL
PSYCHOLOGY

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APRIL, 2026

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LIST OF ACRONYMS

ADHD	Attention Deficit Hyperactivity Disorder
ASD	Autism Spectrum Disorders
CWD	Children with Disability
DD	Developmental Delay
ECD	Early Cognitive Delay
EMR	Electronic Medical Record
FDRE	Federal Democratic Republic of Ethiopia
GBD	Global Burden of Disease
GDD	Global Developmental Delay
HRQoL	Health Related Quality of Life
NDD	Neurodevelopmental Disorders
OCD	Obsessive Compulsive Disorders
RRB	Restricted/repetitive behaviors

ACKNOWLEDGEMENTS

I would like to acknowledge my advisors, Dr. Fikirte Girma and Dr. Biruh Alemayehu, for their invaluable guidance and support. This research would not have been possible without their constant encouragement and mentorship throughout the process.

I would also like to extend my sincere gratitude to my fellow residents for their support and constant presence throughout this journey.

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ABSTRACT

Background: Neurodevelopmental disorders (NDDs) place significant emotional, social, and economic burdens on caregivers, which may affect marital stability. This study aimed to assess the prevalence of marital dissolution among caregivers of children with NDDs and identify associated socio-demographic, clinical, and psychosocial factors.

Methods: A cross-sectional study was conducted among 356 caregivers using structured questionnaires. Data on socio-demographic characteristics, child-related clinical variables, and psychosocial factors (including spousal support, social support, stigma, and depression) were collected. Statistical analysis was performed using SPSS version 26. Both bivariate and multivariate logistic regression analyses were used to identify factors associated with marital dissolution.

Results: The majority of participants were female (68.8%), married (86.5%), and aged 18–39 years (53.4%). The overall prevalence of marital dissolution was 9.3%. Many caregivers reported high spousal support (43.3%) despite poor social support (75.8%). Depression was common, with 32.6% reporting minimal and 11.0% moderate depression. Higher income was significantly associated with lower odds of marital dissolution, with caregivers earning more than 20,000 birr being 94% less likely to experience dissolution (AOR = 0.06; 95% CI: 0.007–0.55). Conversely, comorbid seizure disorders were associated with increased odds of marital dissolution (AOR = 5.41; 95% CI: 1.23–23.70). Other factors, including child diagnosis, disease severity, depression, stigma, and social support, were not significantly associated.

Conclusion: Marital dissolution among caregivers of children with NDDs was relatively low and primarily influenced by socioeconomic factors, particularly income. Higher income appears to be a strong protective factor against marital dissolution, highlighting the importance of financial stability in maintaining marital relationships. Despite high levels of caregiving burden and poor social support, strong spousal support may play a protective role in maintaining marital stability. Interventions focusing on economic empowerment and strengthening intra-family support systems are recommended.

Keywords: Neurodevelopmental disorders, Marital, dissolution, Caregivers, Ethiopia, Autism spectrum disorder

1. INTRODUCTION

1.1. BACKGROUND

The neurodevelopmental disorders (NDD) are a group of conditions with onset in the developmental period. According to DSM-5-TR NDDs include Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), Intellectual developmental disorder (intellectual disability (ID)), Communication disorders, Specific learning disorder and motor disorders. (1)

Among the NDDs, ASD has received more emphasis over the past three decades. And many researches have been done on the topic than the other ones. This heightened focus came from several factors which included stronger parent-led advocacy movements, increased celebrity involvement, and greater research funding specifically allocated to ASD.

Reported prevalence rates of developmental disabilities (DDs) in children and adolescents vary considerably across studies, ranging from <3% to >30%. (2) A number of studies had estimated the prevalence of NDDs worldwide. However, the prevalence of ASD in Africa is not well-established, with varying estimates reported in different African countries.(3)

Family functioning is an important source of support for the family. The children with ASD are dependent on their parents for diagnostic assessment, treatment selection and support. Parents who are mentally and physically healthy are best prepared to cope with the ramifications of the diagnosis of ASD, and be supportive advocates for their child. (4)

In contrast, research consistently links the severity of child psychopathology symptoms to heightened parental stress. Both core ASD symptoms including RRBs and associated challenges such as communication deficits and strained parent-child relationships significantly elevate parental stress. While not universally reported, clinically elevated stress levels are common among these parents. Contributing

factors extend beyond symptom severity to include inadequate social support, compromised family functioning, and unmet parental expectations (6)

Research consistently indicates that mothers of children with ASD experience significantly higher levels of parental distress than fathers. This difference likely reflects gendered caregiving roles, where mothers typically carry heavier burden of daily caregiving responsibilities, while fathers often assume less central roles in the child's daily caregiver routines.(6). Elevated caregiving stress among mothers was significantly associated with poorer physical health outcomes. Additionally, greater difficulties in family functioning predicted diminished mental health (7)

Parents of children with NDDs exhibited significantly increased levels of depression and anxiety. Furthermore, depression and anxiety were exacerbated by specific risk factors, including caring for children with comorbid intellectual disabilities or chronic illnesses, or raising multiple children with NDDs.(8)

Because most people attribute mental illness to supernatural causes like 'buda' and 'metet', most fathers blame the mother for bringing this curse onto the family, which adds to the mother's stress and leads to instability within the family unit.(10)

Caregivers of children with developmental disorders (DD) were quoted saying that they have experienced stigma from the community including their own family. This kind of emotion has led to internalizing the stigma which was directed towards them and which in turn leads to feeling of sadness and despair. (11)

The stigma faced by caregivers of children with NDDs in Ethiopia, along with their diverse psychological distress, has been extensively studied. In addition, both regional and international research further indicates that the caregiving burden falls disproportionately on mothers.

1.2. STATEMENT OF THE PROBLEM

Parents of children with Autism Spectrum Disorder (ASD) often experience significant stress due to the demands of caregiving and the complex decisions involved in managing their child's needs. These children rely heavily on their parents for obtaining diagnoses, choosing appropriate treatments, and receiving ongoing emotional and practical support.(4)

Moreover, the caregiving burden disproportionately falls on mothers rather than fathers a pervasive pattern observed in Ethiopia and globally. This inequity is particularly pronounced where mental illness is attributed to supernatural causes. In these contexts, mothers are frequently stigmatized as the source of the 'curse', resulting in their sole responsibility for caregiving and, in many cases, spousal abandonment.(11)

Research in Ethiopia has well-documented the reduced quality of life, psychological burden, and stigma experienced by caregivers of children with NDDs. These studies consistently advocate for public education initiatives and targeted policy interventions to address these challenges (13)

However, while the prevalence of separation and divorce among caregivers of children with NDDs has been documented globally, this area is still not explored in the Ethiopian context.

1.3. SIGNIFICANCE OF THE STUDY

This study aimed to address a critical gap by investigating the prevalence and associated factors of marital dissolution among caregivers of children with NDDs. In our country's context where stigma, caregiver depression and most of financial constraints which increased the caregiving burden weighing on mothers which intensifies familial stress. Therefore, this research tried to quantify separation/divorce rates and analyze their contributing factors.

Given the profound emotional and practical burdens endured by caregivers who become single parents after marital dissolution, which mostly are mothers following

their child's diagnosis, understanding both the scale and underlying drivers of this phenomenon is essential for developing interventions to prevent family dissolution.

Addressing this significant gap may drive larger-scale studies to better understand the true magnitude of the problem and inform practical, real-world solutions.

1.4. LITERATURE REVIEW

1.4.1. GLOBAL PERSPECTIVE

WHO estimates 1 in 100 children have a diagnosis of ASD but admits the prevalence from low and middle income countries remains unknown. Despite this, understanding the global epidemiology of developmental disabilities is complex due to several interrelated issues such as the connections between key epidemiological measures; the heterogeneity of included conditions and their frequent co-occurrence and the limitations and variability of available data and estimation techniques. In addition to this the overall prevalence ranges widely from one study to another and from one region to the other. (2)

The Global burden of disease (GBD) report on 2019 showed the prevalence of Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD) and Down's syndrome are higher in high income countries and in contrast the prevalence of idiopathic Intellectual Disability (ID) is higher in low income countries.(2)

There is a recent increase in prevalence of ASD and there are a number of factors associated with this. Some possible factors could be: broader diagnostic criteria such as DSM revisions, heightened public awareness, widespread screening recommendations, and improved access to services, rather than solely a true rise in cases. (14)

Around 18-24 months of age, characteristic autism symptoms usually emerge clearly enough to allow diagnosis, distinguishing them from typical development and other developmental delays or conditions which add to the increased attention given to the condition. (15)

Parents of children with autism face significant stress from both daily caregiving demands and associated decision-making regarding their child's needs.(4). A study conducted in China among 170 caregivers of children with disabilities (CWD) found that most were parents, predominantly mothers, while 25% were grandparents. The research also revealed significantly worse mental health-related quality of life (HRQOL) in these caregivers compared to the general population (25)

Similarly, studies done in different parts of the world report elevated stress levels among primary caregivers of children with NDDs. A Saudi Arabian study specifically revealed correlations between parental depression/anxiety and caring for a child with NDD, and it also demonstrated comparable depression and anxiety rates among fathers. (8) In contrast, a Kuwait study revealed that mothers of children with NDDs reported higher distress levels than both mothers of neuro-typical children *and* fathers of children with NDDs. Additionally, the study found paternal distress was more strongly linked to children's externalizing behaviors, whereas maternal distress correlated more with regulatory problems. (26)

Many parents described diminished financial capacity due to the expenses associated with their child's disability, significantly impacting their ability to support other children. Moreover, they voiced profound anxiety about securing lifelong care for their child after they themselves were no longer alive. (27)

The stress of parenting children with NDD is heavier on mothers than fathers. Lower physical health in female caregivers is associated with caregiving stress. This stress primarily originates from managing children's sleep disturbances and bathing/dressing challenges tasks that physically exhaust mothers. Women endure the greatest physical impact because they typically carry the primary caregiving responsibilities.(4).

In a study, it was found that mothers of adolescent/adult children with ASD spent significantly more time on childcare/household chores and less on leisure than mothers of neuro-typical children. These mothers also reported twice as many stressful days involving home/family interactions. They exhibited higher negative affect and lower positive affect compared to mothers without disabled children(28). In

addition, compared to mothers of typically developing children, mothers of children with ADHD experience more stressful and less rewarding interactions with their children, alongside heightened social isolation, self-blame, and depression(6)

Families raising children with autism face many psychosocial and practical challenges. Some of these challenges include stigma and social exclusion. However, it is indicated that parents' capacity to maintain positive perspectives significantly reduces their stress levels, which creates more supportive developmental environments for their children. (11)

Some associated factors were also identified for parents who felt depressed with their child's diagnosis. Those include parents who gave care for more than 5 years than those who gave care for less than a year. (31) Poor social support such as being divorced or widowed was another factor which led to a parent's lower score in psychological and social domain. Lack of formal education, lower monthly income and presence of medical illness were all associated with decreased quality of life in the caregivers. (13)

1.4.2. AFRICAN STUDIES

Even though, ASD has been given so much attention in developed countries and despite the fact that it is one of the most prevalent NDDs in high income countries, little is still known about the disorder in low and middle income regions such as Africa. This lack of research in Africa has led some people to question the universality of the condition. **(16)**

Limited studies have investigated NDD's prevalence in Africa. Research in Nigeria reported a rate of 2.3% while a Ugandan study found a significantly higher prevalence of 8.9% under the broad NDD classification. (17,18)

A study conducted in Arab countries, including Egypt and Tunisia, found that boys were over four times more likely to be diagnosed with ASD than girls. The study also identified perinatal complications (during pregnancy or childbirth) and advanced parental age as factors associated with increased ASD diagnosis in children. (19)

Most participants in a study expressed complex emotional reactions including hopelessness, confusion, shame, guilt, self-blame, anxiety, and denial upon receiving their child's ADHD diagnosis. Despite these challenges, parents reported positive outcomes from their caregiving experience, such as gaining specialized knowledge, becoming advocates, and finding inspiration. The study further revealed that raising children with ADHD involves multiple psychological, social, and economic challenges(29)

1.4.3. ETHIOPIAN STUDIES

The magnitude and prevalence of ASD in Ethiopia remain unstudied, and the limited existing research focuses predominantly on the capital city, Addis Ababa.(20) Additionally, similar to other Sub-Saharan African societies, Ethiopians predominantly attribute mental illness solely to supernatural causes (21) Further evidencing this gap, a study confirmed scarce autism awareness in Ethiopia, with diagnostic and educational resources severely limited. Most services are concentrated in Addis Ababa and face excessive wait times (22)

In Ethiopia, widespread beliefs linking disability to spirit possession cause families to conceal affected individuals and restrict public participation, leading to significant underreporting in disability statistics(23). Supporting this, a study conducted in Addis Ababa assessed caregivers' explanations for their children's conditions. Many participants attributed the condition to spirit possession defined as a spirit taking control of one's thoughts and actions while others ascribed it to sinful acts or divine punishment. Additional explanations included the evil eye and curses (10).

