ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE

SCHOOL OF NURSING AND MIDWIFERY

DEPARTMENT OF NURSING

ASSESSMENT OF HEALTH-RELATED QUALITY OF LIFE AND ASSOCIATED FACTORS AMONG ASTHMATIC CHILDREN AT SELECTED PUBLIC HOSPITALS, ADDIS ABABA, ETHIOPIA, 2024.

PRINCIPAL INVESTIGATOR: MELAT KEYREDIN

A RESEARCH THESIS SUBMITTED TO THE POST GRADUATE PROGRAM, ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN PEDIATRIC AND CHILD HEALTH NURSING.

SEPTEMBER, 2024.

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Assessment of health-related quality of life and associated factors among asthmatic children at the selected public hospital, Addis Ababa, Ethiopia, 2024.

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APPROVAL BY THE BOARD OF EXAMINATION

This thesis by MELAT K (BSc Nurse) is accepted in its present form by the board of examiners as satisfying the thesis requirement for the degree of master in pediatric and child health department.

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STATEMENT OF DECLARATION

By my signature below, I declare and affirm that this thesis is my work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis, and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis. I affirm that the findings were not affected by my personal beliefs or experiences. This thesis is submitted in partial fulfillment of the requirement for a graduate degree from Addis Ababa University at the College of Health Sciences, School of Allied Health Sciences Department of Nursing and Midwifery. The thesis is deposited in the Addis Ababa University Digital Library and is made available to the local, national, and international scientific community. I declare that this thesis has not been submitted to any other institution for the award of any academic degree, diploma, or certificate. Brief quotations from this thesis may be used without special permission provided that accurate and complete acknowledgment of the source is made. Requests for permission for extended quotations from or reproduction of this thesis in whole or in part may be granted by the head of the department or all advisers of the thesis when in his or her judgment. The proposed use of the material is of interest to scholars and publications. In all other instances, however, permission must be obtained from the author of the thesis.

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ACRONYMS AND ABBREVIATIONS

AOR	Adjusted Odds Ratio
BTS	British Thoracic Society
CI	Confidence Interval
COR	Crude Odds Ratio
PAQOL	Pediatrics Asthma Quality of life
SES	Socio-economic status
SPMMC	Saint Paul's Millennium Medical College
TASH	Tikur Anbessa Specialized Hospital
ZMH	Zewditu Memorial Hospital
WHO	World Health Organization

ABSTRACT

Background: Bronchiai asthma is a global health problem in particular a respiratory condition characterized by bronchi spasms that negatively affect the quality of life (QOL) of children. However, there is a paucity of data regarding the health-related quality of life of asthma in children in Ethiopia, especially in the study area.

Objective: The objective of this study was to assess the health-related quality of asthmatic children aged 7- 17 in selected hospitals of Addis Ababa, Ethiopia, 2024.

Method: An institutional-based cross-sectional study involving 136 asthmatic children aged 7-17 years was conducted in the selected hospital in Addis Ababa, from February to March 2024. Respondents were chosen using systematic random numbers. Structured, interviewer-administered, and pretested questionnaires, were used to collect data. The data were coded and entered into Epi-Data 3.1 before being exported to SPSS version 25 for analysis. Logistic regression was employed to identify factors influencing health-related quality of life Statistical significance was set at $p < 0.05$ with a 95% confidence interval.

Results: The study found that 46% [95% CI: 37.6-54.4%] of study participants had a poor quality of life, having no formal education of caregivers (Adjusted Odds Ratio (AOR: 1.39 (1.8-10.69)], having family history of asthma (AOR: 2.51 [1.46-4.299]), having long duration of asthma (AOR: 3.47(1.89-6.39), having uncontrolled asthma, (AOR: 3.47 [1.89-6.39]), having moderate persistent asthma (AOR: 2.4(1.4-4.2) and having comorbidity all increase the likelihood poor quality of life.

Conclusions: The study highlights almost half of asthmatic children had a poor quality of life in Addis Ababa. Factors such as having no formal education of caregivers, having a family history of asthma ,long duration and severity of asthma, having uncontrol asthma, and having comorbidity were significantly associated with poor quality of life. Therefore,implementing targeted education programs, encouraging family history assessment, strengthening comorbidity screening and management of children and their families in Addis Ababa. were recommended.

Keywords Quality of life, Asthma, Children, Addis Ababa, Ethiopia.

1. INTRODUCTION

1.1. Background of the study

Asthma is a chronic inflammatory disorder of the airways characterized by variable airflow limitation and airway hyper-responsiveness. The type of inflammatory response in asthma is compatible with a major contribution of professional antigen-presenting cells (1). Asthma is a common respiratory disease in children (2). This inflammation is characterized by lower airway hyperresponsiveness and infiltration of inflammatory and structural cells, associated with a variable and reversible limitation of airflow (3).

The development and maintenance of symptoms result from a complex interaction between specific and genetic factors, in addition to environmental exposure to allergens (3). It could be triggered by dull surroundings, upper respiratory tract infections, household pests, colds, laughter, secondhand smoke, and robust smell (4).

Asthma is a common respiratory disease in children (2). Childhood asthma is a major common chronic respiratory illness characterized by wheezing, coughing, shortness of breath, and airflow limitation, which affects daily life (5). Asthma prognosis includes major (parent asthma, eczema, inhaler allergy) and minor risk factors (allergic rhinitis, cold wheeze, more than 4% eosinophil, food allergen allergy). Allergies in young children with frequent coughs or wheezing are the strongest risk factor for childhood asthma. The prevalence of asthma is well-connected with the incidence of allergic rhinoconjunctivitis and atopic eczema (6).

The development and maintenance of symptoms result from a complex interaction between specific and genetic factors, in addition to environmental exposure to allergens. It could be triggered by dull surroundings, upper respiratory tract infection, household pests, colds, laughter, tobacco smoke, and robust smell (7).

Asthma management for reducing inflammation of the airway is through minimizing pre-inflammatory environmental contacts using daily anti-inflammatory drugs and controlling the condition of the onset of the condition that makes asthma worse (7). Less inflammation usually leads to better control of asthma, with fewer attacks, and a reduction of the need for fast-paced asthma medications, but the attacks keep happening yet (8). Early intervention with systemic corticosteroids greatly reduces the severity of such attacks (7). The progress in asthma management, especially in pharmacotherapy, enables everyone, except the child with severe asthma, to live naturally (9).

Quality of life (QOL) is a multifaceted concept that encompasses various aspects of a person's well-being, including their physical and mental health, personal relationships, education, work environment, social status, financial security, sense of freedom and safety, and physical surroundings. It considers both positive and negative aspects of life and aims to provide a comprehensive overview of a person's overall well-being (10).

1.2. Statement of the problem

Asthma is a global burden nowadays (11). It is a preventable and treatable disease. The worldwide incidence, morbidity, and mortality linked to pediatric asthma have veritably risen in the past four decades, due to low awareness and different factors (12).

It has a more negative impact on patients, healthcare, and educational systems, over the previous year, an amazingly 2.7 million under the age of 18 have suffered from asthma, leading to amplified instances of absenteeism from their school, visits to medical practitioners or facilities, and the need for hospitalization in some cases. The measure of asthmatic conditions resulted in a reduction of capability in functioning, with African youths in particular encountering Chronic and prolonged handicaps. A meager 10 percent were afflicted with life-threatening complications, a factor that played a pivotal role in consuming 35 percent of overall hospitalizations and 77 percent of total hospitalization days. To appraise the efficacy of precautionary and remedial procedures, it is imperative to gauge the magnitude of the disease's impact on its sufferers (13,14). Estimated that around 25-66% of cases of asthma in early childhood persist to adulthood (15).

Globally, asthma is an enormous healthcare concern and the 14th most important disorder in terms of the extent and duration of disability. The World Health Organization (WHO) approximates that there are 339 million individuals globally who are afflicted with asthma. Asthma constitutes a prevalent affliction affecting pediatric populations in Africa, with incidence rates oscillating between 9% in Ethiopia and 20% in South Africa (12).

Asthma may significantly impact the lifestyle and functioning of afflicted children, exerting a negative effect on group activities, social functioning, cognitive ability, and academic accomplishments (14). Inadequate management of asthma, evident through frequent exacerbations and hospitalizations, is interrelated with reduced quality of life ratings among pediatric patients with asthma. Correspondingly, severe airflow limitation and comorbid illnesses like allergic rhinitis have been linked to reduced quality of life in children grappling with asthma (16).

Asthma is not a healthcare priority in developing nations, where numerous patients face a dearth of access to indispensable medications and medical care (17). Due to this, Asthma has been approximated to result in 14.7 mortality per 100,000 individuals in Ethiopia, placing it at the 17th spot among the leading 20 factors contributing to mortality (18). Therefore there was a dearth of studies in Ethiopia that assessed the health-related quality of life of asthmatic children, especially in the study area.

1.3. Significance of the study

This study is significant for participants as it offers insights into their quality of life and the factors influencing it. For health institutions, especially public hospitals in Addis Ababa City, the findings can be used as input to develop effective strategies for improving patient care and outcomes. At a broader level, the study provides valuable data on asthmatic children in the city, and it also serves as baseline information for future research.

2. LITERATURE REVIEW

2.1. Introduction to quality of life

Quality of life encompasses how an individual measures the 'goodness' of multiple aspects of their life. The dimensions of quality of life (QOL), are components that are emotional, social, physical, and school functioning10. Asthma can affect the quality of life in many ways. This study will include the child's age, sex, level of education, occupation, family income, residence, severe form, duration, no admission, no medication, and knowledge of illness.

Several studies have investigated the quality of life among asthmatic children using various assessment tools such as the Pediatric Asthma Quality of Life Questionnaire (PAQLQ). These studies have consistently shown that asthmatic children experience a lower quality of life compared to their healthy counterparts. They often report limitations in physical activities, emotional well-being, and social functioning due to their condition.

In general, I have used different databases to search for literature reviews, such as PubMed, Google Scholar, Semantic Scholar, and Sci-hub. As well, I have used only the institutional-based cross-sectional study design to collect data for a source of literature reviews, and we have used the Pediatric Asthma Quality of Life Questionnaire (PAQLQ).

