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EDUCATION

Living with Asthma: An Analysis of Patients' Perspectives

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Objectives. To investigate asthmatic patients' perceptions of their disease. *Methods.* The study was done with the participation of 23 patients among the asthmatics whose progress is monitored regularly in a university hospital. Phenomenological methodology was used, and the first step was to determine the socio-demographic characteristics of the participants. Then, in order to determine their feelings and opinions on the subject of their asthma, each participant was asked to write a letter to answer the following question: "If asthma were a friend of yours, what would you like to say to it in a letter?" Data were analyzed using the continuous comparative method of Colaizzi (1978; "Psychological research as a phenomenologist views it", in Valle, R. And King, M. (Eds), Existential Phenomenological Alternatives for Psychology, Oxford University Press, New York, NY.). For this purpose, each researcher read the letters separately and identified the important thoughts, and similar statements were classified under the same theme groups. *Results*. The mean age of the patients was 41.43 ± 6.23 years, and 69.6% of them were female, 73.9% were married, 34.8% were primary school graduates, and 34.7% were civil servants (with no social security problems). The statements of the asthmatics in the study were grouped according to the following themes: "*The Most Important Factor in Accepting Asthma Is Time,*" "*It's So Hard to Be Asthmatic,*" "*Being Asthmatic Means Understanding the Value of Life,*" "*I Don't Like Asthma, so I Can't Make Friends with It,*" "*Learning to Live with Asthma,*" "*One Day I May Recover from Asthma,*" "*Feeling Anger,*" *and* "*Suffering from Continuous Worry and Fear.*" *Conclusion.* Asthmatic patients need psychosocial support since they believe that there is no certain treatment for asthma, and attacks are inevitable.

Keywords asthma, asthmatic patients, phenomenological methodology

INTRODUCTION

Asthma is a common condition that carries a significant burden for patients, families, and communities (1). For example, more than 300 million people around the world have been diagnosed with asthma, which can bring about economic and social burdens on both individual and community health (2–6).

Asthma is caused by environmental factors as well as genetic factors (7, 8). The major risk factors include air pollution, an increase in the amount of allergens, infections in children, insufficient exercise, diet, low socio-economic status, active or passive smoking, personal/familial susceptibility, mood changes, and living in big cities, by the sea, in industrial areas, or in enclosed places (9–12).

Patients diagnosed with asthma suffer more from anxiety and depression in comparison with those not diagnosed with asthma (11, 13, 14). Lack of knowledge about the disease, fear of death, and stressful experiences are significant sources of anxiety for asthmatic individuals and their families (3). Problems such as losing the feeling of confidence because of the worry that an asthma attack can occur in any place, the deterioration in relationships with family members/friends, the inability to attend school or work, and the inability to adapt to the disease can cause asthmatic patients or their families to suffer from anxiety and depression (5, 6, 15). Diagnosis and treatment of the anxiety and depression suffered by asthmatic patients is reported to reduce morbidity, improve life quality, and have a positive effect on the course of the disease (16, 17).

The attitudes, health beliefs, prior experiences, and complexity of lifestyle, of patients, along with their knowledge, attitudes, and beliefs are recognized as major determinants of health behavior, including adherence to medication regimens (18–20). According to the Global Initiative for Asthma guidelines (21), asthma is regarded as controlled if patients have minimal chronic symptoms (including nocturnal symptoms); minimal or infrequent exacerbations of their asthma; no emergency hospital visits; minimal (ideally no) use of as-needed b2-agonists; no limitation to their activity levels (including exercise); peak expiratory flow rate (PEF) circadian variation 20%; near normal PEF; and minimal (or no) adverse effects from medication. Other objective measures of disease control currently being investigated include airway hyperresponsiveness and markers of airway inflammation (22). Adapting to the disease and to the kind of lifestyle it dictates is essential for the treatment of asthma. Abadoglu and Dogan (23) report that the greatest problem in diagnosing and treating asthma is patient noncompliance (23). More importance has been attached recently to medical education and management programs that follow chronic diseases. Educating asthmatic patients is one of the factors that play an important role in bringing asthma under control and determining treatment procedures. The primary aim of this education is to reduce the morbidity and mortality levels of asthma and to keep the disease under control. Any education and support offered

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to patients and their families about the disease and its medications and treatment requirements serves to reduce their stress, improve their life quality, and contribute to their adaptation to treatment (3, 24–28). In this regard, learning about the perceptions that asthmatic patients have of their disease and arranging nursing interventions based on those perceptions are crucial for management of the disease.

