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Assessment of quality of life, treatment practices, and associated factors among children with atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training Center (A.L.E.R.T), Addis Ababa, Ethiopia: A prospective observational study

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This is to certify that the thesis prepared by Minychel Wale Aynalem entitled *"***Assessment of the Quality of Life, treatment practices, and associated factors among children with atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T), Addis Ababa, Ethiopia: A prospective observational study** *"* and submitted in partial fulfillment of the requirements for the degree of Master of Science in Pharmacy Practice complies with the regulations of the University and meets the accepted standards concerning originality and quality.

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Abstract

Background: Atopic dermatitis (AD) is the most common chronic skin disease in children. It is chrcaterized by dry, itchy, eczematous skin symptoms. These symptoms produce dramatic negative impact on quality of life (QoL) of patients.There is a paucity of study on patients' QoL, the pattern of treatment practices, and factors associated with poor QoL in children with AD in Ethiopia.

Objective: To assess QoL, treatment practice, symptoms control status and its associated factors among children with AD at ALERT dermatovenerology unit, Addis Ababa, Ethiopia.

Method: Prospective observational study was conducted at ALERT comprehensive specialized hospital dermatovenereology unit from September 01, 2022 to February 31, 2023. Structured questionnaire and CDLQI tool were used to collect the data. Data were collected, entered and analyzed using Statistical Package for the Social Sciences (SPSS®) version 25. Descriptive statistics were used to summarize the data while multivariable binary logistic regression analysis was used to determine factors associated with QoL. P-value <0.05 was considered as statistically significant.

Results: Among 403 study partciapnst (53.6% , n= 216) were female. The mean (±SD) age of the study participants was 8.04 (±3.40) years. The age onset of the disease in (41.7 %, n= 168) study participants was mid onset. Among study participants, the majority of them, (84.6%, n= 341) had pure AD.The duration of the disease in (76.4 %, n= 308) patients were less than to 5 years. Among study participants, the majority of them, (42.2 %, n= 170) had Sub- Acute phase, Non lessional type AD (71.7 %, n= 289), followed by Moderate (57.6 %, n= 232). Topically applied readymade medicine, antihistamine and emollient was given for (55.6 %, n = 224), (24.3 %, n= 98) and (75.8%, n=305) partcipants, respectively. The mean CDLQI was 8.42(± 3.57) crosponding to a moderate effect. Domain of itching, dressing and sleeping was the utmost affected QoL. Majority of the study partcipants (75.7%, n=305) had localized Pruritus followed by , dry skin (70.7%, n= 285) symptoms .AD symptoms was controlled among (76.9%, n = 310) patients. Multivariabel logistic regression showed that government employed caregivers [AOR=5.5 (95% CI: [1.18, 27.61)], P=0.038; daily laborer caregivers [AOR = 16.23 (95 % CI: [1.78, 148.1)], P= 0.014 ,having moderate AD [AOR = 4.20 (95% CI: [2.25, 7.8)], P=0.001), having Allergic rhinitis comorbidities [AOR=20.6 (95% CI: [1.55,275.5)], P=0.022 and who use topically applied Tacrolimus [AOR=5.63 (CI: 1.03, 30.92)] was signifcantly associated with QoL.

Conclusion: Emollients, topically corticosteroids, and antihistamines were the mainstay treatment. AD has significant impact on the QoL of children, mainly through Symptom and feeling , sleeping problems and dressing problems. Majority of children with AD symptoms were controlled. Factors such as Government employee, daily laborer, moderate AD , allergic rhinitis, and use of topical tacrolimus were considered to have poor QoL. Thus, widening the AD management with education and evaluating of children QoL deemed to be improrant

Keywords: *- Atopic dermatitis (AD), Quality of Life (QoL), Child Dermatology Life Quality Index (CDLQI), All Africa Leprosy, TB, and rehabilitation training Center (ALERT), Ethiopia.*

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List of Abbreviations or Acronyms

AAD	American academy of dermatology
ADHD	Attention deficit hyperactivity disorder
AR	Allergy of rhinitis
AZA	Azathioprine
CDLQI	Child Dermatology life quality index
CsA	Cyclosporine
eAD	Extrinsic atopic dermatitis
EASI	Eczema area severity index
FA	Food allergy
FDA	US food and drug administration
FLG	Flaggrin gene
HRQoL	Health related quality of life
iAD	Intrinsic atopic dermatitis
IgE	Immunoglobulin E
ISAAC	International Study of Asthma and Allergies in Childhood
MTX	Methotrexate
MMF	Mycophenolate mofetil
PDE4	Phosphodiesterase 4
SCORAD	Scoring Atopic Dermatitis
TCS	Topical corticosteroids
TCI	Topical calcineurin inhibitors

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1. INTRODUCTION

1.1. Background

According to the definition of the Academy of American Dermatology (AAD), Atopic eczema or Atopic dermatitis (AD) is a widespread, persistent, itchy, inflammatory dermatological illness that affects all age groups. However, Children are more susceptible to it (Fleming et al., 2020, Krakowski et al., 2008, Correale et al., 1999) with a wide range of severity and skin barrier defects (Giam et al., 2016). This skin barrier defect allows for increased penetration of environmental allergens and infectious organisms, which leads to skin irritation that lasts for a long time. Although the defect barrier was formerly thought to be an epiphenomenon, it is now believed to play a major role in the pathophysiology of the disease (Kabashima, 2013).

According to the worldwide burden of disease task statement, dermatology ailments are the fourth-largest worldwide burden of non-fatal disease (Seth et al., 2017). Among these, AD ranked as the 15th nonfatal disease with the largest disease burden among skin diseases (Laughter et al., 2021). It impacted up to 2.4 percent of the global populace. The incidence rate of AD ailments varies substantially between countries (Urban et al., 2021), On average, 20% of children and 3% of the adult population are affected by the disease. According to the recent findings, the incidence of AD is increasing in Africa and ranges from 4.7% to 23% (Nutten, 2015, Sendrasoa et al., 2020).

AD is typically classified as new-born (age less than_2 years old), child (2–12 years old), and adult, which is greater than 12 years old, but not over 60 years old. However, this age theory has shifted (Tanei, 2020). The occurrence of AD ailments in adulthood and geriatrics has risen, and the characteristics of geriatric AD have come into focus. Consequently, this recently defined subtype of elderly AD (age $\geq$ 60 years) was recently added to the classification of AD as a fourth subtype (Tanei, 2015).

The clinical evidence of AD includes intense itching, dry, scaly , crusted, and eczematous skin lesions and its pathogenesis is distinguished by interactions between skin barrier abnormalities and immunological dysregulation (Boguniewicz and Leung, 2011). Recent evidence suggests that AD is linked to meal allergies, bronchial asthma, and allergy coryza, with or without the incidence of elevated IgE amounts (Barbarot et al., 2018).

AD is a common disease with no satisfactory form of therapy. However, several types of treatment approaches exist for alleviating the exacerbations of the disease, so-called flares, and reducing the duration and degree of the flare. In the large majority of patients with mild-to-moderate forms, AD can be managed by maintaining the skin barrier with emollients, eliminating typical AD triggers, using specific behavioral techniques to minimize scratching, using antibacterial treatments, and taking topical and/or systemic anti-inflammatory medicines. Overall, the application of emollients is pivotal and the cornerstone of successful strategies for the management of AD. It can reduce the need for topical corticosteroid creams (Thomsen, 2014, Nygaard et al., 2017).

Topical corticosteroids, calcineurin inhibitors, and Phosphodiesterase 4 inhibitors are the three types of FDA accepted topically applied medication for AD patients (Papier and Strowd, 2018). Systemic therapy is an effective therapy approach for topical treatment refractory and hard-to-treat AD with scant control (Megna et al., 2017). Cyclosporine is the second-line drug of choice for the management of moderate-to-severe AD and refractory AD among adults (i.e., 16 years). Azathioprine and Methotrexate are suggested as third-line treatments for children and adults with moderate-to-severe AD. Mycophenolate mofetil is an appealing third-line therapy for moderate-to-severe AD patients who are refractory to conventional management approaches and ineligible for the other off-label immunosuppressant therapy (Johnson et al., 2019).

Results from multiple studies revealed that AD has a large effect on social functioning, mental health, physical health, emotional health, and vitality, regardless of the age of the patient. In general, AD has the same significant effect on health-related quality of life (HRQoL) as other chronic and dermatologic conditions (Lifschitz, 2015). Various studies showed that AD has a notably clinical and humanistic burden on patient-reported symptoms and QoL measures. It also demonstrated that AD can cause anxiety and depression. In addition to its great economic burden (Bruin-Weller et al., 2021). The current world AD-related treatment practices and the unfulfilled requirements of moderate-to-severe AD with systemic therapies and other treatment modalities are underreported (Wei et al., 2019).

1.2. Statement of the problem

There are no credible prevalence estimates for AD at a global level (Volke et al., 2022). However, studies showed that a common trend in the occurrences of AD was higher among children as compared to adolescents and adults (Sendrasoa et al., 2020). Globally, AD affects 15%–20% of children. According to recent findings in Europe and the United States, the average prevalence of AD among children is 20% (Bylund et al., 2020). Several genetic, immunologic and environmental factors contribute to the complex pathophysiology of AD(Volke et al., 2022). Due to these contributing factors, there are no reliable prevalence estimates for AD worldwide (Langan et al., 2023).In addition to this; there is substantial variation of AD prevalence over time by income and region . However, Prevalence data of AD is known only from some of the SSA countries but ranges from 5% to 16%(Schmid-Grendelmeier et al., 2023).

In history, the occurrence of AD has been lower in Africa, theMiddle East, and North America than in Europe and North America, but recent statistics show an increase in AD prevalence throughout the developing world (Al-Afif et al., 2019). According to the evidence, AD prevalence in Africa ranges from 4.7% to 23%. Thus, to our knowledge, impairments in health-related QoL (HRQoL) have not yet been evaluated in child-onset AD (Sendrasoa et al., 2020, Yoo et al., 2022).

There are several findings regarding the distribution of AD symptoms among children in Ethiopia. In 1995, a study done in Addis Ababa by Melaku et al. showed that 2.6% of children had AD symptoms (Melaku, 2000). Likewise, a study done in 2004 by Yemaneberhan et al. at Jimma revealed that the overall prevalence of AD symptoms was 1.2%, but it was greater in the main city area (1.5%) than in the rural zone (Yemaneberhan et al., 2004). However, in 2005, a study done in rural Jimma among children aged 1 to 5 years revealed that the prevalence of AD was 4.4% (Haileamlak et al., 2005). In 2015, research conducted at the Ayder referral hospital reported that the magnitude of AD among children was 9.6% (Kelbore et al., 2015). This evidence shows that the rate of AD among Ethiopian children has sharply increased.

QoL impairment among children with AD is highly correlated with Anti-AD treatment modalities (Blome et al., 2016). The greater disease severity decreased QoL, work productivity, increased activity impairment, and decreased treatment satisfaction (Bacci et al., 2023) .Especially, topically applied Anti-AD treatment approach. Because, it is complex and laborious

management practices .On top of that, an increase in healthcare cost associated with AD treatment can decrease the overall QoL for the affected individuals and their families(Eichenfield and Stein Gold, 2017).

Western nations have conducted substantial research on the various treatment options and HRQoL among AD patients and provided their recommendations. However, these findings cannot be automatically extrapolated to the African context, especially Ethiopia, because of the variation in genetic make-up, environmental set-up, economic level, cultural factors, access to health care, and availability of medicine (Torrelo, 2014).

In developing nations, like Africa, AD is an emerging public health concern. However, these continents are still marginalized in dermatology literary works and in the health care system in terms of resources, availability, treatment outcome, and patient QoL (Al-Afif et al., 2019). Additionally, AD patients and their families have challenges with their social, clinical, and academic performance (Schmidt et al., 2021), economical, occupational, personal, and emotional(Marron et al., 2020). Together, these factors raise direct and indirect health care costs and lower national productivity (Drucker et al., 2017). Children receiving AD treatment may encounter difficulties, inconveniences, and stress (Kelbore et al., 2022). However, there is still insufficient data on the burden of AD on the QoL of patients(Al-Afif et al., 2019) and the effectiveness of common treatment among non-white ethnic groups (Kaufman et al., 2018). The majority of evidence pertaining to the causes and factors linked to AD inducing low QoL in children comes from Europe, the United States, and China (Kandowishi et al., 2016). Thus, this finding is not extrapolated to Ethiopia because little is known concerning the treatment practices, impact of AD on patients QoL, and contributing factors for poor QoL among children with AD. Hence, due to the lack of the aforementioned data, this study necessitates evaluating the treatment practices, health - related quality of life, and accompanying factors for quality of life among children diagnosed with AD at the A.L.E.R.T. center dermatovenerology unit.

1.3. Significance of the study

The predominant skin characteristics of AD include moderate-to-intense itching, eczematous lesions, xerosis, and lichenification. This symptom has a profound impact on the quality of life (QoL) of children due to a restricted lifestyle, avoidance of social interaction, and impaired daily activity performance (Campos et al., 2017, Na et al., 2019). Thus, evaluating and mapping the evidence on the impact of AD on children's QoL has become an integral holistic strategy in disease monitoring, and understanding the variables that lead to negative QoL is an important practice for better treatment outcomes (Ali et al., 2020).

To date, there is a scarcity of data on AD treatment patterns globally, particularly in Africa. Similarly, it has not been done in our country. Thus, based on the findings of these studies, it may provide a thorough overview of current treatment patterns at the national level. This, in turn, would enable clinicians, the dermatological care unit team, researchers, and patients to improve the service provided to AD patients.

Despite the high disease burden associated with AD, data on treatment patterns are limited. Thus, exploring AD treatment patterns can assist clinicians in improving disease management and enhancing patient QoL. Thus, this study highlights commonly prescribed Anti-AD treatment, which may contribute to decision-making in clinical practice.

In generally, to the best of our knowledge , no research has been conducted on the treatment practices, QoL ,and associated factoers for poor QoL among children age between 5 years to 16 years with AD in ALERT center, which is the major dermatology center from all over the region and this was the first study to provide some insight in AD related QoL, treatment pattern and variables linked with poo QoL among children who visit dermatovenorolgy outpatient unit and such findings serves as a basis for future evaluations on QoL and serving as a reference for undertaking further study on AD . On top of that, this finding is used by healthcare workers, healthcare facilities, and other concerned bodies to design strategies and local guidelines to improve HRQoL and AD care among children.

1.4. Literature review

AD is the most prevalent recurrent irritant dermatology ailment that has a significant burden on health care resources and patients' quality of life. It impacts one-fifth of the world's children. Globally, AD affects up to 20% of children and 3% of adults. However, newer evidence suggests that AD is also common during adulthood (Nutten, 2015, Chernyshov, 2016).

Various studies have reported that the exact pathogenesis of AD remains unclear and multifactorial. However, the underlying mechanism is well known. The most common suspected underling and aggravated factors are gene susceptibility, debilitating skin barrier, impaired immune responses, and behavioral factors (Andersen et al., 2017, Peng and Novak, 2015) .

In this context, decreased expression of the flaggrin (FLG) gene is one of the strongest underling factors for the development of AD. This gene is an important skin protein for preventing dryness and the entry of pathogenic microorganisms and nuisances **(**Ong, 2014**)**. The link between flaggrin gene alterations and AD is less well established among people of African origin, and numerous researchers have been unable to discover the link. However, in Ethiopia, it has been discovered that there is no link between the flaggrin protein sequence and the development of AD (Kaufman et al., 2018). However, stress, bacterial or viral infections, exposure to meal allergens, and personal sanitary factors can also exacerbate factors for the development of AD (Tanei, 2020).

Data from the literature indicated that the incidence of AD in developing countries is gradually approaching that of developed nations (Bonamonte et al., 2019, Bieber et al., 2017, Chernyshov, 2016, Chan et al., 2021, Nutten, 2015). In the LMIC countries, like the African continent, the occurrence rate of AD ranges from 4.7% to 23% (Sendrasoa et al., 2020). Over the past thirty years, the prevalence of AD in developed countries has increased two-to threefold, and the rates appear to have reached a plateau at 10–20% (Birdi et al., 2020, Al-Afif et al., 2019).

According to the report of the International Study of Asthma and Allergies in Childhood (ISAAC), the lifetime occurrences of AD at the age of 13 years were greater than 20% in industrialized countries, 16% in South Africa, and 6% in Ethiopia. Furthermore, A tool-based study in Ethiopia found that the lifetime prevalence of AD was 0.3% in rural areas (Nakamura et al., 2018).

1.4.1. Management practices of AD

AD is not curable, and many patients will need an on-going treatment approach. So the disease management is focused on preventing exacerbations and alleviating symptoms (Ring et al., 2012). Emollients are the pivotal treatment approach in both the acute and chronic phases of AD, and petroleum-based moisturizers play major roles (Catherine Mack Correa and Nebus, 2012). However, a comparative randomized control trial study conducted in the Philippines in 2008 by Dillague et al. revealed that Virgin coconut oil (VCO) emollient was substantially more effective than virgin olive oil (VOO) emollient in decolonized S. aureus, reducing dryness and being anti-inflammatory without causing side effects in the management of moderate to severe AD (Dillague et al., 2008).