2.2. Quality of life dimensions

In China, a cross-sectional study was conducted, where a total of 360 asthmatic children were included and assessed. The PAQLQ score, indicative of the quality of life of pediatric asthma patients, displayed a median value of 4.97. female patients presented significantly lower values for activity limitation (4.3 6 0.94 vs. 4.55 6 1.02, p = 0.016) and emotional function (5.38 6 0.63 vs. 5.54 6 0.57, p = 0.016) and (b) for patients who have low income, the quality of life scores of activity limitation was significantly worse than others (4.08 6 0.89 vs. 4.42 6 1.02 vs. 4.62 6 0.96, p = 0.001). Hence, all children were divided into two subgroups, the low quality of life group (<5.0). With the high quality of life group (≥5.0) (19).

Studies conducted in the US and Spain compared QOL of asthmatic children with those without asthma. Both studies found significant differences in the physical child QOL and overall child QOL, with lower scores reported among asthmatic children.

The US cross-sectional study involved 431 patients, with an average age of 10.55 years, and a male predominance of 65.2%. Poor quality of life was prevalent among 57.3% of patients, and it was associated with inappropriate drug use and uncontrolled asthma. In the Spanish study, 73.3%

of caregivers reported poor quality of life, which was associated with the female gender and poor quality of life of the patient (20).

A Comparative cross-sectional study in Iran showed that a mean total score of PAQLQ of 8.8 ± 5.41% had a lower quality of life ($P < 0.001$). Additionally, upon comparison of various aspects of the quality of life, it was observed that asthmatic patients manifested a reduced level of physical and emotional well-being as well as academic performance as opposed to the control group (14).

Another study carried out at the Ain Shams University Teaching Hospital in Cairo, Egypt, and in Enugu, South East Nigeria, has demonstrated that children suffering from asthma display a lower quality of life compared to their healthy children (20,21).

A cross-sectional study revealed there is a significant difference was detected in the severity of symptoms, impairment of activity, and emotional function. Only a meager proportion of participants (4%) manifesting controlled asthma reported severe symptoms whereas a notably larger proportion suffering from uncontrolled asthma (15%) reported the same. A wider majority (66%) in the uncontrolled group reported severe activity constraints in comparison to 40% in the controlled group, revealing the gravity of the predicament. In the uncontrolled asthma group, 84% suffered from moderate emotional impairment in contrast to the controlled asthma group, where the corresponding figures were 61% (22).

2.3. Factors associated with quality of life

2.3.1. Socio-demographic factors

2.3.1.1. Age, Sex, Residence Area

A study conducted in China showed that the clinical characteristics were compared between those two groups. More females were observed in the low QOL group ($p = 0.013$) and patients with higher income ($p = 0.003$) were observed in the higher QOL group (23).

In the Spanish study, 73.3% of caregivers reported poor quality of life, which was associated with the female gender and poor quality of life of the patient (19).

The research conducted in Uganda has indicated that young children, aged under 5, who suffer from respiratory illness and pneumonia, but are wrongly diagnosed, deprive themselves of crucial prompt and consequential medical attention, which can greatly affect their general well-being and life quality (24).

Male gender was found to be correlated with a higher disease burden and a poorer QOL (25).

2.3.2. Disease and parent-related factors

2.3.2.1. Comorbidities, severity, family history, income, occupation, and education

A cross-sectional study in Brazil showed that (81 %) reported that a family member had the disease; of these, 53.5% indicated the patient's father, mother, and/or siblings. Atopic dermatitis was reported from 46 patients (45.5%), allergic rhinitis from 95 patients (94.1%), and food allergies of some kind from 17 patients (16.8%) out of the 99 patients who reported having allergic comorbidities (3).

The research conducted in Uganda has indicated that young children, aged below 5, who suffer from respiratory ailments and pneumonia but are wrongly diagnosed, deprive themselves of crucial prompt and consequential medical attention, which can greatly affect their general well-being and life quality (24).

According to a study conducted in Scotland, the factors linked with an inferior Quality of Life included co-existing medical conditions such as obesity, rhinitis, and eczema (26).

The study was conducted in Egypt and Nigeria Children with low and very low socioeconomic status with significantly lower total, activity, and emotions domains of PAQLQ scores compared to those with the higher socioeconomic status of life (27,28).

2.3.3. Treatment and asthma control-related factors

2.3.3.1. Adherence to treatment and availability of treatment

A study in Brazil showed that around (91%) of the patients were using some form of asthma medicine. A total of 39 patients (38.6%) reported using inhaled corticosteroids alone, 14 (13.8%) short-acting beta-2 agonists alone, and 38 (37.6%) using both in combination. When it came to treatment adherence, 85 (93%) parents or guardians reported that their children took their medications as directed by their physicians; 6 (6.6%) said that their children forgot to take their medications regularly; and 5 (5.4%) said that their children were not given free medication and could not afford to buy it. 43 patients (42.6%) had asthma that was under control; 32 (31.7%) had asthma that was partially under control; and 26 (25.7%) had uncontrolled asthma. In terms of severity, the majority of the sample under investigation had moderate (51.5%) to severe (26.7%) asthma (3).

A study conducted in Ethiopia using data from three teaching hospitals (TASH, SPMMC, and Zewditu) showed that 79.4% of patients had controlled asthma and that the majority of patients took their meds as prescribed. However, the remaining individuals do not take their medications

as prescribed. The reasons for non-adherence included inadequate prescriptions, forgetting to give or take controls, and not knowing how much to give or take. For 55% of the children, the inhaler approach was incorrect. Children with uncontrolled asthma and poor quality of life were three times more likely to not take their medications as prescribed.

Another study in Ethiopia found that most children (57%), with mild and moderate asthma, were on GINA step 2 management. Only 20% (19%) had spirometer-supported asthma diagnoses due to age limitations and test unavailability (29).

2.3.4. Environmental-related factors

2.3.4.1. Pet animal at home, Seasonal, Second-hand smoking, and other allergens

In addition, the other study which is done in India and Pakistan showed that important triggering factors for asthma were found to be exposure to dust, smoking, alcohol, and cooking fuel like pets at home, birth order, and absence of windows in living rooms (30,31). In another study in Turkey, student smoking, school location, history of asthma in the family, mold or moisture at home, and mother's smoking risk factors for asthma (32).

2.4. Summary

Factors affecting the quality of life in pediatric asthma patients include gender, age group, non-adherence to medication, and children with uncontrolled asthma which are more likely to have poor quality of life. Environmental factors such as exposure to pet animals at home, seasonal allergens, second-hand smoking, and other allergens also play a significant role in exacerbating asthma symptoms. Studies from India, Pakistan, and Turkey have identified additional triggering factors for asthma, including exposure to dust, smoking, alcohol, cooking fuel, family history of asthma, mold or moisture at home, and maternal smoking.

2.4. Conceptual framework

This conceptual framework schematically presents the likely relationship between the independent and outcome variables of the study and it was adapted from the review of different literature.

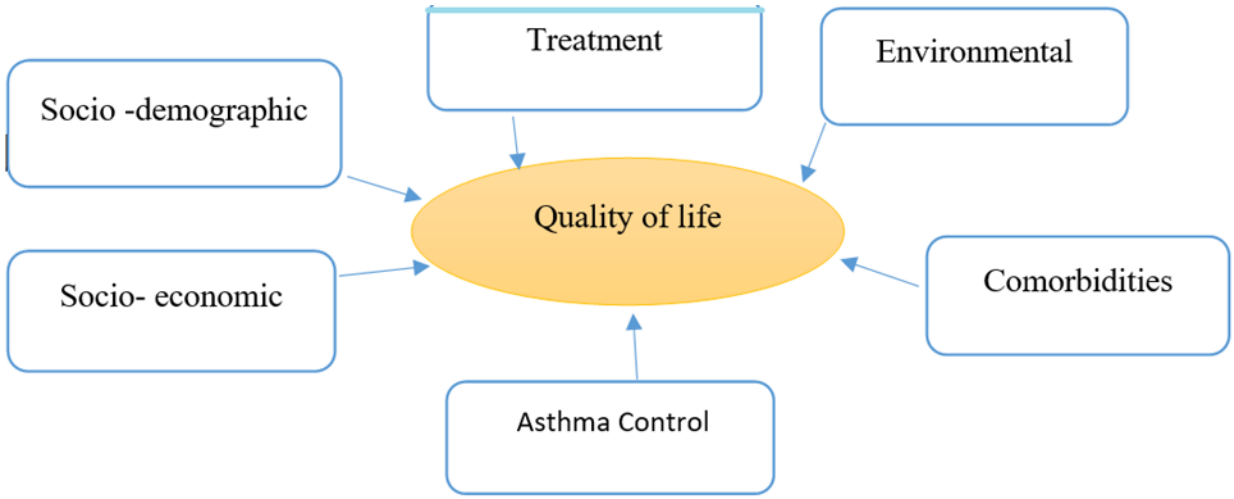

Figure 1:Conceptual framework for assessment of the health-related quality of life and associated factors (3,25,26,28,29).

3. OBJECTIVES

3.1. General Objectives

- ✓ To assess the quality of life of asthmatic children aged 7- 17 years and associated factors in selected Addis Ababa City Public Hospitals, Ethiopia,2024.

3.2. Specific Objectives were:

- ➢ To assess health-related quality of asthmatic children aged 7- 17 in selected hospitals of Addis Ababa, Ethiopia,2024.
- ➢ To identify factors associated with health-related quality of life of asthmatic children aged 7- 17 years in selected hospitals in Addis Ababa city, Ethiopia,2024.

4. METHONDS AND MATRIALS

4.1. Study Area and Period

The study was conducted in Addis Ababa, the capital city of Ethiopia. Addis Ababa lies at an altitude of 2,300 meters above sea level and was established in 1889. All Ethiopian ethnic groups were represented in Addis Ababa. These were tertiary hospitals in the city as well as the country where many patients were visited, admitted, and treated. They provided general emergency services besides being known as tertiary-level hospitals in the city as well as in the country.

