Parents' knowledge, attitudes and practices on atopic dermatitis at the Skin Clinic, Lady Ridgeway Hospital for Children

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Abstract

Atopic dermatitis is a relapsing skin condition commonly seen in primary care. Objective of this study was to evaluate the knowledge, attitudes and practices on atopic dermatitis of parents/caregivers of affected children at the Skin Clinic, Lady Ridgeway Hospital for Children.

Descriptive cross-sectional study of 103 parents/caregivers was carried out over a period of 1 month from January to February 2007.

Forty two percent had made some change in the child's diet and 41% of respondents had made a change in their child's washing/bathing. Majority of school children had reduced school attendance. Mean score of subsequent visits was significantly higher than of first visits. More than 80% had misconceptions regarding aetiology and precipitating factors.

There is a need to assess the quality of life of affected children and impact on the family.

Introduction

Atopic dermatitis is a relapsing skin condition that is commonly seen in primary care. It is characterized by itching and redness of the skin and is most prevalent in early childhood. Atopic dermatitis may often be regarded as a trivial problem that will resolve or may even be overshadowed by other related conditions such as bronchial asthma.

Atopic dermatitis is associated with significant morbidity, including sleepless nights and poor self esteem for the child, and financial strain and family stress for parents and other siblings[1]. People with atopic dermatitis may experience limited productivity and restricted social interaction because of disability or disfigurement even with considerable input from carers or health professionals[2]. The condition may have an important impact on the child's emotional and social development with long-term implications.

While no published data on the prevalence of atopic dermatitis in Sri Lanka is available, research has shown that there is a rise in prevalence of the condition in westernized societies[3]. Currently, 20% of children in western countries are affected, and further research is recommended[1].

Since atopic dermatitis has a profound impact on the family as well as the affected child, it is important for healthcare professionals to recognize the problems faced by affected individuals. Consultations tend to focus on the physical aspects of the problems and neglecting the psychosocial aspects, while treatment remains mainly palliative and can be as diverse as the condition itself[2].

The parent/caregiver of a child with a chronic condition such as atopic dermatitis plays an important role in ensuring receipt of medical care and in turn, optimal management of disease symptoms and outcomes for the chronically ill child[4].

Studies have been conducted to assess the impact of the condition on the family using atopic dermatitis specific family impact scores[4]. Strong associations were found between increased disease severity and higher family impact of atopic dermatitis. It was concluded that a parent/caregiver is able to assess the severity of his/her child's condition and may be affected by it in their day to day functioning and family life.

Good communication skills are essential to explain in a lay person's terms how the condition develops, avoidance of provoking factors, and how to use the treatment[2,5]. Failure to explain the nature of the condition and how to use the therapies may lead to patient dissatisfaction, poor compliance and lack of treatment efficacy.

It is also important to identify the existing knowledge and attitudes of parents/caregivers of children affected with atopic dermatitis to ensure optimal care for the children.

Objective of this study was to assess the knowledge of parents of affected children regarding their child's skin condition and to identify areas where the education given to the parents at the Skin Clinic could be improved for better patient care.

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Methods

This was a descriptive cross-sectional study of knowledge, attitudes and practices of parents of children affected with atopic dermatitis at the Skin Clinic, Lady Ridgeway Hospital for Children.

The study population consisted of all parents/ caregivers of children affected with atopic dermatitis coming for the first time and for follow up from January 2007 to February 2007. A total of 103 parents/ caregivers were interviewed.

The study instrument used was an interviewer administered questionnaire which consisted of questions on socio demographic and general information, use of home remedies, details of clinic visits, current practices, changes to the child's lifestyle as a result of the condition, parent/caregiver's knowledge of the condition, sources of information available and parent/caregiver's perception of the education given at the Skin Clinic.

Open ended questions were used during the interview. The average time taken to administer the questionnaire was 8 minutes. In order to maintain uniformity, the wording of questions for all participants was the same throughout data collection. The degree of prompting and clarification were the same for all participants.

The answers to the questions on knowledge were given a score and the percentages of scores obtained were calculated. Data entry and analysis were carried out using SPSS Windows Version 12.

Informed verbal consent of the participants was obtained. After data collection, the study group was educated about the condition and their misconceptions were corrected.

Results

A. Socio-demographic characteristics

One hundred and three questionnaires were administered. Majority (94%) of the respondents were female. Eighty nine percent of the respondents were the mother of the affected child, while 5% were the father.

Thirty percent of the respondents were in the age group of 30-35 years, while a minority (2.9%) were aged 18-20 years. Mean age of the respondents was 31.5 years (SD=7.2 years).