The lack of enough facilities for treatment targeting core deficits of NDDs such as social communication and interaction while maximizing functional independence and adaptive skills exacerbates the disability burden. (14)

A significant knowledge gap regarding childhood autism persists among Ethiopian healthcare workers. One study of nurses in four public health facilities in Addis Ababa found limited awareness of challenges children with autism face(20), while a

survey of medical professionals in Bahir Dar revealed 14% attributed ASD to witchcraft further evidencing systemic knowledge deficiencies(24)

Multiple Ethiopian studies signify stress among primary caregivers of children with ASD. One such study revealed compromised quality of life across all domains for caregivers of youth with NDDs, with physical health being the most severely impacted. This comes from caregiving demands that disrupt daily routines, affects their energy levels, and causes fatigue, restrict mobility, and disturb sleep patterns. (13)

As it is seen worldwide, the disproportional burden on mothers is also reflected in Ethiopian setup. Ethiopian mothers described initial grief and hopelessness after their child's ASD diagnosis. Limited autism awareness prior to diagnosis intensified their overwhelm, while minimal mental health guidance from professionals worsened their distress (30). Moreover, more than half (57.6%) of primary caregivers for youth with mental illness experienced depression, with females demonstrating 2.4-fold greater depression risk than males. (31)

Mothers of children with NDDs reported heightened stigma compared to fathers, describing experiences of social exclusion and expectance of disgust from others. Some expressed being scared of going out in public spaces fearing being scrutinized by others and also experienced familial rejection, including exclusion by their own mothers due to being embarrassed of being associated with the child(11)

Being the sole caregiver and being a caregiver for those with ASD and ADHD is more likely to lead to depression than other mental illnesses. (31). Surprisingly, caregivers who seek help from traditional healers experience more stigma than those who don't. In addition to that being orthodox Christian religion follower and attributing the illness to supernatural causes made them feel more stigmatized. (10)

Similarly, caregivers commonly experience stigma through concerns about differential treatment, embarrassment, and efforts to conceal their child's condition. Correcting misconceptions that their child is 'mad' also frequently occurs among caregivers of children with ASD or ID. Additionally, many report severe sadness,

seek connections with other families facing similar challenges, and attribute their child's difficulties to personal failure. (10)

1.4.4. DIVORCE RATE IN THE GENERAL POPULATION AND AMONG CAREGIVERS OF CHILDREN WITH NDD

According to the World Population Review, divorce rates vary significantly across regions. A recent report from 2023 showed rates ranging from 0.15 to 9.6 divorces per 1,000 people. (World population review, 2025). According to Ethiopian Statistical agency, women are more likely than men to report that they are divorced, separated or widowed (9% and 2% respectively) (44)

Childbearing generally strengthens family cohesion, with longitudinal studies revealing markedly reduced divorce risk during early parenthood. Marital dissolution rates are lowest among pregnant women and mothers of infants (<1 year), remain comparatively low for mothers of toddlers (1-2 years), but progressively increase as the youngest child ages. By school age, the protective effect diminishes significantly, with divorce risk only 20-30% lower than women with no children. (32)

Within the general population, divorce risk decreases by 1% per month with delayed childbearing after marriage. Older parental age further reduces divorce likelihood, while partial college education elevates risk relative to no college exposure. Additionally, Catholic religion followers were less likely to divorce than people with non-Catholic backgrounds.(33)

Research on how having a child with developmental disabilities affects divorce risk has two big weaknesses. First, most studies use families who volunteer or come to clinics, these might not represent all families raising kids with disabilities. Second, nearly all studies only look at one moment in time. This makes it hard to understand how divorce risk might change as children grow up or as families age together (33)

Earlier assumptions suggested that parents of children with NDDs divorce more often, but research reveals no significant difference in divorce rates. Though minor marital strain exists, its scale is surprisingly small compared to past warnings about

catastrophic family impacts. (34) One study found similar divorce rates for parents of NDD and neuro-typical children contrary to researchers' hypotheses. (33)

For years, people assumed having a child with a disability meant automatic family struggles. But research over the last 20 years challenges that idea. When divorce rates are compared families with disabled children see only about a 6% higher divorce rate on average. That difference is real, but surprisingly small(34)

Additionally, children with ASD have equal chance of living with both parent household like other children. Moreover, symptom severity doesn't predict whether a child lives with both biological/adoptive parents rather it is parental depression and support systems which are stronger influences on family stability.(35) In line with this conclusion, it was identified that Symptom severity in children with ASD shows no association with parental separation (8). However, another study identified, child behavior problems are an antecedent and consequence of parenting stress(36) which may be a gateway for divorce and separation

In this context, while limited in quantity, recent research on this topic indicates that the belief that parents of children with ASD who are in a relationship are destined for separation lacks empirical support. (37)

Although recent literature shows no significant divorce risk among caregivers of children diagnosed with NDDs, some older studies argue otherwise. For instance, a study conducted in the US found that parents of children with ASD have a 23% higher risk of divorce compared to those with typically developing children. Although this number seems high, it still indicates that nearly three-quarters of marriages remain intact, even when raising a child with ASD. The study also identified a contrasting trend: while the risk of divorce among parents of typically developing children decreases as the children grow older, the risk for parents of children with ASD increases over time. This may be because typically developing children require less parental support as they age, which is not the case for children with ASD. (38)

Supporting this finding, a longitudinal study that tracked 119 parents of children diagnosed with ASD over more than a decade revealed that 74.8% of them remained married. (37)

Moreover, children with early cognitive delay (ECD) were notably less likely than typically developing (TD) children to reside in homes with both biological parents or in households where the mother was married at any of the time points, including during the child's birth and when they were 9 months, 3 years, and 5 years old. (39)

And overall, it is not unexpected that being a divorced or widowed primary caregiver of a child or adolescent with a neurodevelopmental disorder is linked to poorer psychological health outcomes. (13)

1.4.5. ASSOCIATED FACTORS WITH FAMILY DISSOLUTION

Several factors have been identified that may have played a role in the separation or divorce of parents with children diagnosed with NDD. For example, among parents of children with Down syndrome, those whose child with Down syndrome was born later in the family order were more likely to express that they experienced advantages. (27)

Moreover, the risk of divorce was found to be highest among couples with only one child, and it tended to decrease as family size grew. Which means, parents of a single child with developmental disabilities faced more risk than couples with six or more children including the child with disabilities (33)

In addition, it was identified that later age at marriage lowered divorce risk, while younger maternal age when the child with ASD was born and later birth order position (second child or later) of the child with ASD increased the risk of divorce.(33,38)

Despite what might be believed, symptom severity of a child with ASD has not been found to be associated with the likelihood of the child living with one or two biological or adoptive parents or predict parental separation or divorce. (35,37) Instead

behavioral and emotional impairments were associated with increases in parental stress/tension, anxiety, and depression. These behavioral and emotional difficulties are believed to cause shame and embarrassment for caregivers when in public which was found to cause parental distress and therefore lead to separation. (40)

In addition, economic or professional situation has not been found to be associated with divorce or separation of parents. (37) When caregivers are separated or divorced from their spouse they are more likely to experience a heavier social burden. In addition, when a child is living with separated parents, it is more likely to delay the child being diagnosed with ASD. It demonstrated that when parents are living together the child can be diagnosed 1.4 years earlier than those who are not together. (41,42)

1.4.6. CONCEPTUAL FRAMEWORK

The conceptual framework was developed from existing literature, which demonstrates the multifaceted factors associated with a child's NDD diagnosis that contribute to parental separation or divorce.

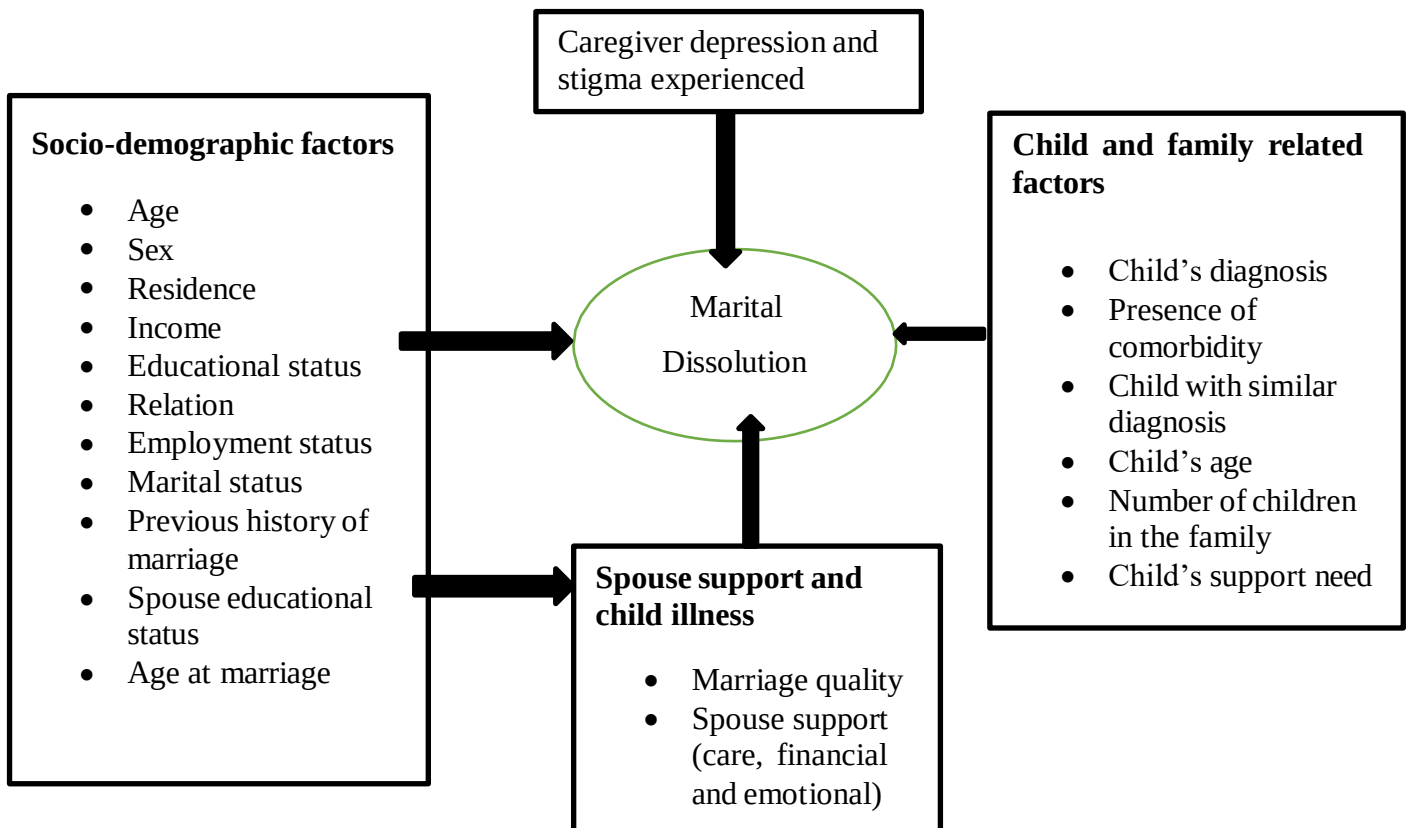


Figure 1: Conceptual framework depicting independent and dependent variables

2. RESEARCH QUESTIONS

Focused on Ethiopia's critical evidence gap regarding family stability in NDD caregiving contexts, this study quantitatively investigated two core research questions

1. What is the prevalence of marital dissolution (divorce/separation) among parents of children with NDDs?
2. What factors are associated with the marital dissolution

3. RESEARCH OBJECTIVES

3.1. GENERAL OBJECTIVE

To assess the prevalence of marital dissolution among caregivers of children with NDD attending Child and Adolescent Outpatient Department of Tikur Anbassa Specialized Hospital, Zewuditu Memorial, Amanuel Mental Specialized Hospital and Sitota Center for Mental Health Care.