On average, 50 critically ill patients were seen in the ED per day and many of them required emergency care or resuscitation; they offered diagnostic testing and treatment for approximately 370,000–400,000 patients per year. Tikur Anbesa Hospital had more than 130 specialists, 767 nurses, and 50 doctors. The emergency department of TASTH had 96 healthcare professionals. St. Paulo's Hospital had 350 beds in total. An average of 380,000 clients were served annually. St. Paulo's Hospital had more than 120 specialists, 746 nurses, and 47 doctors. Out of these staff, there were 89 healthcare professionals in the emergency department staff and Zewditu Memorial Hospital is a public hospital located in Addis Ababa, Ethiopia. It was originally built, owned, and operated by the Seventh-day Adventist Church, but was nationalized during the Derg regime in about 1976. Today, the hospital is operated by the Ministry of Health of Ethiopia. The study was conducted from February to March 2024.

4.2. Study Design

An institutional-based cross-sectional study was employed

4.3. Population

4.3.1. Source Population

All asthmatic children aged 7–17 years old who attend follow-up in outpatient and inpatient departments attend selected hospitals in Addis Ababa City

4.3.2. Study Population

All asthmatic children aged 7–17 years old who fulfilled inclusion criteria.

4.4. Inclusion criteria and Exclusion criteria

4.4.1. Inclusion Criteria

The study included all children aged between 7 and 17 who had been diagnosed with asthma and were on constant follow-up in outpatient and inpatient departments for 3 months.

4.4.2. Exclusion Criteria

Patients who had no caregiver and were unable to respond due to physical and proven mental problems were excluded from the study.

4.5. Sample size and sampling technique/procedure

4.5.1. Sample size determination

The required sample size of eligible participants for the study was determined using a single population proportion formula. The formula used was:

$$\mathbf{n = (Z\alpha/2)^2 * p * (1-p) / d^2}$$

Where:

n = the desired sample size

p = 50% (taken because the researcher did not have an estimated proportion for other research on children of this age range in similar settings)

d = 5% (the maximum margin of error the researcher was willing to tolerate)

$Z\alpha/2 = 1.96$ (the standard normal deviation value corresponding to a 95% confidence interval)

$n = (1.96)^2 * 0.5 * 0.5 / 0.05^2$

$= 3.8416 * 0.25 / 0.0025$

$= 384$

However, since the total number of children in the selected hospitals per month on average was 170, which is less than 10,000, we used the correction formula:

$$\mathbf{Ni = No / (1 + No / N)}$$

Where: Ni = corrected sample size

No = initial sample size (384)

N = total population (170)

Ni = 384 / (1 + 384 / 170)

≈ 136

Therefore, the final sample size determined for the study was 136 participants.

4.5.2. Sampling procedure

The sample size of 136 participants was proportionally allocated to each selected public hospital based on the number of asthmatic children treated in those hospitals. The systematic random sampling technique was employed to select actual participants using their registration numbers or roster.

The final sample size (nf) for each hospital is calculated as follows:

- Tikur Anbessa Specialized Hospital: nf = 60 * 136 / 210 = 39

- St. Paulos Millennium Hospital: nf = 110 * 136 / 210 = 71

-Zewditu Memorial Hospital: nf = 40 * 136 / 210 = 26

Therefore, 39 participants were selected from Tikur Anbessa Specialized Hospital, 71 from St. Paulos Millennium Hospital, and 26 from Zewditu Memorial Hospital using the systematic random sampling technique based on their registration numbers or roster.

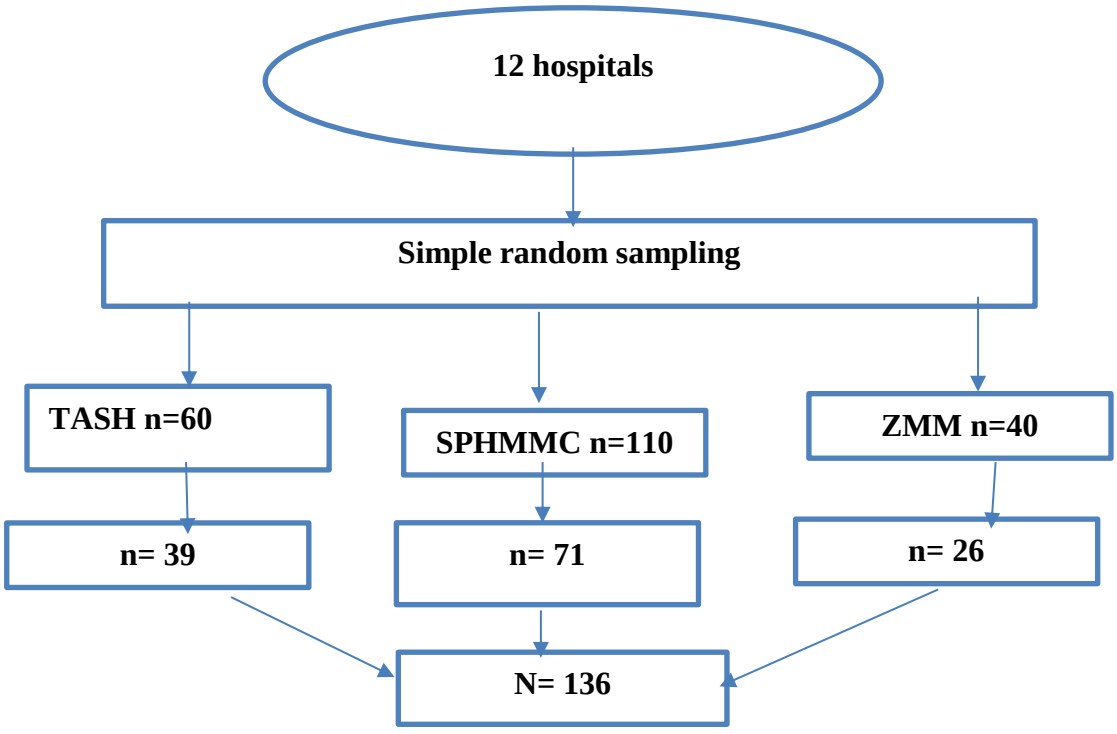

Figure 2: Schematic presentation of sampling procedures for the assessment of health-related quality of life and associated factors.

4.6. Study Variables

4.6.1. Dependent Variables

Quality of life among asthmatic children

4.6.2. Independent variable

Socio-demographic: Age, sex, education, address), Duration of asthma in years, Asthma severity,

Disease and parent-related: Comorbidities, severity, family history, occupation, and education)

Treatment and asthma control: drug usage, asthma control.

Environmental factors(Cold weather, dust/fume, second-hand smoking, and other allergens).

4.7. Operational definition

- **Asthma control** was evaluated using a 5-point Likert-type rating scale, with scores ranging from 5 (indicating poor asthma control) to 25 (reflecting complete asthma control). Higher scores were indicative of better asthma control. A score of <19 points indicated uncontrolled asthma, while a score of ≥19 indicated controlled asthma (23,33)
- **Children's quality of life** was measured using the PAQLQ, a validated self-reported questionnaire comprising 23 questions across three domains: 10 related to symptoms, 5 to activity limitations, and 8 to emotional function. Responses were rated on a 7-point Likert scale, ranging from 1 (indicating severe impairment) to 7 (no impairment at all). The total score was calculated as the arithmetic mean of the responses to the 23 questions, with a higher score indicating a better quality of life. The PAQLQ score ranged from minimal or no impairment (≥6.0) to severe impairment (<3.0). Drug usage-related items were assessed using a five-point Likert scale. Those scoring above the mean were considered to have appropriate usage (23,34).

4.8. Tools for data collection

The data for this study were collected using a structured, pretested interviewer-administered questionnaire consisting of five sections. The first section gathered socio-demographic characteristics of asthmatic children, including age, sex, level of education, occupation, income, and residence. The second section included the Asthmatic Children Quality of Life Questionnaire (PAQLQ), a 23-item tool designed to assess the impact of asthma on children's quality of life

across domains such as symptoms, activity limitations, emotional function, and environmental stimuli. The third section focused on factors associated with the quality of life of asthmatic children.

The fourth section utilized the Asthma Control Tool (ACT), a validated assessment tool internationally recognized for evaluating asthma control. The ACT used a 5-point Likert-type rating scale to assess daytime and nocturnal asthma symptoms, with scores ranging from 5 (poor control) to 25 (complete control), where higher scores indicated better asthma control. The internal consistency reliability of the ACT survey was measured at 0.8 using Cronbach's alpha. The final section assessed drug usage-related experience among asthmatic children (23,33).

4.9. Data collection procedure

Data collection was conducted through face-to-face interviews. A team of three nurses was assigned as data collectors and supervised by two MSc nurses. The principal investigator oversaw the overall daily activities. To ensure consistency and minimize bias, the principal investigator provided a two-day training session to the data collectors and supervisors. The training covered interview techniques, ethical considerations, and the rights of participants

4.10. Data Quality Control

Appropriately designed and validated data collection tools were used, and data collectors and supervisors got one day of intensive training on data collection methods and procedures. A pretest was conducted two weeks before the main data collection at Yekatit 12 Hospital before the data collection period, and any ambiguity, confusion, and difficult words were revised, the appropriateness of the tool was based on the pretest experience. Supervisors and investigators closely oversee the data collection processes daily. Investigators were checked for inconsistencies, and possible corrections were made during the data collection period. Study participants were interviewed in private to reduce social desirability bias.

4.11. Data processing and analysis

First, the data were coded and entered into EpiData version 3.1 and then it was exported to the SPSS version 25 statistical package for further analysis. Descriptive statistics and binary logistic regression analysis were done to analyze data. A Hosmer-Lemeshow test was used to test for model fitness with a value (0.45), and a Multi co-linearity test was carried out to see the correlation

between independent variables using variance inflation factors. with the value (1.05-2.01). Variables with a P-value < 0.25 in bivariate analysis were entered into multivariable analysis to control the confounding effect of other variables. Descriptive analysis such as, mean, standard deviation, and frequency was used and the results were presented as proportion through tables, text, and graphs, the output of logistic regression, as COR to show the strength of association between independent variables and dependent variables. Adjusted Odds ratios (AOR) with a corresponding 95% confidence interval were estimated. And statistical significance was declared at P-values < 0.05.