Antalya, the city in which this study was conducted, is located on the south coast of Turkey and has a warm climate. In Antalya, there are many types of weeds, plants, and trees that are known to cause allergic diseases. Antalya's warm and humid weather also creates an ideal habitat for mites and cockroaches. The climate is hot and humid during summer and there are large quantities of different types of pollen in the air during spring and autumn. During these seasons, in particular, asthmatic patients have problems in managing the disease, and asthma attacks can increase dramatically.

Self-management plans have been adopted so that patients can play an active role in their asthma treatment and monitoring (29, 30). Evidence suggests that the incidence of asthma attacks and hospital referrals has decreased through the application of these self-management plans (30–32). In order for asthma treatment to succeed, an efficient relationship must be established with the medical team, patients' expectations need to be identified, and differences in perceptions of the disease should be determined. Despite advances in asthma diagnosis and treatment in Turkey, evidence shows that asthma is still a major medical condition. Hence, educational programs dealing with asthma are urgently needed (25, 33). Patients still face problems due to insufficient and improper educational programs in Turkey and no study has yet been conducted on asthmatic patients' perceptions of their disease in Turkey. In view of this, studies that investigate asthmatic patients' feelings, opinions, and perceptions of their disease are required so that the individual or social impact of asthma can be understood. Learning about the feelings and thoughts of asthmatic patients is also significant in terms of providing guidelines for the medical personnel working with these patients.

Aim

This study was conducted to investigate asthmatic patients' perceptions of the disease.

Methods

This qualitative research employed the phenomenological method. Written materials are commonly used in qualitative research and the only method of data collection is document analysis. Documents are sources of information that can be used effectively in qualitative research, and in this kind of research, the required data can be collected without having to conduct observations or interviews. Usable documents include diaries, memoirs, field notes, and letters. Document analysis involves analyzing written materials that contain information about the phenomena and events in question (34–36). Therefore, asking patients to write letters was chosen as the method in this study as it facilitates direct concentration on the research topic. In contrast to deductive quantitative research, which tests explicit hypotheses, qualitative research is empirically based and involves interpretation of data derived from personal experiences, interactions, interpretations, emotions, and perspectives (37, 38). Qualitative methodology allows a much richer description of the fears and problems encountered by patients than is possible with quantitative methods. The qualitative research technique provides useful methods to understand and appreciate the complexity of patients' medical, emotional, and social needs, as well as their health beliefs and attitudes. Patient care or research protocols for individuals or groups of individuals can be informed by the results. Finally, qualitative research can be used to generate hypotheses for subsequent quantitative research (39).

Our qualitative study was based on a comprehensive approach that is pertinent to developing a deep understanding of the patients' experience of illness, treatment, and health care (40). This approach was relevant to our research questions and to the way people view health/illness. Although chronic illness is an embodied experience, our main concern was to understand it as a subjective, or "biographical trajectory," shaped by the social dimensions of the disease (41, 42). This research was conducted with patients who were monitored in the asthma department of a university hospital. The subjects were recruited from among the participants in a larger cohort study that examined the impact of access to drug plans on health outcomes and the uses of hospitals for approximately 550 patients with asthma. Inclusion criteria for the subgroup were defined in order to represent a remission period sample. Inclusion criteria were as follows: (a) adults patients with clinically diagnosed asthma; (b) use of asthma medication in the previous year; (c) remission period; (d) patients attending treatment regimen control; and (e) Turkish literate. Sample selection in qualitative studies is based on the purposes of the research. Interviews were successfully completed with 23 patients between 01 September and 30 September 2008. The recruitment of participants was halted when data saturation was achieved according to the principles that guide data collection in qualitative studies (43, 44). In Antalya, asthmatic patients usually prefer to move to cooler places/mountain villages in order to avoid the hot and humid weather in summer. The patients in our sample were in the remission period, and they usually preferred September for their controls. Within the framework of the purposeful sampling process, voluntary and literate participants who were able to provide information about the aim of the study and write letters were chosen for the research sample (45). For this reason, the sample selection of this study was aimed at revealing asthmatic patients' perceptions of the disease. For the initial implementation, five patients were asked to write letters, but these patients were not included in the research sample.