Emollient treatment combined with topical corticosteroids produces a positive clinical outcome and sparing effect in all cases of AD (Msika et al., 2008) . According to a 2006 randomized controlled trial study done in France, emollient therapy dramatically decreased the amount of high-potency topical corticosteroid consumption in infants with AD. Besides, it provides corticosteroid-sparing properties in the treatment of AD. (Grimalt et al., 2007). Furthermore, a related study carried out in the USA in 1997 and 1998 by Lucky et al. and Hanifin et al. showed that adjunctive emollient therapy can be advised due to its clinical benefits in its corticosteroid sparing effects and improving outcomes in the treatment of AD (Lucky et al., 1997, Hanifin et al., 1998). However, there aren't enough studies to determine the frequency of application and amount of emollient applied (Hon et al., 2010).

For more than 60 years, topically applied glucocorticoids have been the cornerstone for AD management in decreasing severe and recurrent symptoms of AD in both adults and children. When the AD lesion d doesnot improve with frequent moisturizer and appropriate skin carethey are typically added to the treatment plan (Choi et al., 2020, Ellis, 2021).

Due to their anti-inflammatory, antiproliferative, immunosuppressive, and vasoconstrictive effects, topical agents such as topical glucocorticosteroids and topical calcineurin inhibitors are the most frequently prescribed first-line medications in the management of AD during acute flare-ups and as maintenance therapy in outpatient settings (Thomsen, 2014, Krakowski et al., 2008, Mudaliyar et al., 2020).

Clinical trials have shown that TCS is therapeutically effective for the management of AD flare-ups when used for up to four weeks (Buys, 2007). However, it could be used up until the itching and inflammation has subside and the skin is smooth and feels normal (Page et al., 2016). The severity of AD influences the choice of TCS potency; if AD is mild to moderate, a mild (class I) to moderately potent (class II) TCS is recommended, whereas for severe AD, a highly potent (class III) TCS is recommended. When there is inadequate therapy, a higher class of TCS can be utilized (Van Halewijn et al., 2019).

The FDA has approved a new class of topically applied non-steroidal anti-inflammatory management agents as second-line agents for short duration of treatment and moderate to severe non-recurrent chronic AD in immunocompetent patients older than 2 years refractory to other topical prescription treatments. These topically applied medications are provided as an option to topically applied corticosteroids for management of acute flares and maintenance therapy of AD (Krakowski et al., 2008, Sidbury, 2004, Siegfried et al., 2016, Silverberg, 2017).

Tacrolimus with strengths of 0.1% and 0.03 % in ointment dosage form and pimecrolimus with strength of 1% in cream dosage form are the two currently approved TCI formulations globally. Tacrolimus 0.1% and 0.03 % ointment formulations are indicated for children with moderate-to-severe AD, whereas Pimecrolimus 1% cream is recommended for children with mild-to-moderate AD and for treatment of AD that is refractory to other treatments or contraindicated. TCIs are preferred for areas of delicate skin (e.g., face, eyelids, groin, or armpits) and cases where topical corticosteroids have failed, thereby reducing the risk of adverse effects (Johnson et al., 2019, Carr, 2013). Three studies compared the therapeutic efficacy of topically applied pimecrolimus and tacrolimus on mild-to-severe AD among child study participants, and the findings revealed that tacrolimus had better efficacy than pimecrolimus. However, a single adult study revealed that pimecrolimus was therapeutically less effective than moderate TCS (El-Batawy et al., 2009).

A one-year interventional study on children and infants with AD conducted in Germany in 2002 by Wahn et al. and Kapp et al. revealed that Piemecrolimus cream reduced the need for TCS use with fewer AD flare-ups and improved overall control of AD (Wahn et al., 2002, Kapp et al., 2002). Studies have shown that TCIs are used for thin and sensitive skin regions and

dramatically minimize the need for topical corticosteroids for long-term management of facial AD in all age groups (Murrell et al., 2007, Draelos, 2008, Zuberbier and Bräutigam, 2008).

A brief study on children comparing TCI and TCS revealed that tacrolimus ointment at concentrations of 0.03% and 0.1% had a higher efficacy than 1% hydrocortisone acetate cream or ointment. Another two pediatric study findings pointed out that 1% pimecrolimus had a better therapeutic efficacy than 1% hydrocortisone acetate and 0.1% triamcinolone acetate (El-Batawy et al., 2009, Chen et al., 2010) . In 2009, a comparative RCT study done by Doss et al. showed that Tacrolimus 0.1% ointment has superior efficacy to fluticasone 0.005% ointment for twice-daily treatment of adults with moderate to severe facial AD in whom conventional therapy was inadequately effective or not tolerated (Doss et al., 2009).

Topically applied 2% Crisaborole ointment is recommended for the management of atopic dermatitis in patients greater than 2 years of age (Paller et al., 2016). This agent may provide an alternative for patients with TCS phobia (Riahi and Lam, 2021). In many cases of AD, the recommendation of systemic therapy for severe cases of AD that are refractory to TCS and TCI therapy is still debatable (Bußmann and Novak, 2017, Simon and Bieber, 2014). A phase III randomized non-inferiority clinical trial carried out in France by Goujon et al. revealed that Methotrexate at 15 mg/wk in the 50% reduction of SCORAD was 8% (4 of 50) and 42% (18 of 43) in the cyclosporine arm at a dose of 2.5 mg/kg/d in moderate-to-severe AD at week 8 (Goujon et al., 2018).

The present evidence does not support the use of antihistamines in the management of AD. Nevertheless, once-daily systemic second generation antihistamines (Loratadine and Cetirizine) remain the gold standard for treating AD symptoms like pruritus and are advised in many clinical treatment protocols (Klein and Clark, 1999). In 1997, a multicenter randomized, double-blind parallel trial study conducted by Patel et al. showed that loratadine as a daily dose was more effective than cetirizine in the management of symptoms of atopic dermatitis (Patel et al., 1997).

1.4.2. Factors assciated with the risk of AD

Numerous risk factors have been associated with an increased likelihood of AD, and these factors include modest family members, greater socioeconomic status, educational status irrespective of ethnicity, rural to urban migration, and high antibiotic

consumption (WILLIAMS, 1992), exposure to allergens, skin irritant products (woolen fabrics, exfoliating soaps, and detergents), stress, skin dryness, skin infection, environmental exposures for dry weather, genetics, allergen foods such as peanuts, eggs, gluten, soy,soy and dairy products, and consumption of alcohol are contributing factors to the increased worldwide prevalence of AD (Oninla et al., 2021). However, people whose family members have AD are far more at risk of having it (Thomsen, 2014).

A cross sectional study carried out at Ayder referral hospital in 2015 by Kelbore et al. revealed that the prevalence of atopic dermatitis was reported to be 9.6%. Mother caregiver, personal asthma and hay fever histories, mother AD history, child age, and weaning age were all independent predictors of AD (Kelbore et al., 2015). Another cross-sectional evaluation and nested case-control study carried out in Jimma in 2004 showed that the prevalence of AD was found to be 4.4% in youth, and it was proportionately greater in urban and rural locations. Children with intestinal parasite infections and highly educated parents tend to have higher rates of AD, but these trends are unrelated to numerous risk factors for AD that have been associated with studies in developed nations, such as breastfeeding or weaning practices, family size, or living conditions that are crowded (Haileamlak et al., 2005).

Deficiencies in certain micronutrients and vitamins are known to influence the severity of AD symptoms Vitamin A deficiency can worsen extrinsic AD by increasing Th2-mediated inflammation and mast cell activation (Yang et al., 2020). In addition, Zinc insufficiency is a very typical risk factor for AD among children, according to a 2020 retrospective investigation on 14-year-old children conducted by Ehlayel et al., which indicated that severe AD and high total IgE levels are risk factors related to zinc insufficiency. In severe AD and refractory AD for standard therapy, supplementation of oral zinc might be warranted to lessen disease severity (Ehlayel and Bener, 2020).

1.4.3. Factoers affecting quality of life among children with AD

AD has an intense effect on all magnitudes of a patient's QOL, and moderate-to-severe AD is associated with mental disorders, reduced QoL, impaired self-esteem, and suicide. The QoL burden of moderate-to-severe AD is comparable to that of psoriasis, chronic obstructive pulmonary disease, cardiovascular disease, and diabetes (Van Halewijn et al., 2019). Major

contributing factors to poor quality of life (QoL) in AD patients include fatigue, itching, activity restriction, sadness, and sleep loss (Tollefson and Bruckner).

Sleep disturbances have been found to be a substantial contributor to the decline in patient QOL and a central cause of QOL impairment in AD patients. The severity of sleep deprivation is proportional to the frequency of skin complaints (Alomayri et al., 2020). Approximately, 47%–80% of children with AD and in 33% - 87.1% of adults with AD experience sleep disturbances (Chang et al., 2014) and both children and their parents can lose about 1–2 hours of sleep per night. Besides, AD impacts social interaction and mental wellness, and has an even greater impact than diabetes on the families of young patients. This includes direct and indirect financial costs, time spent on treatment, sleep deprivation (1–2 hours/night), and physician appointments (Su et al., 1997, Barbeau and Bpharm, 2006).

In 2021, in Croatia, a study conducted by Lugović-Mihić et al. noted that the chronic, recurrent, and severe character of AD meaningfully lessens patient quality of life, often causing Pruritus , insomenia, and consequent anxiety and depression (Lugović-Mihić et al., 2021). Another correctional study done in Bangladesh to assess the influences of AD on HRQOL among 184 AD patients showed that patients with severe EASI scores and self-perceived severe AD were more likely to have problems with their QOL (Nagata et al., 2021). Similarly, another study done in Nigeria to assess the Impact of AD on the HRQOL of children, which included 47 participants, described that Children who have a more severe condition have a lower quality of life (Puddicombe et al., 2018).

In *Egypt*, in 2017, an investigation was conducted on 400 AD patients, and this study came to the conclusion that AD has an adverse impact on children, adolescents, and families QoL regardless of socio-demographic and socioeconomic factors (Sedik et al., 2017). A similar study was done in Egypt on 85 AD study participants at Ain Shams University Children's Hospital, and the study indicated that the QOL of children was positively linked to their caregivers QOL, which indicates that quantifying the QOL of patients should not be relied on to measure its impact on the patient because the QOL of all family members is adversely impacted as well (Hossny et al., 2020).

In 2012, in Spain, a study conducted by Sánchez-Pérez et al. among 151 adult and child AD participants showed that AD patients showed worse HRQoL than the general population. Children with AD often have behavioral problems, such as greater dependency, fear, limited participation in sports, and sleep disorders, which can cause daytime sleepiness and difficulties at school due to the presence and intensity of pruritus (Sánchez-Pérez et al., 2013).

1.4.4. Pattern of AD symptoms

Pruritus is among the most common dermatological complaints, and it is one of the hallmark and most burdensome symptoms of AD. Pruritus is reported to be present for 12 hours a day or more in nearly two-thirds of AD patients with moderate to severe atopic dermatitis. The daily prevalence of pruritus in AD patients ranges from 28% to 91%, and few people have an absence of itch for more than a week or month at a time (Murota et al., 2021, Tivoli and Rubenstein, 2009).

Pruritus can have a negative impact on mental health, causing symptoms including hyperactivity, generalized anxiety, and even serious depressive disorders. It has seriously degraded people's quality of life.Pruritus is an internalized sensation whose diagnosis is largely subjective. Despite its greatly negative impact, clinicians and investigators confronted difficulty in diagnosing, managing, and knowing the maximum duration of purities resolved after treatment (Nowak and Yeung, 2017, Smith et al., 2019). Moreover, no qualitative assessment of its characteristics according to severity has been published to date. Thus, exploring the pattern of AD pruritus after treatment can increase knowledge and improve treatment outcomes.

Conceptual framework

The following conceptual framework was developed after reviewing different literatures on factors associated with Qol among children with AD in different parts of the world (Xu et al., 2019, Kelbore et al., 2015, Bacci et al., 2023, Ghani et al., 2012, Kahlout et al., 2021).

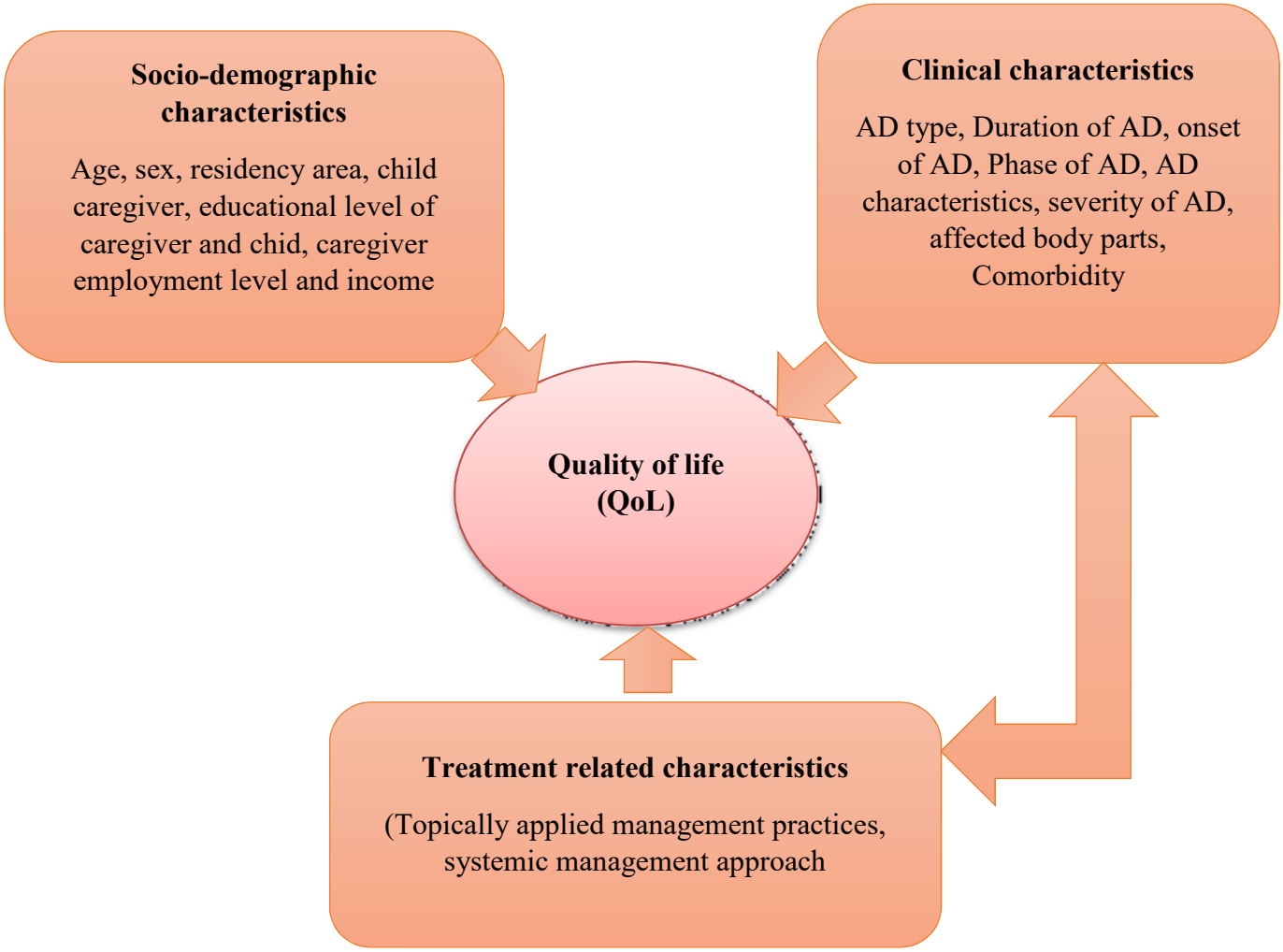

Figure 1: Conceptual framework was developed from different literature for factors associated with QoL among children with AD at ALERT comprehensive specialized hospital, dermatovenerology unit, Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023.

2. OBJECTIVES

2.1. General Objectives

- To assess the quality of life, treatment practice, and associated factors for QoL among patients with atopic dermatitis (AD) at the dermatovenerology department of ALERT specialized hospital, Addis Ababa, Ethiopia

2.2. Specific Objectives

- To assess quality of life (QoL) among patients with AD at the dermatovenerology unit of the ALERT specialized hospital.
- To assess the treatment practices of patients with AD at the dermatovenerology unit of the ALERT specialized hospital.
- To assese AD symptoms pattern of patients with AD at the dermatovenerology unit of the ALERT specialized hospital
- To assese AD symptoms pattern and control status after treatment of patients with AD at the dermatovenerology unit of the ALERT specialized hospital.
- To identify factors associated with poor QoL in patients with AD the at dermatovenerology unit of the ALERT specialized hospital.