4.12. Ethical consideration

Ethical approval was obtained from the Institutional Review Board (IRB) of Addis Ababa University, School of Nursing and Midwifery, ensuring adherence to ethical guidelines. Official letters of cooperation were written to selected hospitals by the Nursing and Midwifery Department of Addis Ababa University. Informed consent will be obtained from both children and their caregivers, emphasizing their voluntary participation and the right to withdraw at any time. To ensure privacy and confidentiality, interviews will be conducted in a secure and private setting once consent has been confirmed. Information obtained from individual child caregivers and children will be treated with strict anonymity, ensuring the highest level of security and confidentiality.

5. RESULT

5.1 Characteristics of Study Participants

This study involved 136 asthmatic children aged 7-17 years old which gave a 100 % response rate. Over half of the children (52.9%) were male, with the mean age of the child being 9.46(±2.293) years and a 95% confidence interval of 9.07-9.84. Among the caregivers, 42.6% had no formal education, the majority (79.4%) resided in urban areas, and 45.6% of children were underweight **(Table 1).**

Table 1. Sociodemographic characteristics of children with asthma

Variable	Category	Frequency	Percentage
Sex of the child	Male	72	52.9
	Female	64	47.1
Age of the child	7-10	84	61.8
	10-14	40	29.4
	14-17	12	8.8
Level of caregiver education	No formal education	58	42.6
	Primary	42	30.9
	Secondary	20	14.7
	Above secondary	16	11.8
Address of the child	Urban	108	79.4
	Rural	28	20.6
Caregiver/ parent occupation	Housewife	82	60.3
	Government employee	22	16.2
	Daily labor	4	2.9
	Merchant	6	4.4

	Private employee	22	16.2
Body mass index of the child	Underweight	62	46
	Normal	60	44
	Overweight	14	10

5. 2 Duration, severity, and drug usage among asthma study participants

The study revealed that the average duration of asthma among the participants was 22.19 months with a standard deviation of 4.15 months. Among the children, more than half of them (60.3%) were found to have mild persistent asthma, followed by 39.7% with moderate persistent asthma. Additionally, it was found that 57.4% of the children were using appropriately their medication, while 42.6% were not.

5.3 Comorbid conditions and triggers among asthma of study participants

The study revealed that the most common comorbidities among the participants were allergic rhinitis (38.2%) and allergic dermatitis (29.4%). The most common triggers for asthma exacerbation were a combination of upper respiratory tract infections (URTI), dust, and cold weather (44.1%), followed by (URTI) (29.4%). Additionally, a quarter of the participants reported a family history of asthma **(Table 2).**

Table 2. Comorbid conditions and triggers of asthma of study participants

Variable	**Category**	**Frequency**	**Percentage**
Family history	Yes	34	25
	No	102	75

Comorbid conditions	Allergic rhinitis only	52	38.2
	Atopic dermatitis only	40	29.4
	Allergic rhinitis and Atopic dermatitis	42	30.9
	No comorbidity	2	1.5
Triggers	URTI	40	29.4
	Dust/fumes	28	20.6
	URTI/cold weather/ dust	60	44.1
	Cigarette	0	0
	Unknown triggers	8	5.9

5.4 Level of Asthma control of the study participants

Based on the results of the 5-point Likert-type rating scale asthma control test, the scores ranged from 5 to 25. In this study 94(69.1%) scored 19 or above, indicating controlled asthma, while the remaining 42 (30.9%) were found to have uncontrolled asthma. Among those with controlled asthma, 50(53%) were male and 44(47%) were female. Additionally, 48(51%) of the children with controlled asthma were aged 7-10 years, 38(40%) were aged 10-14 years, and only 8(9%) were aged 14-17 years.

Table 3; Asthma control status of study participants

		Control asthma	Uncontrolled asthma
Gender	**Male**	50(53.2%)	22(46.8%)
	Female	22(52.3%)	20(47.6%)
Age	**7-10**	48(51.1)	36(85.7)
	10-14	38(40.4)	2(4.7)
	14-17	8(8.5)	4(9.5)

5.5 Quality of life of study participants

According to the results obtained from the pediatric quality of life assessment tool, this study revealed that a significant proportion of children, 69 (51% (95% CI: 43% - 60%), experienced minimal to no impairment in their activity-related quality of life. Furthermore, 74 (54.45% (95% CI: 46% - 63%) were also found to have minimal to no impairment in symptoms-related quality

of life. Similarly, approximately 72 (53% (95% CI: 44% - 61%) of these children exhibited minimal to no impairment in emotion-related quality of life. The overall good quality of life of the study participants was found to be 73 (54 %(95%CI: 46-63).

Table 4: Quality of life of asthma life of study participants

	AQOAL	SQOAL	EQOAL
Minimal impairment	70(51.5)	74(54.4)	72(52.9)
Moderate impairment	66(48.5)	62(45.6)	62(47.1)

Among children with good quality of life, 106 (78%) had controlled asthma, while 84(62%) of those with moderate impairment in activity-related quality of life had uncontrolled **(Figure 3).**

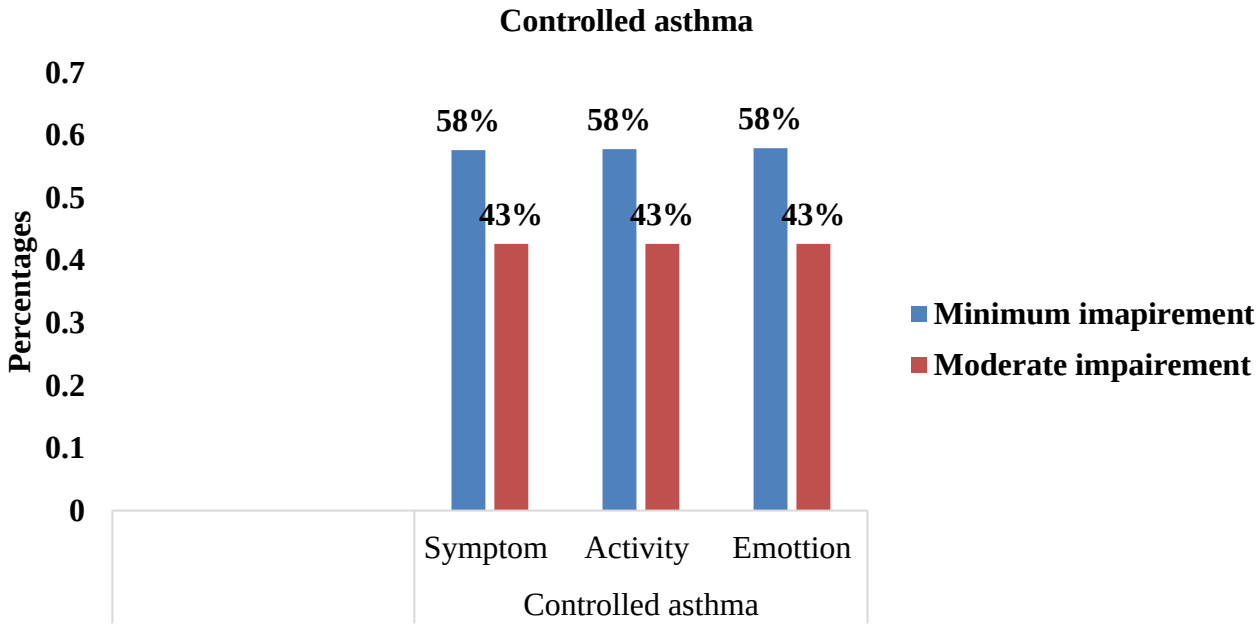

Figure 3 The distribution of each quality of life of study participants among controlled asthma.

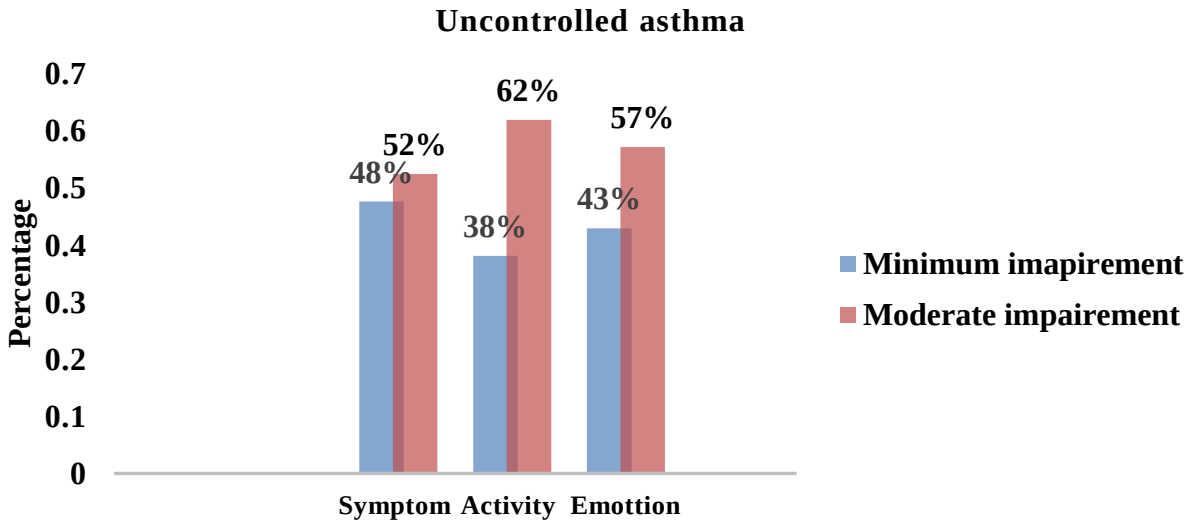

Figure 4: the distribution of each quality of life of study participants with uncontrolled asthma.