Data Collection Methods

In order to determine their perceptions, feelings, and opinions about asthma, the patients in the study were asked to write a letter to answer this question: "If asthma were a friend of yours, what would you like to say to it in a letter?" The research data were obtained by means of the letters written by the patients. Before writing their letters, the patients were informed about the aims of the study. It was explained to them that what they wrote would only be used for research purposes, and that they could withdraw from the research whenever they wanted. The patients were warned not to write their names in their letters, and their verbal and written consent was obtained. The letters were written in a waiting room with a convenient table within the department which offered a quiet, peaceful, and relaxing environment for the patients. It took approximately 15–20 minutes to write their letters, which was done without supervision. Any questions the patients may have had were answered after the writing process. This process of patients writing letters is not a procedure conducted routinely in the department.

Data Analysis

It was found that the letters varied in length. Some of the patients expressed their thoughts within a few sentences while others wrote longer letters. It became clear that they often expressed their feelings and thoughts emotionally by emphasizing the restrictions caused by asthma.

Everything written by the patients was analyzed. Colaizzi's (1978) continuous comparative method was used in the qualitative analysis of the research data. The analysis focused on the generality of the comments in the responses beyond words, the number of participants using the same words, what was actually meant, and the authenticity of the responses. For this reason, each of the researchers read the letters separately and took some notes about the prominent topics, and the themes were then created by gathering the statements about similar topics in the same category. In qualitative studies, it is often quite difficult to generalize about findings because elaborate and substantial data are obtained from a few individuals (45). Three researchers independently reviewed and coded these quotes through qualitative techniques and agreed on categories and overarching themes through consensus (46). With regard to the analysis of the research data, two field experts with experience of qualitative studies were asked to comment on the raw data. The analysis of the data generated eight themes.

RESULTS

The mean age of the patients in the study was 41.43 ± 16.23. A total of 69.6% of the patients were female, 73.9% were married, 34.8% were primary school graduates, 34.7% were civil servants, 48% had been ill for the last 10 years, and all had health insurance. It was also determined that among the patients in the study, 56.5% had had an asthma attack once in the previous year and 87% did not smoke. Finally, the researchers came up with eight themes based on the data derived from the patients' writings (Table 1). Some of the ideas expressed in the themes can be seen in Table 2.

TABLE 1.—Emergent themes.

Themes	%
The most important factor in accepting asthma is time	9
It's so hard to be asthmatic	61
Being asthmatic means understanding the value of life	9
I don't like asthma, so I can't make friends with it	35
Learning to live with asthma	13
One day I may recover from asthma	30
Feeling anger	13
Suffering from continuous worry and fear	17

Theme 1: Time Is the Most Important Factor in Accepting Asthma

A small number of patients stated that facing up to asthma is very difficult, and time is very important in accepting the disease. The following are typical statements expressing this opinion:

> It meant not being able to run and play when we were kids. I used to ask myself 'Why me?' when I was going to treatment sessions. After learning to live with it, as I grew up, I tried adapting it to my life standards instead of seeing it as an obstacle to my moves.
>
> (Female, Married, 44 years old, University Graduate, Architect, Employed)
>
> 6 years . . . it's 6 years since I met you. Each day I learn another of your features. Now, I know everything about you and I've accepted you.
>
> (Female, Single, 20 years old, Student)