Majority (79.6%) of the respondents were housewives. Of those who were occupied, 7 (6.8%) were having clerical jobs, 4 (3.9%) were self employed, 3 (2.9%) were in the armed forces, 3 (2.9%) were teachers, and 3 (2.9%) were technicians.

Of the respondents, 2 (1.9%) have not had any education. Forty seven percent had studied up to GCE O/L.

B. Information on skin condition

Majority (81.6%) were coming for subsequent visits. Out of the total of 103 children, 53 (51.5%) were males. The mean age of the children was 2.4 years (SD=2.5 years).

Thirty five percent of the children attending the clinic had been having the problem for less than 3 months. The mean duration was 16.7 months (SD=23.2 months).

C. Health seeking behavior

Seven (6.8%) respondents said they had used home remedies before seeking medical treatment. These included application of baby cream, kohomba leaves, Vaseline with potassium permanganate, olive oil and sandalwood. All stated that there was no improvement.

Forty (38.8%) respondents said they had not taken treatment from any other healthcare setting. Majority (31.1%) of those who had taken treatment from other sources had first gone to a general practitioner (GP). Forty three (68%, n=63) of the respondents who had taken treatment from elsewhere said there was no improvement following treatment.

Eighty (77.7%) respondents had come to the clinic of their own accord, 22 (21.4%) had been referred by a doctor and 1 respondent had been referred to the clinic by the PHM.

D. Changes to lifestyle

Forty two percent had made some change in the child's diet as a result of the skin condition (Table 1). Twenty eight percent of the respondents were breast feeding (<6 months of age).

Sixteen percent reported a reduction in the child's school attendance as a result of the skin condition. Ten respondents said the absences were due to exacerbations/hospital admissions while the rest stated the cause as coming to the clinic. Eighty percent of the respondents had non school going children

Forty one percent of respondents had made a change in their child's washing/bathing. Of them, thirty (71%) respondents said the child bathes more often/daily. Four respondents said warm water was used for bathing.

Table 1. Changes in diet (N=43)

Added food	*Frequency*	*Percentage*
Dairy products	5	11.6
Eggs	5	11.6
Fruits	2	4.6
Green leaves	2	4.6
Avoided food		
'Heaty' fish	18	41.9
Tomatoes	17	27.0
Pineapple	13	30.2
Salmon	6	13.9
Meat	5	11.6
Brinjals	3	7.0
Sea food	2	4.6
Eggs	2	4.6

Fifty two percent had not made any change in the child's hobbies/sports/play as a result of the skin condition. Of the 4 who had, all said that contact with dust was avoided and the child's play/sports was reduced.

Nine respondents (8.7%) said that they were afraid to immunize the child due to the skin condition.

E. Knowledge

Respondents were asked questions on what the condition was, its aetiology, precipitating factors, use of treatment, prevention of flares and outcome. Ninety five percent knew how to use the given topical therapies correctly (Table 2).

Table 2. Knowledge of atopic dermatitis (N=103)

Area	*Frequency*	*Percentage*
Name (including lay terms)	11	10.6
Cause	25	24.2
Precipitating factors	68	66.0
Use of therapies	98	95.1
Outcome	16	15.5
Prevention of flares	58	56.3

The total score for each respondent was calculated as a percentage and the mean of the scores for each visit was calculated. There was an increase in the mean score with increasing visits. There is a statistically significant difference between the mean score obtained at first visit and subsequent visits at 5% level of significance (SND=2.1).

F. Perceptions

Majority (35.9%) said they did not know the cause. Respondents' perceptions of the cause are given in table 4. Awareness of precipitating factors was also assessed. Sixty six percent had identified factors which precipitated the condition while the rest said there were no precipitating factors. Certain foods (15.5%) were the most commonly known. Dust (14.5%), soap/shampoo (12.6%), changes in weather (10.7%), sweat (10.7%), clothing (7.8%), retention of moisture (6.8%) and exposure to sunlight (4.8%) were reported as precipitating factors.

Table 3. Mean scores obtained at first and subsequent visits

Visit	*Mean*	*Number*	*Std. Deviation*
First visit	34.4%	19	17.8
Subsequent visits	43.7%	84	15.7
Total	42.0%	103	16.4

Table 4. Perception of cause of atopic dermatitis

Cause	*Frequency*	*Percentage*
Don't know	34	35.9
Familial	13	12.6
Allergy	12	11.3
Medications taken during pregnancy	8	7.8
Infections	8	7.8
Diet	7	6.8
Dryness of skin	6	5.8
'Internal cause'	6	5.8
Imbalance of humors	3	2.9
Sweat	3	1.9
Mosquito bite	1	1.0

Eighty two (79.6%) respondents said they had noticed an improvement in the child's condition after coming to the clinic. Fifteen (14.6%) were first visits and 6 (5.8%) said there was no improvement. Six respondents who were breast feeding (total number of breast feeding mothers in the study: 29) said they noticed a worsening of the child's condition when they were given breast milk after consumption of a 'heaty'meal by the mother.