5.16 Factors affecting the quality of life

In this study, a total of twelve variables were analyzed. In the bivariable analysis, factors such as gender, age of the child, mother's education level, family history of asthma, duration, severity of asthma, body mass index, comorbidity, and asthma control were identified as candidates for multivariable analysis. However, in the multivariable analysis, the educational status of the mother/caregiver, family history, duration, severity of asthma, asthma control, and comorbidity were found to be statistically significant at $P < 0.05$.

The study revealed that children with no formal education of caregivers were 1.39 times (AOR: 1.39 (1.8-10.69)) more likely to have a poor quality of life than those with above secondary education of caregivers. Furthermore, the odds of having poor quality of life increased about 2.5 times in the children with a family history of asthma (AOR: 2.51(1.46-4.299).

Children with a duration of asthma ≥25±14 months nearly threefold increased their odds of poor quality of life than their counterparts(AOR: 3.47(1.89-6.39), and children whose asthma was uncontrolled two-fold increased their odds of poor quality of life than those children with controlled asthma(AOR: 2.31 (1.17-4.56)).

Moreover, children with moderate persistent asthma had about three times higher odds (AOR: 3.4(1.86-6.3) poor quality of life, than those with mild persistent, while those with comorbidity

nearly two times higher odds with poor quality of life(AOR: 2.4(1.4-4.2) compared to those who had not**(Table 3).**

Table 5. Factors associated with the poor quality of life among asthmatic children

Variable	Categories	Quality of life		COR(95% CI)	AOR= (95% CI)	P-Value
		Poor (%)	Good (%)			
Gender	Female	30(46.9%)	34(53.1%)	1	1	
	Male	32(44.4%)	40(55.6%)	0.91(0.76-5.45)	1.31 (0.17-4.56)	0.116
Age of the child	7-10	36(42.9%)	48(57.1%)	1.03(0.75-1.8)	0.85(0.62-1.5)	
	10-14	20(50%)	20(50%)	0.64(0.57-0.95)	0.58(0.47-1.02)	
	14-17	6(50%)	6(50%)	1	1	
Educational status of the caregiver	No formal education	32(54.8%)	26 (47.2%)	5.3(2.04-11.5)	1**.39 (1.8-10.69)****	0.001
	Primary	22 (52%)	20(48%)	1.44(0.6-3.9)	0.82 (0.35-2.15)	0.49
	Secondary	5 (23.6%)	15(75.4%)	1.52 (0.95-2.45	1.19 (0.67-2.12)	0.559
	Above secondary	3(20%)	13(80%)	1	1	
Family history of asthma	Yes	27(78.9%)	7(21.1%)	5.36(3.47-8.27)	**2.51(1.46-4.299)****	0.001
	No	43 (42%)	59 (58%)	1	1	
Duration of asthma	< 25±14 months	15 (25%)	45(75%)	1	1	
	≥25±14 months	43(57%)	33(43%)	3.9(2.4-8.1)	**3.47(1.89-6.39)****	<0.001
Bodi mass index	Underweight	32(51.6%)	30(48.4%)	1	1	
	Normal wegit	20(33.3%)	40(66.7%)	0.43 (0.29-2.73)	1.24 (0.52-2.98)	0.626
	Overweight	10(71.4%)	4(28.6%)	2.1(0.7-3.02)	0.755 (0.21-2.78)	0.672
Asthma control	Controlled	5 (9.5%)	22(24.7%)	1	1	
	Uncontrolled	43(90.5%)	66 (75.3%)	2.9 (1.76-5.4)	**2.31 (1.17-4.56)***	0.016
Severity of asthma	Mild persistent	18(22.8%)	63 (77.2%)	1	1	
	Moderate persistent	41(75.9%)	13(24.1%)	11(6.76-16.7)	**3.4(1.86-6.3)****	<0.001
Comorbidity	Yes	82(62%)	51 (38%)	3.21(1.8-6.3)	**2.4(1.4-4.2)****	0.001
	No	1 (33%)	2 (67%)	1	1	

Note:*p<0.05, **p<0.01

6. DISCUSSION

In this study, 46% [95% CI: 37.6-54.4%] of asthmatic children were found to have a poor quality of life. Factors such as the educational status of the mother/caregiver, family history, duration, severity of asthma, asthma control status, and comorbidity status significantly affected their quality of life.

The prevalence of poor quality of life in this study is consistent with similar studies conducted in the Amhara region 40.8% (35), and 49% in Palestine (36). However, it was lower compared to a study of 59.8 % in Addis Ababa Ethiopia (37), 61% in Nigeria(28), 59% in Egypt(38), and 60% in Peru(39). This variation could be attributed to differences in the study participants, variation in the study period, study setting, and most of the study participants in this study were from urban areas and had access to health services and their asthmatic status can be controlled and the controlled asthma leads the higher quality of life.

Regarding factors associated with the quality of life, children whose caregivers had no formal education were more likely to have a poor quality of life compared to those with above secondary education. This finding was found to be consistent with previous studies conducted in Peru(39), Nigeria(28), and Egypt(38). The possible explanation for this is that mothers or caregivers without formal education may have limited knowledge about asthma and its management, and may struggle to effectively communicate with healthcare providers.

Furthermore, having a family history of asthma increases about three times the odds of poor quality of life. These findings were supported by studies conducted in Ethiopia(37), and Egypt(38). The possible justification might be due to both genetic and environmental factors.

Additionally, Children with uncontrolled asthma were twice as likely to have a poor quality of life compared to those with controlled asthma. This aligns with studies conducted in the Middle East and North Africa(40), Palestine (36), and Nigeria(28). The reason behind this could be children with uncontrolled asthma may face disruptions in daily activities, frequent exacerbations requiring hospitalization, and psychological challenges such as anxiety and depression.

Moreover, children with moderate persistent asthma had about three times higher odds of poor quality of life, than those with mild persistent. These findings were found to be consistent with previous studies conducted on Indonesia (41), and Palestine (36). The possible, justification found

to be children with moderate persistent asthma could have limitations in daily activities, frequent symptoms and exacerbations, medication side effects, emotional impact, and social challenges, which increased their overall poor quality of life.

Children with comorbidity with their asthma had nearly two times higher odds of having a poor quality of life compared to those who had not. These findings were supported by studies conducted in Palestine (36), and Addis Ababa (37). The possible reason behind this could be the presence of one or more additional health conditions that can exacerbate the negative effects of asthma on quality of life, and managing multiple health conditions simultaneously can be challenging for both children and their caregivers.

7. CONCLUSION

This study revealed that almost half of the respondents were found to have a poor quality of life. Factors such as having no formal education of caregivers, having a family history, duration and severity of asthma, having uncontrolled asthma, and having comorbidity were significantly associated with poor quality of life.

8. STRENGTHS AND LIMITATIONS OF THE STUDY

Strengths: The study's strength lies in its inclusion of factors such as severity and duration of asthma to assess their potential impact on the quality of life of the study participants which was not the focus of future studies in Ethiopia. **Limitations:** The cross-sectional nature of this study makes causal relationships between dependent and independent variables impossible. Since the study was based on self-reports, the respondents might be prone to social desirability bias.

9. CLINICAL IMPLICATIONS

The study's results have important clinical implications, for healthcare professionals to identify patients at risk and implement targeted interventions to improve their overall well-being. By addressing these modifiable factors, clinicians may be able to help asthma patients better manage their symptoms and enhance their day-to-day functioning.

10. RECOMMENDATIONS

Based on the findings of this study, it is recommended to implement education and awareness programs specifically designed for caregivers who have no formal education. Furthermore, healthcare professionals should conduct comprehensive assessments of family medical histories to ensure appropriate care. The Addis Ababa health office should emphasize the importance of implementing effective strategies for managing asthma, with a particular focus on symptom control, screening, and managing comorbidities. Lastly, it is suggested that further research be conducted to explore other potential determinants and to focus on comparative and prospective studies.

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ANNEX

ANNEX I: INFORMATION SHEET

ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE SCHOOL OF NURSING AND MIDWIFERY

My name is _____ I am working on behalf of a research conducted by Melat Keyredin a postgraduate student from Addis Ababa University, College of Health Sciences, and Department of Nursing. I kindly request you to participate in a study that is aimed at assessing the quality of life and associated factors for asthmatic children. Participation in this study is voluntary; you can also withdraw at any time from the study if you feel uncomfortable. Refusal to participate will not affect your work or the care you shall seek at any of the health facilities in any way. Confidentiality will be ensured by not using your name or address on the questionnaire and final thesis report. There are no risks involved in participating in this study. The study has no immediate benefits to the respondents but will have benefits later in improving the quality of life and helping to reduce the burden of child morbidity and mortality by asthma. I welcome any questions you have about the study and your participation. Should you have any questions about the research or any related matters, please contact the researcher

Study title: Assessment of health-related quality of life and associated factors among asthmatic children in selected hospitals, Addis Ababa City Ethiopia.2024.

The objective of the study: To assess health-related quality of life and associated actors among asthmatic patients in Ethiopia in 2024.

Procedure and duration: I will be interviewing you using a structured questionnaire to provide with me pertinent data that is helpful for the study. The interview will take about 20 minutes, so I kindly request you.

Risk and benefit of the study: The risk of participating in this study is minimal, it only takes your time. There will not be any payment for participating in this study. However, the findings from this research may reveal necessary information for the hospitals on the other hand if you don't know the associated factors of quality of life you can capture information.

Right of the participants: Participation in this study is voluntary. You have the right to declare whether to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at any time. You do not have to answer any questions that you don't want to answer

Confidentiality: The information you will provide us will be confidential. There will be no information that will identify you in particular. Any information forward will be kept private and the name will not be specified

Contact address: If there are any questions or inquiries at any time about the study or the procedure, you can contact us by using the following address.

Principal investigator: **Melat Keyredin**

E-mail: mkeyredina@gmail.com

Mobile phone: +2521-904841290

ANNEX II: CONSENT

ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE SCHOOL OF NURSING AND MIDWIFERY

Consent form for Parents/guardians of 7 to 17 age group participants of the study

Please complete this form after you have read the information sheet and/or listened to an explanation about the research.