2.3. Research equations

- What is the impact of AD disease on HRQoL among children?
- What are the most commonly prescribed anti-AD medcation?
- What is the status of AD symptoms control after treatment?
- What are factors associated with qualitie of life in AD patients?

3. METHOD

3.1. Study setting

This study was carried out at the dermatovenerology unit of ALERT, a specialized tertiary referral hospital. It is located 7 kilometers southwest of Addis Abeba on the road to Jimma in Kolfe Keranio sub city, Addis Ababa, Ethiopia. The center delivers extensive clinical services in the different service departments. These include trauma and emergency, gynecology, antiretroviral therapy and tuberculosis, mental rehabilitation and counseling, dermatovenerology, leprosy treatment, general reconstructive surgery, leprosy ulcer and RMC, retina and ophthalmic, pediatric and NICU, orthopedic surgery, ergotherapy and physiotherapy, and innovation and research institutes. Currently, the unit is providing service for the community at 13 dedicated ambulatory clinics with eight senior dermatovenereologists, 25 dermatovenereologists as residents, 30 postgraduate students, and 11 clinical nurses. There are 30 beds that provide inpatient dermatology services. The unit provided dermatovenerology services for 165 AD patients per month at an ambulatory clinic.

3.2. Study Design and Period

A prospective observational study design was used to collect data from September 1, 2022, to February 31, 2023. In order to accomplish these research objectives, data was initially collected via patient interview and chart review to collect socio-demographic, clinical characteristics, treatment practice, and QoL, and in the second phase (post-treatment), AD symptoms improvement status was collected via observation.

3.3. Population

3.3.1. Source Population

All children who visited the ALERT specialized hospital outpatient dermatovenerology unit for any type of dermatology diagnosis were considered the source population.

3.3.2. Study Population

All Children with AD visited the ALERT specialized hospital outpatient dermatovenerology unit and fulfilled the inclusion criteria.

3.4. Eligibility criteria

3.4.1. Inclusion criteria

- All children diagnosed with AD as per Hanifin-Rajka diagnostic criteria for the last 4 weeks and having active follow-up.
- Naive AD children as per Hanifin-Rajka diagnostic criteria.
- Those who were willing to participate in this study.
- Patients whose ages are 5 to 16 years old.

3.4.2. Exclusion criteria

- Parent/family member(s)/caregiver(s) and child with mental health problems, hearing impairments.
- Patient who had chronic major skin disease (Psoriasis, Acne vulgaris, Seborrheic dermatitis, Vitiligo and dermatophytosis).
- Participants who had not answered two or more questions in CDLQI questionnaires.

3.5. Sample size determination and sampling techniques

3.5.1. Sample size determination

The sample size was computed based on a single population proportion formula. Since, there was no previous study conducted on the HRQoL among AD patients in Ethiopia, for sample estimation "P" value was taken as 50 % that the probability of HRQoL be is 50%.

$$n=\frac{Z_{\alpha/2}^2 P(1-P)}{d^2}$$

Where,

n- Desired sample size for population >10,000;

Z-is standard normal distribution usually set as 1.96 (which corresponds to 95% confidence level);

P– Prevalence =50 % (0.5)

d – Is the degree of accuracy desired (marginal error is0.05);

So, $n= \frac{(1.96)^2*0.5(1-0.5)}{} =384$

$(0.05)^2$

By Adding 10% of contingency for non-response, droup out and refuse particpants .The final sample size to 384*10%=38.4=384+38.4 =422.4, the final sample size is **422**.

3.5.2. Sampling technique

The Health Management Information System (*HMIS*) registration book of the dermatovenereology unit showed that the average number of AD patients who came to the ALERT dermatovenereology unit one day per week for a total of 24 weeks was 1728 children (24 *72). A systematic random sampling technique was used based on the list of patients' appointment records by calculating the sampling interval as K=N/n (where N (1728) is the number of patients per six months and n (4) is the sample to be taken per day). Then study participants were taken at every 4^{th} interval for interviews. This was made for the purpose of participant distribution throughout the study periods for better representativeness. An identification code was written on the selected participants' MRN cards to avoid repeat selection. The process was repeated on each of the clinic days. When a recruited study participant was absent, the subsequent study participant was chosen and then moved on at a regular interval.

3.6. Study variables

3.6.1. Dependent variables

- Quality of life (QoL)

3.6.2. Independent variables

- **Socio-demographic characteristics :** Sex, age, martial statues, religion, resident education, occupation, monthly income
- **Clinical characteristics:** types of AD**,** AD duration since diagnosis was made /symptoms appear, Age at onset, AD classification and characteristics, AD severity categories, affected body parts, family history atopy, medical history of the patient, medical history of caregiver and therapeutic intervention.
- **Treatment practices** : AD treatment approach , topically applied compounded medicine , topically applied readymade medicine and systemic therapy approach

- **Observed AD symptoms and control status**: AD symptoms distribution, severity, and over all AD symptoms control status.

3.7. Data collection and management

3.7.1. Data Collection Instruments

Data were collected using a structured data abstraction tool through interviews with patients or their caregivers and a patient's medical chart review.The first part of the tool comprised socio-demographic characteristics (sex , age , residence area , caregiver , paternal educational attainment, maternal educational attainment , caregiver employment and monthly income),the second part contained clinical characteristics (AD type , duration , age onset ,classification, characteristics, severity , affected body parts, family history of AD, medical history of patient and caregiver), the third part contained treatment practices (treatment modalities , topical non compounded medicine ,topical compounded medicine ,systemic therapy , emollient therapy) , the fourth part contained observed AD symptoms and control statues (observed AD symptoms , pruritus severity and distribution and AD symptoms control statues) and the last part contained CDLQI tool which was used to measure QoL. All tools were translated into the local Amharic language and administered to willing study participants. A psychometric analysis was conducted for the CDLQI tool before conducting this study.

Assessment of Health related Quality of life assessment (HRQoL)

HRQoL was measured using the Children's Dermatology Life Quality Index (CDLQI) tool .This tool is applicabel for 5 to 16 years old. This tool was widely used in more than 80 countries and was translated into more than 110 languages, including Amharic (university, 1995). It includes a ten- item QoL survey with six subdomains: symptoms and feelings (questions 1 and 2), leisure (questions 4, 5, and 6), school or vacations (question 7), personal relationships (questions 3 and 8), sleep (question 9), and treatment (question 10). Each question of the CDLQI is answered as 'not at all,' 'only a little,' 'quite a lot,' or 'very much', and scored 0, 1, 2, or 3, respectively. The only exception to this scoring system is question 7, in which the option answer very much' is replaced with 'prevented school,' and is similarly scored 0 – 3 (Ražnatović Đurović et al., 2019, Puddicombe et al., 2018). The following classification is proposed for the impairment in quality of life score caused by atopic dermatitis: no effect (0-1 score) , small effect (2–6 score) ,

moderate effect (7–12 score) , very large effect (13–18 effect) , and extremely large effect (19–30 score) (Waters et al., 2010). CDLQI scores 0 up to 5 were considered to no impact on QOL," while those scoring ≥6 were considered to have "impact on QOL (Mohta et al., 2020). The severity of AD was evaluated using objective SCORAD by dermatovenereologiest .It contains extent and intensity of the AD lesions, divided into three levels: < 15 mildly sever , 15-40 moderately sever , > 40 severely affected (Sur et al., 2020).

3.7.2. Data Collection Procedure

Patients who were examined by dermatovenereologists for atopic dermatitis as per the criteria of Hanifin and Rajka were asked about their interest in participating in this study. The dermatology Nurse Practitioner gave consent or assent voluntary for participants and instantly collected information with regard to socio-demographic characteristics, treatment-related characteristics, and QoL. Subsequently, clinical characteristics, severity of AD, and observed AD symptoms were collected by dermatovenereologists through interviewing and chart review. After 4 weeks of post-treatment, the dermatovenereologiest evaluated AD symptoms and control status. The same dermatovenereologiest was involved for consistency of data collection. One trained clinical pharmacist was supervisor, and one dermatovenereologistst and dermatology Nurse Practitioner working in the dermatovenerology unit was involved in the data collection procedure.

3.8. Data quality assurance

Before conducting this study, the principal investigator and advisor validated the CDLQI tool on 200 AD children. A pre-test was done at the ALERT dermatology unit on 5% (n = 15) of AD patients before 2 weeks of real time periods for data collection. The final data collection tool was advanced with some corrections after a thorough evaluation of feedback obtained during the pre-test periods. The pre-tested patients were not included in the study. Finally, the collected data were reviewed and checked for completeness before data entry. To maintain the quality of the data, supervisors and data collectors were trained for 1 day with regard to data collection, sampling strategy, ethical principles, and data handling methods before the actual involvement of data collection. Data was collected by one dermatologist and one dermatology Nurse Practitioner with close supervision by a clinical pahrmaciest. The selection of data collectors was based on clinical and data collection experiences.

3.9. Data analysis and interpretation

The collected data was checked and tabulated for its completeness manually and introduced to a personal computer using Statistical Package for Social Science (SPSS) version 25. Descriptive statistics were used to describe the socio-demographic characteristics, clinical characteristics, treatment pattern, AD symptoms control and HRQoL. Descriptive statistics of frequencies and percentages were used to define categorical variables. Continuous variables were viewed as means and standard deviations. The Pearson correlation test was applied to check the multicollinearity of independent variables, and variables with a correlation coefficient of <0.7 were considered for the final model. The logistic regression model's goodness of fit was evaluated using the Hosmer-Lemeshow test. To identify predictors of HRQoL, a logistic regression model was utilized. Univariable binary logistic regression analysis was performed to relate each variable to quality of life; variables with a p-value <0.25 were fitted into multivariate logistic regression to ascertain independent variables linked to HRQoL. The Odds Ratio (OR) was used as a measure of the strength of the association, and a p-value < 0.05 was used to indicate statistical significance.

3.10. Ethical considerations

This study began after obtaining formal permission from Professor Andrew Y. Finlay, department of dermatology, Cardiff University School of Medicine, Heath Park, and Cardiff, UK, to utilize the Amharic version of the CDLQI questionnaire with references number of ID CUQoL1720. The Ethical Review Board of the School of Pharmacy, College of Health Sciences, Addis Ababa University provided ethical permission (Ref. No. ERB/SOP/479/14/2022) as well as a letter of cooperation and ethical clearances from ALERT/AHRI ethical review board was provided (PO-56-22). Informed consent and assent was available in Amharic language. Written Informed consent and assent was taken from all the participants prior to administration of questionnaires. The study participants were given the option to refuse or cease participation at any time, as well as the opportunity to ask any questions they had about the study. There were also ensured about the anonymity and confidentiality of data. The data were analyzed in aggregate, and all other personnel information was kept entirely secret throughout the study period.

3.11. Dissemination of results

The findings from this study were disseminated to the Ministry of Health, Addis Ababa City Administration Health Bureau, Ethiopia Public Health Institutes, Ethiopian Food and Drug Authority, and the respective hospital to consider interventional measures for the feature. Scientific workshops, conferences, and panel discussions will be considered to disseminate the findings of this research to any other concerned bodies. The findings of this study will be published in a reputable scientific journal.

3.12. Operational Definitions

- Health related Quality of life: CDLQI <6 were classified as having "no QoL impact" whereas scored ≥ 6 were classified as having a "QoL impact" (Mohta et al., 2020).
- Early-onset AD: debut at birth to 2 years old , mid onset AD: begin at 3-7 years Late-onset AD: begin after the onset of puberty or 8 up to 17 years (Kolb and Ferrer-Bruker, August 13, 2021.).
- Mild AD: SCORAD score 0-14, Moderate AD: SCORAD score 15-40 and Sever AD SCORAD score >40 (Stalder et al., 1993, Sur et al., 2020).
- Acute AD: a vesicular, weeping, crusting eruption. Sub-acute AD; dry, scaly, erythematous papules and plaques and Chronic AD: lichenification, thickening, from repeated scratching (Ferri, 2021).
- Lesions Type : lesion that have 1.5–3 cm in diameter and marked with erythema, crusty appearance, and oozing/weeping to a smoother (Girolomoni et al., 2021)
- Pure AD: without concomitant respiratory symptoms(Tay et al., 1999) and Mixed AD means concomitant respiratory allergies like asthma or rhinitis(Paštar et al., 2005).
- Localized pruritus is confined to a certain part of the body and generalized pruritus is widespread and not limited to a specific body area (Wilson, 2012).
- Acute AD pruritus is well-defined as pruritus with duration < 6 weeks and Chronic pruritus/itching is itching lasting ≥ 6 weeks (Reich et al., 2017).
- Numerical rate scale of pruritus = 0 (no pruritus), NRS 1–2 (mild pruritus), NRS 3–7: moderate pruritus , NRS 8–9(severe pruritus)and NRS > 9 (very severe pruritus)(Talamonti et al., 2021).
- Controlled defined as: improving/ stable AD signs and symptoms" and uncontrolled defined as changeable / deteriorating slowly / rapidly the symptoms of AD(Anderson et al., 2021, Chovatiya et al., 2022).

4. RESULTS

4.1. Sociodemographic characteristics of study partcipants

A total of 422 patients were recruited for the present study. A total of 403 (53.6 female and 46.4 male) study subjects were included for final analysis, with a 95.5% response rate. The mean (±SD) age of the participants was 8.04 (±3.40) years. The most commonly affected age group was 5 years (41.2 %, n = 166), followed by 6–10 years (32.5 %, n = 131).

Of the total study participants, three-fourths (77.9 %, n = 314) lived in urban areas, and caregivers were mothers (63.3%, n = 255). Nearly half of the study participants (46.7%, n = 188) levels of education were preschool, and half of the study participants caregivers (49.9%, n = 201) had completed higher education. Of the total study participants, caregivers (39.5%, n = 159) were government employees, and caregivers (147, n = 36.5%) earned monthly income (≥ 5001 birrs).

Table 1: Socio-demographic characteristics of AD patients attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403).

Variable	Category	Number	Percent
Sex	Female	216	53.6
	Male	187	46.4
Age (in years)	5 Years	166	41.2
	6 - 10 Years	131	32.5
	11 -16 years	106	26.3
Residences area	Rural	89	22.1
	Urban	314	77.9
Children caregiver	Mother	255	63.3
	Father	126	31.3
	Grand parent	11	2.7
	Other*	11	2.7
Children educational level	Pre-school	188	46.7
	Primary school	195	48.4
	Secondary school	20	5.0

Caregiver educational level	Unable to read and write	03	0.7
	Primary school	87	21.6
	Secondary school	112	27.8
	Higher education	201	49.9
Care giver employment statues	Farmer	15	3.7
	Gov. employee	159	39.5
	Housewife	142	35.2
	Day labourer	23	5.7
	Merchant/self-employed	60	14.9
	Others**	04	1.0
Care giver Monthly income (ETB)***	Very low (≤860)	142	35.2
	Low (861-1500)	7	1.7
	Average (1501-3000)	41	10.2
	Above average (3001-5000)	66	16.4
	High (≥5001)	147	36.5

ETB; Ethiopian birr, * NGO institution female guardian, elderly sister elderly brother and legal guardian ** Priest, athlete, marriage / relationship counselor, and hospital porter ***As per the Ethiopian civil service civil servants monthly salary scale,

4.2. Clinical characteristics of study partcipants

As depicted in Table 2, the mean (±SD) ages of study participants at which AD diagnosis was 4.79 (± 3.85) years, ranging (from 1 to 16 years). In this study, (49.1%, n = 198) of AD diseases occurred at mid onset (began at 3-7 years), and the duration of AD in patients who were less than 5 years was accounted for (76.4 % %, n = 308). Of the total participants (84.6%, n= 341) had Pure AD, (37.5%, n= 75) had sub-acute type, and (71.7 %, n= 289) had Non-lesions type of AD. More than half (57.6 %, n= 232) of the study participants had moderate form AD. Regarding the sites affected, mixed body (45.2%, n=182) site involvement was the most predominant. As described in Table 2, a positive family history of atopy was reported in (27.8 %, n= 112) one of their parents. Family history of Bronchial asthma, Atopic eczema, and Allergic rhinitis together was reported in (30 %, n= 121) study subjects. In this study, the majority of

(83.1 %, n= 335) the study participants and (80.1%, n= 323) the caregivers had no history of medical illness at the time of presentation.

Table 2: Clinical characteristics of AD patients on observation at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403).