Theme 2: It's So Hard to Be Asthmatic

The majority of the patients in the study defined asthma as a disease that limits life and makes one develop negative feelings. They stated that an asthmatic patient's life must be planned according to the disease. The statements of two of the patients regarding this feeling are given below:

> Asthma introduces restrictions into your life. Being an asthmatic means not being able to run, climb stairs, smell flowers, or stay long in an enclosed environment . . . Just like the way a mother who has had a baby arranges her life according to her baby, you have to lead your life in a new path according to asthma if you have it.
>
> (Female, Single, 20 years old, high school Graduate, Student)
>
> I think it is something that restricts sports. This illness diminishes me. What it does is like theft in a sense.
>
> (Male, Single, 24 years old, high school Graduate, Student)

TABLE 2.—Representative quotes from themes.

Themes	Quotes
The most important factor in accepting asthma is time	"6 years it's 6 years since I met you. Each day I have learned another feature of yours. Now, I know everything about you and I've accepted you"
It's so hard to be asthmatic	"I think it is something that restricts sports. This illness diminishes me. What it does is like theft in a sense"
Being asthmatic means understanding the value of life	"I am one of those rare people who is capable of feeling how special it is to lead a life different from millions of people in the world and to breathe and understand that I should hold on to life with both hands"
I don't like asthma, so I can't make friends with it	"You are a friend who I don't like and I want you to leave me immediately. I want you to set me free so that I can get my physical freedom and lead my normal life again"
Learning to live with asthma	"I know my life will be hard. Nothing will ever be the same. But I've got used to living with asthma"
One day I may recover from asthma	"I want to live the rest of my life without you. I want to say goodbye to you forever"
Feeling anger	"I hate you! (asthma)"
Suffering from continuous worry and fear	"I am worried that it may turn into tuberculosis or pneumonia if I ever catch a cold. I am afraid of catching cold. In fact, I do not want to have a bath for fear that I may catch a cold"

Note: All quotes are represented in the table.

Some of the patients explained the difficulty of asthma particularly with regard to the inability to breathe efficiently and healthily. The following are some of their statements about this feeling:

> It means a restraint on your freedom . . . your life getting harder. You know what they say: "Health is better than wealth!" It means growing away from the pleasures of life. It also means getting away from polluted air . . . but to where, I don't know. I'm thinking of moving just because of my asthma.

(Male, Married, 52 years old, University Graduate, Teacher, Retired)

> Being asthmatic means limitation of moves, a kind of swelling in the breast and being aware of every breath I take (I don't want to hear the sound of my breath). Taking a deep breath is the worst. I get into depression after an asthma attack. Sometimes I suffer from aphonia and I feel unhappy.

(Female, Married, 43 years old, University Graduate, Civil Servant, Employed)

> Asthma is horrible. I feel short of breath when I have a cold or try to climb stairs. I don't feel well. I feel gloomy. I feel unhappy due to coughing spells at night.
>
> (Female, Married, 43 years old, University Graduate with Associate Degree, Civil Servant, Employed)

Theme 3: Being Asthmatic Means Understanding the Value of Life

A small number of patients in the study stated that their condition taught them that life was more meaningful and valuable, and that by means of the disease, they realized that every single moment of life was precious. They said they grasped the meaning of life thanks to this illness. Some of the patients' statements about this theme are below:

> I am one of those rare people who are capable of feeling how special it is to lead a life different from millions of people in the world, and to breathe and understand that I should hold on to life with both hands.

(Female, Married, 44 years old, University Graduate, Architect, Employed)

> Those corrupt political leaders will pollute the breath of future generations as long as people vote for them. I suggest uniting in the path indicated by Atatürk. Leading a healthy life is only possible by protecting the environment. We all should understand the value of the world.