G. **Sources of information**

The main source of information available to the majority (71.8%) was the Skin Clinic, while the media (11.6%), GPs (11.6%), other patients (2.9%) and friends (1.9%) were also reported as the main source. Twelve (17.9%) respondents said they felt that they did not require any additional information on their child's condition and 24 (22.1%) did not reply. Of those who required more information, majority (49.2%) wanted to know if it was curable. The cause (37.3%), prevention (13.4%), duration of treatment (10.4%), outcome (8.9%), diet/breast feeding (2.9%) and removal of skin patches (2.9%) were other questions they had. Majority (83.5%) said they were satisfied with the information provided to them at the clinic while 6.8% said they were not.

Discussion

This study found evidence of changes in the lifestyles of affected children. Changes to the child's diet and bathing were made by 40% of the respondents. All respondents who had made the changes spoke of avoidance of 'heaty' foods. Only 20 children were of school going age and of them, 16 had reduced school attendance due to the condition. Studies have shown that atopic dermatitis is associated with lowered quality of life in children as well as family members[2,3,6]. It can also disrupt family and social relationships as well as interfere with recreational activities and schoo[17]. A cross-sectional comparative study found there was a greater impact on the families of children with atopic dermatitis than families with diabetic children[8].

Little evidence exists examining the implications of disease severity and the impact of the condition on the family. A study in USA in 2003 found strong associations between increased disease severity and higher family impact of atopic dermatitis[3]. In this study, due to limitations of time and resources, it was not possible to assess the severity of the condition or the impact on the family.

Studies assessing the knowledge of parents had not included attitudes and practices[3,4,9]. These aspects are also important in determining outcome and should have been assessed. This study assessed the attitudes and practices of parents/caregivers. However, this was not correlated with the disease severity. As the total sample was 103, it was not possible to assess the relationship of age and educational level of the respondents with their knowledge scores.

Parents'/caregivers' knowledge on the use of therapies was found to be good while knowledge of the aetiology and precipitating factors of atopic dermatitis was poor. More than 80% had misconceptions on the condition. A study done in UK to assess parents' knowledge of topical corticosteroid (TCS) therapies found that the knowledge on the strengths of commonly used TCSs was poor[9]. In this study, knowledge of the potencies or doses of therapies was not assessed.

A majority did not know the aetiology of atopic dermatitis. Most had misconceptions on the cause such as the condition being infectious, occurring due to drugs taken during pregnancy, and mosquito bites. Some of the precipitating factors recalled by the respondents include dust, sweat, clothing, sunlight, 'heaty' foods and changes in weather. These are also supported by the findings of previous studies which quote sweating, heat, sunlight, wool fabrics, grass intolerance, dust, stress, seasonality, and hormonal influences[1,2]. In this study, stress was not mentioned by a single respondent as a precipitating factor.

The respondents were allocated marks according to their knowledge of the condition. The mean percentage marks was 42%. The mean of the marks obtained by the respondents was calculated for each visit. There is an increase of the mean marks with increasing visits. There is a significant improvement of the respondents' knowledge at subsequent visits compared to the first. As the Skin Clinic is the main source of information for >70% of respondents, this increase in knowledge is mostly due to the education provided to parents/caregivers by the Clinic. This is supported by the findings of a study carried out in 2003 in the UK[5]. Parents' knowledge and outcome of the condition was assessed. Respondents were assessed at first visit and after 1 year of follow up with education on the condition and demonstration of use of topical therapies by a specialist dermatology nurse. This showed an increase in parents' knowledge and enhanced outcome. In this study, it was not possible to follow up parents/caregivers to assess their knowledge or the outcome at subsequent visits due to the large numbers attending the clinic.

Eighty percent said that there was an improvement in their child's skin condition since coming to the clinic. A majority were satisfied with the information provided to them at the clinic. This opposes the findings of research done in developed countries where most parents of children with atopic dermatitis were found to be not completely satisfied with consultations with GPs and dermatologists[10].

In this study, sixty percent of respondents said that they would like more information on the aetiology, prevention of exacerbations, possible duration of treatment, and outcome.

In conclusion, majority of parents/caregivers of children with atopic dermatitis have misconceptions regarding the condition. Such misconceptions should be elicited and cleared during clinic visits. It is recommended that further studies be carried out to assess the quality of life of children with atopic dermatitis and its impact on the family.

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