Title of the study: "**Assessment of health-related quality of life and associated factors among asthmatic children, in selected hospitals, Addis Ababa city Ethiopia.2024**."

Addis Ababa University College of Health Science IRB Reference Number: ……

Thank you for your concern to take part in this research. The person organizing the research must explain the project to you before you agree to take part. If you have any questions arising from the information sheet or explanation already given to you, please ask the researcher before you decide

to join in research participation. You will be given a copy of this consent form to keep and refer to at any time.

I understand that the participation of my child is voluntary. My child has a right to withdraw his/her consent to participate at any time without penalty and also has a right not to answer any question that makes his/her feel uncomfortable.

I understand that confidentiality will be maintained at all times. The person asking my child will never tell anyone what my child has said. My child's name will not be written down or recorded in any way and no one will be able to link my child's name to the answers written down.

I understand that you will interview me/my child once which will take approximately 30 – 45 minutes. I understand that you will obtain any medical information from his or her medical records and that his/her information will be kept confidential.

I understand that there might be no direct benefit to my child as an individual. In my opinion, my child understands the nature of the study and is willing to participate. I agree that my child will participate in this study**.**

Signature of parent/Guardian _____ I consent to my child's participation.

Date _____

You have received a copy of this consent document. If you have any questions, further you can contact **Melat Keyredin** from Addis Ababa University, College of Health Science, and School of Nursing and Midwifery at the address below.

Telephone: 251+904841290

Thank you for your concern to take part in this research.

ANNEX VIII: Assent form for the 7– 17 age group (English Version)

Please complete this form after you have read the information sheet and/or according to your parent/guardian agreement after listening to an explanation about the research

Title of the study: "**Assessment of health-related quality of life and associated factors among asthmatic children, in selected hospitals, Addis Ababa city Ethiopia.2024**"

Addis Ababa University College of Health Science IRB Reference Number:…..

I have read the above information and my parent/guardian agrees with my participation. I have had the opportunity to ask questions and any questions that I have asked have been answered for me and I have been satisfied with them.

Therefore; I voluntarily agree to participate in the study and I understand that I have the right to withdraw from the study at any time without affecting my rights.

Signature of volunteer _____ Date _____

Signature of data collector _____ Date _____

Thank you very much in advance for your unreserved help.

In case you need to contact： **Melat Keyredin**

ANNEX VI: QUESTIONNAIRES

Section 1. Socio-demographic questionnaires

S.No.	Parameter	Response
101	What is the sex of an asthmatic patient?	1. Male 2. Female
102	What is the Age of asthmatic patients in years?	_____ years
103	BMI(Weight/m^2) (please measure)	___kg/m^2
104	What is the Parent or caregiver's educational status?	1/No formal education 2/ Primary education 3/ Secondary education 4/ above secondary____
105	What is a caregiver/parent's occupation?	1. housewife 2. government employee 3. daily labor 4. merchant 5. private employee 6. other
106	Where do you live?	1. Urban 2. Rural

Section 2: Quality of life for asthmatic children

Instruction: the following question has no right or wrong answer. We want your opinion only. These are two cards blue and green namely with 7 options or responses use options 1 to 7 following the questions.

Responses options	
Blue card	**Green card**
1. extremely bothered	1. all of the time
2. very bothered	2. most of the time
3. quite bothered	3. a good bit of time
4. somewhat bothered	4. some of time
5. bothered a bit	5. a little of the time
6. hardly bothered at all	6. hardly any of the time
7. not bothered at all	7. none of the time

S.N	**Quality of life items**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Activity domain								
201	How much have you been bothered by your asthma? To identify the correct response, go to (BLUE CARD)							
202	How much have you been bothered by your asthma while running? To identify the correct response, go to (BLUE CARD)							
203	How much have you been bothered by your asthma while playing with your friends? (BLUE CARD)							

204	How often did you feel YOU COULDN'T KEEP UP WITH OTHERS because of your asthma during the past week? (GREEN CARD)							
205	Think about all the activities that you did during the past week. How much were you bothered by your asthma doing these activities? (BLUE CARD)							
Symptom domain								
206	How much COUGHING bothered you in the past week? (BLUE CARD)							
207	How often did your asthma make you feel TIRED during the past week? (GREEN CARD)							
208	How much did ASTHMA ATTACKS bother you during the past week? (BLUE CARD)							
209	How much did your asthma make you feel ANGRY during the past week? (GREEN CARD)							
210	How much did WHEEZING bother you during the past week? (BLUE CARD)							
211	How much did TIGHTNESS IN YOU CHEST bother you during the past week?(BLUE CARD)							
212	How much did SHORTENES OF BREATH bother you during the past week?(BLUE CARD)							
213	How often did your asthma WAKE YOU UP DURING THE NIGHT during the past week?(GREEN CARD)							
214	How often did you feel OUT OF BREATH during the past week?(GREEN CARD)							

215	How often did you have trouble SLEEPING AT NIGHT because of your asthma during the past week?(GREEN CARD)							
216	How often did you have difficulty taking a DEEP BREATH during the past week?(GREEN CARD)							
Emotion domain								
217	How often did your asthma make you feel FRUSTERATED during the past week? (GREEN CARD)							
218	How often did feel WORRID, CONCERNED OR TROUBLE because of your asthma during the past week? (GREEN CARD)							
219	How much did your asthma make you feel ANGRY during the past week?(GREEN CARD)							
220	How often did you feel IRRITABLE(cranky) during the past week? (GREEN CARD)							
221	How often did you feel DIFFERENT OF LEFT OUT because of your asthma during the past week? (GREEN CARD)							
222	How often did you feel UNCOMFORTABLE because of your asthma during the past week? (GREEN CARD)							
223	How often did you feel FRIGHTEN BY AN ASTHMA ATTACK during the past week? (GREEN CARD)							

Section 3: Disease-related factors

S. No	**Asthma condition questions**	**Response**

301	How long do you have asthma?	_____years
302	How severe is your asthma?	1/ Intermittent 2/ Mild persistent 3/ Moderate persistent 4/ Severe persistent
303	Do you have any of the following comorbidities?	1/Allergic rhinitis only 2 Atopic dermatitis only 3/ Allergic rhinitis and atopic dermatitis 4/ No comorbid factors
304	What are the trigger factors for your asthma?	1/ URTI 2/ Dust/Fumes 3/ Cold weather 4/ URTI and/cold weather/dust 5/ Unknown triggers
305	Do you have a family history of asthma	1/ yes 2/ no

Section 4: ASTHMA CONTROL QUESTIONNAIRE (ACQ)

S.N	Asthma control test	Response
401	In the past 4 weeks, how much of the time did your asthma keep you from getting as much done at work, school, or at home?	1/ All of the time 2/ Most of the time 3/ Some of 4/A little of the time 5/ None of the time
402	During the past 4 weeks, how often have you had shortness of breath?	1 / More than once a day 2/ Once a day 3/ 3 to 6 times a week

		4/ Once or twice a week 5/ Not at all
403	During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?	1/ 4 or more nights a week 2/ 2 or 3 nights a week 3/ Once a week 4/ Once or twice 5/ Not at all
404	During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as albuterol)?	1/ 3 or more times per day 2/ 1 or 2 times per day 3/ 2 or 3 times per week 4/ Once a week or less 5/ Not at all
405	How would you rate your asthma control during the past 4 weeks?	1/ Not controlled at all 2/ Poorly controlled 3/ Somewhat controlled 4/ Well controlled 5/ Completely controlled

Section 5. medication usage among asthmatic patients

S.N	About your medication	never	seldom	Quite often	Very often	Always
501	does having to get help with medication from other bother you?					

502	If it annoying for you to have to remember your medication?					
503	Are you worried about your mediaction?					
504	Does taking medication bother you?					
505	Do you hate taking you medication?					
506	Does taking medication distruct everyday life?					

አባሪ

አባሪ 1፡ የመረጃ ወረቀት

የአዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ የነርስ እና አዋላጅ ትምህርት ኮሌጅ

ስሜ _____ እባላለው ከአዲስ አበባ ዩኒቨርሲቲ፣ ከጤና ሳይንስ ኮሌጅ እና ከነርስ ዲፓርትመንት የድህረ ምረቃ ተማሪ የሆነችው ሜላት ከረድን ባደረገችው ጥናት ላይ ነው።

ለአስም ሕጻናት የሕይወትን ጥራት እና ተያያዥ ጉዳዮችን ለመገምገም የታለመ ጥናት ላይ እንድትሳተፉ በትህትና እጠይቃለሁ። በዚህ ጥናት ውስጥ ያለው ተሳትፎ በፈቃደኝነት ነው; ምኞት የማይሰማዎት ከሆነ በማንኛውም ጊዜ ከጥናቱ መውጣት ይችላሉ።

ለመሳተፍ ፈቃደኛ አለመሆን በምንም መልኩ በማንኛውም የጤና ተቋማት ሊፈልጉት የሚገባውን ስራ ወይም እንክብካቤ አይጎዳውም ። ሚስጥራዊነት የሚረጋገጠው ስምህን ወይም አድራሻህን በመጠይቁ እና በመጨረሻው የቲሲስ ዘገባ ላይ ባለመጠቀም ነው።

በዚህ ጥናት ውስጥ ለመሳተፍ ምንም አይነት አደጋዎች የሉም. ጥናቱ ለምላሾች ፈጣን ጥቅም የለውም ነገር ግን በኋላ ላይ የህይወት ጥራትን ለማሻሻል እና በአስም በሽታ ምክንያት የሕፃናትን ህመም እና ሞትን ለመቀነስ ይረዳል.

ስለ ጥናቱ እና ስለ እርስዎ ተሳትፎ ማንኛውም ጥያቄ ካለዎት እቀበላለሁ. ስለ ጥናቱ ወይም ስለማንኛውም ተዛማጅ ጉዳዮች ማንኛቸውም ጥያቄዎች ካሉዎት፣ እባክዎን ተመራማሪውን ያነጋግሩ

የጥናት ርዕስ፡ በአዲስ አበባ ከተማ ኢትዮጵያ በተመረጡ ሆስፒታሎች ውስጥ ከጤና ጋር ተያያዥነት ያለው የህይወት ጥራት እና ተያያዥነት ያላቸው አስም ህጻናት ላይ ግምገማ.2024.