(Male, Married, 52 years old, University Graduate, Teacher, Retired)

Theme 4: I Don't Like Asthma, So I Can't Make Friends with It

Some of the patients in the study stated that they were like friends with asthma as a result of living with this chronic disease for a long time, but that they could not like this friend because asthma was an undesired and unacceptable disease that restricted their freedom. The following are some of their statements about this feeling:

> You have been a friend to me for 20 years. You overwhelm me from time to time and I am fed up with you. I want to end this relationship. I don't want to see you anymore. I want to live the rest of my life without you. I want to say goodbye to you forever.

(Female, Married, 31 years old, Primary School Graduate, Housewife)

> Get out of me because I want to take a deep breath comfortably. I want to run. You suffocate me when you are inside me. I don't want a friend like you. But I can control you even if I can't get rid of you. I will not feed you with tobacco, alcohol or allergen substances.

(Female, Married, 43 years old, University Graduate, Civil Servant, Employed)

> You are a friend who I don't like and I want you to leave me immediately. I want you to set me free so that I can get my physical freedom and lead my normal life again.
>
> (Male, Married, 55 years old, University Graduate, Professor)

Theme 5: Learning to Live with Asthma

Some of the patients in the study stated that they were well aware of the fact that their asthma would never be cured completely, so they had learned to live with the illness and they accepted it.

> I know my life will be hard. Nothing will ever be the same. But I've got used to living with asthma.

(Female, Married, 41 years old, University Graduate, Civil Servant)

> This illness came to me with genes that will not be cured and, when it got the appropriate conditions, it revealed its face. Just like the way normal people put on clothes, I know I should lead a life that is in harmony with asthma. That kind of a life should be based on a relationship with asthma like a brother and sister and it shouldn't prevent asthmatic patients from being hurt.
>
> (Male, Married, 55 years old, University Graduate, Professor)

Theme 6: One Day I May Recover from Asthma

Some of the patients in the study stated that they hoped to recover from this disease, believing that asthma was an illness that could be cured completely. However, these patients were also observed to have the remains of unresolved feelings of anger and hatred for the disease. The patients' statements about this theme are given below:

> I want to live the rest of my life without you. I want to say goodbye to you forever.

(Female, Married, 31 years old, Primary School Graduate, Housewife)

> Please leave me!

(Female, Single, 30 years old, University Graduate with Masters Degree, Nurse)

> Get out of my life and never come back!

(Female, Single, 16 years old, high school Graduate, Student)

> When flowers bloom and leaves fall again ... you have always been there with me at home. I wish you had said goodbye to me with falling trees.

(Female, Single, 20 years old, High school Graduate, Student)

Theme 7: Feeling Anger

It is interesting to note that one of the patients in the study disliked asthma and wished that someone else had it. This patient said,

> Come on! Go find someone else!

(Female, Married, 43 years old, University Graduate with Associate Degree, Civil Servant, Employed)

Two of the patients mentioned their feeling of anger caused by asthma. Some sample statements are given below:

> I think I am going to die earlier than my peers. I feel as if I were handicapped, and I feel very upset about not being able to climb stairs and having to have a rest after walking for a while. It drives me crazy when people say, 'Oh, darling. Are you tired?' I pity myself at those times. I pity myself and certainly cry. Besides, I feel angry about everything and everyone ...

(Female, Single, 30 years old, University Graduate with Masters Degree, Nurse)

> I hate you!
>
> (Female, Single, 20 years old, high school Graduate, Student)

Theme 8: Suffering from Continuous Worry and Fear

Some of the patients in the study stated that they suffered continuously from a worry that they would get sick and be unable to breathe at any moment. The statement by one of the patients about her concern that her child might be asthmatic reveals the scale of the worry that asthmatic patients face:

> I always feel a need to protect-myself. I constantly remind myself to take my medication with me when I leave home, and I feel worried about the places I visit, my health, and the possibility of an asthma attack all the time. I believe I have to protect myself against dust, smoke and smell all through my life. I'm extremely worried. I'm frightened of being sick. I immediately close my mouth and nose whenever someone sneezes near me. Sometimes I do the same walking in street. I am worried that something may go wrong with me or my child after I have one. I even give up everything sometimes.