Variable	category	n (%)	Mean +SD	Range
Types of Atopy	Pure AD Mixed AD	341 (84.6%) 62 (15.4 %)	1.15±0.361	
Duration of AD (Years)	<5Years ≥5 Years	308 (76.4 %) 95 (23.6 %)	2.235 ± 0.424	
Age at onset of AD diagnosis (Years)	Early onset Mid onset Late onset	153 (38.0 %) 168 (41.7 %) 82 (20.3 %)	4.785 ± 3.85	1-16
Current AD phase	Acute phase Sub- Acute phase Chronic phase	104 (25.8%) 170 (42.2 %) 129 (32.0 %)		
AD characteristics	Lesional type Non lessional type	114 (28.3 %) 289 (71.7 %)		
AD severity categories (SCORAD)	Mild (0-14) Moderate (15-40) Sever (>40)	145(36.0 %) 232(57.6 %) 26 (6.5%)	20.20 ± 10.63	1.90-56.30
Affected body parts	Flexural surfaces of extremities Extensor surfaces of extremities Face (forehead, cheeks, chin) Mixed body site	99 (24.6 %) 66 (16.4 %) 56 (13.9%) 182 (45.2 %)		
Number of Family Positive for atopy	One of the parents Both parents	112 (27.8 %) 9 (2.2 %)		

	None	282 (70 %)		
Positive Family history atopy	Atopic eczema Allergic rhinitis Bronchial asthma Negative family history of atopy	29 (7.2 %) 25 (6.2 %) 67 (16.6%) 282(70.0%)		
Medical illness history of patient	Asthma Epilepsy Sinusitis Bronchitis RTI No history of medical illness	16 (4.0 %) 4 (1.0 %) 21 (5.2 %) 17 (4.2%) 10(2.5%) 335 (83.1%)		
Medical illness history of caregiver	HIV/AIDS Asthma Epilepsy Hypertension Diabetic mellitus Others* No history of medical illness	2 (0.5 %) 51(12.7 %) 0 (0%) 15 (3.7 %) 5 (1.2%) 7 (1.7 %) 323 (80.1%)		

RTI: Respiratory tract infection, SCORAD: Scoring Atopic Dermatitis *Hyperthyroidism, chronic GI upset, hemorrhoids, sinuses, Gout, cataract and leprosy

4.3. Atopic dermatitis treatment approach

Figure 2 showed that, More than half of the study participants (55.6%, n = 224) utilized topically applied non-compound medication. Of these treatment approach, 138 (34.2%,n= 138) study participant treated with topically non- compounded medicine with emollients, followed by (7.9%,n=32) monotherapy of topically applied medicine and (7.4 %, n= 30) topically non compounded medicine with systemic therapy and emollients (Table 3).

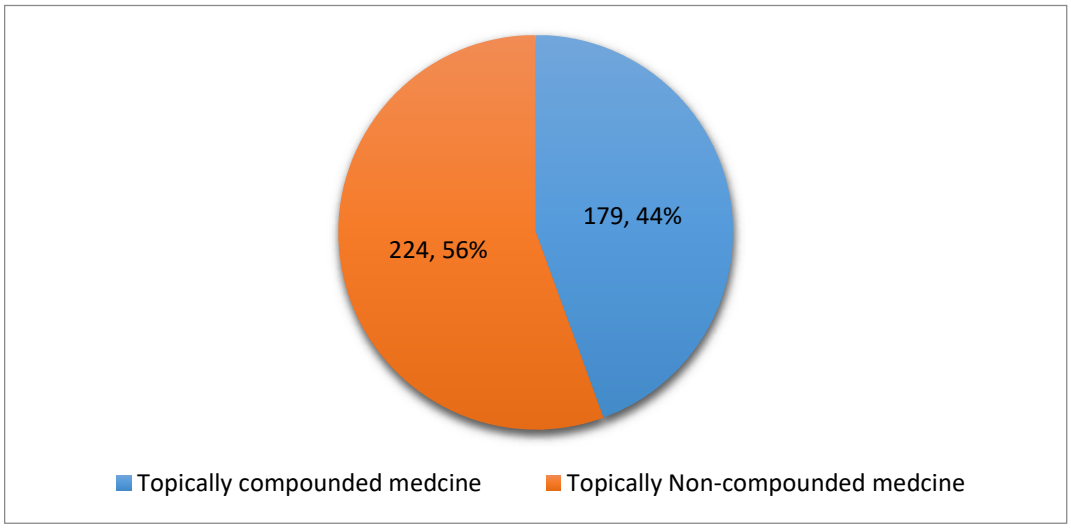

Figure 2: Treatment modality of atopic dermatitis among AD patient attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403).

Among topically applied readymade medicine users, almost half (49.4 %, n= 199) of the study participants utilized topical corticosteroids and (6.2 %, n = 25) topical calcineurin inhibitors. The most commonly prescribed topical steroid preparation as monotherapy was Mometasone furoate (26.8 %, n= 108), followed by Betamethasone (19.4 %, n =78) and Tacrolimus (6.2 %, n=25) (Table 4), whereas (44%, n=179) of the study participants prescribed for topical applied combination medicine. The most commonly prescribed topically applied combination medicine was betamethasone with Salicylic acid (15.6 %, n= 63), followed by betamethasone with white soft paraffin (11.7%, n= 47) and momentasone with white soft paraffin (6.0%, n=24)(Table 5).

As table 3 showed , (24.4 %, n= 98) study partcipnats prescribed for systemic antihistamine therapy.Of this systemic treatment approach, Loratadine prescribed for (8.9 %, n = 36) study partcipants, followed by Desloratadine (8.7%, n= 35) and Cetirizine (6.0%, n= 24) study partipants. Where as, Chlorpheniramine (0.7%, n= 3), was the least often given systemic treatment approach.

In this study, a total of two-thirds of the study participants (75.6%, n=305) were prescribed for emollients. Of the study participants, More thatn half of the study partcipants (53.3%, n=215)

were prescribed for paraffin-based emollients , followed by Liquid paraffin (19.1%, n= 77) , white soft paraffin (1.0%, n=4), and other types of emollients (2.2%, n = 9).

Table 3: Anti-atopic dermatitis treatment pattern of AD patients on attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403).

List of prescribed treatment modalities	n (%)
Topically non- compounded and emollients	138 (34.2%)
Topically compounded , systemic therapy and emollients	33 (8.2 %)
Topically non- compounded only	32 (7.9%)
Topical compounded only	31 (7.6 %)
Topically compounded and systemic therapy	12 (2.9 %)
Topically compounded and emollients	104 (25.8 %)
Topically non compounded , systemic therapy and emollients	30(7.4 %)
Topically non- compounded and systemic therapy	10(2.4%)

Table 4: Anti-atopic dermatitis of ready-made topical treatment pattern of AD patients attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023(n=403).

List of Non-compounded topical therapy	n (%)
Mometasone furoate	108 (26.8 %)
Betamethasone	78 (19.4 %)
Tacrolimus	25 (6.2%)
Clobetasol	13 (3.2%)
Other *	179 (44%)

*Topically applied Mixed (compounded) medicine. Example: 3 % Salicyclic Acid + 30 gram Betamethasone Dipropionate + 60 gram White soft paraffin.

Table 5: Anti-atopic dermatitis topically applied compounded medicine pattern among AD patients on observation at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023(n=403).

List of compounded prepration					
Topical steroid	SA	Urea	SA & Urea	FA	WSP
Betamethasone	63 (15.6 %)	1 (0.2 %)	21 (5.2 %)	---	47 (11.7 %)
Clobetasol	1(0.2%)	---	---	---	4 (1.0 %)
Mometasone	5 (1.2 %)	---	10 (2.5 %)	3 (0.7 %)	24 (6.0 %)

SA = Salicyclic acid , WSP = White soft parffine and FA = Fusidic acid

4.4. Health related Quality of Life Domains

In this study, the overall mean (±SD) CDLQI score was 8.42 (±3.57), out of 30. Most of the study participants (62 %, n = 248) experienced a moderate effect, and (2 %, n = 7) had an extremely large effect, this signified that children with AD had a moderate effect on their QoL (Figure 3). The current study's findings showed that Clothes/shoes domain was recorded as the highest impact QoL domain with a mean (±SD) score of 1.83 (±0.78) , and this domain presented that 108(26.8%, n=108) of study participants believed that AD affected the clothing they wore over the past week very much (they had to change or wear different/special clothes). Furthermore, symptoms domain was recorded as having the highest impact on QoL with a mean (±SD) score of 1.83 (±0.78), and (23.6%, n= 95) study participants thought that their skin had been sore or painful very much over the past week. Similarly, the sleep domain was noted as the most affected QoL domain with a mean score of 1.47(±0.84), in this domain (51.4%, n= 207) study participants thought that AD did affect sleep only a little. However, 58(14.4) study participants thought that AD did affect sleep very much.

In this study, the lowest affected QoL was noted in the avoiding swimming or other sports activities) domain, with a mean score of 0.27 (±0.48), in this domain, the majority (74.2%, n=299) of the study participants thought that AD did not avoid them from swimming or other

sports activities because of AD, while (24.6%, n=99) study participants thought that it did affect them to only a little extent. Regarding the school /holiday domain, it was the least affected domain with a mean score of 0.34(±0.52), and more than half (68.0%, n= 274) of study participants thought that AD did not affect their school or holiday related activities. Furthermore, teasing and bullying were the lowest affected domain with a mean value of 0.35(±0.50), in this domain, 264(65.5) study participants thought that AD did not cause teasing and bullying (Table 6).

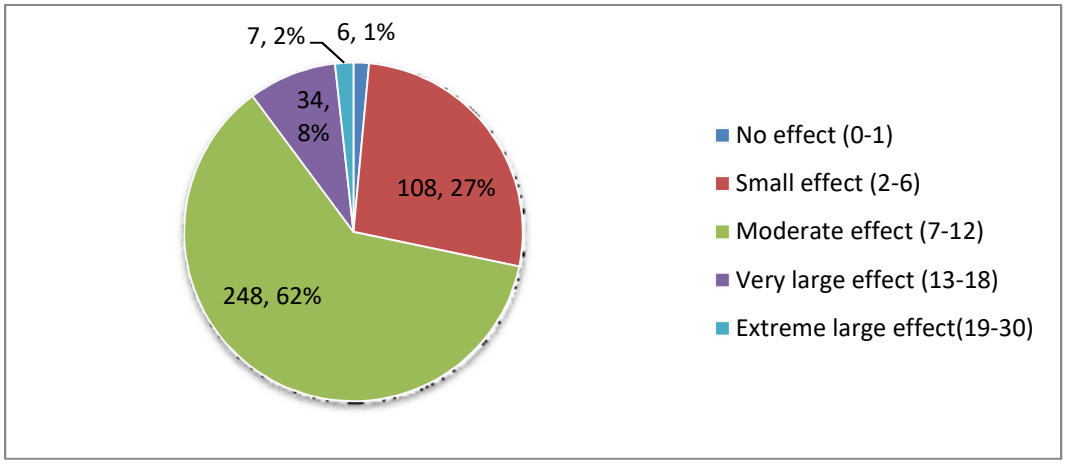

Figure 3: The overall effect of CDLQI distribution among AD patient attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023(n=403).

Table 6: Mean and response rate of CDLQI score among AD patient attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403).

CDLQI Domain	Mean (±SD)	Responses n (%)			
		Not at all	Only a little	Quite a lot	Very much
Symptoms	1.83(±0.78)	0(0)	164 (40.7%)	144(35.7%)	95 (23.6%)
Feeling	0.34(±0.52)	176(43.7)	189(46.9)	30 (7.4)	8 (2.0)
Affect Friendship	0.68(±0.69)	219(54.3)	172(42.7)	10(2.5)	2(0.5)
Affect Clothes/shoes	1.76(±0.92)	27(6.7)	150(37.2)	118(29.3)	108(26.8)
Affect Leisure/hobbies	0.42(±0.52)	241(59.8)	156(38.7)	6(1.5)	0(0)

Affect Swimming/sports	0.27(±0.53)	299(74.2)	99(24.6)	4(1.0)	1(0.2)
School/holidays	0.34(±0.52)	274(68.0)	120(29.8)	9(2.2)	0(0)
Teasing/bullying	0.35(±0.50)	264(65.5)	135(33.5)	4(1.0)	0(0)
Sleep problem	1.47(±0.84)	33(8.2)	207(51.4)	105(26.1)	58(14.4)
Treatment problem	0.80(±0.85)	166(41.2)	178(44.2)	32(7.9)	27(6.7)

4.5. Observed AD symptoms and control status

According to the Hanifin and Rajik diagnosing criteria, all study participants exhibited pruritus. Of these pruritus symptoms, the most commonly observed pruritus was localized Pruritus (75.7%, n=305), followed by generalized Pruritus (24.3 %, n= 98). According to the severity of AD pruritus, acute and chronic type pruritus were reported (49.4%, n =199 and 50.6%, n= 204) study participants, respectively. Alongside pruritus, other AD symptoms like dry skin in (70.7%, n= 285), Lichenification (12.2 %, n = 49), Oozing & crusting (10.7 %, n = 43) and inflamed skin (6.5%, n = 26) were observed at presentation. After 4 weeks of post treatment observation, AD symptoms were controlled among two thirds (76.9%, n = 310) of study partcipants (see Figure 4).

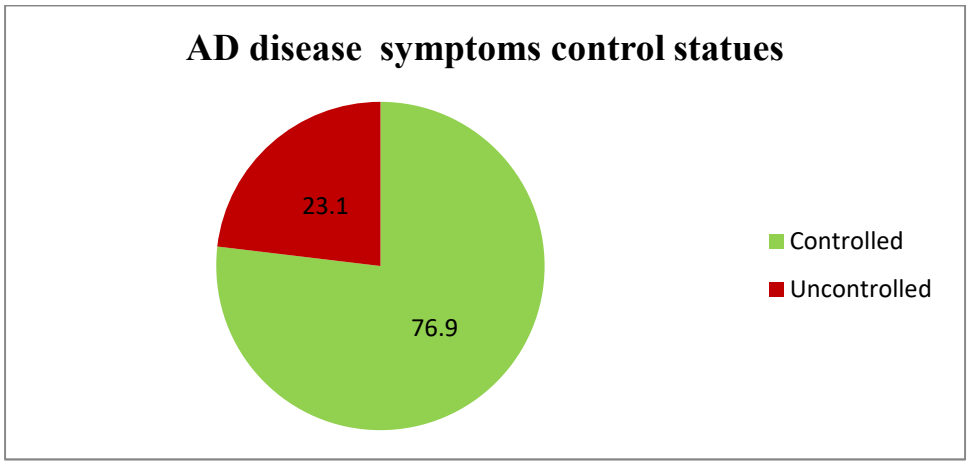

Figure 4: AD disease symptoms control statues among AD patient attending at ALERT comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403).

4.6. Factors associated with quality of life

To substantiate which variables were associated with QoL among children with AD, a bivariate logistic regression model was performed, followed by a multivariable logistic regression model (Table 10). In the bivariate analysis, twelve variables, including age, paternal educational level, caregiver Job categories, caregiver monthly income, AD classification, AD severity, affected body site, Medical history of the patient, Topically Non - compounded medicine, Emollient therapy, Pruritus distribution, and Severity of Pruritus, were found to be expressively associated with poor QoL with a *P*-value < 0.25. These variables were moved into the multivariable logistic regression analysis to determine possible associations between the independent variables and quality of life. The findings of the multivariable logistic regression model revealed that five variables, including caregiver job (Government employee and daily laborer), AD severity (Moderate AD), Medical history of the patient (Allergic Rhinitis) and Topically non-compounded therapy (Tacrolimus), were found to be statistically significant factors associated with poor QoL at p-values less than 0.05. Participants whose caregiver was a government worker were 5.5 times more likely to have poor QOL than those whose caregiver was farmer [AOR=5.5, 95% CI: 1.09 – 27.60](0.038) . Participants whose caregiver was a daily laborer were 16.23 times more likely to have poor QOL than those whose caregiver was farmer [AOR=16.23, 95% CI: 1.78 – 148.1](0.014) .

The odds ratio of having poor QOL among having moderate participants was 4.2 times higher than those participants who had mild AD [AOR=4.2 (95% CI: 2.25, 7.83] (P=<0.001). Those who had AR comorbidities had 20.6 times [AOR = 20.6, 95 %CI: 1.55 - 275.5](p=0.022) greater odds of having poor QOL than those who had Asthma comorbidities. Those who use topically applied Tacrolimus had 5.63 times [AOR=5.63, 95% CI: 1.03 – 30.92] (0.047) greater odds of having poor QoL than those who used topically applied bethamethasone dipropionate. The remaining socio-demographic characteristics, clinical characteristics and treatment modalities were not demonstrate statistically significance with poor QoL after multivariable analysis was conducted in the present study.