3.2. SPECIFIC OBJECTIVES

1. To determine the prevalence of marital dissolution among primary care givers of children with NDD attending Child and Adolescent Outpatient Department of selected health facilities providing Mental Health Service in Addis Ababa, in 2025 and 2026.
2. To identify the factors associated with the marital dissolution in these families among primary care givers of children with NDD attending Child and Adolescent Outpatient Department of selected health facilities providing Mental Health Service in Addis Ababa, in 2025 and 2026.

4. RESEARCH MATERIALS AND METHODS

4.1. STUDY DESIGN

This study employed a cross-sectional design to study the magnitude of marital dissolution among primary caregivers of children with NDD. A quantitative approach was used to quantify how significant the problem is.

4.2. STUDY AREA

This study was conducted in Addis Ababa, Ethiopia. The primary settings were psychiatric child and adolescent clinics in the following hospitals and Pediatric neurology clinic of Tikur Anbessa Specialized Hospital

1. Tikur Anbessa Specialized Hospital, is the largest referral and teaching hospital in Ethiopia. It is located in Addis Ababa and affiliated with Addis Ababa University and it provides advanced diagnostic, treatment, and training services across a wide range of medical specialties. The hospital plays a central role in medical education and serves as a key center for specialized care in the country.

2. Zewuditu Memorial Hospital

Zewuditu Memorial Hospital is operated by the Addis Ababa Health Bureau, Zewditu is a public hospital recognized nationally for its pioneering role in HIV/AIDS treatment and care. It was the first hospital in Ethiopia to launch an antiretroviral therapy (ART) program and currently serves over 6,000 ART patients monthly. In addition to its HIV services, the hospital provides general medical care and serves as a key site for public health initiatives and clinical research.

3. Amanuel Mental Specialized Hospital

Amanuel Mental Specialized Hospital (AMSH) is situated in the Addis Ketema sub-city of Addis Ababa, Ethiopia. AMSH is the country's primary referral hospital for mental health services and operates under the Ministry of Health.

It provides comprehensive psychiatric care, including outpatient and inpatient services, rehabilitation, and community-based mental health programs. As a national center for mental health, AMSH also plays a vital role in training mental health professionals and supporting research initiatives in psychiatry and psychology

- AMSH had a separate clinic where child psychiatry services were given but in the recent years that service has declined and it was troublesome procuring participants from this study area

4. Sitota Center for Mental Health Care

- Sitota Center for Mental Health Care is a private mental health clinic located in Addis Ababa, Ethiopia. The center provides a range of psychological services, including individual and group therapy, addiction rehabilitation, marriage counseling, and family education programs. With a team of experienced professionals, Sitota Center is committed to promoting mental well-being and offers training for caregivers and health workers. Its community-focused approach and emphasis on psychosocial support make it a valuable setting for mental health research and intervention studies

4.3. STUDY POPULATION

All caregivers who were available at the study period who consented for the study and who had children that visit the study area and fulfill the inclusion criteria participated in the study

4.4. STUDY PERIOD

The study was conducted over a span of five months which was from October 2025 to February 2026.

4.5. INCLUSION CRITERIA

- A parent or legal guardian of a child with NDD

- Caregivers of a child age 1-18 years old with diagnosis of NDD (under ID, ASD or ADHD according to DSM-5)
- Participant should be older than 18 years of age and if less than 18 years of age should be emancipated by law

4.6. EXCLUSION CRITERIA

- Those in acute distress
- Children or caregivers who need emergency treatment
- Caregivers of children only with specific disabilities like language disorders, phonological disorder, stuttering, specific learning disorders and motor disorder according to DSM 5
- Caregivers who don't speak Amharic

4.7. SAMPLE SIZE

Due to the absence of prior studies estimating marital dissolution in this specific population in Ethiopia, the proportion (p) was set at 0.30 taking a study done previously in US population. For sample size calculation to ensure the maximum required sample size and a conservative estimate, yielding **n=323** for a 95% confidence interval with a margin of error of +/-5%

With 10% non-respondent rate, the total sample size was calculated to be **359**. Data were collected from 375 participants across different sites. After cleaning for completeness, 356 were included in the final analysis.

4.8. SAMPLING TECHNIQUE

Since the study was conducted across multiple sites, consecutive sampling was employed. This method led to maximize participant recruitment.

4.9. STUDY VARIABLES

Dependent variable: Marital dissolution

Socio-demographic characteristics: Care givers Age, sex, residence, income, educational status, relation, employment status, marital status, previous history of marriage, spouse educational status, age at marriage,

Spouse support and child illness: Marriage quality, spouse support (care, financial and emotional),

Child and family related factors: Child's diagnosis, presence of comorbidity, child with similar diagnosis, child's age, number of children in the family, child's support need. Caregiver depression using the instrument and stigma experienced

4.10. DATA COLLECTION PROCEDURES

Data were collected by health professionals working in psychiatric outpatient departments across various psychiatric facilities and pediatric neurology units, who were responsible for participant identification and, in some cases, data collection. After explaining the study's nature and procedures, consent was obtained and subsequently data collecting questionnaire was administered after the written consent was signed. Consent to access the child's clinical data from the EMR was also obtained in addition to consent to conduct the questionnaire.

Data collectors and in some cases the primary investigator administered fully-structured questionnaires, with interviews lasting 20-30 minutes.

Data gathering instrument was a structured questionnaire which was filled out with a help of data collectors through Google docs form or printed out format.

The Oslo 3 social support scale will be used to assess the social support of participants. Oslo 3 has been validated, locally adapted and used in different literature.

- Result was calculated using the following cut-offs
 - 3–8: Poor social support
 - 9–11: Moderate social support

- 12–14: Strong social support
- PHQ-9 tool was used to assess caregiver depression.
 - The PHQ-9 included 9 questions assessing caregiver's mood, sleep, appetite, suicidal thoughts and other questions that assess levels of depression. This tool has been validated, translated and locally adapted.
 - It was measured using the cut-offs:
 - Minimal depression (0-3)
 - Mild depression (5-9)
 - Moderate depression (10-14)
 - Moderately severe depression (15-19)
 - Severe depression (20-27)

Family Interview Schedule (FIS) Stigma Scale was used to assess participant's perceived stigma towards their children's diagnosis. It was first developed in India and adapted and translated to Amharic. It has good reliability and validity even though clear cut-offs are not identified.

The variable was categorized into tertiles based on its distribution due to lack of established cutoffs. Thus, it was classified using the following cut-offs

- 0-3: Low Stigma
- 4-9: Moderate Stigma
- 10-32: High Stigma

A four-item instrument to assess spousal support was developed based on existing literature and scored using the study data. Cutoff was setup based on the data distribution

The reliability of the Spousal Support scale was assessed using Cronbach's alpha to ensure internal consistency. The scale demonstrated excellent reliability ($\alpha=0.90$), indicating that the individual items were highly cohesive

It was then classified as

- 0-11: Low Spousal Support
- 12-15: Moderate Spousal Support
- 16: High Spousal Support

4.11. DATA ANALYSIS

Data was analyzed using SPSS Statistics version 26. Descriptive statistics were computed to summarize participants' socio-demographic characteristics, clinical profiles of children with neurodevelopmental disorders, and the prevalence of marital dissolution. Categorical variables were also presented using frequencies and percentages.

Bivariate binary logistic regression analysis was initially performed between each independent variable and the outcome variable to examine the candidate association factors for further analysis. Those variables with p value < 0.25 in the bivariate analysis and those deemed to be clinically significant were subsequently entered into a multivariable binary logistic regression model to identify factors significantly associate with the outcome variable. Adjusted odds ratios (AORs) with corresponding 95% confidence intervals (CIs) were calculated, and statistical significance was declared at a p-value of < 0.05.

The data collection tools were initially created in English, then translated into Amharic, then back into English to ensure the questionnaire's clarity and consistency.

4.12. DATA QUALITY ASSURANCE

This study included 4 data collection instruments. Among these instruments, two of them (PHQ-9) and OSLO 3) were standardized and validated and the PHQ-9 has been locally adapted. Both have clear cut off values. One of the instruments (FIS stigma scale) didn't have cutoff values and they were assigned on the pattern of data distribution. The last instrument (Spousal Support instrument) was neither validated nor standardized. It was developed based on existing literature and cut off values were assigned based on the pattern of data distribution.

4.13. RESULT DISSEMINATION PLAN

The study result will be submitted to the Addis Ababa University School of Medicine and presented to the Department of Psychiatry as part of a post graduate thesis.

In addition, the result may be disseminated to the various study areas which are:

1. Tikur Anbassa Specialized Hospital,
2. Zewuditu Memorial Hospital
3. Amanuel Mental Specialized Hospital
4. Sitota Center for Mental Health Care

Possibilities of publication, if any, will be discussed with the department once the study is completed.

4.14. OPERATIONAL DEFINITION

Primary caregiver: defined as the person who is a parent or legal guardian of the child with the diagnosis of NDD.

Marital dissolution: The permanent cessation of cohabitation and termination of marital roles through legal divorce, separation, or other culturally recognized pathways.

4.15. ETHICAL CONSIDERATION

Ethical clearance was obtained from Addis Ababa University, College of Health Sciences, Psychiatry Department.

In addition participant's confidentiality was given the highest priority and any identifying data were analyzed using codes. Sensitive and inclusive language was used when collecting data. Some participants exhibited distress during data collection; they were consoled, referred to psychiatric outpatient services, and data collection was terminated at that point, with their data excluded from analysis.

Participants expressing suicidal thoughts were also referred to mental health services

5. RESULTS

5.1. DATA COLLECTION SITES

Most of the data (82.0%) was collected from Tikur Anbessa Specialized Hospital. Only 2 (0.6%) of data was collected from Amanuel Mental Specialized Hospital (AMSH). [See Table 1]

Table 1: Data Collection Sites

Site	Frequency	Percentage
Tikur Anbessa Specialized Hospital	292	82.0%
Sitota Center for Mental Health Care	37	10.4%
Zewuditu Memorial Hospital	25	7.0%
Amanuel Mental Specialized Hospital	2	0.6%
Total	356	100%

1.1. SOCIO-DEMOGRAPHIC CHARACTERISTICS

More than half of the participants 245 (68.8%) were females and almost all of them were mothers and only 2 (0.6%) were grandmothers. Majority of participants, 190 (53.4%) were young with age ranging from 18 to 39.

Most caregivers were married 308 (86.5%) and 14 (3.9%) of caregivers were married before the current marriage [see table 1]

Table 1: Sociodemographic Characteristics of the Study Participants

Variables	Variables Category	Frequency	Percentage
Participant's Gender	Female	245	68.8%
	Male	111	31.2%
Religion	Orthodox	213	59.8%
	Muslim	93	26.1%
	Protestant	50	14.0%
Age of Participants	18-39	190	53.4%
	40-59	161	45.2%
	>60	5	1.4%
Educational Status of Participants	No formal education	19	5.3%
	Less than high school	201	56.5%
	High school graduate	49	13.8%
	More than high school	87	24.4%
Employment Status	Unemployed	80	22.5%
	Stopped Working	48	13.5%
	Self-employed (including farming)	140	39.3%
	Employed	98	24.4%
Area of Residence	Rural	17	4.8%
	Urban	339	95.2%
Relationship to the Child	Mother	242	68%
	Father	112	31.4%
	Grand Mother	2	0.6%
Marital Status	Married	308	86.5%
	Divorced	33	9.3%
	Widowed	15	4.2%
Number of Children	1 child	42	11.8%
	2-5 Children	303	85.1%
	>5 Children	11	3.1%
Previous Marriage	Yes	17	4.8%
	No	294	95.2%
	Child born in Previous marriage	9	52.9%
	Child born in Current marriage	8	47.1%
Quality of Marriage Decreased since Child Diagnosis	Yes	59	16.6%
	No	293	82.3%

