



Original Research Article

Study of Psychosocial Factors in Young and Elderly Asthmatics

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Abstract

Introduction: Asthma affects the children, young, as well as elderly populations. Psychosocial factors have been extensively studied in children and younger asthmatics. They can have a significant impact in the elderly also, as they can interfere with the clinical presentation and management.

Aims: Young and elderly asthmatics were compared to see if there were differences with regard to the psychosocial profile.

Materials and Methods: One hundred patients of bronchial asthma attending the Department of Tuberculosis and Chest diseases, Government Medical College, Patiala, India, were studied. Patients were divided into 2 groups: Group A: 50 elderly patients ≥ 65 years old and Group B: 50 young patients < 40 years age. Both groups were compared with regards to age, sex, marital status, rural/urban background, presence/absence of any confidante, and frequency of contact with the confidante, presence of depressive symptoms, impairment of social functioning, presence of emotional problems and impairment of quality of life. The data was tabulated and statistically analyzed.

Results: Both groups were matched for sex and rural/urban background. More of elderly patients were single because of the death of the spouse than the young ($p=0.0001$).

80% of elderly and 96% of young asthmatics had a confidante and the differences were statistically significant. When the frequency of contact with the confidante was compared, results were found to be statistically significant with respect to daily ($p=0.002$), monthly ($p=0.007$) and no contact ($p=0.0021$). The differences with respect to presence of depressive symptoms, impairment of social functioning, presence of emotional problems and impairment of quality of life were also found to be statistically significant, with more of the elderly asthmatics being affected. (p value being 0.001, 0.001, 0.0234 and 0.001 respectively)

Conclusion: There is significant difference between elderly and young asthmatics with regards to presence of confidante, frequency of contact with him/her and various psychological parameters. The presence of a confidante and a regular contact with him/her can have a positive impact on the management of asthma.

Keywords: Asthma, elderly, young, psychosocial profile.

Introduction

Asthma, once considered as a disease of childhood years, is now recognized to affect the young and elderly population also.¹ Over past few decades, average life expectancy has increased significantly, globally, as well as in India.^{2,3,4} Dealing with the burden of the disease becomes more important in the elderly because of associated increased mortality, hospitalizations, medical costs and health related quality of life.¹ Also, as the age progresses, there is a significant association of bronchial asthma with various other comorbidities.¹ Besides routine management of asthma in the elderly, treatment of these comorbidities is also important as they can interfere with clinical presentation and management.

With advancing age, patients may be forced to live alone, or they may have a very infrequent contact with a person with whom they can speak to and discuss their problems. Hence, psychosocial factors gain more importance and need to be considered seriously, as they lead to psychological comorbidities. Lot of literature is available on the importance of these psychosocial factors in asthma in children and young adults.^{5,6,7}

Stress is henceforth considered a well documented factor leading to asthma exacerbations.^{8,9} Psychological comorbidity is considered to contribute significantly to decreased quality of life (QOL) in asthmatics.¹⁰ Hence, there is an increasing emphasis on the importance of psychological interventions in asthmatics.¹¹ Multidisciplinary team approach, with special emphasis on psychological comorbidity is repeatedly advocated for managing the disease.¹²

Despite plenty of studies on psychosocial parameters in asthma in young adults and children, literature of these parameters in elderly asthmatics is limited, though in one study, depression has been found to be an independent predictor of exacerbations in the elderly.¹³

Hence a study was planned to see if there are differences between the elderly and young asthmatics regarding the psychosocial profile.

Presence of confidante and frequency of contact with him/her was also studied to see the issue of loneliness which has a major impact on the psychological profile.

Materials and Methods

In this prospective study, a total of 100 patients of bronchial asthma attending the Department of Tuberculosis and Chest diseases, Government Medical College, Patiala, were studied. Informed consent was obtained from each patient. The study was approved by the Institute's ethical committee. Patients were divided into 2 groups: Group A: consisted of 50 elderly patients ≥ 65 years old and Group B: consisted of 50 young patients <40 years age.

Both the groups were studied and compared with regards to their age, sex, marital status, rural/urban background, presence/absence of any confidante, frequency of contact with the confidante (daily, weekly, <monthly, monthly or no contact), presence of depressive symptoms, impairment of social functioning, presence of emotional problems and impairment of quality of life.

Depressive symptoms were assessed by asking for the presence of the following: sad mood or anxiety, feelings of hopelessness/ guilt/ worthlessness/ helplessness, loss of interest or pleasure in hobbies and activities, decreased energy and easy fatigability, difficulty concentrating/ remembering/ making decisions, difficulty sleeping/ early-morning awakening/ oversleeping, appetite and/or weight changes, thoughts of death, and feelings of restlessness and irritability.

Social functioning was assessed by asking questions regarding the patient's ability to carry out tasks at home and/or work place, maintain relationships and interactions with family members/ friends/ relatives, and attending social gatherings/celebrations with ways of spending spare time.