Table 7 : Factors associated with QoL among AD patient attending at A.L.E.R.T comprehensive specialized hospital , dermatovenerology unit , Addis Ababa, Ethiopia, September 01, 2022 to February 31, 2023 (n=403)

Variable	CDLQI score n (%)		Bivariate analysis		Multivariate analysis	
	CDLQI ≤5	CDLQI ≥6	Crud OR (95% CI)	P	Adjusted OR (95%CI)	P
Age						
5 years	41(24.70)	125(75.30)	1.00 (Ref.)			
6-10 years	25(19.08)	106 (80.62)	1.39(0.79,2.44)	**0.249**	1.13(0.39,3.24)	0.822
11-16 years	21(19.81)	85(80.19)	1.33(0.73,2.40)	0.350	1.14(0.31,4.18)	0.842
Paternal educational level						
Pre-school	46(24.47)	142(75.53)	1.00 (Ref.)			
Primary school	35(17.95)	160(82.05)	1.48(0.90,2.42)	**0.119**	1.12(0.38,3.29)	0.838
Secondary school	06(30)	14 (70)	0.76(0.28,2.08)	0.588	0.38(0.66,2.17)	0.276
Job categories						
Farmer	07(46.67)	8(53.33)	1.00 (Ref.)			
Government employee	33(20.75)	126(79.25)	3.34(1.13,9.88)	**0.029**	5.5(1.09,27.60)	**0.038***
Housewife	30(21.13)	112(78.87)	3.27(1.09,9.73)	**0.034**	1.97(0.15,26.13)	0.608
Daily laborer	02(8.70)	21(91.30)	9.19(1.57, 53.93)	**0.014**	16.23(1.78,18.1)	**0.014***
Merchant/self-employed	13(21.66)	47(78.33)	3.16(0.97,10.36)	**0.057**	5.57(0.94,32.84)	0.057
Other	02(50)	02(50)	0.88(0.09,7.95)	0.906	1.50(0.10,22.32)	0.769
caregiver monthly income						
Very low (≤860)	30(21.13)	112(78.87)	1.00 (Ref.)			
Low (861-1500)	03(42.85)	04(57.14)	0.36(0.08,1.68)	**0.193**	0.13(0.00,3.13)	0.207
Average (1501-3000)	10(24.39)	31(75.60)	0.83(0.37,1.88)	0.656	0.24(0.02,3.03)	0.267
Above average (3001-5000)	13(19.69)	53(80.30)	1.09(0.53,2.26)	0.813	0.34(0.03,4.11)	0.398
High (≥5001)	31(21.08)	116(78.91)	1.00(0.57,1.76)	0.994	0.25(0.02,3.02)	0.278
AD classification						
Acute	26 (25)	78(75)	1.00 (Ref.)			
Sub-acute	43(25.30)	127(74.70)	0.98(0.56,1.73)	0.957	1.13(0.55,2.35)	0.739
Chronic	18(13.95)	111(86.04)	2.06(1.06,4.01)	**0.034**	2.06(0.85,5.02)	0.112
AD severity						
Mild	56(38.62)	89(61.37)	1.00(Ref.)			

Moderate	31(13.36)	201(86.63)	4.08(2.46,6.76)	**0.000**	4.20(2.25,7.83)	**<0.001**
Sever	0(0)	26(100)	---------	0.998	--------	0.998
Affected body site						
Flexor surface	22(22.22)	77(77.78)	1.00(Ref.)			
Extensor surface	14(20.90)	53(79.10)	1.08(0.51,2.30)	0.839	1.05(0.42,2.58)	0.925
Face	19(34.55)	36(65.45)	0.54(0.26,1.12)	**0.100**	0.79(0.31,1.99)	0.617
Mixed body site	32(17.60)	150(82.41)	1.34(0.73,2.46)	0.347	1.15(0.53,2.52)	0.725
Medical history of patient						
Asthma	04(25)	12(75)	1.00(Ref.)			
Epilepsy	01(25)	03(75)	1.00(0.08,12.56)	1.000	0.86(0.04,17.88)	0.921
Allergic rhinitis	01(4.76)	20(95.23)	6.67(0.67,66.84)	**0.107**	20.6(1.55,25.5)	**0.022***
Bronchitis	04(23.52)	13(76.47)	1.08(0.22,5.33)	0.922	2.69(0.39,18.55)	0.315
RTI	02(20)	08(80)	1.33(0.19,9.08)	0.769	1.88(0.20,17.48)	0.580
None	75(22.38)	260(77.61)	1.16(0.36,3.68)	0.807	2.26(0.57,8.95)	0.244
Topically non compounded medicine						
Betamethasone dipropionate	26 (33.33)	52 (66.67)	1.00(Ref.)			
Clobetasole dipropionate	01(7.7)	12(92.30)	6.00(0.74,48.69)	**0.093**	8.01(0.85,75.27)	0.069
Mometasone Furoate	29 (26.85)	79 (73.15)	1.36(0.72,2.57)	0.340	1.75(0.78,3.93)	0.172
Tacrolimus	02 (8)	23(92)	5.75(1.26,26.28)	**0.024**	5.63(1.03,30.92)	**0.047***
Other	29(16.20)	150(83.80)	2.59(1.39,4.79)	**0.003**	1.41(0.66,2.99)	0.377
Emollient therapy type						
WSP/LP emollient	45(20.93)	170 (79.06)	1.00(Ref.)			
Liquid paraffin	15(18.51)	66 (81.49)	1.56(0.65,2.05)	0.614	1.69(0.78,3.65)	0.176
Other	04(44.44)	05(55.56)	1.35(0.65,2.79)	0.421	0.58(0.08,3.94)	0.584
None	23 (23.46)	75(76.53)	0.38(0.09,1.55)	**0.178**	1.59(0.77,3.28)	0.207
Pruritus distribution						
Localized Pruritus	71(23.28)	234(76.72)	1.00(Ref.)			
Generalized Pruritus	16(16.32)	82(83.67)	1.56(0.86,2.83)	**0.148**	1.21(0.55,2.68)	0.633
Severity of Pruritus						
Acute	50(25.12)	149(74.88)	1.00(Ref.)			
Chronic	37(18.13)	167(81.87)	1.56(0.94,2.45)	**0.089**	0.98(0.50,1.90)	0.960

**- statistically significant at P<0.05*

5. DISCUSSION

AD is highly prevalent in Africa, where prevalence rates seem to have plateaued at 4.7 % to 23% (Sendrasoa et al., 2020) .Many environmental, social, and economic factors relevant to Africa contribute to increasing prevalence and burden of AD (Al-Afif et al., 2019). The rise in the prevalence of AD has considerably an impact on the health-care service and psychosocial cost from poor QoL of both children and caregiver (Schmid-Grendelmeier et al., 2019). Due to Unavailability of essential drugs, newer anti-AD medicine , inaccessible of specialists in dermatology , lack of regionally relevant diagnostic tool (Schmid-Grendelmeier et al., 2019, Al-Afif et al., 2019) the magnitude of disease and QoL burden in LMIC has not been sufficiently quantified in the literature (Mahmoud et al., 2023).

Determining country specific QoL, Management practices and Identifying factors related to QoL is crucial to strengthening the national skin diseases control program. Thus, this study provides thorough view of the AD related treatment practices, QoL and predictors for QoL among children. According to this study, the total mean (±SD) score of the CDLQI score was 8.44(±4.20), corresponded to a moderate effect on the patients QoL. The finding is in agreement with a study done in Thailand 7.5 (Wisuthsarewong et al., 2015), China ;7.7 (Chuh, 2003), Malaysia ;8.0 (Ghani et al., 2012), Singapore ;8.5 (Ho et al., 2010), turkey ;8.97 (Balcı et al., 2007), Iran ;9.44 (Mohammadi et al., 2020) and Ivory Coast ;9.9 (Kouassi et al., 2021). However, our finding was smaller than that of a study done in Serbia , which was 17.11 , corresponding to a very large effect (Ražnatović Đurović et al., 2019). An explanation for this variation might be majority of Serbian's study participants had moderate and severe cases. Morover, Our finding was higher than that of a study done in Brazil ; 5.4 (Campos et al., 2017) , in USA ; 5.8 (Fivenson, 2002) and in Korea 6.6(Kim et al., 2012).The first possible explanations for this discrepancy could be that majority of AD cases in our study were mild to moderate AD .However, The aforementioned studies included mild AD case participants.

In the current study, AD had significant negative effect on the QoL of 72 % participants (62% with moderate effect, 8 % with very large effect, and 2 % with extreme very large effect). This result is similar to a study done in Brazil (38% with moderate effect, 34 % with a large effect) (Amaral et al., 2012) and in Iran (38% with moderate effect, 27% with large effect) (Mohammadi et al., 2020). However, this finding is higher than to a study done in Saudi Arabia, where 58.3 % study partcipants had significant negative QoL (29.6 moderate effects, 17.4 very large effects, and 11.3 extreme large effects). This variation might be due to the

sociodemoraphic variation of the study participants and the less severe AD participants were involvement.

Various research reported various results in relation to the CDLQI domain responses, and the majority of the studies findings showed that feelings and educational activities were the most and least reported domains, respectively (Salek et al., 2013). In the present study, the highest reported CDLQI components were symptoms , cloth/shoes and sleeping problems. However, disturbances in swimming / sports activities were the least affected CDLQI components. This result is in line with studies done in Iran (Mohammadi et al., 2020) and Malaysia (Ghani et al., 2012). However, a study done in Saudi Arabia showed that Symptoms and emotions were the most affected domains, while the school domain was the least affected (Aldosari et al., 2023).Moreover, a study done in Serbia revealed that school/holidays and itching were the most affected domains, while problems with sleep and treatment were the least affected domains (Ražnatović Đurović et al., 2019). This discrepancy might be due to the sociodemographic variation of the study participants.

In this study, two-thirds (75.6 %, n = 305) of the study participants prescribed emollient therapy. This finding was higher than that of a study done in Brazil (56.9 %) (Campos et al., 2017) in italy (55.1)(Geat et al., 2021) in india (15.12%) (Giri et al., 2014) and Netherland (54.9%)(van Halewijn et al., 2023). This discrepancy might be due to the fact that two-thirds of our study participants had skin dryness and crusting skin. However, the finding of this study was lower than that of a study done in France (100%) (Héron et al., 2023) and india (95%) (Scaria et al., 2011). This variation could be due to the fact that the majority of the study participants in the aforementioned studies had AD flare and sub-acute AD.

In the current study, more than half (55.6%) of the study participants prescribed topically applied ready-made medicine. Among these therapeutic approaches, almost half (49.4%) of the study participants were prescribed topical steroids. This finding is in line with a study done in Italy (45.7%) (Geat et al., 2021) , Egypt (45.9) (Hossny et al., 2020) ,Brazil (51%)(Campos et al., 2017) and Netherland (49%)(van Halewijn et al., 2023). This is due to the fact that topical applied corticosteroids are the first line therapeutic approach for both adults and children to treat inflammatory symptoms, acute flares, and pruritus (Maliyar et al., 2018). However, this study is lower than a study done in South Korea (72.2%)(Lee et al., 2022), USA (86.7%) (Paller et al., 2020) and two indian studies (42.2%)(Giri et al., 2014) and (75%)(Scaria et al., 2011). The probable reason could be that the majority of the participants in the above studies might have moderate to severe AD, proxy severity level 1 AD, acute, and sub-acute stage AD.

In this study , salicylic acid was the most commonly combined start material with betamethasone (15.6 %, n = 63) .This is the fact that compounding of betamethasone with salicylic acid is recommended for steroid-sensitive dermatoses accompanied by excessive epidermal keratinization and AD (Pastuszka and Kaszuba, 2012) . On top of that, Salicylic acid play a role in altering the pH of the skin and enhancing the efficacy of topically administered steroid medication (Van Vloten, 1990) and prescribing of unconventional therapy with extemporaneous compounded medicine has an important role in the management of chronic and unresponsive AD (Beebeejaun et al., 2022).

In this study, systemic antihistamine were prescribed for (24.4%) study participants. This finding is comparable with a study done in USA (19.9%) (Anderson et al., 2021) and in Brazil (21.6)(Campos et al., 2017). This is the fact that Antihistamines are therapeutic approach for management of atopic pruritus symptoms and to enhance patient sleeping quality (Langeland et al., 1994).However, this study finding is lower than that of studies done in South Korea (76.1%)(Lee et al., 2022), USA (46.6%) (Paller et al., 2020) and two Indian studies (42.2%)(Giri et al., 2014) and (75%)(Scaria et al., 2011). The major discrepancy could be majority of the study participants might be found on acute and sub-acute AD.

Pruritus was the main observabed symptoms in this study, similar to four indian studies (100%) (Bindu, 2017) , (98%) (Kumar et al., 2014), (81%) (Pandya and Agrawal, 2020), and (70%) (Sehgal et al., 2015), Greece (95.2%) (Siafaka et al., 2020) and the USA (47.1)(Chatrath and Silverberg, 2023). The second most commonly observed symptom was skin dryness, which in line with two indian studies (82%) Kumar et al. (Kumar et al., 2014) and (80)(Sehgal et al., 2015).However, it was lower than that of a study done in Greece by Siafaka et al. and India by bindu et al. (100%) (Siafaka et al., 2020, Chatrath and Silverberg, 2023). This contradiction might be due to genetic , climate and environmental variation.

This study finding underscored that majority (76.9 %, n=310) of study participants AD symptoms were controlled after 4 weeks of post treatment. This finding is in line with a retrospective study done in Korea (Chung et al., 2012) . However, a 6 month prospective study and multicenter retrospective analysis done in Japan (Fukaya et al., 2016, Furue et al., 2003) showed that the rate of AD symptoms improvement among children was 52 % and 40 % , respectively. This discrepancy may be because of the use of mono therapy of topical TCS in the above studies . However, In this study, diverse treatment approachs were prescribed. The second reason might be due the difference in the study participants' characteristics of avoiding of any triggering factors and compliance on their treatment.

Identification of possible factors that accelerate to poor QoL is important task to obtain complete pictures of children with AD. In this study, the multivariable analysis proved that government employees and daily laborers were found to be independent factors for having poor quality of life than farmer. This the fact that being an employee caregiver might decrease children's continuity care and attention. However, this finding was different from a study done in Singapore (Xu et al., 2019, Xu et al., 2020) . The reason for this discrepancy might be due to the differences in socioeconomic status, working hours and child care setup of the study participants.

According to our finding, moderately impaired AD is one of the independent predictors for low QoL. This view is reinforced by a study conducted in Singapore and Thailand (Xu et al., 2019, Wisuthsarewong et al., 2017). The likely reason could be the fact that having a greater severity of AD had greater disease burden, causing marked pruritus, sleep disruption, and apparent physical signs.

This study also demonstrated that the comorbidity of AR has a siginficantly association with QoL. This observation is in line with a study done in Jimma (Yemaneberhan et al., 2004). The most likely explanation might be that AR symptoms affect QOL domains such as daily activities, school performance, and sleep disturbance. This makes children embarrassed.

The result of our study confirmed that patients in receipt of topically applied Tacrolimus were associated with QoL impairment. This result is contrary to a study done in Thailand (Wisuthsarewong et al., 2017). The first possible explanation for this variation in this study is the unavailability of Tacrolimus across all pharmacies, and the second reason could be that topically applied Tacrolimus has transient burning sensation of the skin during application (Puterman and Green, 2014).

Aside from the above associated variable, this study didn’t demonstrate age related association factors. However, a study done in Singapore revealed that older children are associated with poor QoL (Xu et al., 2019). The first probable reason might be the fact that older age is highly involved in different activities; thus, any problems that impact their activities could have poor QoL, and the second reason could be due to the adjustment of confounding variables. On top of that, a study done in Nigeria showed that caregiver monthly income has an associated factor (Kayode et al., 2023). However, the current study model did not demonstrate such findings. This variation could be due to the adjustment of confounding variables, and socioeconomic differences.

6. LIMITATION OF THE STUDY

The study's limitation should be taken into consideration when interpreting the findings because the individuals had previously been treated with a different anti-AD management strategy, which could have an impact on clinical features, QoL status, and outcomes. Despite this, the findings of this study might not have always been as accurate for all AD patients since a short follow-up period and a single study site was done. The study was conducted in a single study area, which does not have to mirror the situation in other areas.

7. CONCLUSION

This study found that emollients, topically corticosteroids, and antihistamines were the most commonly prescribed medications. AD has significant impact on the QoL of children, mainly through Symptoms and feelings , sleeping problems and dressing problems domain in relation to studies conducted in other countries so far. In 1 month a considerable number of children with AD symptoms were controlled. Furthermore, factors such as Government employee, daily laborer, moderate atopic dermatitis, allergic rhinitis, and recipe of topically applied tacrolimus were significantly associated with worse QoL.Thus, the need to widening the AD management with education and evaluating of children QoL deemed to be improrant.

8. RECOMMENDATIONS

To improve quality of life, clinical examination practices and treatment outcome validated tools are recommended for dermatologists. We also recommend a treatment guideline which could be a pharmacological or non-pharmacological intervention, to prevent the AD symptoms of itching and scratching. According to our study findings, we also recommend that tailored health education be delivered for government employers, daily laborer caregivers. Moreover, since our study is done in one center, we recommend multicenter studies.

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ANNEXES

8.1. ANNEX-I: English Version of Information Sheet

- Dear participant/Guardian, Good Morning/Afternoon/Good evening!