የጥናቱ አላማ፡- የአስም ህመምተኛ ኢትዮጵያ 2024 የህይወት ጥራት እና ተያያዥ ተዋናዮችን ለመገምገም።

የአሰራር ሂደቱ እና የቆይታ ጊዜ፡- ለጥናቱ አጋዥ የሆኑ ተዛማጅ መረጃዎችን ለማቅረብ የተዋቀረ መጠይቅን በመጠቀም ቃለ መጠይቅ አደርግልዎታለሁ። ቃለ-መጠይቁ 20 ደቂቃ ያህል ይወስዳል፣ስለዚህ በትህትና እጠይቆችኋለሁ።

የጥናቱ ስጋት እና ጥቅም፡ በዚህ ጥናት ውስጥ የመሳተፍ ዕድሉ አነስተኛ ነው፣ ጊዜዎን ብቻ ይወስዳል። በዚህ ጥናት ውስጥ ለመሳተፍ ምንም ክፍያ አይኖርም. ነገር ግን ከዚህ ምርምር የተገኙት ግኝቶች ለሆስፒታሎች አስፈላጊ መረጃዎችን ሊያሳዩ ይችላሉ, በተቃራኒው የህይወት ጥራትን ተያያዥነት ያላቸው ነገሮች ካላወቁ ብዙ መረጃዎችን መያዝ ይችላሉ.

የተሳታፊዎች መብት፡ የዚህ ጥናት ተሳትፎ በፈቃደኝነት ነው። በዚህ ጥናት ለመሳተፍም ሆነ ላለመሳተፍ የማወጅ መብት አልዎት። ለመሳተፍ ከወሰኑ, በማንኛውም ጊዜ ከጥናቱ የመውጣት መብት አለዎት. መመለስ ለማትፈልጋቸው ጥያቄዎች መልስ መስጠት የለብህም።

ምስጢራዊነት፡ እርስዎ የሚያቀርቡልን መረጃ ሚስጥራዊ ይሆናል። በተለይ እርስዎን የሚለይ መረጃ አይኖርም። ማንኛውም የተላለፈ መረጃ በሚስጥር ይጠበቃል እና ስሙ አይገለጽም።

የአድራሻ አድራሻ፡- ስለ ጥናቱ ወይም አሰራሩ በማንኛውም ጊዜ ማንኛውም አይነት ጥያቄ ወይም ጥያቄ ካለ በሚከተለው አድራሻ ማነጋገር ይችላሉ።

ዋና መርማሪ፡ ሜላት ከይረዲን

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ስልክ: +2521-904841290

አባሪ II፡ ፍቃድ

የአዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ የነርስ እና አዋላጅ ትምህርት ኮሌጅ

ከ7 እስከ 17 የዕድሜ ክልል ውስጥ ላሉ ወላጆች/አሳዳጊዎች የጥናቱ ተሳታፊዎች የስምምነት ቅጽ

Please complete this form after you have read the information sheet and/or listened to an explanation about the research.

እባክዎን ይህንን ቅጽ ይሙሉ የመረጃ ወረቀቱን ካነበቡ እና/ወይም ስለ ጥናቱ ማብራሪያ ካዳመጡ በኋላ።

የጥናቱ ርዕስ፡ "ከጤና ጋር የተያያዙ የህይወት ጥራት እና ተያያዥነት ያላቸው አስም ህጻናት በተመረጡ ሆስፒታሎች በአዲስ አበባ ከተማ ኢትዮጵያ.2024" ግምገማ።

የአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ አይአርቢ ዋቢ ቁጥር፡ ……

በዚህ ጥናት ውስጥ ለመሳተፍ ስላሳዩት ስጋት እናመሰግናለን። ጥናቱን የሚያዘጋጀው ሰው ለመሳተፍ ከመስማማትዎ በፊት ፕሮጀክቱን ለእርስዎ ማስረዳት አለበት። ቀደም ሲል ከተሰጥዎት የመረጃ ወረቀት ወይም ማብራሪያ የሚነሱ ማናቸውም ጥያቄዎች ካሉዎት እባክዎ በምርምር ተሳትፎ ውስጥ ለመሳተፍ ከመወሰንዎ በፊት ተመራማሪውን ይጠይቁ። በማንኛውም ጊዜ ለማቆየት እና ለማጣቀስ የዚህን የስምምነት ቅጽ ቅጂ ይሰጥዎታል።

የልጄ ተሳትፎ በፈቃደኝነት እንደሆነ ተረድቻለሁ። ልጄ በማንኛውም ጊዜ ያለቅጣት ለመሳተፍ ፈቃዱን የመሰብ እና እንዲሁም ምኞት እንዲሰማው የሚያደርገውን ማንኛውንም ጥያቄ ያለመመለስ መብት አለው።

ምስጢራዊነት በማንኛውም ጊዜ እንደሚጠበቅ ተረድቻለሁ። ልጄን የሚጠይቀው ሰው ልጄ የተናገረውን ለማንም አይናገርም። የልጄ ስም በምንም መልኩ አይጻፍም ወይም አይመዘገብም እና ማንም የልጄን ስም ከተጻፉት መልሶች ጋር ማገናኘት እንደማይችል።

እኔን/ልጄን አንድ ጊዜ ቃለ መጠይቅ እንደምትሰጡኝ ተረድቻለሁ ይህም በግምት ከ30 – 45 ደቂቃ ይወስዳል። ማንኛውንም የህክምና መረጃ ከእሱ ወይም ከእሷ የህክምና መዝገቦች እንደሚያገኙ እና የእሱ/ሷ መረጃ በሚስጥር እንደሚቀመጥ ተረድቻለሁ።

ለልጄ በግለሰብ ደረጃ ምንም አይነት ቀጥተኛ ጥቅም ላይኖረው እንደሚችል ተረድቻለሁ። በእኔ አስተያየት, ልጄ የጥናቱን ባህሪ ይገነዘባል እና ለመሳተፍ ፈቃደኛ ነው. ልጅዎ በዚህ ጥናት ውስጥ እንደሚሳተፍ እስማማለሁ።

የወላጅ/አሳዳጊ ፊርማ _____ ለልጄ ተሳትፎ ተስማምቻለሁ።

ቀን _____

የዚህ የፍቃድ ሰነድ መያዣ ቅጂ ደርሶዎታል። ተጨማሪ ጥያቄ ካሎት ከአዲስ አበባ ዩኒቨርሲቲ፣ ከጤና ሳይንስ ኮሌጅ እና ከነርሲንግ እና አዋላጅ ትምህርት ቤት አባል የሆኑትን ሜላት ከይረዲንን ከዚህ በታች ባለው አድራሻ ማግኘት ይችላሉ።

ስልክ፡ 251+904841290

በዚህ ጥናት ውስጥ ለመሳተፍ ስላሳዩት ስጋት እናመሰግናለን።

አባሪ ሶስት፡ ለ7-17 የዕድሜ ክልል (የእንግሊዘኛ ቅጂ) የድጋፍ ቅጽ

እባክዎን ይህንን ቅጽ ይሙሉ የመረጃ ወረቀቱን ካነበቡ በኋላ እና/ወይም በወላጅ/አሳዳጊዎ ስምምነት መሰረት ስለ ጥናቱ ማብራሪያ ካዳመጡ በኋላ

የጥናቱ ርዕስ፡ "ከጤና ጋር የተገናኙ የህይወት ጥራት እና አስም ህጻናት ጋር ተያያዥነት ያላቸው ሁኔታዎች፣ በተመረጡ ሆስፒታሎች፣ አዲስ አበባ ከተማ ኢትዮጵያ.2024"

የአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ አይአርቢ ማመሳከሪያ ቁጥር፡.....

ከላይ ያለውን መረጃ አንብቤያለሁ እና ወላጄ/አሳዳጊዬ በእኔ ተሳትፎ ተስማምተዋል። ጥያቄዎችን ለመጠየቅ እድሉን አግኝቻለሁ እናም ያቀረብኩት ማንኛውም ጥያቄ ምላሽ ተሰጥቶኛል እናም በጥያቄው ረክቻለሁ።

ስለዚህ; በፈቃደኝነት በጥናቱ ለመሳተፍ እስማማለሁ እናም በማንኛውም ጊዜ መብቴን በመነካት ከጥናቱ የመውጣት መብት እንዳለኝ ተረድቻለሁ።

የበጎ ፈቃደኞች ፊርማ _____ ቀን _____

የመረጃ ሰብሳቢ ፊርማ _____ ቀን _____

ላልተጠበቀው እርዳታዎ በቅድሚያ እናመሰግናለን።

ከፈለጉ፡ ሜላት ኬሬዲንን ያነጋግሩ

አባሪ VI፡ መጠይቆች

ክፍል 1. የሰነ-ሕዝብ መጠይቆች

ተቁ	ጥያቄዎች	ምላሽ
101	የአስም ታማሚው ልጅ ጾታ ምንድነው	1. ወንድ 2. ሴት
102	የአስም ታማሚው ልጅ እድሜ ምንድነው	_____ አመት
103	ቢኤም አይ (ኪሎ/ሜ^2)	___ኪጂ/ሜ^2
104	የወላጅ ወይም ተንከብካቤ ሰች ትምህርት ደረጃ	1/ትምህርት የለዉም 2/ የመጀምሪያ ደርጃ 3/ ሁለተኛ ደረጃ 4/ ከሁለተኛ በላይ
105	የእናት ስራ ምንድነው?	1. ተበት እመቤት 2. መንግስት ስራ 3. ቀን ስራ 4. ነጋዴ 5. የግል ስራ 6. ሌላ
106	የት ነው እሚኖሩት?	1. ከተማ 2. ገጠር