Presence of emotional problems was assessed by noting presence of any of the following: mood swings, episodes of crying, confusion,

disorientation, inability to concentrate, lack of interest in previously pleasurable activities, obsessive-compulsive behaviours and presence of fear and shame.

Impairment of quality of life was assessed by noting the physical well being, and satisfaction derived in carrying out activities of daily living (like bathing, dressing, toileting and eating), exercise levels, absence/inability to do work, financial issues and social and professional relationships.

The data so obtained was tabulated and statistically analyzed.

All the patients were given health education on the various aspects of asthma. This health education regarding the physiology of the disease and its long term implications, need for taking the prescribed medication regimens, inhalational techniques and the reliever and preventer medications etc was reinforced at every follow up visit at 15th day, 1st month, 2nd month and 3rd month. At every follow up visit, symptomatic profile, compliance and technique of inhalation were checked.

Statistical analysis: Discrete categorical data were presented as *n* (%). Normality of quantitative data were checked by measures of Kolmogorov Smirnov tests of normality. Mean ages of the groups were compared using one-way ANOVA. Proportions were compared using Chi-square. Analysis was conducted using IBM SPSS STATISTICS. *p* value of ≤ 0.05 was considered to indicate statistical significance.

Results

In Group A, there were 26 females and 24 males, while in group B, there were 34 females and 16 males. In Group A, 24 patients belonged to the rural background and 26 were from urban background. The figures in group B were 31 and 19 respectively. Both the groups were matched for sex and rural/urban background. However, when the marital status of the two groups was compared, it was seen that number of patients who were single because of the death of the spouse

amongst elderly was found to be statistically significant (*p*=0.0001) (Table 1).

Table 1 showing the marital status

	Married	Unmarried	Widowed
Group-A (N=50)	32 (64%)	0	18 (36%)
Group-B (N=50)	38 (76%)	11 (22%)	1 (2%)

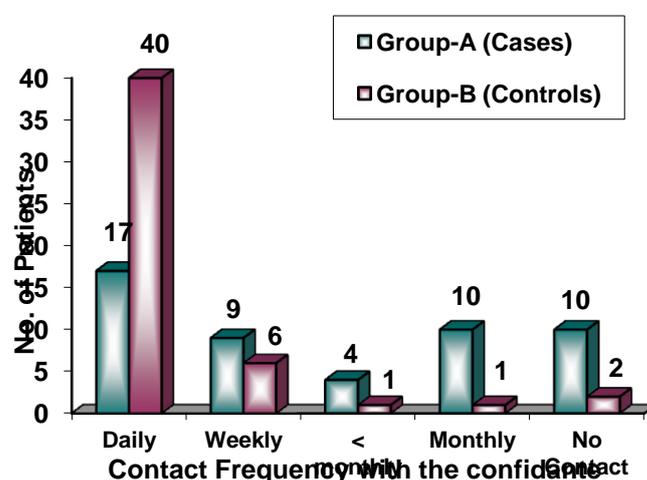
80% of the elderly had one or the other confidante while 96% of the young asthmatics had a confidante and the result was found to be statistically significant (Table 2).

Table 2 showing the presence of any confidante

	Yes	No
Group-A (N=50)	40 (80%)	10 (20%)
Group-B (N=50)	48 (96%)	2 (4%)

When the frequency of contact with the confidante was compared, the results were found to be statistically significant with respect to the daily (*p*=0.002), monthly (*p*=0.007) and no contact (*p*=0.0021) in Group A and B. (Figure 1).

Figure 1 showing the frequency of contact with the confidante



The differences in the two groups with respect to presence of depressive symptoms, impairment of social functioning, presence of emotional problems and impairment of quality of life were found to be statistically significant, with more of the elderly asthmatics being affected, as compared to the younger ones. (*p* value being 0.001, 0.0234, 0.001 and 0.001 respectively) (Table 3)

Table 3 showing the presence of depressive symptoms, impairment of social functioning, presence of emotional problems and impairment of quality of life in the two groups

Parameter		Group A (N=50)	Group B (N=50)
Depressive Symptoms	Present	26(52%)	4 (8%)
	Absent	24 (48%)	46(92%)
Social functioning	Impaired	24 (48%)	13 (26%)
	Not impaired	26 (52%)	37 (74%)
Emotional Problems	Present	29 (58%)	8 (16%)
	Absent	21 (42%)	42 (84%)
Quality of Life	Impaired	27 (54%)	7 (14%)
	Not impaired	23 (46%)	43 (86%)

Discussion

Asthma is a chronic disease and considered a taboo in the community. Most of the times patients/ members of the family find it hard to accept the diagnosis. Disclosure of asthma results in immediate psycho-social impact upon patients, the parents of children and other members of the family. During acute attacks of asthma and in chronic asthma with airway remodeling, the earning capacity of patient is affected, moreover patient has to incur considerable out of pocket expenses on medication, emergency visits, hospital admissions and also results in loss of wages. There is growing tendency amongst Indian settings now to pay more attention and give support to young patients rather than the elderly. The elderly are not cared for by the members of the family as a result of which the old age home concept which was not known till recently is emerging fast. Elderly are also more likely to suffer from co-morbid conditions and are more likely to be dependent physically, socially, and financially as compared to the young patients. So there is likelihood of differences in psycho-social factors in elderly and young which were hence studied.