(Female, Married, 41 years old, University Graduate, Civil Servant)

> I am worried that it may turn into tuberculosis or pneumonia if I ever catch cold. I am afraid of catching cold. In fact, I do not want to have a bath for fear that I may catch a cold.

(Male, Married, 55 years old, University Graduate, Professor)

DISCUSSION

A total of eight themes were created in this study, which aimed to investigate the asthmatic patients' perceptions, feelings, and opinions about the disease. We used a qualitative design in our study. Qualitative studies are useful when researchers wish to gather information about relatively unexplored topics in which patients' perspectives

are critical to the development of future interventions (39). Through the qualitative design of this study, we were able to conduct this analysis based on patients' responses as written documents. Patients were not prompted specifically on the topic of asthma medication and, therefore, responses emerged because patients deemed their medications to be a crucial aspect of their view of asthma and its impact on their lives.

The patients in the study stated that the most significant factor in accepting asthma was *time*. At some time in their lives, individuals may have to deal with negative situations like an illness. On the other hand, the intensity of feelings about a negative incident may gradually decrease in time. In fact, people tend to deal with negative situations and face up to these problems (27). Similarly, the patients in this study emphasized that time played a key role in accepting their illness. In a study by Mancuso et al. (47) who focused on determining asthmatic patients' opinions about the benefits and barriers of asthma in relation to physical activity, over 68% of the patients cited symptoms when describing asthma, particularly shortness of breath and chest heaviness. In addition, some patients viewed asthma as a transient condition while others indicated that it was a permanent condition regardless of whether they had symptoms. Not being able to anticipate exacerbations or not knowing what to expect contributed to some patients' view that asthma was unpredictable. In most cases, this caused fear and uncertainty (47).

The patients in this study defined asthma as *a disease that limits life and makes one develop negative feelings* (34). They believed that asthma placed limitations on their physical, social, and mental lives, and it could lead to noticeable disruptions in their daily lives if it was not kept under control, and therefore had a negative effect on patients' quality of life (17, 48, 49). A vicious circle is created by the development of restrictions in social life and the emergence of anxiety due to asthma and this limitation, in turn, inevitably increased anxiety (11, 14). The findings from both this study and others in the relevant literature are similar in this sense. The study by Mancuso et al. (47), which studied 60 patients, provided similar results. The next major theme was the marked impact that asthma had on daily life. Most patients reported that asthma caused limitations in routine daily activities such as doing chores, climbing stairs, and going outdoors, as well as extra activities such as specific sports and job activities. Many patients also reported that asthma limited interactions with others (47).

A theme that emerged in focus group interviews with asthmatic adolescents conducted by George et al. (39) was "I don't need it every day." Although participants were aware that inhaled corticosteroids (ICSs) were prescribed to be used daily regardless of the presence or absence of symptoms, focus group members reported performing a detailed self-assessment of the state of their asthma before deciding whether to take their ICSs. Some members missed doses when symptoms were absent, while others terminated therapy when symptoms did not abate despite adherence. Patients believed they were capable of making independent decisions regarding ICS adherence that conflicted with their provider's instructions because they believed that they knew themselves, and their asthma, better than the health provider (39).

The patients in the study also stated that *asthma taught them that life was more meaningful and valuable* and that by means of the disease, they realized that every single moment of life was precious. As a natural consequence of their feeling of loss, patients seem to hold on to life more tightly with both hands, grasp the meaning of life, and employ more efficient coping strategies (50). Wendy et al. (51) determined the theme "Doing Without Means Standard of Living Is Affected" and found that the patients and their families in this study faced restrictions and other unpleasant experiences in their lives as well as financial difficulty. The following are some samples among the children's statements: "Sometimes I didn't buy myself clothes ...." "I can't afford to get anything that isn't absolutely necessary ... any birthday presents ... No piano lessons ... no holidays" (51).