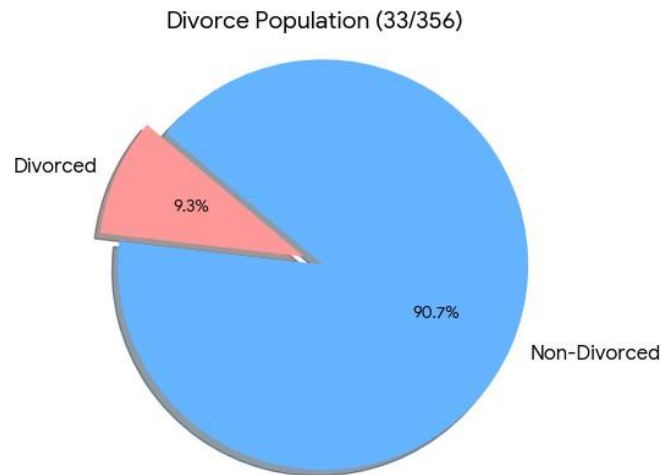


Figure 2: Pie chart of proportion of divorce

1.2. SOCIO-DEMOGRAPHIC DATA OF PARTICIPANT'S WHO WERE DIVORCED

The socio-demographic data is proportional to those who are divorced, with female being the predominant gender 29 (84.8%) and the younger population making up the predominant age group. Almost half (48.5%) believed the child's diagnosis contributed to the divorce but only 15.2% divorce occurred before the diagnosis. [See table 2]

Table 2: Sociodemographic Characteristics of the Participants who were divorced

Variables	Variables Category	Frequency	Percentage
Participant's Gender	Female	29	84.8%
	Male	4	15.2%
Religion	Orthodox	27	81.8%
	Muslim	3	9.1%
	Protestant	3	9.1%%
Age of Participants	18-39	19	57.6%
	40-59	14	42.4%
	>60	0	0%
Educational	No formal education	1	3.0%

Status of Participants	Less than high school	22	66.7%
	High school graduate	6	18.2%
	More than high school	4	12.1%
Area of Residence	Rural	0	0.0%
	Urban	33	100.0%
Relationship to the Child	Mother	29	84.8%
	Father	4	15.2%
Employment Status	Unemployed	6	18.2%
	Stopped Working	7	21.2%
	Self-employed (including farming)	18	54.5%
	Employed	2	6.1%
Participants belief of child's diagnosis contributing to divorce	Yes	16	48.5%
	No	15	51.5%
How long after diagnosis divorce occurred	Before the diagnosis	5	15.2%
	Immediately or within a year	3	9.1%
	1-3 years	17	51.5%
	More than 3 years	8	24.2%

1.3. SOCIO-DEMOGRAPHIC DATA OF SPOUSES FOR THOSE WHO WERE MARRIED

Same proportion socio-demographic data was captured from participants who were married same as the total. [See table 3]

Table 3: Sociodemographic Characteristics of the Participants who were married

Variables	Variables Category	Frequency	Percentage
Religion	Orthodox	175	56.8%
	Muslim	88	28.6%
	Protestant	45	14.6%
Age of Spouse	18-39 years old	133	43.3%
	40-59 years old	165	53.7%
	>60 years old	9	2.9%
Educational Status of Spouse	No formal education	11	3.6%
	Less than high school	154	50.0%
	High school graduate	69	22.4%
	More than high school	74	24.0%
Age of Participant at Marriage	<18 years old	14	4.5%
	18-29 years old	220	71.4%
	>30 years old	74	24.0%
Age of Spouse at Marriage	<18 years old	9	2.9%
	18-29 years old	195	63.3%
	>30 years old	104	33.8%

1.4. SOCIO-DEMOGRAPHIC AND CLINICAL DATA OF CHILD

The majority of children are aged 6 to 12 years old with a frequency of 213 (59.8%). Most children came from a household of more than one child, which was 112 (53.7%) and only 42 children (35.7%) were only children of the household. The most common diagnosis of the children was ID with a frequency of 275 (77.2%).

Some children have comorbid illnesses with the most common being Seizures with a frequency of 208 (58.4%). Some participants mentioned there are some behaviors of children they found to be difficult to Manage 129 (36.2%). [See table 4]

Table 4: Sociodemographic and clinical Characteristics of the child

Variables	Variables Category		Frequency	Percentage
Age of Child	0-5		73	20.5%
	6-12		213	59.8%
	13-17		70	19.7%
Birth Order	First Child	Only Child	42	35.7%
		Not Only Child	85	
	Middle Child		112	53.7%
	Last Child		9	2.9%
Diagnosis	ADHD		26	7.3%
	ASD		55	15.4%
	ID		275	77.2%
Any Comorbid Diagnosis	Yes	Down Syndrome	41	11.5%
		Other NDD	18	5.1%
		Other Medical	21	5.9%
		Seizures	208	58.4%
	No		68	19.1%
Difficult Behaviors	Yes	Communication Difficulties	129	36.2%
		Externalizing Behaviors	35	9.8%
		Hyperactivity/Inattention	36	10.1%
	No		156	43.8%
Disease Severity	Mild		194	54.5%
	Moderate		49	13.8%
	Severe		113	31.7%
Siblings with same diagnosis	Yes		10	2.1%
	No		346	97.2%

1.5. PSYCHOSOCIAL FACTORS

Level of spousal support, level of social support and perception of stigma were assessed using different instruments. Almost half of the participants reported having high spousal support, 154 (43.3%) even though more of them, (270 (75.8%)) report poor social support 270 (75.8%). Most caregivers reported experiencing low levels of Stigma (176 (49.4%)). [See table 5]

Table 5: Psychosocial factors of the Participants

Item	Variables	Frequency	Percentage
Spousal Support	Low Spousal Support	109	30.6%
	Medium Spousal Support	93	26.1%
	High Spousal Support	154	43.3%
Social Support	Poor Social Support	270	75.8%
	Moderate Social Support	55	15.4%
	Strong Social Support	31	8.7%
Perception of Stigma	Low Stigma	176	49.4%
	Moderate Stigma	133	37.4%
	High Stigma	47	13.2%
Depression	Minimal Depression	116	32.6%
	Mild Depression	200	56.2%
	Moderate Depression	39	11.0%
	Moderately severe Depression	1	0.3%

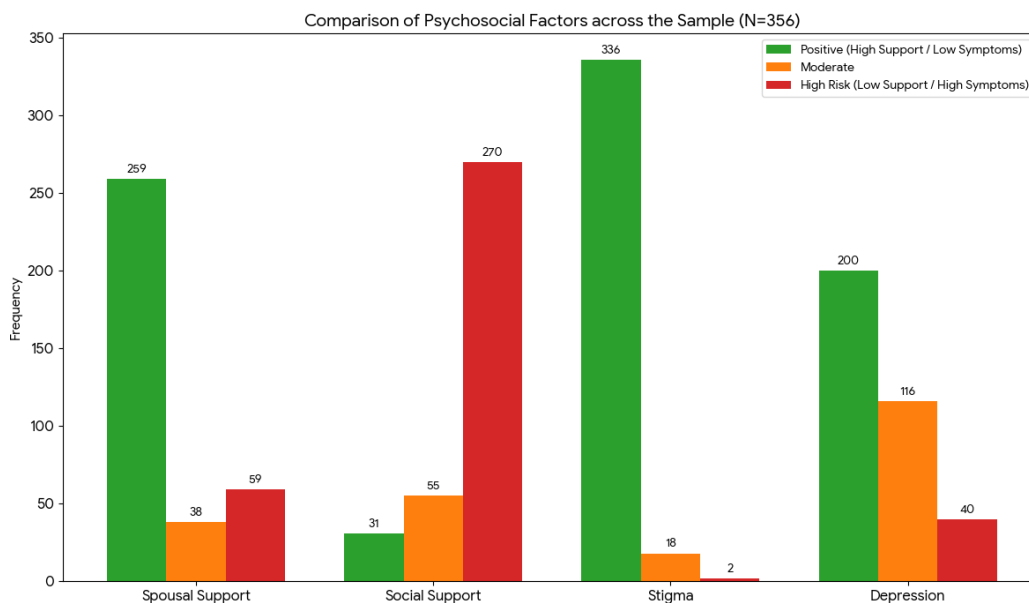


Figure 3: Frequency of psychosocial factors

1.6. FACTORS ASSOCIATED WITH MARITAL DISSOLUTION

The analysis found that based on average monthly income higher income levels were significantly associated with lower rates of marital dissolution. Participants

earning 10,000–19,999 birr and those earning more than 20,000 birr both showed a strong protective effect ($p < 0.01$ and $p = 0.03$, respectively), with odds ratios of 0.22 (95% CI: 0.09–0.52) and 0.05 (95% CI: 0.01–0.35).

Spousal support is a significant predictor of marital stability ($p=.03$). While 'Medium' spousal support did not significantly differ from the 'Low' support reference group

(OR=0.91 , $p=.83$), 'Strong' spousal support demonstrated high protective effect. Parents reporting strong support had significantly lower odds of marital dissolution (OR=0.37, 95%CI:0.150–0.920, $p=.03$) compared to those with low support.

Participant age was a significant factor in marital dissolution, with fewer divorces observed among those aged 36–45 ($p = 0.03$, OR = 0.44, 95% CI: 0.20–0.95). Regarding the impact of educational attainment, the analysis found that having a high school education was not a statistically significant predictor of marital dissolution (COR = 0.07, 95% CI: 0.92–10.81).

Regarding the age at marriage, individuals who married at age 28 or older showed a statistically significant association with lower marital dissolution ($p = 0.01$). The crude odds ratio of 0.28 (95% CI: 0.10–0.78) indicates that those in this older cohort were significantly less likely to experience a divorce compared to the reference group.

Disease severity was not found to be a statistically significant predictor of marital dissolution (COR = 4.01, $p = 0.07$). Although the odds ratio suggests a higher likelihood of dissolution, the 95% CI (0.13–1.07) shows it is not.

Regarding difficult behaviors, specifically communication difficulties, the analysis showed no statistically significant association with marital dissolution ($p = 0.07$) with a crude odds ratio of 0.38 and a 95% CI of (0.13–1.07).

The child's diagnoses, including ASD, ADHD, and ID, did not contribute significantly to the risk of marital dissolution (p -values of 0.35, 0.39, and 0.15, respectively). Despite odds ratios of 0.49 and 0.54, the associated confidence intervals (1.46–11.02 and 1.45–7.95) remained statistically nonsignificant.

Comorbid diagnosis was not a significant factor in marital dissolution, the only comorbid diagnosis with statistical significance was other NDDs ($p = 0.05$), with a crude odds ratio (4.57) suggesting a notably higher likelihood of dissolution. However, the wide confidence interval (95% CI: 1.02–20.52) creates instability.

Psychosocial factors like depression (p values= 0.94, 0.80, 0.88), social support (p value= 0.51, 0.80, 0.63), and perception of stigma (p value=0.51) didn't show significance association with marital dissolution. [See table 6]

Table 6: Factors associated with marital dissolution

ITEM	MARITAL DISSOLUTION	P-Value	COR	95% CI
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	Yes	No			
Participant Age					
25-35	16 (14.5%)	94 (85.5)	0.08		
36-45	13 (7.0%)	174 (93.0%)	0.03	0.44	{0.20,0.95}
Above 46	4 (6.5%)	55 (93.2%)	0.15	0.43	{0.14,1.34}
Age of Spouse					
35 and Younger	6 (6.9%)	81 (93.1%)	0.10		
36 to 45 years Old	14 (7.4%)	174 (92.6%)	0.87	1.09	{0.40,2.93}
46 and Older	12 (15.2%)	67 (84.8%)	0.94	2.42	{0.86,6.79}
Age at Marriage (Participant)					
20 and Younger	12 (15.6%)	65 (84.4%)	0.04		
21 to 27 Years Old	14 (9.0%)	141 (91.0%)	0.14	0.54	{0.24,1.23}
28 and younger	6 (4.9%)	117 (95.1%)	0.01	0.28	{0.10,0.78}
Age at Marriage (Spouse)					
20 and Younger	7 (12.3%)	50 (87.7%)	0.67		
21 to 27 Years Old	13 (9.2%)	129 (90.8%)	0.51	0.72	{0.27,1.91}
28 and younger	13 (8.3%)	144 (91.7%)	0.38	0.54	{0.24, 1.70}
Educational Status (Participant)					
Less than highschool	23 (10.5%)	197(89.5%)	0.101		
Highschool graduate	7(14.3%)	42(85.7%)	0.07	3.16	{0.92, 10.81}
More than high school	3(3.4%)	84(96.6%)	0.34	4.56	{1.12, 18.52}
Educational Status (Spouse)					
Less than highschool	18 (9.4%)	173 (90.6%)	0.98		
Highschool graduate	7 (8.8%)	73 (91.3%)	0.86	0.92	{0.37, 2.30}
More than high school	8 (9.4%)	77 (90.6%)	0.10	1.00	{0.42, 2.40}
Average Monthly Income					
Less than 9,999 birr	25 (19.5%)	103 (80.5%)	<0.01		
10,000 to 19,999 birr	7 (5.0%)	132 (95.0%)	<0.01	0.22	{0.09, 0.52}
More than 20,000 birr	1 (1.1%)	88(98.9%)	0.03	0.05	{0.01, 0.35}
Number of Children					
One child	9 (21.4%)	33 (78.6%)	0.01		
Two to Four Children	20 (7.1%)	261 (92.9%)	0.30	1.98	{0.55, 7.10}
More than Four children	4 (12.1%)	29 (87.9%)	0.31	0.56	{0.18, 1.74}
Spousal Support					
Low Spousal Support	14 (12.8%)	95 (87.32%)	0.91		
Medium Spousal Support	11 (11.8%)	82 (88.2%)	0.82	0.91	{0.39, 2.11}
Strong Spousal Support	8 (5.2%)	146 (94.8%)	0.37	0.37	{0.15, 0.92}
Social Support					
Low Social Support	22 (8.3%)	242 (91.7%)	0.51		