ክፍል 2፡ የአስም ታማሚ ህጻናት የህይወት ሁኔታ

መመሪያ፡ የሚከተለው ጥያቄዎች ትክክለኛ ወይም የተሳሳተ መልስ የለላቸዉም። የእርስዎን አስተያየት ብቻ እንፈልጋለን። እዚያ ሁለት የመልስ ካርዶች (ሰማያዊ እና አረንጓዴ) አሉ ምላሾቹ ከ ነ እስከ 7 አማራጮች አሉት።

የምላሽ አማራጭ	
ሰማያዊ	አረንጎዴ

1. እጅግ በጣም ያስቸግራል	1. ሁል ጊዜ
2. በጣም ያስቸግራል	2. ብዙ ግዜ
3. አስቸጋሪ ነው	3. ሰፋ ያለ ግዜ
4. የተወሰነ ያስቸግራል	4. አንዳንድ ግዜ
5. ትንሽ ያስቸግራል	5. በጣም ትንሽ ግዜ
6. ያን ያክል አያስቸግርም	6. ከስንት አንዳንድ ግዜ
7. ምንም አያስቸግርም	7. ምንም ግዜ (በፍጹም)

ተቁ	የህይወት ሁነታ ጥያቄዎች	1	2	3	4	5	6	7
	የእንክስካሴ መጠይቅ							
201	አስም ምን ያህል አስቸገረህ? ትክክለኛውን ምላሽ ለመለየት ወደ (ሰማያዊ ካርድ) ይጠቀሙ							
202	አስምህ በምትሮጥበት/ጭበት ጊዜ ምን ያህል ያስችግራል? ትክክለኛውን ምላሽ ለመለየት ወደ (ሰማያዊ ካርድ) ይጠቀሙ							
203	አስምህ ከጎደኛህ/ ሽ ጊዜ ምን ያህል ያስችግራል? ትክክለኛውን ምላሽ ለመለየት ወደ (ሰማያዊ ካርድ) ይጠቀሙ							
204	ባለፈው ሳምንት በአስምዎ ምክንያት ከሌሎች ጋር መገናኘት እንደማትችል ምን ያህል ጊዜ ተሰማህ/ሽ? (አረንጓዴ ካርድ)							
205	ያለፈ ሳምንት ስላደረጋቸው እንቅስቃሴዎች ሁሉ ያስቡ። አስምህ እነዚህን ተግባራት ስትሰራ ምን ያህል አስቸግሮህ ነበር? (ሰማያዊ ካርድ)							
	የምልክቶች መጠይቅ							
206	ባለፈው ሳምንት ማሳል ምን ያህል አስጨንቆሃል?(ሰማያዊ ካርድ)							
207	ባለፈው ሳምንት አስምህ ምን ያህል ጊዜ ድካም እንዲሰማህ አድርጓል? (አረንጓዴ ካርድ)							

208	How much did ASTHMA ATTACKS bother you during the past week?(BLUE CARD) ባለፈው ሳምንት የአስም መነሳት ምን ያህል አስጨንቆዎት ነበር? (ሰማያዊ ካርድ)							
209	ባለፈው ሳምንት አስምህ ምን ያህል ያናደድህ ነበር? (አረንጓዴ ካርድ)							
210	ባለፈው ሳምንት ሲያፍንህ እሚወጣው ድምጽ ምን ያህል አስጨነቀህ? (ሰማያዊ ካርድ)							
211	ባለፈው ሳምንት በደረትዎ ውስጥ ያለው ጥብቅነት ምን ያህል አስጨነቀዎት? (ሰማያዊ ካርድ)							
212	ባለፈው ሳምንት የትንፋሽ ማጠር ምን ያህል አስጨነቀህ?(ሰማያዊ ካርድ)							
213	ባለፈው ሳምንት አስምዎ በሌሊት ምን ያህል ጊዜ ከእንቅልፍ አነቃዎት?(አረንጓዴ ካርድ)							
214	ባለፈው ሳምንት ውስጥ ምን ያህል ጊዜ የትንፋሽ ማጠር አጋጠመህ?(አረንጓዴ ካርድ)							
215	ባለፈው ሳምንት በአስምዎ ምክንያት በሌሊት ለመተኛት ምን ያህል ጊዜ ተቸግረዋል?(አረንጓዴ ካርድ)							
216	ባለፈው ሳምንት ምን ያህል ጊዜ ጥልቅ ትንፋሽ ለመውሰድ ተቸግረዎታል?(አረንጓዴ ካርድ)							
የስሜት መጠይቅ								
217	ባለፈው ሳምንት አስምዎ የብስጭት ስሜት እንዲሰማዎት ያደረገው ምን ያህል ጊዜ ነው? (አረንጓዴ ካርድ)							
218	ባለፈው ሳምንት በአስምዎ ምክንያት ምን ያህል ጊዜ መጨነቅ፣ ማሰብ ተሰማዎት? (አረንጓዴ ካርድ)							
219	ባለፈው ሳምንት አስምህ ምን ያህል ያናድድክ ነበር?(አረንጓዴ ካርድ)							

220	ባለፈው ሳምንት ምን ያህል ጊዜ የመበሳጨት ስሜት ተሰማዎት?(አረንጓዴ ካርድ)							
221	ባለፈው ሳምንት በአስምዎ ምክንያት የመገለል ስሜት ምን ያህል ጊዜ ተሰማዎት?(አረንጓዴ ካርድ)							
222	ባለፈው ሳምንት አስምዎ ምን ያህል ጊዜ ምቾት ነስቶሃል? (አረንጓዴ ካርድ)							
223	ባለፈው ሳምንት በአስም ጥቃት የተነሳ ምን ያህል ጊዜ ፍራት ተሰማህ?(አረንጓዴ ካርድ)							

ክፍል 3፡ ከአስም ጋር የተያያዙ ጉዳዮች

ተቁ	ከ አስም ጋር የተያያዙ ጥያቄዎች	ምላሽ
301	ምን ያህል ጊዜ የአስም በስሂታ ታማሚ ነህ/ሽ?	_____አመታት
302	አስሙ ምን ያህል ሃይለኛ ነው?	1/ አልፎ አልፎ 2/ ትንሽ ቆሚነት 3/ መካከለኛ ቆሚነት 4/ ሃለኛ ቆሚ ነው
303	የጎኛሽ በስህታ አሉብህ	1/ያፍንጭ አልርጂ ብቻ 2 የቆዳ አልርጂ ብቻ 3/ የቆዳ እና አፍንጫ አልርጂ 4/ ምንም የለብኝ
304	ምን ያስነሳብሃል?	1/ የምተንፈሻ ኢንፈኤክሽን 2/ አቦራ 3/ ቀዝቃዛ አየር 4/ ሶስቱም 5/ አላቅም
305	በቤተሰብ አስም አለ?	ነ/ አዎ 2/ የለም

ክፍል 4፡ የአስም መቆጣጠሪያ ጥያቄ

ተቁ	የአስም ቁጥጥር ጥያቄ	ምላሽ

401	ባለፉት 4 ሳምንታት አስምህ በስራ፣ በትምህርት ቤት ወይም በቤት ውስጥ ብዙ እንዳትሰራ ያደረገህ ምን ያህል ጊዜ ነበር?	1/ ሁል ጊዜ 2/ ብዙ ጊዜ 3/ አንዳንዶቹ 4/ ትንሽ ጊዜ 5/ አንድም ጊዜ የለም
402	ባለፉት 4 ሳምንታት ውስጥ ምን ያህል ጊዜ የትንፋሽ እጥረት አጋጥሞዎታል?	1 / በቀን ከአንድ ጊዜ በላይ 2/ በቀን አንድ ጊዜ በሳምንት ከ 3 እስከ 6 ጊዜ 4/ በሳምንት አንዴ ወይም ሁለቴ 5/ በፍጹም
403	ባለፉት 4 ሳምንታት ውስጥ የአስም ምልክቶችዎ (ማቅለሽለሽ፣ ማሳል፣ የትንፋሽ ማጠር፣ የደረት መወጠር ወይም ህመም) በሌሊት ወይም በጠዋት ከወትሮው ቀደም ብለው ምን ያህል ጊዜ ከእንቅልፍዎ እንደነቃዎት?	በሳምንት 1/4 ወይም ከዚያ በላይ ምሽቶች በሳምንት 2/2 ወይም 3 ምሽቶች 3/ በሳምንት አንድ ጊዜ 4/ አንዴ ወይም ሁለቴ 5/ በፍጹም
404	ባለፉት 4 ሳምንታት፣ የእርስዎን የማዳኛ እስትንፋስ ወይም ኔቡላይዘር መድሃኒት (እንደ አልቡቴሮል ያሉ) ምን ያህል ጊዜ ተጠቅመዋል?	ነ/ በቀን 1/3 ወይም ከዚያ በላይ ጊዜ 2/ በቀን 2/1 ወይም 2 ጊዜ 3/ በሳምንት 3/2 ወይም 3 ጊዜ 4/ በሳምንት አንድ ጊዜ ወይም ከዚያ በታች 5/ በፍጹም
405	ባለፉት 4 ሳምንታት የአስም መቆጣጠሪያዎን እንዴት ይመዝኑታል?	1/ በፍፁም ቁጥጥር አልተደረገም። 2/ በደንብ መቆጣጠር

		3/ በመጠኑ ቁጥጥር 4/ በደንብ ቁጥጥር 5/ ሙሉ በሙሉ ቁጥጥር የሚደረግበት

ክፍል 5. በአስም በሽተኞች ላይ የመድሃኒት አጠቃቀም

ተቁ	ስለ መድሃኒት	በፍጹም	አንዳንዴ	በዛ ያለ ጊዜ	ብዙ ጊዜ	ሁሌ
501	መድሃኒት መዉሰድህ ይረብሸሃል?					
502	መድሃኒትዎን የማስታወስ ግደታህ ያበሳጭሃል?					
503	ስለ መድሃኒትዎ ይጨነቃሉ?					
504	መድሃኒት መውሰድ ይረብሻል?					
505	መድሃኒትህን መውሰድ ትጠላለህ?					
506	መድሃኒት መውሰድ የዕለት ተዕለት ሕይወትህን ያስተጎጉላል?					