Hello, My name is _____, I am a member of the study that is carried out at ALERT Hospital dermatovenerology unit, Addis Ababa, Ethiopia entitled "assess the quality of life, treatment practices, and associated factors among atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T) Addis Ababa, Ethiopia: prospective cross-sectional study''. The study is being conducted by Mr. Minychel Wale from Addis Ababa University, School of Pharmacy, Department of Clinical Pharmacy and Pharmacology, postgraduate program. The main objective of this study is to assess the quality of life, treatment practices, and associated factors among atopic dermatitis patients and to identify determinants of quality of life among AD patients at ALERT Hospital dermatovenerology unit.

Your answers and children information will remain confidential and your name and child name will not be taking down. Participation in this study and giving permission for your child is voluntary and you are not obligated to answer any questions and give permission for your child to participate in this study .It takes 20 minutes.

Title of the study: Assessment of quality of life, treatment practices, and associated factors among atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T) Addis Ababa, Ethiopia: A hospital based prospective cross-sectional study

Objective of the study: The aim of this study will be used to assess the quality of life, treatment practices, and associated factors among atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T) Addis Ababa, Ethiopia.

Study location: This study will take place at ALERT center dermatovenerology department.

Procedures: If you agree to be in this study, you will be asked to do the following: If patient is on already follow up initially she/he will interview socio-demographic information, clinical characteristics , treatment pattern and quality of life for already follow up patients' .However, Characteristics of Atopic Pruritus variable will be ask after 4 weeks. For newly diagnosed AD patients QOL domain and Characteristics of Atopic Pruritus variable will be fill after 4 weeks of follow up**.** Also note total amount of time required to fill the CDLQI tool has to be records at the beginning or end of this section

Risks/Discomforts: Some of the QOL questions are likely to produce some discomfort, but you will be able to write your own felling and your data will be observed by data collectors.

Benefit: There will be no direct benefit to you from participating in this study. However, it is hoped that the information gained from the study will help health professionals better understand/learn more about AD and helping to create knowledge that will possibly benefit others**.**

Compensation: There is no financial compensation for participating in this study.

Alternative*:* Agreeing to participate in this research will not change the normal medical care and procedures which you are receiving. Your alternatives are to participate in this research or not to participate in this research, but this will change nothing about your medical care

Rights of the participant: participating and not participating is the full right participants and guardians in the study at any time. And also, the participant can skip question which does not want to respond. Participants can ask any questions which is not clear for understanding.

Confidentiality: - To minimize the risks to confidentiality, we will storage, coding, password protection, encryption, limited access to study records and study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used.

8.2. ANNEX II: English version of informed consent form

I have read the consent sheet in the language I comprehend and understood and have the opportunity to ask the researcher any further questions I may have had. I understand that my participation in this research is voluntary and I may withdraw at any time from the study without affecting my treatment.

I understand that there is no possible risk to me in this study except the time spent to deliver information for us. All information given by me will keep strictly confidential. It is my voluntarily participation where i have no any obligation to participates in the study. If i feel discomfort with the study, I have highly privileged to drop from the study. If i have any questions related to this study or need to know the study results after the end of study I can contact the PI of the study and AAU school of pharmacy Ethics review Committee on +002511560212 or email to chairperson of nasifshemsu@gmail.com.

I understand that information from me will be used for this study and possibly other published studies and by signing below I am consenting participate in this study.

For further inquiry, please contact with the listed address

Minychel Wale addressee: +251913909029, Email: minychelwale77@gmail.com

AAU Ethical review committee addressee: + 251 11156 0212 and ALERT hospital CEO addressee: +251 11-321-1337

AHRI Ethical review committee addressee: +251 11834 2742

Are you willing to respond to the questions? Yes ☐ No ☐

Signature of participant_____

Signature of interviewer _____Signature of Witness _____

Date_____ starting time _____Ending time_____

☐Completed ☐Respondent not available ☐Refused ☐partially completed

8.3. ANNEX III: English version information sheet for children / guardian

- Dear participant/Guardian, Good Morning/Afternoon/Good evening!

Annex -III : Information sheet

Hello, My name is _____, I am a member of the study that is carried out at ALERT Hospital dermatovenerology unit, Addis Ababa, Ethiopia entitled "assess the quality of life, treatment practices, and associated factors among atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T) Addis Ababa, Ethiopia: prospective cross-sectional study''. The study is being conducted by Mr. Minychel Wale from Addis Ababa University, School of Pharmacy, Department of Clinical Pharmacy and Pharmacology, postgraduate program. The main objective of this study is to assess the quality of life, treatment practices, and associated factors among atopic dermatitis patients and to identify determinants of quality of life among AD patients at ALERT Hospital dermatovenerology unit.

Your answers and children information will remain confidential and your name and child name will not be taking down. Participation in this study and giving permission for your child is voluntary and you are not obligated to answer any questions and give permission for your child to participate in this study .It takes 20 minutes.

Title of the study: Assessment of quality of life, treatment practices, and associated factors among atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T) Addis Ababa, Ethiopia: A hospital based prospective cross-sectional study

Objective of the study: The aim of this study will be used to assess the quality of life, treatment practices, and associated factors among atopic dermatitis patients at All Africa Leprosy, TB and rehabilitation training center (A.L.E.R.T) Addis Ababa, Ethiopia.

Study location: This study will take place at ALERT center dermatovenerology department.

Procedures: If you agree to be in this study, you will be asked to do the following: If patient is on already follow up initially she/he will interview socio-demographic information, clinical characteristics , treatment pattern and quality of life for already follow up patients' .However, Characteristics of Atopic Pruritus variable will be ask after 4 weeks. For newly diagnosed AD patients QOL domain and Characteristics of Atopic Pruritus variable will be fill after 4 weeks of

follow up**.** Also note total amount of time required to fill the CDLQI tool has to be records at the beginning or end of this section

Risks/Discomforts: Some of the QOL questions are likely to produce some discomfort, but you will be able to write your own felling and your data will be observed by data collectors.

Benefit: There will be no direct benefit to you from participating in this study. However, it is hoped that the information gained from the study will help health professionals better understand/learn more about AD and helping to create knowledge that will possibly benefit others**.**

Compensation: There is no financial compensation for participating in this study.

Alternative*:* Agreeing to participate in this research will not change the normal medical care and procedures which you are receiving. Your alternatives are to participate in this research or not to participate in this research, but this will change nothing about your medical care

Rights of the participant: participating and not participating is the full right participants and guardians in the study at any time. And also, the participant can skip question which does not want to respond. Participants can ask any questions which is not clear for understanding.

Confidentiality: - To minimize the risks to confidentiality, we will storage, coding, password protection, encryption, limited access to study records and study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used.

8.4. ANNEX IV: English version assent form for children

This study is being conducted by Mr. Minychel Wale from AAU, college of health sciences, school of pharmacy, department of clinical pharmacy & pharmacology postgraduate program. The study will be conducted by recording medical findings from interviewing you. I am doing a study to figure out the quality of life, treatment practices, and associated factors among atopic dermatitis patients. We are asking you to take part in the research study because you are diagnosed and treated for AD. If you agree to join this study, you will be asked to some questions about socio-demographic information, clinical characteristics related information, and quality of life. We will keep all your answers private, and will not show them to others. Only your doctor and data collectors working on the study will see the data. We don't think that any big problems will happen to you as part of this study, but you might feel uncomfortable when we ask about quality of life. You also might be upset if your families see your answers, but we will try to keep your families from seeing what you write). We expect that the study will help you by Closer monitoring, education about illness and improve quality of life. This study will help us learn more about impact of AD on quality of life

You should know that: You do not have to be in this study if you do not want to. You won't get into any trouble with *your doctors and treatment related activities* if you say no, you may stop being in the study at any time. And your parent(s)/guardian(s) were asked if it is OK for you to be in this study. Even if they say it's OK, it is still your choice whether or not to take part.

Sign this form only if you:

- have understood what you will be doing for this study, have had all your questions answered,
- have talked to your parent(s)/legal guardian about this project, and agree to take part in this research

For further questions related to study, please contact with listed addressee

- Minychel wale: +251913909029
- AAU Ethical review committee addressee: + 251 11156 0212
- ALERT hospital CEO addressee: +251 11-321-1337
- AHRI Ethical review committee addressee: +251 11834 2742

This research study has been explained to me and I agree to be in this study.

_____ _____

Child/ Participant Name for Assent Date

ANNEX V. (PATIENT INTERVIEW DATA COLLECTION FORMAT)

SECTION-I: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF AD PATIENTS		
S.NO	Characteristics	Possible responses
1	Sex	☐Female ☐Male
2	Age (in years)	☐ <5 years ☐ 5- 10 year ☐11- 16 year
3	Residences area	☐Rural ☐Urban
4	Children care giver	☐Mother ☐Father ☐Grandmother ☐Grandfather ☐Other
5	Educational attainment (Paternal)	☐Pre-school ☐Primary school ☐Secondary school
6	Educational attainment (Maternal)	☐Unable to read and write ☐Primary school ☐Secondary school ☐Higher education
7	Care giver employment statues	☐Farmer ☐Merchant/self-employed ☐Employee ☐Unemployed ☐Housewife ☐Student ☐Daily laborer ☐Others*
9	Care giver Monthly income	
SECTION 2 : CLINICAL CHARACTERISTICS OF AD PATIENT		
1	Types of AD (Phenotypically)	☐ Pure AD ☐ Mixed AD
2	Duration of AD (Years)	☐< 5 Year ☐≥5Year
3	Age at onset of AD, per a year	☐ Early onset ☐Mid onset ☐Late onset
4	AD classification	☐Acute ☐Sub- Acute ☐Chronic
5	AD characteristics	☐Lesional type ☐ Non lessional type
6	AD severity (objective SCORAD)	☐Mild ☐Moderate ☐Sever
7	Affected body parts	☐Extensor surfaces of extremities ☐Flexural surfaces of extremities

		☐Face (forehead, cheeks, chin) ☐Mixed
8	Presence of atopic dermatitis	☐One of the parents ☐Both parents ☐None
9	Family history atopy	☐Atopic eczema (+ve) ☐Allergic rhinitis (+ve) ☐Allergic asthma (positive) ☐Negative for atopic eczema and respiratory atopy
10	Medical history of the patient	☐Asthma ☐Epilepsy ☐ sinusitis ☐ bronchitis ☐ Others specify ……☐ None
11	Medical history of caregiver	☐HIV 1 ☐Asthma ☐Epilepsy ☐HTN ☐Diabetic mellitus ☐ Others specify ……☐None
SECTION THREE (3) :TREATMENT PARCTICES		
2	Treatment modalities	☐Topical compounded only ☐Topical Non compounded only ☐Systemic only ☐Emollients only ☐Both topical compounded and systemic ☐Both topical compounded and Emollients ☐Topical Non compounded and systemic ☐Topical Non compounded and Emollients
3	Topical Non compounded medicine	☐ Yes ☐ No
4	Types of Non-compounded medicine	☐Topical corticosteroids ☐Topical calcineurin inhibitors (TCIs) ☐Topical PDE4 inhibitor ☐Other ……☐None
5	List of non-compounded Topical Medication	☐Betamethasone dipropionate 0.05 % ointment ☐Clobetasol propionate 0.05 % ointment

		☐ Hydrocortisone acetate 1 % cream ☐ Fluocinolone acetonide 0.025 % cream ☐Mometasone furoate 0.1 % ointment ☐ Tacrolimus ☐Other specify ……..
6	Topical Compounded formulation	☐ Yes ☐ No
7	Type of Topical Compounded medicine formulation	☐Salicylic Acid + Betamethasone + WSP ☐Betamethasone + WSP ☐Mometasone + WSP ☐Salicyclic Acid + Urea + Betamethasone + WSP ☐Salicyclic Acid + Urea + Mometasone + WSP ☐Salicyclic Acid + Mometasone + WSP ☐Clobetasol + WSP ☐Urea + Betamethasone + WSP ☐Fusidic acid + Mometasone + WSP ☐Salicyclic Acid + Clobetasol + WSP
8	List of compounded medication	
9	Systemic therapy	☐ Yes ☐ No
10	Types Systemic therapy	☐Entral antihistamine ☐Parenteral Corticosteroids ☐Entral Corticosteroids ☐Others specify…….
11	List of systemic medication	☐Cetirizine 10mg Tablets ☐Loratadine 5mg Syrup

		☐Desloratadine 0.5 mg syrup ☐Chlorphenramine ☐Other specify……
12	Emollient	☐Yes ☐No
13	Emollients therapy type	☐White soft paraffin + Liquid paraffin ☐White soft paraffin only ☐ Liquid paraffin only ☐ Olive oil ☐ Other specify …
Section Four(4) : AD symptoms observation and control statues		
1	Observed AD symptoms at base line	☐Pruritus ☐Dry skin ☐Lichenification ☐Oozing & crusting ☐inflamed skin
2	Pruritus Distribution	☐Localized pruritus ☐ Generalized pruritus
3	Severity of pruritus	☐Acute pruritus ☐Chronic pruritus
4	AD symptoms control	☐ Controlled) ☐ Uncontrolled)

ANNEX VI: CHILDREN'S DERMATOLOGY LIFE QUALITY INDEX

The aim of this questionnaire is to measure how much your skin problem has affected your life OVER THE LAST WEEK. Please tick ☑ one box for each question.

Hospital No/Code:……		CDLQI score:……..
Name ……		Date:…….
Address:……		❒Base line score ❒Follow-up score
1	Over the last week, how **itchy, Scratch, sore or painful** has your skin been?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
2	Over the last week, how **embarrassed** or **self-conscious** up set or sad have you been because of your skin?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
3	Over the last week, how much has your skin interfered your friendship?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
4	Over the last week, how much have you change or whom different special cloths / shoes because of your skin?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
5	Over the last week, how much has your skin trouble affected going out, playing or doing hobbies?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
6	Over the last week, how much have you avoided swimming or other sports because of your skin trouble?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all

7	Last week was it school time? If school time, over the last week, how much did your skin problem affect your school work?	❒Prevented school ❒Very much ❒Quite a lot ❒Only a little ❒Not at all
7	Last week was it holiday time? How much, over the last week, has your skin problems interfered with your enjoyment of the holiday?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
8	Over the last week, how much trouble have you had because of your skin with other people calling your names , teasing , bulling , asking questions or avoiding you?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
9	Over the last week, how much has your sleep been affected by your skin problems?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all
10	Over the last week, how much of a problem has the treatment of your skin been?	❒Very much ❒Quite a lot ❒Only a little ❒Not at all

Note: Please check you have answered every question. Thank you!

8.5. ANNEX VII: Questionnaire, Amharic version (**የአማርኛ መጠይቅ ቅፅ**)

ቅጽ1: የጥናቱ መረጃ ቅጽ

ውድ የቃለ መጠይቅ ተሳታፊ/አሳዳጊ፤ እንደምን አደሩ/ ዋሉ/አመሸህ?