Support					
Medium Social Support	8 (13.1%)	53 (86.9%)	0.80	0.85	{0.24,3.01}
Strong Social Support	3 (9.7%)	28 (90.3%)	0.63	1.41	{0.35, 5.73}
Depression					
Minimal Depression	9 (6.5%)	129 (93.5%)	0.94		
Mild Depression	16 (10.7%)	134 (89.3%)	0.80	0.90	{0.40,2.00}
Moderate and Moderately Severe Depression	8 (11.8%)	60 (88.2%)	0.88	1.09	{0.35, 3.40}
Perception of Stigma					
Low Stigma	11 (6.3%)	165 (93.8%)	0.15		
Moderate	17 (12.8%)	116 (87.2%)	0.52	2.20	{1.00, 4.87}
High Stigma	5 (10.6%)	42 (89.4%)	0.30	1.79	{0.59, 5.42}
Age of Child					
7 and Younger	11 (7.9%)	129 (92.1%)	0.75		
8 to 11 years Old	12 (10.0%)	108 (90.0%)	0.54	1.30	{0.55, 3.07}
12 and Older	10 (10.5%)	85 (89.5%)	0.48	1.38	{0.56, 3.39}
Child Diagnosis					
ASD	8 (14.5%)	47 (85.5%)	0.35		
ADHD	2 (7.7%)	24 (92.3%)	0.39	0.49	{0.96, 2.49}
ID	23 (8.4%)	252 (91.6%)	0.15	0.54	{0.23, 1.27}
Disease Severity					
Mild	9 (4.6%)	185 (95.4%)	0.07		
Moderate	8 (16.3%)	41 (83.7%)	0.07	4.01	{1.46, 11.02}
Severe	16 (14.2%)	97 (85.8%)	0.05	3.40	{1.45, 7.95}
Difficult Behaviors					
No Difficult Behaviors	15 (9.6%)	141 (90.4%)	0.04		
Communication Difficulties	5 (3.9%)	124 (96.1%)	0.07	0.38	{0.13, 1.07}
Externalizing Behaviors	9 (25.7%)	26 (74.3%)	0.01	3.25	{1.29, 8.21}
Hyperactivity/Inattention	4 (11.1%)	32 (88.9%)	0.79	1.17	{0.36, 3.78}
Comorbid Diagnosis					
No	4 (5.9%)	64 (94.1%)	0.18		
Seizure	21 (10.1%)	187 (89.9%)	0.30	1.80	{5.94, 5.43}
Other Medical and Down Syndrome	4 (6.5%)	58 (93.5%)	0.90	1.10	{0.27, 4.61}
Other NDDs	4 (22.2%)	14 (77.8%)	0.05	4.57	{1.02, 20.52}

1.7. FACTORS ASSOCIATED WITH MARITAL DISSOLUTION: MULTIVARIATE LOGISTIC REGRESSION ANALYSIS

After adjusting for other variables, the multivariate analysis identified several key factors associated with marital dissolution among caregivers, with average monthly income emerging as the most statistically significant predictor. Caregivers earning between 10,000 to 19,999 birr have 80% lower odds of experiencing marital dissolution compared to those in the lowest income bracket (AOR = 0.20; 95% CI: 0.07, 0.59; $p = 0.002$). This protective effect was even more pronounced for those earning more than 20,000 birr, who were 93% less likely to face dissolution (AOR = 0.07; 95% CI: 0.01, 0.62; $p = 0.02$). Spousal support was found to be significant on bivariate analysis but lost significance on multivariate analysis

Other than the average monthly income, the presence of comorbid diagnosis specifically seizures was found to be significant, with these caregivers being 5.41 times more likely to experience marital dissolution (AOR = 5.41; 95% CI: 1.23, 24.44; $p = 0.02$) compared to those without comorbid conditions. While other factors such as participant age, educational status, and specific child diagnoses (e.g., ADHD or ID) were included in the model, they did not reach statistical significance at the $p < 0.05$ level. There was no statistically significant association between having more than one child and marital dissolution (AOR = 0.36; 95% CI: 0.2–1.2; $p = 0.07$). [See table 7]

Table 7: Multivariate analysis results of factors associated with marital dissolution

ITEM	P-Value	COR	AOR	95% CI
Participant Age				
25-35	0.17			
36-45	0.12	0.44	0.47	{0.19, 1.20}
Above 46	0.11	0.43	0.33	{0.85, 1.30}
Age at Marriage (Participant)				
20 and Younger	0.51		0.63	
21 to 27 Years Old	0.84	0.54	0.53	{0.49, 3.97}
28 and older	0.37	0.28	0.78	{0.23, 2.96}
Average Monthly Income				
Less than 9,999 birr	0.002			
10,000 to 19,999 birr	0.003	0.22	0.20	{0.07, 0.59}
More than 20,000 birr	0.02	0.05	0.07	{0.01, 0.62}
Spousal Support				
Low Spousal Support	0.51			
Medium Spousal Support	0.32	0.91	1.35	{0.47, 3.88}
High Spousal Support	0.38	0.37	0.68	{0.20, 2.29}
Difficult Behaviors				

No Difficult Behaviors	0.29			
Communication Difficulties	0.28	0.38	0.51	{0.15, 1.71}
Externalizing Behaviors	0.22	3.25	2.18	{0.63, 7.52}
Hyperactivity/Inattention	0.98	1.17	1.02	{0.20, 5.08}
Number of Children				
One child	0.17			
Two to Four Children	0.07	1.98	0.36	{0.12, 1.09}
More than Four children	0.16	0.56	0.31	{0.60, 1.60}
Educational Status (Participant)				
Less than highschool	0.10			
Highschool graduate	0.97	3.16	2.90	{0.84, 9.96}
More than high school	0.63	4.56	0.98	{0.23, 4.07 }
Child Diagnosis				
ASD	0.98			
ADHD	0.84	0.49	0.83	{0.12, 5.57}
ID	0.96	0.54	0.96	{0.22, 4.18}
Comorbid Diagnosis				
No	0.17			
Seizure	0.02	1.80	5.41	{1.23, 24.44}
Other Medical and Down Syndrome	0.40	1.10	2.14	{0.36, 12.60}
Other NDDs	0.05	4.57	7.94	{0.98, 64.10}

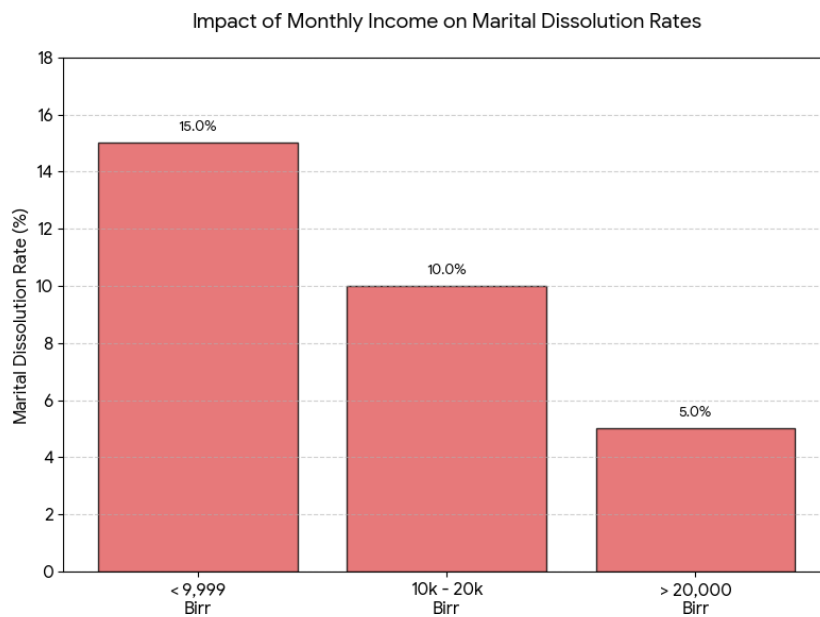


Figure 4: Factors influencing marital dissolution

2. DISCUSSION

This study found that 68.8% of caregivers were female, a proportion that is consistent with previous research. This highlights the persistent trend of women assuming the primary caregiving role in families, particularly in the context of caring for children with NDDs. (4)

The study also found the prevalence of divorce was higher among women (n=29, 8.1%) compared to men (n=4, 1.2%), with an overall divorce rate of 9.3%. This pattern is broadly consistent with national Ethiopian data, where a higher proportion of women are reported as divorced or separated compared to men. In the Ethiopian statistics, 6.8% of women were divorced or separated, compared to only 2.0% of men. (43)

Out of the 33 (9.3%) participants who reported divorce only half (48.5%) believed their children's diagnosis contributed to the divorce. This shows that there are significant factors at play than just the child's diagnosis. However, it is worth noting that only 15.5% of the divorces occurred before the child's diagnosis was known which might indicate the child's diagnosis has an effect in some way.

This study also found that although 16.6% of participants reported a decline in marital quality following their child's diagnosis, this proportion was higher than the rate of marital dissolution (9.3%). Several factors may explain this discrepancy. First, strong cultural and religious norms in Ethiopia often discourage divorce and second, financial dependence and the central role of the nuclear family particularly for women may further contribute to lower rates of marital dissolution despite reduced relationship quality.

Compared to divorce in the general population (6.8% in women and 2.0% in men) the study showed a slightly higher proportion of divorce in caregivers with children with NDDs (9.3%). This finding is relatively consistent with previous research indicating that most marriages among parents of children with NDDs remain intact despite the challenges of caregiving. Earlier studies have shown that, although caregiving-related stress may affect marital relationships, the overall difference in divorce rates between families of children with developmental disabilities and those with typically developing children is relatively small, with only about a 6% higher divorce rate among families raising children with disabilities (34).

However, the dissolution rate found in this study is much lower than that reported in another earlier study, which found a rate of around 23.5% (37). This might be explained by the fact that in this research most participants were from urban areas and people living in these areas have more awareness and understanding about the illness which can decrease blaming each other and leading to less distress in the household. Despite this higher figure, it still indicates that approximately 75% of children with neurodevelopmental disorders have parents whose marriages remain intact. Other studies that included control groups have similarly found no significant difference in divorce rates between caregivers raising children with neurodevelopmental disorders and those raising typically developing children (33).

The research indicated that household income is a significant predictor of marital dissolution among families affected by NDDs. Specifically, participants with an income of more than 20,000 birr had substantially lower odds of experiencing marital dissolution compared to lower-income families (COR = 0.05; AOR = 0.07; 95% CI: 0.07–0.59; $p = 0.01$). This aligns with previous research showing that lower socioeconomic status and lower parental education are identified as “predisposing factors”. (42). In contrast to this, previous research has reported that higher levels of parental education are associated with increased rates of divorce.(33) This is a direct opposite to the current findings that indicated that lower educational status is associated with higher levels of marital dissolution. This can be directly associated to the amount of income the family brings, which was found to be a significant contributing factor in this study.