Another finding obtained in this study was that the patients stated that they were like *friends* with asthma as a result of living with this chronic illness for a long time, but they did not like this friend since it limited their freedom. Individuals with chronic disease both try to learn to live with it and, at the same time, they may have to deal with other stressful experiences such as job changes, marriage, divorce, death, and seasonal changes. In a qualitative study conducted by Hussein et al. (52) with asthmatic patients, it was found that the patients' statements were mostly "dislikes about asthma." In general, most participants disliked being breathless. As mentioned previously, however, some of the patients thought "asthma is a God given condition" and therefore they did not "dislike asthma" (52). Stressful incidents may trigger asthma attacks and hamper disease management. A study by McGann et al. (53) reports that those patients who deny their asthma suffer from its symptoms more severely and have problems with their respiratory systems. The same study also suggests that those patients who use denial defense mechanisms as a strategy to cope with asthma are hospitalized more often (53).

Some of the patients in the study stated that they were well aware of the fact that their asthma would not be cured and therefore *they had learned to live with this disease* and accepted it. Learning to live with asthma makes it possible for asthmatic patients to manage the illness more efficiently and to improve their life quality (54, 55). Clinical guidelines on the management of asthma clearly stress the importance of patient education and self-management (56). Also, in a Cochrane systematic review of 24 randomized control trials of self-management asthma education, Gibson et al. (57) showed that self-management education reduced hospitalizations, emergency room visits to the doctor, days off work or school, and nocturnal asthma.

Some of the patients in the study stated that they *hoped to recover from this disease*, believing that asthma was an illness that could be cured completely. On the other hand, their belief that asthma could be cured completely may be

an indication of the fact that they denied and rejected this illness. For a patient with asthma, the denial of asthma or the severity of asthma is one of the best-known coping strategies and is associated with the risk of life-threatening asthma attacks. Denial is a form of emotional regulation whereby the way an individual thinks about the stressor is changed, rather than trying to change the stressor itself. It is logical to assume that situations that can be controlled are better dealt with in a problem-focused fashion, whereas emotion-focused coping may be a superior strategy in situations beyond the patient's control (58). For patients with persistent asthma, optimal asthma management involves adhering to a medication regimen, which requires a considerable degree of knowledge about medications and trigger factors, as well as a positive attitude toward asthma management.

It is interesting to note that some of the patients in the study disliked asthma, and they wished someone else had it and mentioned intense *feelings of anger*. Anger is a feeling that emerges when patients start to accept that they do have a condition that threatens their lives. When they have to give up control due to an illness, it is only natural that they have a severe level of anger (43). In this regard, the findings from this study and others in the relevant literature are similar. Mechanisms linking psychological and social status to asthma morbidity and mortality remain largely undefined (59). However, there is considerable evidence that psychosocial factors influence the ability of patients with asthma to manage their condition (60).

The study also found that some of the patients in the study (three females and a male) stated that they continuously suffered from a feeling of *worry and anxiety* that they would have an asthma attack and be unable to breathe. The statement by one of the patients about her concern that her child might be asthmatic reveals the scale of the worry that asthmatic patients face. When asthma patients experience a triggering incident, they immediately suffer from bronchial over-sensitivity and airway obstruction as well as consequent coughing spells and difficulty in breathing (26, 61). Living with a continuous concern for respiratory disorder may naturally have a negative influence on a patient's mental state (26, 55). The way a person breathes may give us a clue about his/her feelings. In addition to provoking respiratory problems, anxiety increases their severity as well. An anxious person interprets existing breathing problems with increased anxiety, which is vicious circle. In other words, stress triggers asthma and asthma, in return, may create a continuous state of anxiety (40, 55). The experience of anxiety by patients with asthma may arise from the real or anticipated threat of asthma attacks. It is likely that some anxiety is necessary in order to motivate patients to accept asthma management (62). This is of particular concern because increased rates of psychological distress have been found in asthma patients compared to healthy individuals and those with some other medical conditions. Feelings of depression experienced by many asthma patients may arise from a reduced physical capacity to carry out normal social, sexual, recreational, and vocational activities (63, 64). The themes determined by Mancuso et al. (47) suggested that for most patients, asthma caused strong emotional reactions including fear, annoyance, and embarrassment. Patients also described asthma as "humbling" and "depressing." Many patients stated that asthma made them cautious and required their time and effort. Specifically, they had to pay attention to triggers and had to work to avoid them. Interestingly, when asked if there was anything positive about asthma, many patients stated that asthma had made certain things in their life better (47).