The two groups were matched on variables of gender and rural/urban background. When the marital status was compared, it was seen that 32 (64%) were married and 18 (36%) were not having their spouse alive amongst cases, while amongst controls, 38 (76%) were married, 11

(22%) were unmarried and only 1 (2%) patient's spouse was not alive. The number of patients who were single because of the death of the spouse amongst elderly was found to be statistically significant ($p=0.0001$). In Punjab, the average life expectancy is 71.6 years.⁴ It may be seen that the elderly asthmatics who are ≥ 65 yrs of age may not be having their spouse alive. It is seen that at such advanced ages of the elderly asthmatics, when the children are busy with their professional responsibilities, or may have even left their homes for education/jobs, spouse is usually the most trustworthy companion and confidante. Because of poorer family support in the absence of spouse, these patients are forced into loneliness. Also, in case the patient is a widowed female, financial factors add to the gravity of the problem. These lone elderly asthmatics are more likely to consult the physicians who are locally available nearby rather than the pulmonologists, leading to poorer prescription of inhalational drugs.¹⁴ Financial issues may also prevent them from purchasing the prescribed medications.

As seen in our study, there were statistically significant differences in the presence of confidante, and the frequency of contact with him/her amongst elderly and young asthmatics. Our results are thus similar to a study by Adams et al.¹⁵ Role of confidante is important, especially in the elderly because this will help the patient share his/her problems. In these elderly asthmatics, a family member, a friend or even a health educator can play the role of a confidante. His mere presence may wipe off the feelings of loneliness and social insecurity.

In the management of asthma, the confidante may help the elderly patients in the regular and timely intake of various drugs, including those for comorbidities, by memorizing and telling regarding the same. This will overcome the barrier of non intake of drugs because of forgetfulness and poor memory in the elderly. In a study by Adams et al, it was found that daily contact with a confidante increased the adherence to medications.¹⁵ It has been seen that a failure to

instruct and demonstrate the patients about the usage of different inhalers and inability to reinforce the instructions periodically decreases compliance and inhaler efficacy.¹⁶ The confidante can play this role. In elderly patients with severe visual impairment, the confidante may help in correct recognition of the medications also. This will result in better asthma management and the subsequent increasing well being will improve the psychosocial parameters also.¹⁷

It was found that there were statistically significant differences in the elderly and young asthmatics with regards to presence of depressive symptoms, impairment of social functioning, presence of emotional problems and impairment of quality of life. Even after extensive search of literature, no study comparing the various psychosocial parameters amongst elderly and young asthmatics could be found. Many studies to evaluate these variables in children and young asthmatics are available.^{5,6,7} However, there is very limited literature on the psychological parameters in the elderly asthmatics.^{18,19,20} Our results in elderly asthmatics are similar to few of the available studies.^{18,19,20} This may be because of asthma itself, presence of associated comorbid conditions, financial factors, poor family support and loneliness with absence of someone with whom they can speak to freely. The elderly asthmatics face more of denial and social isolation than their younger counterparts. The presence of a confidante and a regular contact with him/her can drastically improve the psychological profile by reducing the mental sufferings.²¹

It was seen that when health education by a dedicated personnel was imparted to patients in both the groups, there was a significant improvement in symptomatic profile with better overall well being, improved compliance and correct technique of inhalation.²² This responsibility of the health educator can be shared by the confidante, as there will be more frequent contact with him/her. Besides the routine care which he/she is providing to the patient, he/she can thus play the specialized role of a health

educator as well. Vice versa also, in the situations where it is difficult to find a confidante and the patient is pushed into loneliness because of the same, a dedicated health educator can play the role of a confidante and increase the frequency of contact with the patient as per need. Basically, the interaction between the two, with one playing the part of the other, as and when required, can significantly reduce the psychological suffering of the patients.

Limitations of the Study

Reasonably unstructured method in the form of self framed questions was used for analyzing the psychological profile.

Though the study was prospective, but psychosocial parameters were evaluated only at baseline. They were not studied at follow up.

The study is a small attempt to elucidate the differences in psychosocial profile in elderly and young asthmatics. Detailed studies with standardized tools are needed to provide more scientific information to the already existing limited literature on this aspect.

Conclusion

It can be concluded from our study that elderly asthmatics have significantly more psychosocial problems than the younger asthmatics. The presence of a confidante, and a regular contact with him/her, will help in driving the asthma outcomes in a positive direction.

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