Other studies have identified several factors associated with marital dissolution, including difficult child behaviors, particularly externalizing behaviors (33). This is consistent with the current findings, where difficult behaviors specifically communication difficulties ($p = 0.49$), externalizing behaviors ($p = 2.33$), and hyperactivity/impulsivity ($p = 0.88$) were observed as reasons for marital dissolution. However, these associations were not statistically significant and this might be because children with difficult externalizing behaviors such as harm to self and others are very difficult to transport and they might not have been seen in the hospitals where the study has been conducted. In addition this study has also shown comorbid illnesses specifically Seizures is a significant predictor of marital dissolution although with high confidence intervals ($p=0.02$, CI=1.23, 24.4). This maybe because of multicollinearity issues where seizure is related with disease severity or functional impairment.

Previous research suggests that having more than one child may reduce rates of marital dissolution, possibly because older siblings can share caregiving responsibilities. Although this association lost its statistical significance marginally in multivariate regression ($p=0.07$, CI = 0.12–1.09), caregivers with more than two children reported lower rates of divorce compared to those with only one child with a frequency 21.4% and 7.1% respectively. (33)

The research shows that caregivers who married at a younger age had higher rates of marital dissolution compared to those who married later (12.3% vs 9.2% vs 8.3%). This is consistent with previous studies identified that later age at marriage lowered divorce risk. (38) This association did not remain statistically significant in multivariable analysis. This may indicate that the observed relationship was confounded by other factors, such as average monthly income or educational level. After adjusting for these variables, age at marriage did not independently predict marital dissolution.

The research indicates that NDD symptom severity is not a significant predictor of marital dissolution. Although the OR estimates for the 'Moderate' (OR = 3.13) and 'Severe' (OR = 2.89) categories appeared higher than the 'Mild' reference group, both failed to reach statistical significance, as evidenced by 95% confidence intervals that cross the null value (0.90–10.91 and 0.94–8.91, respectively). These findings align with earlier studies (35,37) which show symptom severity are not associated with marital dissolution.

Although 75.8% of participants reported poor social support, this did not result in higher rates of marital dissolution. This may be explained by the strong spousal support which was reported by participants (43.3%), which likely buffers the negative effects of limited external social networks on marital stability. This might also explain the support within the family strengthens when outside support is poor and spouses might rely on each other more.

The study found that Depression in caregivers is more common in females than males. For insistence it was found that Moderate depression was more prevalent among female participants, with females showing approximately twice the rate depression compared to males (45% vs. 23%). This pattern is consistent with earlier research highlighting higher rates of depression among women. (31) Despite this, depression was not a significant factor to cause marital dissolution and this might also be because of the co-founding factors or maybe both caregivers experience the same level of depression and might lead to increased support and strengthened unity.

Contrary to earlier studies that showed the prevalence of stigma characterized by parental shame, embarrassment, and tried to hide child's diagnosis (10) the findings of the current study identifies social stigma as a primary stressor, only to 13.2% of participants. Furthermore, this social pressure was not significantly associated with marital dissolution. In this study most participants mentioned being largely outspoken about their child's condition, and a majority mentioned not being ashamed and denied any attempts to hide their child's condition. This also can be because most of the participants were from urban areas where people are more aware of the illness and are less likely to impose stigma on the caregivers

3. STRENGTHS AND LIMITATIONS OF THE STUDY

3.1. STRENGTHS

This study addressed a relatively under-researched area, by examining marital dissolution among caregivers of children with NDDs. The inclusion of a range of variables, including socio-demographic, clinical, and psychosocial factors (such as income, spousal support, social support, stigma, and depression), allows for a more holistic understanding of factors influencing marital outcomes.

Additionally, the use of multivariate logistic regression analysis strengthens the study by controlling for potential confounders and identifying independent predictors of marital dissolution, such as average monthly income and comorbid conditions. The relatively large sample size ($n = 356$) also improves the reliability and statistical power of the findings.

A key strength of this multi-site study is its inclusion of a socio-demographically diverse participant pool, which strengthens the generalizability and reliability of the findings. In doing so, the study highlighted some protective factors, such as higher income and strong spousal support, which are important for informing interventions and policy.

3.2. LIMITATIONS

Despite its strengths, this study has several limitations. First, the cross-sectional design limits the ability to establish causal relationships between variables and marital dissolution, as temporal relationships cannot be determined. Second, the study relied on self-reported data, which may be subject to some biases, particularly for sensitive variables such as depression, stigma, and marital experiences.

Third, some psychosocial variables, including spousal support, were measured using non-validated instruments, which may affect the reliability and validity of these findings. In addition, certain variables such as stigma showed limited variability, with very few participants reporting higher levels, reducing the statistical power to detect meaningful associations. This led to some variables produced wide confidence intervals, particularly in comorbid conditions. For instance, in comorbid seizure disorders the confidence interval is very wide that it's difficult to assess how significant the risk is.

Another important limitation relates to participant burden and context. Many caregivers were primarily focused on their children during data collection, which may have limited their ability or willingness to engage with more abstract or emotionally complex questions, such as those assessing stigma or internal experiences. This could have led to underreporting or superficial responses, particularly for psychosocial measures. Furthermore, the sample was predominantly urban, which limits the generalizability of the findings to rural populations where social dynamics and access to resources may differ.

Another limitation of the study is the failure to account for housewives who chose to raise children at home. It also didn't account for those who were separated but not

yet legally divorced. It also failed to account for people who live together but not married. The study's focus on parental caregivers led to the exclusion of other caregiver types. Because the questionnaire was specifically designed for parents, non-parental participants provided incomplete data and were subsequently removed from the final analysis

4. CONCLUSION

This study examined factors associated with marital dissolution among caregivers of children with NDDs. The findings indicate that marital dissolution was relatively low (9.3%), with the majority of caregivers (86.5%) remaining married despite the challenges associated with raising a child with NDDs.

Among the variables analyzed, average monthly income emerged as the most significant predictor of marital dissolution. Caregivers earning 10,000–19,999 birr were 80% less likely to experience marital dissolution (AOR = 0.20; 95% CI: 0.06–0.54; $p = 0.002$), while those earning more than 20,000 birr were 94% less likely to experience dissolution (AOR = 0.06; 95% CI: 0.007–0.55; $p = 0.01$) compared to those in the lowest income category. These findings highlight the critical role of economic stability as a protective factor in maintaining marital relationships.

In contrast, several factors traditionally associated with marital strain were not found to be significant predictors. Child diagnosis (ASD, ADHD, ID), disease severity, and most psychosocial variables, including depression (p -values = 0.94, 0.80, 0.88), social support (p -values = 0.51–0.80), and stigma ($p = 0.51$), did not show statistically significant associations with marital dissolution.

Although 75.8% of participants reported poor social support, this did not correspond to increased marital dissolution. This may be explained by the presence of strong spousal support reported by 43.3% of participants, suggesting that support within the marital relationship itself may play a more important role than external social networks in sustaining marriage.

The study also found that 68.8% of caregivers were female, and depression was more prevalent among women, with moderate depression reported in 45% of females compared to 23% of males. However, depression was not significantly associated with marital dissolution, indicating that psychological distress alone may not directly lead to marital breakdown, particularly in the presence of protective factors.

Additionally, comorbid seizure disorders were associated with a significantly higher likelihood of marital dissolution (AOR = 5.41; 95% CI: 1.23–23.70; $p = 0.02$), suggesting that increased caregiving burden related to medical complexity may contribute to marital strain.

In conclusion, while caregiving for children with NDDs presents considerable challenges, marital dissolution remains relatively uncommon and is primarily influenced by socioeconomic factors.

5. RECOMMENDATIONS

Based on the findings of this study, several practical recommendations can be made at the clinical, policy, and community levels to support caregivers of children with NDDs and promote marital stability.

Given that average monthly income was the strongest predictor of marital dissolution, with higher-income caregivers significantly less likely to experience divorce, interventions should prioritize economic strengthening of families. This can be done by providing financial assistance programs as much as possible, providing income generating opportunities for caregivers and for workplaces to have more flexible employment arrangements for caregivers and this could help maintain employment which can combat the finding from this research where many caregivers stopped working after their children's diagnosis.

While depression was not significantly associated with marital dissolution, this research implicated that it was relatively common, particularly among female caregivers. Expanding mental health services for this group of people which can help in early identification and management of emotional distress can help improve overall family functioning.

The presence of comorbid seizure disorders was significantly associated with higher odds of marital dissolution, increasing caregiving burden which may strain marital relationships. Medical management of comorbid illnesses including seizure management, education and follow-up care can help. Multidisciplinary care approaches may also help reduce caregiver burden.

Although not statistically significant, more than half of participants reported having at least one difficult behavior from their child that they found to be difficult to manage. Providing caregivers with practical training and resources may improve stress and better caregiving.

The evidence in this research suggests that spousal support is a key protective factor for marital unity. In urban settings, a better clinical understanding of the illness often prevents couples from blaming one another for the diagnosis. To replicate this benefit in rural communities, it is essential to expand education on the causes and management of the illness, to promote stronger support systems between spouses

In the future, studies can improve the findings of this research by using validated and culturally adapted instruments to better assess psychosocial factors. In addition longitudinal studies instead of cross sectional can be done to better understand causal relationships between caregiving, socioeconomic factors, and marital outcomes. Also, including populations living in the rural area can help to improve generalizability and capture potential cultural differences. Qualitative studies may also help to gaining in depth understanding of the issue.

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7. ANNEX

7.1. PARTICIPANT'S CONSENT AND INFORMATION SHEET

INFORMATION SHEET

My name is Dr. Hiwotemedhin Abera. I am a psychiatry resident at the Department of Psychiatry of Addis Ababa University. My advisors are Dr. Fikirte Girma and Dr. Biruh Alemayehu. I am conducting a study titled " Marital dissolution and associated factors among primary caregivers of children with Neurodevelopmental disorders in governmental hospitals in Addis Ababa, Ethiopia; a cross sectional quantitative study" The purpose of this study is to explore the significance of parental separation and divorce associated with their child's NDD.

Participants for this study are selected through a consecutive sampling method. This means participants are chosen based on their availability as well as willingness to participate in our discussions. You are selected to participate in this study because you gave verbal consent to be contacted by a researcher on the subject.

Your involvement can offer significant insight which could potentially contribute greatly toward establishing better policies around the significance of the problem and the potential solution.

The interview segment should last anywhere approximated between twenty-thirty minutes, with a break in between if needed, and will be conducted in a secure private setting in a hospital OPD or office. Your name or other identifying details won't appear on any documents each participant's data will instead have code names/numbers to maintain confidentiality.

Participation in this study is entirely voluntary. If you choose to partake, you will be asked for formal consent via signing a form. Even after signing the consent form, you are still free to withdraw anytime during the interview without consequence towards yourself affecting current/future treatments for your child.

It's important to note there are neither direct benefits nor incentives other than contributing collectively towards understanding the significance of parental separation and divorce of caregivers of a child with NDD.