Some of the themes in our study are similar to those described in other studies while some are different, which can be attributed to cultural differences. Turkish people consider chronic diseases with a fatalist perspective and always think it could have been worse. This could be seen as a way in Turkish culture to cope with problems. This is explained in this discussion.

This study revealed that the asthmatic patients in the study needed support because of the continuous nature of asthma treatment and the threat of asthma attacks. It could be suggested in light of these findings that the asthmatic patients' perceptions of their disease is significant for their acceptance of their illness, reduction of their worries, learning to live with the situation, and minimizing their problems. Informing asthmatic patients and their families about asthma may have an influence on the course of the disease. An efficient communication system should be set up with asthmatic patients and their families to help them learn to live with asthma and to ensure the active involvement of families in asthma treatment and monitoring. An important step in this approach is for asthma education to be offered in hospital controls (29, 32, 65). Through better asthma education, the incidence of asthma attacks during treatment can be reduced, families can trust health professionals more, they can come regularly for their control appointments, and therefore feel satisfied with their treatment (25, 26, 65).

Coping strategies can be regarded as a mechanism for understanding how social factors contribute to sub-optimal asthma management and control of symptoms. A social network consists of a person's relationships with relatives, friends, neighbors, coworkers, and other acquaintances who interact with the person. Families and patients utilize different members of the social network for different needs. Social networks provide three types of aid: (a) instrumental support, (b) emotional or social support, and (c) referral and information (60). Also, three main strategies for non-medical illness management are identified: prevention, normalization, and mobilizing support. Strategies vary in their applicability depending on the severity of asthma symptoms experienced (66). We did not identify any studies that explored how coping strategies are related to the levels of social support for asthma patients.

Identifying the environmental conditions of asthmatic patients and their families, providing them with the care and consultancy they need, and educating them in accordance with their information needs are significant factors for minimizing the problems caused by the disease,

making adaptation to and coping with the disease more easy (14). To this end, nurses play a key role in providing asthmatic patients with a quality life by means of primary, secondary, and tertiary health services (67).

RECOMMENDATIONS

We recommend that increasing awareness of asthma and providing educational support can be helpful in improving asthmatic patients' quality of life. However, we suggest that the view held by some professionals, patients, and carers that action plans are irrelevant, impractical, and only suitable for some is symptomatic of deeper underlying issues. In particular, professionals and patients/carers are using a different explanatory model to inform their attitudes toward asthma, its management, and the role of the expert patient/parent. It is essential that all sides dealing with this issue understand each other's perspective.

CONCLUSION

This study revealed that patients grew accustomed to their illness in time, but still had difficulty in accepting it and suffered from anxiety, fear, and anger. It was found that being asthmatic limited the patients' lives and, consequently, they recognized the value of life better and they wanted to get rid of this illness and be free of it one day. Considering these findings, the patients' perceptions, feelings, and opinions should be taken into consideration in the educational programs to be offered to asthmatic individuals. Similar qualitative studies to be conducted in future with asthmatic individuals are expected to make it possible to obtain more detailed information about the subject and understand the issue more efficiently.

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CONTRIBUTIONS

Study design: SO, ZO, MY; data collection: SO, ZO; data analysis: SO, ZO, MY; and manuscript preparation: SO, ZO, MY.

DECLARATION OF INTEREST

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

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