ጤና ይስጥልኝ, ስሜ _____ ነው, እኔ በአለርት ሆስፒታል የቆዳ ሕክምና ክፍል ውስጥ በሚካሄደው የህፃናት አቶፒክ ደርማታይተስ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች" በተሰኘ የድህረ ምረቃ ጥናት አባል ነኝ። ጥናቱ የሚካሄደውም የአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ፤ ፋርማሲ ት/ቤት የድህረ ምረቃ ፕሮግራም ተማሪ በሆነዉ ምንይችል ዋለ ነው። የእርስዎ መልሶች እና የልጆች መረጃዎች ሚስጥራዊ ሆነው ይቆያሉ እና ስምዎ እና የልጆች ስምዎ አይወሰዱም ። በዚህ ጥናት ውስጥ ተሳትፎ ማድረግ እና ለልጅዎ የተሳትፎ ፈቃድ መስጠት በፍቃደኝነት ላይ የተመሰረተ ነው። ከጥናቱ ጋር በተያያዘ መልሶችን የመመለስ እና በጥናቱ እንዲሳተፉ ግዴታ የለባቸውም :: ጥናቱ 20 ደቂቃዎችን ይወስዳል::

የጥናቱ ርዕስ : የህፃናት አቶፒክ ደርማታይተስ በሽታ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች ግምገማ በመላዉ አፍሪካ የሥጋ ደዌ, ቲቢ እና የመልሶ ማቋቋም ስል,ጠና ማዕከል(አለርት) , አዲስ አበባ, ኢትዮጵያ : ሆስፒታልን መሰረተ ያደረገ የክትትል ጥናት

የጥናቱ ዓላማ : የዚህ ጥናት ዋና አላማው በአለርት ሆስፒታል የቆዳ ሕክምና ክፍል ውስጥ የህፃናት አቶፒክ ደርማታይተስ በሽታ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች መለካትና ነው።

የጥናቱ መገኛ ቦታ : በመላዉ አፍሪካ የሥጋ ደዌ, ቲቢ እና የመልሶ ማቋቋም ስል,ጠና ማዕከል (አለርት) , አዲስ አበባ, ኢትዮጵያ

የጥናቱ ሂደት : በዚህ ጥናት ውስጥ ለመሆን ከተስማሙ የሚከተሉትን መረጃዎች እንዲሰጡ ይጠየቃሉ: እርስዎ በንቁ ክሊኒካዊ የህክምና ክትትል ላይ ከሆኑ ማህበራዊዮ-ስነ-ሕዝብ መረጃ፤ ክሊኒካዊ ባህሪዎች ፤ ሕክምና ልምዶችን እና ፤ የህይወት ጥራት ቃለ መጠይቅ ያደርጋሉ። ነገር ግን **የ**አቶፒክ ደርማታይተስ የማሳከክ ውጤት ከ 4 ሳምንታት በኋላ ይጠየቃል። ለአዲስ **የ**አቶፒክ ደርማታይተስ ህመምተኞች

ማህበራዊዮ-ስነ-ሕዝብ መረጃ ፤ ክሊኒካዊ ባህሪዎች ፤ ሕክምና ልምዶችን በመጀመሪያ የህክምና ዕይታ ይጠየቃል ነገርግን የህይወት ጥራት እና **የ**አቶፒክ ደርማታይተስ የማሳከክ ውጤት ከ 4

ሳምንታት ይጠየቃል። እንዲሁም, የ CDLQI መሣሪያን ለመሙላት የሚያስፈልገውን አጠቃላይ የጊዜ መጠን መጀመሪያ እና መጨረሻ ይመዘገባል።

የጥናቱ <u>አደጋዎች / አለመመቸቶች</u> : አንዳንድ የ QOL ጥያቄዎች የተወሰነ አለመመቸቶች እና ትንሽ ጊዜ የሚቆጠሩ ሊሆኑ ይችላሉ, ነገር ግን ግን የራስዎን ስሜት መጻፍ ይችላሉ እና የእርስዎ መረጃ በሰብሳቢዎች ይታያል.።

የጥናቱ ጥቅም : በዚህ ጥናት ውስጥ መሳተፍዎ ለእርስዎ በቀጥታ ጥቅም አይኖርዎም. ሆኖም ከጥናቱ የተገኘው መረጃ የጤና ባለሙያዎች ስለ አቶፒክ ደርማታይተስ የበለጠ እንዲረዱ እና እውቀት እንዲኖራቸው ይረዳቸዋል.።

የጥናቱ <u>ካሳ</u> : በዚህ ጥናት ውስጥ መሳተፍ የገንዘብ ማካካሻ የለም።

አማራጭ : በዚህ ምርምር ውስጥ በመሳተፍ የሚቀበሏቸውን መደበኛ የህክምና እንክብካቤ እና ሂደቶች አይለውጡም. ። የእርስዎ አማራጮች በዚህ ምርምር ውስጥ መሳተፍ ወይም በዚህ ምርምር ውስጥ <u>አለ</u>ለመሳተፉ ነው። ነገር ግን ይህ ስለ ሕክምናዎ እንክብካቤዎ ምንም አይቀይርም።

ተሳታፊው መብቶች : በማንኛውም ጊዜ ተሳታፊዎች እና አሳዳጊ ቤተሰቡ በዚህ ምርምር ውስጥ መሳተፍ እና አለመሳተፍ ሙሉ መብት ነው :: እንዲሁም ተሳታፊው መልስ ለመስጠት የማይፈልግባቸዉን ጥያቄ መዝለል ይችላል:: ተሳታፊዎች ለመረዳት ግልፅ ያልሆኑ ማንኛቸውም ጥያቄዎችን መጠየቅ ይችላሉ

ምስጢራዊነት : የምስጢራዊነት አደጋዎች ለመቀነስ የጥናት መዝገቦች ኮድ መከላከል የይለፍ ቃል መጥበቃ እና የጥናት መዝገቦች ውስን መዳረሻ ማዘጋጀት:: የዚህ ጥናት ውጤቶች የታተሙ ወይም የቀረቡ ግለሰባዊ ስሞች እና ሌሎች በግል የሚለይ መረጃ ጥቅም ላይ አይውሉም::

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ቃለ መጠይቅ የቀረበለት ሰው ፊርማ ቃለ መጠይቅ አቅራቢ ፊርማ

ቅጽ2: የአማርኛ እትም የፍቃድ መጠይቅ ቅፅ

የፍቃድ መጠይቅ ቅፅን በሚገባኝ እና በምረዳዉ ቋንቋ አንብቤአለዉ : የጥናቱ አጥኚ ተጨማሪ ጥያቄዎች ካለኝ ለመጠየቅ እድሉ አለኝ :: በዚህ ምርምር ውስጥ ያለኝ ተሳትፎ በፈቃደኝነት መሆኑን ተረድቼ እና ህክምናዬን ሳያስነካ ከጥናቱ በማንኛውም ጊዜ መልቀቅ እንደምችል ተረድቻለዉ::

በዚህ ጥናት ውስጥ መረጃን ለመስጠት ከሚወስድቡኝ ስዓት በስተቀር ምንም ችግር እንደሌለዉ ተረድቻለዉ:: በእኔ የተሰጠ ሁሉም መረጃዎች በጥብቅ ምስጢር ይጠበቃሉ:: ይህ በእኔ በፈቃደኝነት የተመሰረተ ተሳትፎ ሲሆን እናም በጥናቱ ውስጥ የመሳተፍ ግዴታ የለብኝም :: በጥናቱ ላይ ምቾት የማይሰማኝ ከሆነ ከጥናቱ የመተው መብት አለኝ:: ከዚህ ጥናት ጋር የሚዛመዱ ወይም ከጥናቱ መጨረሻ በኋላ የጥናቱን ውጤት ማወቅ ካለብኝ የጥናቱን አጥኝ እና የአዲስ አበባ ዩንቨርስቲ የፋርማሲ ሥነ ምግባር ግምገማ ኮሚቴ በስልክ +251111560212 ወይም በኢሜይል አድራሻ nasifshemsu@gmail.com እጠይቃለዉ::

በዚህ ጥናት ውስጥ ያለው መረጃ እና ምናልባትም ሌሎች የታተሙ ጥናቶች ጥቅም ላይ እንደሚውል ተረድቻለሁ እናም ከዚህ በታች በመፈረም በዚህ ጥናት ውስጥ ለመሳተፍ ፈቃደኛ ነኝ.

ከጥናት ጋር ለተያያዙ ተጨማሪ ጥያቄዎች እባክዎን ከተዘረዘሩ አድራሻዎች ጋር ያነጋግሩ:

- የአዲስ አበባ ዩንቨርስቲ የፋርማሲ ሥነ ምግባር ግምገማ ኮሚቴ አድራሻ + 251 11156 0212
- አለርት ሆስፒታል አድራሻ+251 11-321-1337
- አህሪ ሥነ ምግባር ግምገማ ኮሚቴ አድራሻ +251 11834 2742

ለጥያቄዎች መልስ ለመስጠት ፈቃደኛ ነዎት?? አዎ ☐ አልተስማማሁም ☐

ተሳታፊ ፊርማ _____

የቃለ መጠይቁ ጠያቂ ፊርማ _____

የምሥክርነት ፊርማ _____

ቀን _____ የጀመርው ስዓት _____ የማብቂያ ስዓት _____

ውጤት

☐ተጠናቅቋል ☐መልስ ሰጭው አይገኝም ☐ተቀባይነት አላገኘም☐በከፊል የተጠና

ቅጽ3: የአማርኛ እትም የጥናቱ መረጃ ቅፅ ለልጆች

ውድ የቃለ መጠይቅ ተሳታፊ/አሳዳጊ፤ እንደምን አደሩ/ ዋሉ/አመሸህ?

ጤና ይስጥልኝ, ስሜ _____ ነው, እኔ በአለርት ሆስፒታል የቆዳ ሕክምና ክፍል ውስጥ በሚካሄደው የህፃናት አቶፒክ ደርማታይተስ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች" በተሰኘ የድህረ ምረቃ ጥናት አባል ነኝ። ጥናቱ የሚካሄደውም የአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ፤ ፋርማሲ ት/ቤት የድህረ ምረቃ ፕሮግራም ተማሪ በሆነዉ ምንይችል ዋለ ነው። የእርስዎ መልሶች እና የልጆች መረጃዎች ሚስጥራዊ ሆነው ይቆያሉ እና ስምዎ እና የልጆች ስምዎ አይወሰዱም ። በዚህ ጥናት ውስጥ ተሳትፎ ማድረግ እና ለልጅዎ የተሳትፎ ፈቃድ መስጠት በፍቃደኝነት ላይ የተመሰረተ ነው። ከጥናቱ ጋር በተያያዘ መልሶችን የመመለስ እና በጥናቱ እንዲሳተፉ ግዴታ የለባቸውም :: ጥናቱ 20 ደቂቃዎችን ይወስዳል::

<u>የጥናቱ ርዕስ</u> : የህፃናት አቶፒክ ደርማታይተስ በሽታ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች ግምገማ በመላዉ አፍሪካ የሥጋ ደዌ, ቲቢ እና የመልሶ ማቋቋም ስልጠና ማዕከል(አለርት) , አዲስ አበባ, ኢትዮጵያ : ሆስፒታልን መሰረተ ያደረገ የክትትል ጥናት

የጥናቱ ዓላማ : የዚህ ጥናት ዋና አላማው በአለርት ሆስፒታል የቆዳ ሕክምና ክፍል ውስጥ የህፃናት አቶፒክ ደርማታይተስ በሽታ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች መለካትና ነው።

የጥናቱ መገኛ ቦታ : በመላዉ አፍሪካ የሥጋ ደዌ, ቲቢ እና የመልሶ ማቋቋም ስልጠና ማዕከል (አለርት) , አዲስ አበባ, ኢትዮጵያ

የጥናቱ ሂደት : በዚህ ጥናት ውስጥ ለመሆን ከተስማሙ የሚከተሉትን መረጃዎች እንዲሰጡ ይጠየቃሉ: እርስዎ በንቁ ክሊኒካዊ የህክምና ክትትል ላይ ከሆኑ ማህበራዊዮ-ስነ-ሕዝብ መረጃ፤ ክሊኒካዊ ባህሪዎች ፤ ሕክምና ልምዶችን እና ፤ የህይወት ጥራት ቃለ መጠይቅ ያደርጋሉ። ነገር ግን **የ**አቶፒክ ደርማታይተስ የማሳከክ ውጤት ከ 4 ሳምንታት በኋላ ይጠየቃል። ለአዲስ **የ**አቶፒክ ደርማታይተስ ህመምተኞች ማህበራዊዮ-ስነ-ሕዝብ መረጃ ፤ ክሊኒካዊ ባህሪዎች ፤ ሕክምና ልምዶችን በመጀመሪያ የህክምና ዕይታ ይጠየቃል ነገርግን የህይወት ጥራት እና **የ**አቶፒክ ደርማታይተስ የማሳከክ ውጤት ከ 4 ሳምንታት

ይጠየቃል። እንዲሁም, የ CDLQI መሣሪያን ለመሙላት የሚያስፈልገውን አጠቃላይ የጊዜ መጠን መጀመሪያ እና መጨረሻ ይመዘገባል።

የጥናቱ <u>አደጋዎች / አለመመቸቶች</u> : አንዳንድ የ QOL ጥያቄዎች የተወሰነ አለመመቸቶች እና ትንሽ ጊዜ የሚቆጠሩ ሊሆኑ ይችላሉ, ነገር ግን ግን የራስዎን ስሜት መጻፍ ይችላሉ እና የእርስዎ መረጃ በሰብሳቢዎች ይታያል.።

የጥናቱ ጥቅም : በዚህ ጥናት ውስጥ መሳተፍዎ ለእርስዎ በቀጥታ ጥቅም አይኖርዎም. ሆኖም ከጥናቱ የተገኘው መረጃ የጤና ባለሙያዎች ስለ አቶፒክ ደርማታይተስ የበለጠ እንዲረዱ እና እውቀት እንዲኖራቸው ይረዳቸዋል.።

የጥናቱ <u>ካሳ</u> : በዚህ ጥናት ውስጥ መሳተፍ የገንዘብ ማካካሻ የለም።

አማራጭ : በዚህ ምርምር ውስጥ በመሳተፍ የሚቀበሏቸውን መደበኛ የህክምና እንክብካቤ እና ሂደቶች አይለውጡም. ። የእርስዎ አማራጮች በዚህ ምርምር ውስጥ መሳተፍ ወይም በዚህ ምርምር ውስጥ <u>አለ</u>ለመሳተፉ ነው። ነገር ግን ይህ ስለ ሕክምናዎ እንክብካቤዎ ምንም አይቀይርም።

ተሳታፊው መብቶች : በማንኛውም ጊዜ ተሳታፊዎች እና አሳዳጊ ቤተሰቡ በዚህ ምርምር ውስጥ መሳተፍ እና አለመሳተፍ ሙሉ መብት ነው :: እንዲሁም ተሳታፊው መልስ ለመስጠት የማይፈልግባቸዉን ጥያቄ መዝለል ይችላል:: ተሳታፊዎች ለመረዳት ግልፅ ያልሆኑ ማንኛቸውም ጥያቄዎችን መጠየቅ ይችላሉ

ምስጢራዊነት : የምስጢራዊነት አደጋዎች ለመቀነስ የጥናት መዝገቦች ኮድ መከላከል የይለፍ ቃል መጥበቃ እና የጥናት መዝገቦች ውስን መዳረሻ ማዘጋጀት:: የዚህ ጥናት ውጤቶች የታተሙ ወይም የቀረቡ ግለሰባዊ ስሞች እና ሌሎች በግል የሚለይ መረጃ ጥቅም ላይ አይውሉም::

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ቃለ መጠይቅ የቀረበለት ሰው ፊርማ ቃለ መጠይቅ አቅራቢ ፊርማ

ቅፅ4 : የአማርኛ እትም የልጆች የስምምነት ቅፅ

ይህ ጥናት በአዲስ አበባ ዩንቨርስቲ በኪሊኒካል ፋርማሲ እና በፋርማኮሎዲ የድህረ ምሁር መርሃግብር ተማሪ በሆነዉ ምንይችል ዋለ የሚጠና ጥናት ነዉ :: ጥናቱ የሚካሄደው የህክምና ግኝቶች ቃለ-መጠይቅ በማድረግ ነዉ:: ጥናቱ የሚጠናዉ የህፃናት አቶፒክ ደርማታይተስ በሽታ ታማሚዎች የህይወት ጥራት ፤ ሕክምና ልምዶችን እና ተያያዥ ነገሮች ለማወቅ ነው :: ልጅትዎ ለአቶፒክ ደርማታይተስ በሽታ ስለተመረመረ እና ሰለታከመ ጥናት ውስጥ እንዲሳተፉ እንጠይቃለን :: ይህንን ጥናት ለመሳተፍ ከተስማሙ ስለ ማህበራዊዮ-ስነ-ሕዝብ መረጃ፤ ክሊኒካዊ ባህሪዎች ፤ ሕክምና ልምዶችን እና ፤ የህይወት ጥራት ጥያቄ ይጠየቃሉ:: ሁሉንም የተመለሱ መልሶችዎን በሌላ ሰዉ አይታዩም በጥናቱ ላይ የሚሰሩ ሐኪምዎ እና መረጃሰብሳቢዎች ብቻ ሊታይ ይችላል::

የዚህ ጥናት አካል እንደመሆናችሁ መጠን ማንኛውም ትልቅ ችግሮች በልጅዎ እና በአርስዎ ይከሰታሉ ብለን አናስብም, ግን ስለ ሕይወት ጥራት ስንጠይቅ ምኞት ሊይሰማዎት ይችላል :: ቤተሰቦችዎ መልስዎን ካዩ እርስዎም ሊበሳጩ ይችላሉ ግን ቤተሰቦችዎን የሚጽፉትን እንዳያዩ እኛ እናረጋግጣለን :: ጥናቱ ስለ ለአቶፒክ ደርማታይተስ በሽታ የህይወት ጥራት እንዲሻሻል ፤ ቅርብ ክትትል እንዲኖር፤ ስለበሽታዉ ትምህርት ለመሥጠት ይረዳዎታል ብለን እንጠብቃለን :: ይህ ጥናት ስለ ሕይወት ጥራት ተጽዕኖ የበለጠ እንዲማሩ ይረዳዎታል ::

ያንን ማወቅ አለብዎት:

- እርስዎ ካልፈለጉ በዚህ ጥናት ውስጥ መሆን የለብዎትም: መሳተፍ ካልፈለጉ ከዶክተሮችዎ ጋር እና በህክምና ሄደት ላይ በማንኛውም ችግር ውስጥ አይገቡም::
- በማንኛውም ጊዜ ጥናቱ ማቆም ይችላሉ ::
- ወላጅዎ / አሳዳጊ በዚህ ጥናት ውስጥ መሆንዎ ጥሩ እንደሆነ ተጠይቀዋል. ምንም እንኳን ደህና ቢሆኑም እንኳ ለመሳተፍዎ ወይም ላለመሳተፍ የእርስዎ ምርጫ ነው::
- አሁን ወይም በኋላ ላይ ከጥናት ጋር ለተያያዙጥያቄዎች ከተዘረዘሩ አድራሻዎች መጠየቅ ይችላሉ:
  - የአዲስ አበባ ዩንቨርስቲ የፋርማሲ ሥነ ምግባር ግምገማ ኮሚቴ አድራሻ + 251 11156 0212
  - አለርት ሆስፒታል አድራሻ+251 11-321-1337
  - አህሪ ሥነ ምግባር ግምገማ ኮሚቴ አድራሻ +251 11834 2742

<u>ይህንን ቅጽ የሚከተለዉን ከተረዱ ብቻ ይፈርሙ:</u>

- ለዚህ ጥናት ምን እንደሚያደርጉ ከተገነዘቡ

- ጥያቄዎት ከተመለሰ,
- ስለዚህ ጥናት ከወላጅዎ / ከሕግ ሞግዚት ጋር ከተነጋገሩ
- በዚህ ምርምር ውስጥ ለመሳተፍ ከተስማሙ

የአዲስ አበባ ዩንቨርስቲ የፋርማሲ ሥነ ምግባር ግምገማ ኮሚቴ አድራሻ:

ይህ የምርምር ጥናት ለእኔ ተብራርቷል እናም በዚህ ጥናት ውስጥ ለመሆን እስማማለሁ.