If you have any question or concern about this study or your participation in it please contact me, Dr. Hiwotemedhin through my E-mail address **hiwotmabel18@gmail.com** or my phone number **+251922467956**

የመረጃ ቅጽ

ዶ/ር ህይወተመድህን አበራ እባላለሁ። በአዲስ አበባ ዩኒቨርሲቲ የአእምሮ ህክምና ትምህርት ክፍል የአዕምሮ ህክምና ስፔሻላይዝ በማድረግ ላይ የምገኝ ሀኪም(ሬዚደንት) ነኝ። የጥናት አማካሪዎቼ ዶ/ር ፍቅርተ ግርማ እና ዶ/ር ብሩህ አለማየሁ ናቸው። የጥናቴ ርዕስ **”በአዲስ አበባ በሚገኙ የተለያዩ የአዕምሮ ጤና ማዕከሎች ላይ የሚመጡ የአእምሮ እድገት ዉሱንነት ያላቸው ልጆች ወላጆች ወይም አሳዳጊዎች ትዳር መለያየት ወይም መፍረስ ላይ ያለው ተጽእኖ እና ለዚህ ትዳር መፍረስ ወይም መለያየት ተያያዥ የሆኑ ምክንያቶችም ምን እንደሆኑ የሚያጠና ጥናት”** ነው። የዚህ ጥናት አላማ የልጆች እድገት ዉሱንነት የወላጆች ወይም አሳዳጊዎች ትዳር ላይ የሚያመጣውን ጫን ለማጥናት ነው።

በዚህ ጥናት ላይ የሚሳተፉ ሰዎች የሚመረጡት በተከታታይ የናሙና ዘዴ ነው። ይህም ማለት ተሳታፊዎች ባላቸው ተደራሺነትና እና እንደ ፍቃደኝነታቸው መሰረት ይሆናል ማለት ነው። በዚህ ጥናት ላይ ለመሳተፍ የተመረጡበት ምክንያት በጉዳዩ ላይ ጥናት የሚያደርገው ሰው እንዲያነጋግሮት የቃል ፍቃድ ስለሰጡ ነው። የርስዎ ተሳትፎ ችግሮቼን ከስር መሰረት ለመረዳት፤ የተሻለ ፖሊሲ ለመቅረጽ እና የተሻሉ መፍትሄዎችን ለመፈለግ ጉልህ አስተዋፅዖ ሊኖረዉ ይችላል።

ይህ ቃለመጠይቅ በአማካይ ከ 45 እስከ 60 ሰከንድ ድቂቃ ሊወስድ ይችላል እንደአስፈላጊነቱ በመሃል ረፍት መዉሰድ ይቻላል። የቃለመጠይቁ ሚስጥራዊነት ለመጠበቅ የሚካሄደዉ ግለኝነቱን በጠበቀ የሆስፒታል ክፍል ወይም የተመላላሽ ታካሚዎች ቢሮ ይሆናል። እርስዎንና ማንነትዎን የሚገልጹ ማንኛዉም መረጃዎች በዚህ ጥናት ዉስጥ አይካተቱም በምትኩ መረጃዎች በሚስጥር ቁጥር (ኮድ) ይቀመጣሉ።

በዚህ ጥናት ላይ ያለዎት ተሳትፎ በፍፁም ፈቃደኝነት ላይ ብቻ የተመሰረተ ይሆናል። ለመሳተፍ ሲወስኑ ፈቃደኝነትዎን በፊርማዎ በወረቀቱ ላይ ያሳርፋሉ። ከፊርማዉ በፊትም ሆነ በኋላ በተትኛዉም የቃለመጠይቅ ወቅት መቀጠል ካልፈለጉ ያለምንም ተጽእኖና ችግር በልጅዎ ህክምና ላይ ምንም አይነት ለዉጥ ሳይኖር ማቆም ይችላሉ።

ይህ ቃለመጠይቅ የልጆች የአእምሮ እድገት ዉሱንነት በወላጆች ወይም አሳዳጊዎች ትዳር ላይ ያለዉን ተጽእኖ ለማጥናት ነው። ከዚህ በተለየ ግን ለተሳታፊዎች የሚደረግ ድጎማ ወይም ጥቅማ ጥቅም አይኖርም።

በዚህ ጥናት ላይ በማንኛውም ጊዜ ጥያቄ ወይም ቅሬታ ካሉት እኔን ማለትም ዶ/ር ህይወተመድህን አበራ hiwotmabel18@gmail.com ወይም በስልክ ቁጥር 0922467956 ልታናግሩኝ ትችላላችሁ።

CONSENT FORM

I _____ consent to take part in the research titled **“Marital dissolution and associated factors among primary caregivers of children with Neurodevelopmental disorders in governmental hospitals in Addis Ababa, Ethiopia; a cross sectional quantitative study”**. My consent has been entirely voluntary and I have received information and understood the information provided about the research, risks, and benefits and that participating in the research won't impact the service I receive from the hospital. I am informed that researchers will ensure to preserve my confidentiality. I have understood the provided information and have had the opportunity to ask questions.

Participant's Signature _____ Date _____

Data collector's Signature _____ Date _____

Witness Statement (if the participant is not literate):

I _____
agree that the research project named above has been explained to _____ (participant) to his/her satisfaction and that he/she agrees to take part in the study. Both the notes written above and the Information Sheet about the project have been read to him/her, and he/she understands what the research study involves.

Witness signature _____ Date _____

የፈቃደኝነት መጠየቅ ቅጽ

እኔ _____ "በአዲስ አበባ በሚገኙ የተለያዩ የአዕምሮ ጤና ማዕከሎች ላይ የሚመጡ የአእምሮ እድገት ዉሱንነት ያላቸው ልጆች ወላጆች ወይም አሳዳጊዎች ትዳር መለያየት ወይም መፍረስ ላይ ያለው ተጽእኖ እና ለዚህ ትዳር መፍረስ ወይም መለያየት ተያያዥ የሆኑ ምክንያቶችም ምን እንደሆኑ የሚያጠና ጥናት" በተባለው ጥናት ለመሳተፍ ስለማማ ስለጥናቱ በቂ መረጃ ተሰጥቶኝ ተረድቼ ነው። ስምምነቴም በግሌ ሙሉ ፈቃደኝነት ያለማንም ተጽእኖ እና ግፊት እንደሆነ የምሰጠዉም መረጃ ከሆስፒታሉ/ማዕከሉ ከማገኛቸው አገልግሎቶች ጋር ምንም ግንኙነት እንደሌለው በግልጽ ተረድቻለሁ። ከዚህም በተጨማሪ አጥኝዎቼ የግል ሚስጥሬን እንደሚጠብቁ ተገልጾልኛል እንዲሁም በየትኛውም ጊዜ ጥያቄዎችን መጠየቅ እንደምችል ተነግሮኝ ተረድቻለሁ።

የተሳታፊዉፊርማ

_____ ቀን _____

የመረጃሰብሳቢዉፊርማ

_____ ቀን _____

የምስክር የፈቃደኝነት መጠየቅ ቅጽ (ማንበብና መጻፍ ለማይችሉ ተሳታፊዎች)

እኔ _____ ከላይ የተጠቀሰው ጥናት ለ _____ በሚገባቸውና በሚረዱት መጠን ተገልጾላቸውና ተረድተው ለመሳተፍ ፈቃደኛ መሆናቸውን እስማማለሁ።ከላይ የተጠቀሱት መረጃዎች ተነቦላቸው ጥናቱ በተሟላ ሁኔታ ተገልጾላቸው ተሳታፊ ለመሆን ተስማምተው እንደተቀበሉም በፊርማዎ አረጋግጣለሁ።

የምስክርፊርማ

_____ ቀን _____

7.2. QUESTIONNAIRE

I. CAREGIVER SOCIO-DEMOGRAPHIC DATA

1. Age of caregiver _____
2. Gender
 - A. Male
 - B. Female
3. Religion
 - a. Orthodox
 - b. Protestant
 - c. Muslim
 - d. Other, please specify _____
4. Relationship to the child _____
5. Highest grade completed _____
6. Employment status
 - a. Employed
 - b. Unemployed
 - c. Self-employed (including farming)
 - d. Stopped working
 - e. Parental leave
 - f. Other situation, Specify _____
7. Marital status
 - a. Married
 - b. Single
 - c. Separated/Divorced
 - d. Widowed

- e. Other, please specify _____
8. If married: Spouse's socio demographic data
- a. Age _____
- b. Religion _____
- i. Orthodox
- ii. Protestant
- iii. Muslim
- iv. Other, please specify _____
- c. Highest grade completed
- d. Employment status
- i. Employed
- ii. Unemployed
- iii. Self-employed (including farming)
- iv. Stopped working
- v. Parental leave
- vi. Other situation, Specify _____
- e. Age at marriage _____
- f. Age of spouse _____
- g. Have you been married before the current marriage?
- i. Yes
- ii. no
- h. If yes, how many times?
- _____
- i. During which of your marriages was this child born?
- _____
- j. In your opinion has the quality of your marriage decreased since the child was diagnosed.
- i. Yes
- ii. No

k. Does your spouse help in taking the child to places?

- I. Never
- II. Rarely
- III. Sometimes
- IV. Often
- V. Always

l. Does your spouse help financially?

- i. Never
- ii. Rarely
- iii. Sometimes
- iv. Often
- v. Always

m. Does your spouse help out in your child's self-care?

- i. Never
- ii. Rarely
- iii. Sometimes
- iv. Often
- v. Always

n. Does your spouse provide emotional support for your child?

- i. Never
- ii. Rarely
- iii. Sometimes
- iv. Often
- v. Always

9. Estimated average monthly income

10. Which area best describes where you live?

- a. Rural
- b. Urban

11. How many children do you have?

12. Do you have any children with similar diagnosis?

- a. Yes
- b. No

13. If yes, how many?

ii. CHILD CHARACTERISTICS

14. Age _____

15. Birth order of the child _____

16. Diagnosis of the child

- a. ASD
- b. ADHD
- c. ID
- d. Other, specify _____

17. Any comorbid diagnosis

- a. Yes, please specify _____
- b. No

18. Does the child have any behaviors that you found difficult to manage?

- a. Yes, please describe

- b. No

19. How much support does your child require from you?

- a. Requires very substantial support: needs support on almost all daily living tasks
- b. Requires substantial support: needs support on some of the daily living tasks
- c. Requires support: need support sometimes but can perform almost all daily living tasks independently.

iii. SOCIAL AND PSYCHOLOGICAL CONDITIONS

20. Social support:

The Oslo social support scale is used to assess social support of a person.

Please choose the ones that apply

a. How many people are so close to you that you can count on them if you have great personal problems?

i. NONE

ii. 1-2

iii. 3-5

iv. >5

b. How much interest and concern do people show in what you do?"

i. None

ii. Little

iii. Uncertain

iv. Some

v. A lot

c. How easy is it to get practical help from neighbors if you should need it?

i. Very difficult

ii. Difficult

iii. Possible

iv. Easy

v. Very eas

21. Stigma:

This is the Family Interview Schedule (FIS) Stigma Scale to assess stigma experienced by caregivers of children with developmental delay, please put a check mark on the right side of the table on the ones which apply

Can you please tell me whether any of the following things have happened since your child developed problems?					
		Not at all (0)	Some times (1)	Ofte n (2)	A lot (3)
1	Worried about being treated differently				
2	Worried other people would find out about it				
3	Felt the need to hide this problem from people (i.e. that your child has problems)				
4	Helping other people to understand what it is like to have a child with slow development				
5	Have you made an effort to keep this problem a secret?				
6	Worried about being avoided				
7	Explaining to others that your child isn't like their picture of "crazy" people				
8	Worried that people would blame you for his or her problems				
9	Worried that a person looking to marry would be reluctant to marry into your family				
10	Worried about taking him or her out				
11	Felt ashamed or embarrassed about it				
12	Sought out people who also have a child with similar problems with developing slowly				
13	Felt grief or depression because of it				
14	Felt that somehow it might be your fault				

22. DEPRESSION:

The following questions assess the participant's level of depression. Please put a check mark on one of the choices on the right.

Over the last 2 weeks, how often have you been bothered by any of the following problems?		Not at all	Several days	More than half the days	Nearly every
1	Little interest or pleasure in doing things				
2	Feeling down, depressed, or hopeless				
3	Trouble falling or staying asleep, or sleeping too much				
4	Feeling tired or having little energy				
5	Poor appetite or overeating				
6	Feeling bad about yourself — or that you are a failure or have let yourself or your family down				

7	Trouble concentrating on things, such as reading the newspaper or watching television				
8	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual				
9	Thoughts that you would be better off dead or of hurting yourself in some way				

iv. SEPARATION / DIVORCE ASSESSMENT

23.If separated or divorced

a. How long after marriage did the divorce occur?

b. Do you believe your child's condition contributed to the divorce?

c. How long after the diagnosis of your child did the divorce occur?

I. የወላጅ ወይም አሳዳጊ ማህበራዊና ስነ-ሕዝብ አወቃቀር መረጃዎች

1. እድሜ _____

2. ጾታ

ሀ. ወንድ

ለ. ሴት

3. የትምህርት ደረጃ _____

4. ሃይማኖት

ሀ. ኦርቶዶክስ

ለ. ሙስሊም

ሐ. ፕሮቴስታንት

መ. ሌላ ይጥቀሱ _____

5. ከልጁ ጋር ያለዎት ዝምድና _____

6. የስራ ሁኔታ

ሀ. የወር ደሞዝተኛ

ለ. ስራ የለኝም

ሐ. የግል ስራ (እርሻን ጨምሮ)

መ. ስራ ያቆመ

ሠ. የወሊድ ረፍት

ረ. ሌላ ይጥቀሱ _____

7. የትዳር ሁኔታ

ሀ. ያገባ

ለ. ያላገባ

ሐ. ፍቺ

መ. ባለቤቱ/ቷ የሞተባት

ሠ. ሌላ፣ ይጥቀሱ _____

8. ያገቡ ከሆነ፣ የባለቤትዎ ማህበራዊና ስነ-ሕዝብ አወቃቀር መረጃዎች

ሀ. እድሜ _____

ለ. የትምህርት ደረጃ _____

ሐ. ሃይማኖት

1) ኦርቶዶክስ

2) ሙስሊም

3) ፕሮቴስታንት

4) ሌላ ይጥቀሱ _____

መ. ሲያገቡ የስንት አመት ሰው ነበሩ?