የተሳታፊ ስም	ቀን
ምስክርነት የተቀበለው ስም	ቀን

የታካሚ ቃለመጠይ መረጃ መሰቡሰቢያ ቅፅ

ክፍል 1፡ የታካሚ ማህበረሰባዊ ባህሪያቶች መረጃ

ክፍል 1: የታካሚ ማህበረሰባዊ ባህሪያቶች		
ተራ ቁጥር	**ባህሪያቶች**	**ምላሽ**
1	ጾታ	▢ ወንድ ▢ ሴት
2	ዕድሜ	▢< 5 ዓመት ▢ 5- 10 ዓመት ▢11- 16 ዓመት
3	መኖሪያ ቦታ	▢ገጠር ▢ከተማ
4	የልጁ/ታ አሳዳጊ	▢እናት ▢አባት ▢ሴትአያት ▢ወንድአያት
5	የልጁ/ታ የትምህርት ዝግጅት	▢መፃፍ ና ማንበብ የማይችል ▢መፃፍ ና ማንበብ የሚችል ▢የመጀመሪያ ደረጃ ትምህርት (1-8 ክፍል) ▢ሁለተኛ ደረጃ ትምህርት (9-12 ክፍል)
6	የልጁ/ታ አሳዳጊ የትምህርት ዝግጅት	▢መፃፍ ና ማንበብ የማይችል ▢መፃፍ ና ማንበብ የሚችል ▢የመጀመሪያ ደረጃ ትምህርት (1-8 ክፍል) ▢ሁለተኛ ደረጃ ትምህርት (9-12 ክፍል) ▢ከፍተኛ ደረጃ ትምህርት (ዲፕሎማ አና ከዚያ በላይ)
7	የልጁ/ታ አሳዳጊ የሥራ ሁኔታ	▢ገበሬ ▢ሰራተኛ ▢የቤት እመቤት ▢የቀን የጉልበት ሰራተኛ ▢ነጋዴ ▢ስራ አጥ ▢ተማሪ ▢ሌላ…….
8	የልጁ/ታ አሳዳጊ ወርኃዊ ገቢ	……..
ክፍል 2: አቶፒክ ደርማታይተስ የህክምና ባሕርይ		
1	የአቶፒክ ደርማታይተስ አይነት	▢ ያልተቀላቀለ ▢ የተቀላቀለ
2	አቶፒክ ደርማታይተስ ምን ያሕል ጊዜ ሆነው	▢ከአንድ አመት ያነሰ ▢ከአንድ አመት በላይ
3	አቶፒክ ደርማታይተስ መጀመሪያ የተገለጠው	▢ቀደምት-ጅምር ▢አጋማሽ ጅምር ▢ዘግይቶ ጅምር
4	አቶፒክ ደርማታይተስ ስያሜ	▢አጣዳፊ ▢ሥር የሰደደ
5	አቶፒክ ደርማታይተስ ባሕርይ	▢ቁስለት ዓይነት ያለው ▢ቁስለት ዓይነት የሌለው
6	አቶፒክ ደርማታይተስ ጥንካሬ ምድብ	▢ቀላል ▢መጠነኛ ▢ከባድ
7	በአቶፒክ ደርማታይተስ በሽታ	▢የእጅ እና እግር ዘርጊየ ጡንቻ ንጣፎች

	የተጠቃውአካል	▢የእጅ እና እግር ልምጣዊ ጡንቻ ንጣፎች ▢ፊት (ግንባር ፣ ጉንጭ ፣ አገጭ) ▢አንገት ▢የራስ ቆዳ ▢ደረት ▢ጀርባ ▢ደረት እና ጀርባ ▢ደረት እና ሆድ ▢ሆድ ▢የእጅ አንጓዎች, ቁርጭምጭሚቶች ▢ሁሉም አካል
8	በአቶፒክ ደርማታይተስ በቤተሰብ ውስጥ ስለመኖር	▢ አንድ ቤተሰቡ አለ ▢ ሁሉም ቤተሰቡ ▢ ምንም የለም
9	የቤተሰብ ታሪክ አለርጂ	▢የችፌ አለርጂ (አዎንታዊ) ▢የአፍንጫ አለርጂ (አዎንታዊ) ▢የአለርጂአስም (አዎንታዊ) ▢አሉታዊ የችፌ አለርጂ እና የመተንፈሻ አካላት አለርጂ
10	የታማሚ የህክምና ታሪክ	▢የኤችአይቪ/ኤድስ ▢የአስም በሽታ ▢የሚጥል በሽታ ▢የደም ግፊት በሽታ ▢የስኪር በሽታ ▢ሌሎች ይጠቅሳሉ ▢ምንም
11	የልጁ/ታ አሳዳጊ የህክምና ታሪክ	▢የኤችአይቪ/ኤድስ ▢የአስም በሽታ ▢የሚጥል በሽታ ▢የደም ግፊት በሽታ ▢የስኪር በሽታ ▢ሌሎች ይጠቅሳሉ ▢ምንም
ክፍል 3: የህክምና አካሔድ		
1	የህክምና ቆይታ	▢አንድ ወር ▢ሶስት ወር ▢ስድስት ወር
2	የህክምና ዘዴ	▢ቆዳ ላይ ቡቻ የሚቀባ መድሐኒት ▢ቆዳ ላይ ቡቻ የሚቀባ የተቀመመ የቅባት መድሐኒት ▢በዉስጥ የሰዉነት ስርአት የሚዘዋወር መድሐኒት ▢የቆዳ ማለስለሻ ቅባት ▢ቆዳ ላይ ቡቻ የሚቀባ የተቀመመ የቅባት መድሐኒት እና በዉስጥ የሰዉነት ስርአት የሚዘዋወር መድሐኒት ▢ቆዳ ላይ ቡቻ የሚቀባ የተቀመመ የቅባት መድሐኒት እና የቆዳ ማለስለሻ ቅባት ▢ያልተቀመመ የቅባት መድሓኒት እና በዉስጥ የሰዉነት ስርአት

		የሚዘዋወር መድሐኒት ▢ያልተቀመመ የቅባት መድሓኒት እና የቆዳ ማለስለሻ ቅባት
3	ያልተቀመመ የቅባት መድሓኒት	▢አዎ ▢አይደለም
4	ያልተቀመመ የቅባት መድሓኒት አይነት	▢ቆዳ ላይ የሚቀባ ኮርቲኮስቴሮይዱ ቅባት ▢ቆዳ ላይ የሚቀባ ካልሲንዩሪን ኢኒቢተር ቅባት ▢ቆዳ ላይ የሚቀባ ፎስፎዳይስተሬዝ ፬ ኢኒቢተር ቅባት ▢ሌላ…… ▢ምንም
5	ያልተቀመመ የቅባት መድሓኒትዝርዝር	▢ቤታሚታሶን ዳይፕሮፖዮኔት 0.05 % ቅባት ▢ቤታሚታሶን ዳይፕሮፖዮኔት 0.05 % ክሬም ▢ቤታሚታሶን ባለሬት 0.1 % ቅባት ▢ቤታሚታሶን ባለሬት 0.1% ክሬም ▢ክሎቤታሶል ፕሮፓዬኔት 0.05% ቅባት ▢ክሎቤታሶል ፕሮፓዬኔት 0.05 % ክሬም ▢ሐይድሮኮርትሶን አሲቴት 1% ክሬም ▢ሐይድሮኮርትሶን አሲቴት 1 % ቅባት ▢ፍሉሲኖድ አሲቶናይድ 0.025% ክሬም ▢ሞሜንታሶን ፍዩሬት 0.1 % ክሬም ▢ሞሜንታሶን ፍዩሬት 0.1% ቅባት ▢ሌላ ▢የለም
6	የተቀመመ የቅባት መድሓኒት	▢አዎ ▢አይደለም
7	የተቀመመ የቅባት መድሓኒት	▢ኮርቲኮስቴሮይዱ ቅባት+ከ ቫዝሊን ▢ኮርቲኮስቴሮይዱ ቅባት+ከፈሳሽ ቅባት ▢ኮርቲኮስቴሮይዱ ቅባት+ከሳሊሳይሊክ አሲድ + ከቫዝሊን ▢ኮርቲኮስቴሮይዱ ቅባት+ከሳሊሳይሊክ አሲድ+ከፈሳሽ ቅባት ▢ኮርቲኮስቴሮይዱ ቅባት + ከዩሪያ+ ከቫዝሊን ▢ኮርቲኮስቴሮይዱ ቅባት+ከሳሊሳይሊክ+ከዩሪያ+ከቫዝሊን ▢ሌላ…… ▢የለም
8	የተቀመመ የቅባት መድሓኒትዝርዝር	
9	በዉስጥ የሰዉነት ስርአት የሚዘዋወር መድሐኒት	▢አዎ ▢አይደለም
10	በዉስጥ የሰዉነት ስርአት የሚዘዋወር መድሐኒት	▢በአፍ የሚወሰድ የፀረ አለርጂ መድሐኒት ▢በመርፌ የሚሰጥ ኮርቲኮስቴሮይዱ መድሐኒት ▢በአፍ የሚወሰድ ኮርቲኮስቴሮይዱ መድሐኒት ▢ሌላ…… ▢የለም
11	በዉስጥ የሰዉነት ስርአት የሚዘዋወር መድሐኒት ዝርዝር	▢ሲትሪዚን 10 mg እንክብል ▢ሲትሪዚን 5 mg የሚጠጣ ▢ሎራቲዲን 5 mg የሚጠጣ ▢ሎራቲዲን 10mg እንክብል ▢ዲስሎራቲዲን 0.5 mg የሚጠጣ ▢ዲስሎራቲዲን 5 mg እንክብል ▢ሌላ…… ▢የለም

12	የቆዳ ማለስለሻ ህክምና አይነት	▢አዎ ▢አይደለም
13	የቆዳ ማለስለሻ ህክምና አይነት	▢ቫዝሊን + ከፈሳሽ ቅባት ▢ቫዝሊን ብቻ ▢ፈሳሽ ቅባት ብቻ ▢ቫዝሊን + ከወይራ ዘይት ▢ወይራ ዘይት ብቻ ▢ሌላ ▢የለም
ክፍል 4: ከህክምና በኋላ የሕመም አቶፒክ ደርማታይተስ ምልክቶች እና የማሳከክ ባህሪ		
1	ህክምና የተጀመረበት ቀን : _ _ / _ _ / _ _ _ _	
2	የማሳከክ ስርጭት	▢የአንድ ቦታ ማሳከክ ▢አጠቃላይ ማሳከክ
3	የማሳከክ ሀያለኝነት	▢አጣዳፊ ▢ስር የሰደደ
4	ከህክምናው በኋላ የማሳከክ ባህሪ	▢ሙሉ በሙሉ ተፈትቷል ▢ በጣም የተሻለ ፣ አሁንም አለ። ▢ ትንሽ የተሻለ ፣ አሁንም አለ። ▢ ምንም ለውጥ የለም።
5	የማሳከክ ዉጤት	▢ጠፋ ▢ ያልተሻሻለ

AMHARIC VERSION OF CDLQI

CDLQI ውጤት

የሆስፒታል ቁጥር፡ _____ CDLQI ውጤት: _____

ስም: _____ የምርመራ ውጤት: _____

የዚህ መጠይቅ አላማ የቆዳዎ ሁኔታ በአጠቃላይ ህይወት ላይ በባለፈው ሳምንት ያሳደረውን ተፅዕኖ መለካት ነው። እባክዎን ለእያንዳንዱ ጥያቄ አንድ የ ምልክት ያድርጉ።			
1. በባለፈው ሳምንት ቆዳዎ ምን ያህል የማሳከክ ፣የመቧጠጥ ፍላጎት፣ ቁስለት ወይም ህመም ስሜት ነበረዉ?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
2. በባለፈው ሳምንት፣ በቆዳዎ ህመም ምክንያት ምን ያህል የሀፍረት ወይም .ሰዎች ስለእርሰዎ ስለሚያስቡት መጨነቅ ፣ የመናደድ ወይም የሀዘን ስሜት ተሰምቶዎት ነበር?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
3. በባለፈው ሳምንት፣ የቆዳዎ በሽታ በዓደኝነትዎ ላይ ምን ያህል ተጽዕኖ አሳድሯል?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
4. በባለፈው ሳምንት በቆዳዎ በሽታ ምክንያት ምን ያህል የተለየወይም ልዩ አልባሳትን / ጫማዎችን አድርገዋል?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
5. በባለፈው ሳምንት፣ በቆዳዎ ችግር ከቤትዎ ውጭ ከመውጣት፥ ከመጫወት ወይም ከትርፍ ግዜ ማሳለፊያዎች ጋ ምን ያህል ተፅእኖ ፈጥሮባቹኋል?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
6. በባለፈው ሳምንት፣ በቆዳዎ ችግር ምክንያት ከዋና ወይም ከሌሎች ስፖርቶች ምን ያህል ተቆጥበዋል/እንዲርቁ አድርጓዎታል?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
7. በባለፈው ሳምንት፣የትምህርት ክፍለ ግዜ ነበር? ወይም	የትምህርት ክፍለ-ጊዜ ከነበረ፡ በባለፈው ሳምንት የቆዳዎ ችግር በትምህርት ቤት ሥራዎ ላይ ምን ያህል ተጽዕኖ	ከትምህርት ቤት ከልክሏል	☐
		እጅግ በጣም	☐

	አሳድሮብዎታል?	በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
በባለፈው ሳምንት፣ የበዓል ጊዜ ነበር?	የበዓል ጊዜ ከነበረ፡ በባለፈው ሳምንት የቆዳዎ ችግር በዓሉን በደስታ እንዳያሳልፉ ምን ያህል እክል ፈጥሮበዎታል?	እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
8. በባለፈው ሳምንት የቆዳዎ ችግር ምክንያት በአፀያፊ ስሞች የመጠራት ፣ በበሽታዎ የማሾፍ፣ ጉልበተኝነት፣ ጥያቄዎች የመጠየቅ ወይም ሰዎች ሲርቁዎት ምን ያህል አጋጥሞህ/ሽ ነበር?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
9. በባለፈው ሳምንት የቆዳዎ ችግር በእንቅልፍዎ ምን ያህል ተፅእኖ ፈጥሮቦታል?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐
10. በባለፈው ሳምንት ለቆዳዎ የሚያደርጉት ህክምና ምን ያህል ችግር ፈጥሮበዎታል?		እጅግ በጣም	☐
		በጣም	☐
		ትንሽ ብቻ	☐
		በጭራሽ	☐

እድሜ: _____ ቀን: ____/____/___

እባክዎን ለእያንዳንዱ ጥያቄ መልስ እንደተሰጠ ያረጋግጡ ። እናመሰግናለን።

M.S. Lewis-Jones, A.Y. Finlay, May 1993, ይህ ያለ ደራሲያን ፈቃድ መገልበጥ የለበትም

8.6. ANNEX VIII: CDLQI License grant

Dear Professor Alemseged Beyene

This email confirms that a free licence (ID CUQoL1700) has been granted to you to use the Children's Dermatology Life Quality Index - CDLQI (text only version), for the purposes of your study: Assessment of the quality of life , treatment practices and associated factors among atopic dermatitis patients at All Africa Leprosy Tuberculosis and Rehabilitation Training Center(ALERT), Addis Ababa , Ethiopia : A prospective follow up study , in accordance with the terms and conditions of the licence.

You can download the questionnaire from our website.

Please note: You must include the appropriate copyright statement at the end of every copy of the questionnaire.

If you require further information, please contact: dermqol@cardiff.ac.uk.

Please quote your licence ID on all communications.

Regards,

Hillary Ba