ሠ. ባለቤትዎስ ስንት አመታቸው ነበር?

ረ. ከዚ ትዳር በፊት አግብተው ነበር?

1) አዎ

2) የለም

ሰ. አዎ ከሆነ ስንት ትዳር ነበርዎት ከዚ በፊት

ሸ. በየትኛው ትዳር ነበር ይሄኛው ልጅ የተወለደው?

ቀ. በርሶ አመለካከት የልጅዎ የህመም ሁኔታ ከታወቀ በኋላ የትዳር..... ተቀይሯል?

1) አዎ

2) የለም

በ. ባለቤት ልጅዎን ወደ ተለያዩ ቦታዎች በመውሰድ ያግዙታል

1) በፍፁም

2) አልፎ አልፎ

3) አንዳንዴ

- 4) ብዙ ጊዜ
- 5) ሁልጊዜም

ተ. ባለቤትዎ በገንዘብ ያግዛታል

- 1) በፍፁም
- 2) አልፎ አልፎ
- 3) አንዳንዴ
- 4) ብዙ ጊዜ
- 5) ሁልጊዜም

ቸ. ባለቤትዎ የልጅዎን ንጽህና ለመጠበቅ ያግዛታል

- 1) በፍፁም
- 2) አልፎ አልፎ
- 3) አንዳንዴ
- 4) ብዙ ጊዜ
- 5) ሁልጊዜም

ኀ. ባለቤትዎ ለልጅዎ ስሜታዊ ድጋፍ በመስጠት ያግዛታል

- 1) በፍፁም
- 2) አልፎ አልፎ
- 3) አንዳንዴ
- 4) ብዙ ጊዜ
- 5) ሁልጊዜም

9. በግምት በወር ምን ያህል ብር ያገኛሉ?

10. የሚኖሩበትን ቦታ እንዴት ይግልፁታል

ሀ. ከተማ

ለ. ገጠር

11. ስንት ልጆች አሉዎት _____

12. ተመሳሳይ ህመም ያለበት ልጅ አሉዎት

ሀ. አዎ

ለ. የለም

13. መልስዎ አዎ ከሆነ ምን ያህል ?

II. የልጅ ጥቅል መረጃዎች

14. እድሜ _____

15. ስንተኛ ልጅ ነው/ናት? _____

16. የልጁ ህመም

a. ASD

b. ADHD

c. ID

d. Other, specify _____

17. ተጨማሪ ህመም አለ?

ሀ. አዎ , እባክዎ ያብራሩ

ለ. የለም

18. ልጅዎን ለመረዳት ወይም ለማገዝ የሚያስችግር ባህሪ ኖሮት ያዉቃል?

ሀ. አዎ ከሆነ፣ እባክዎ ያብራሩ

ለ. የለም

19. ልጅዎች ከርሶ ምን ያህል እርዳታ ይጠይቃል/ትጠይቃለች?

ሀ. በጣም ከፍተኛ ርዳታ ይጠይቃል/ትጠይቃለች:- በሁሉም የቀን ተቀን እንቅስቃሴው/ዋ ላይ የኔን ርዳታ ይፈልጋል/ትፈልጋለች

ለ. ከፍተኛ ርዳታ ይጠይቃል/ትጠይቃለች:- በተወሰኑ የቀን ተቀን እንቅስቃሴው/ዋ ላይ የኔን ርዳታ ይፈልጋል/ትፈልጋለች::

ሐ. የተወሰነ ርዳታ ይጠይቃል/ትጠይቃለች:- አንዳንዴ የኔን ርዳታ ይፈልጋል/ትፈልጋለች ግን ብዙ ነገር በራሱ/ሷ ማድረግ ይችላል/ትችላለች::

III. ማህበራዊና ስነ-ልቦናዊ ሁኔታዎች

20. የማህበራዊ ድጋፍ መመዘኛ መጠይቅ

አስሎ-3 የማህበራዊ ድጋፍ መመዘኛ መጠይቅ ሰዎች ከማህበረሰቡ ምን ያህል ድጋፍ እንደሚያገኙ ለመመዘን ይረዳል። እርሶ የሚወክሉትን ይምረጡ።

ሀ. ከቤተሰቦችሽ/ህ ወይም ከዘመዶችህ እርዳታ/ድጋፍ ቢያስፈልግዎ ማግኘት ምን ያህል ቀላል ነው?

- 1) በጣም አስቸጋሪ
- 2) አስቸጋሪ
- 3) ቀላልም ባይሆን የሚቻል
- 4) ቀላል
- 5) በጣም ቀላል

ለ. ከፍተኛ ችግር ቢያጋጥምዎ የቅርብ የሆኑ እና ይረዱኛል ብለው የሚተማመኑባቸው ምን ያህል ሰዎች ይኖራሉ?

- 1) ምንም
- 2) 1-2
- 3) 3-5
- 4) 5+

ሐ. ሌሎች ሰዎች ስለ እርሶ ጉዳይ ምን ያህል ግድ ይላቸዋል ወይም ያስቡልዎታል

- 1) ምንም
- 2) ትንሽ

- 3) አላውቅም
- 4) የተወሰነ
- 5) በጣም

21. የመገለል ስሜት

ይህ መጠይቅ የአእምሮ እድገት መዘግየት ያላቸው ልጆች ወላጆች የሚደርስባቸውን መገለል ለማጥናት ይጠቅማል። በሰንጠረዥ በቀኝ በኩል ለርሶ የሚስማማው መልስ ላይ ምልክት ያድርጉ።

የልጅዎ ህመም ከታወቀ በኋላ የሚከተሉት ሁኔታዎች ተከስተዉ ከነበር እባክዎ ያሳውቁን።					
		ፈጽሞ አልጩን ቅም (0)	አልፎ አልፎ (1)	ብ ዙ ጊዜ (2)	በየቀ ኑማ ለት ይቻ ላል (3)
1	ሰዎች በተለየ ሁኔታዎቹ ላይ ብለዉ ይጨነቃሉ				
2	ሰዎች ስለችግሩ ሊያዉቁብኝ ይችላሉ ብለዉ ይጨነቃሉ።				
3	አንዳንድ ጊዜ የልጅዎትን ሁኔታ መደበቅ እንዳለብዎት ይሰማዎታል				
4	ሌሎች ሰዎች ልጄ የአእምሮ እድገት መዘግየት እንዳለዉ እንዲረዱ ለማድረግ እሞክራለሁ።				
5	ሰዎችን ስለችግሩ እንዳያዉቁብዎት /ሚስጥር ለማድረግ/ለማድረግ/ የተለየ ጥንቃቄ አድርገዋል				
6	ሰዎች ስለችግሩ ካወቁ ያገልሉኛል ብለዉ ይጨነቃሉ				
7	ሰዎች እንደሚያስቡት ልጅዎት "እብድ" እንዳልሆነ ለማስረዳት ይሞክራሉ።				
8	ሰዎች ለልጅዎት ህመም ምክንያት እንደሆነኩ ይወቅሱኛል ብለዉ ይጨነቃሉ።				
9	ከችግሩ የተነሳ ቤተሰብዎ ለትዳር ተመራጭ ላይሆን ይችላል ብለዉ ይጨነቃሉ				
10	ልጅዎን ይዘዉ ከቤት መዉጣት ያስጨንቅዎታል				
11	ከችግሩ የተነሳ ሀፍረት እና መሸማቀቅ ይሰማዎታል				
12	ሌሎች እንደርስዎ የአእምሮ እድገት መዘግየት ልጅ ያላቸዉን ወላጆች ለማግኘት ጥረት ያደርጋሉ።				
13	ከችግሩ የተነሳ ሀዘንና ድባቱ ይሰማዎታል				

1 4	ችግሩ የኔ ጥፋት ሊሆን ይችላል ብለው ራስዎን ይወቅሳሉ።				
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22. ድብርት

የሚቀጥሉት ጥያቄዎች የተሳታፊውን የድብርት ወይም ድባቱ መጠን ለማጥናት የሚረዱ ናቸው። መልሱ ላይ ምልክት በማድረግ ይመልሱ።

Patient Health Questionnaire-9 (PHQ-9)				
ላለፉት ሁለት ሳምንታት ከነዚህ ከምዘረዝራቸው ችግሮች ውስጥ፤ የትኞቹ ደርሰዎብዎት (በየትኞቹ ተቸግረው) እንደነበር እጠይቅዎታለሁ።				
ጥያቄ Question	የለም 0	አልፎ አልፎ ብቻ 1	በዛ ላለ ጊዜ 2	ከሞላ ጎደል በየቀኑ 3
1. የእለት ተእለት ተግባርዎን ለማከናወን (ለመስራት) ያለዎት ተነሳሽነት ወይም ፍላጎት በጣም ቀንሶ ነበር?	0	1	2	3
2. የመከፋት፣ የመደበቅ ወይም ተስፋ የመቁረጥ ስሜት ይሰማዎት ነበር?	0	1	2	3
3.1 እንቅልፍ አለውስድ ብሎዎት ወይም በደንብ መተኛት አቅቶዎት ይቸገሩ ነበር?	0	1	2	3
3.2 እንቅልፍ በዝቅብዎት ይቸገሩ ነበር?	0	1	2	3
4. የድካም ወይም የአቅም ማነስ ስሜት ይሰማዎት ነበር?	0	1	2	3
5.1 የምግብ ፍላጎትዎ ቀንሶ ነበር?	0	1	2	3
5.2 የምግብ ፍላጎትዎ ከተለመደው በላይ ጨምሮ ነበር?	0	1	2	3
6. ራስዎን የመጥላት ወይም ዋጋ የለኝም የማለት ወይም ራሴንም ሆነ ቤተሰቤን አሳዝኛለሁ የሚል ስሜት ተሰምቶዎት ነበር?	0	1	2	3
7. በሚሰሩት ስራ ላይ ሃሳብዎን ለመሰብሰብ/ትኩረት መስጠት አስቸግረዎት ነበር?	0	1	2	3
8.1 ለሌሎች ሰዎች እስከሚታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስ ብለው ነበር?	0	1	2	3
8.2 ለሌሎች ሰዎች እስከሚታወቅ ድረስ መረጋጋት አቅቶዎት፤ አንድ ቦታ አርፎ መቀመጥ ወይም መቆም እስከማይችሉ ሆነው ነበር?	0	1	2	3
9. ከምኖር ብዋት ይሻላል ብለው አስበው ወይም ራስዎን በሆነ መንገድ ሊጎዱ አስበው ነበር?	0	1	2	3
ከተዘረዘሩት ችግሮች ለአንዳቸውም አዎ የሚል መልስ ከተሰጠ የሚከተለውን ይጠይቁ። በእነዚህ ችግሮች ምክንያት ስራዎን ለመስራት፣ የቤት ሓላፊነትዎን ለመወጣት ወይም ከሰዎች ጋር ተስማምተው ለመኖር ምን ያህል አስቸጋሪ ሆኖብዎት ነበር?				
በጭራሽ አልተቸገርኩም	በመጠኑ ተቸግሯል ነበር	በጣም ተቸግሯል ነበር	እጅግ በጣም ተቸግሯል ነበር	
☐	☐	☐	☐	

IV. ፍቺናና መለያየትን በተመለከተ

የተለያዩ ወይም የተፋቱ ከሆነ

ሀ. ካገቡ በምን ያህል ጊዜ ተፋቱ/ተለያዩ?

ለ. የልጄ ህመም ለፍቺዉ/መለያየቱ ምክንያት ሆኗል ብለዉ ያስባሉ?

a. አዎ

b. የለም

ሐ. የልጄ ህመም በታወቀ በምን ያህል ጊዜ ነው የተፋቱት/የተለያዩት?

8. DECLARATION

I, the undersigned, declare that this thesis report is my original work, where my work is indebted to the work of others, it has not been accepted or presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

If proven otherwise, I understand that appropriate actions will be taken based on the Senate Legislation of Addis Ababa University and the Guidelines provided by the Ministry of Education.

Name of Investigator: Dr. Hiwotemedhin Abera

Signature: _____

Date of submission: April 6, 2026

This thesis report has been submitted to DOP with my approval as University Supervisor

Name and Signature of the first Supervisor _____

Name and Signature of the second supervisor _____

