Assessment of Impact of Patient Counseling on Knowledge, Attitude and Practices in Asthma Patients

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Abstract: This work aimed to assess the knowledge, attitude and practices (KAP) of asthma patients before and after counseling. A total of 60 patients were selected based on the inclusion and exclusion criteria. Of which, 30 patients were in counseling group and 30 patients were in control group. Suitably designed validated questionnaire were used to assess knowledge, attitude, practices of the patients before counseling. Then patient counseling was provided to the patient orally and then patient information leaflet regarding the disease and use of inhalers was issued to the patient in counseling group and once again knowledge, attitude and practices of the patients were evaluated after counseling. Results revealed that the mean result of knowledge, attitude and practices in counseling group was 24.5±1.3 which was greater when compared to control group, which was 17.5±1.5 with significance of $P$-Value 0.0001. In conclusion, from the result, it was clear that patient counseling shown a significant improvement in knowledge, attitude and practices of patient in counseling group when compared with control group. Clinical pharmacists provided patient education showed a positive and effective improvement in patients’ knowledge, attitude and practices of asthma patients

Key words: Asthma · KAP · Patient Counseling

INTRODUCTION

Asthma is one of the most common chronic diseases worldwide [1]. Bronchial asthma is a common disease affecting almost 300 million people in the world and the prevalence of the disease is steadily increasing [2]. World Health Organization (WHO) in its factsheet on asthma quoted that worldwide asthma cases are increasing at a rate of 50 per cent every decade [3]. The pathogenesis of asthma involves the interplay of biological, social and psychological factors [4,5]. Psychological distress might be a risk factor for asthma-related morbidity and mortality and is associated with poor asthma control, near-fatal asthma attacks and asthma mortality [6,7]. As a key component of management guidelines in asthma [8] is the recommendation for patient education. The correct use of drugs and education of patients are the vital for asthma management. Increasing patient’s knowledge about their asthma therapy is a necessary component of asthma management. However, education alone has not been shown to have a beneficial effect on morbidity. Education programmes must, therefore, also look at modifying a patient’s behavior and attitude to asthma that is assessed through KAP Questionnaires. Counseling should lead to increased patient confidence in the ability to self manage asthma, decreased hospital admission rates, increased compliance and improved quality of life [9].

According to SHPA (2004), Pharmacists have a responsibility to provide sufficient information and counseling to enable patients and/or their careers to achieve the informed and judicious use of their medicines. Counseling is the sympathetic interaction between pharmacist and patient; it may go beyond the conveying of straight forward information about the drug and how and when to use it [10]. The ultimate goal of this counseling is to provide information directed at encouraging the safe and appropriate use of drugs, thereby enhancing therapeutic outcomes [11]. Several guidelines specify patient categories and the steps involved in patient counseling [12]. The present study is conducted to assess the impact of patient education on knowledge attitudes and practices regarding the life style modification and management of asthma.
MATERIALS AND METHODS

The study was approved by the Institutional Ethical Committee and it was undertaken in pulmonary medicine department in SRM Medical College Hospital And Research Center, Kattankulathur, Tamil Nadu, India. This was a prospective randomized control study. A total of 60 patients were selected of which 30 patients were in Group A-Counseling group and remaining 30 patients were in Group B - Control group. Adult, elderly patients and asthma patients with no overlap syndromes or co-morbidities were included in the study. Patients with chronic obstructive pulmonary disease, renal or hepatic impairments, pediatric patient, lung cancer patients, pregnant and lactating women were excluded from the study. Informed consent form was obtained from all the patients.

Patients diagnosed with asthma, were enrolled into the study based on the inclusion and exclusion criteria. After obtaining the patient informed consent, the patients were randomized into counseling and control group by simple randomization technique. The required data were obtained from out-patient cards (OP card), case records of inpatients and by direct interview. The patient was also informed to come for the follow-up after three months. Suitably designed validated questionnaire were used to assess knowledge, attitude and practices of the patients before and after counseling. The control group did not receive any counseling. The patient in the counseling group received patient counseling and patient information leaflets (PILs) during their first visit regarding the disease, lifestyle modification and use of inhalers. Once again knowledge, attitude and practices of the patients were assessed after three months. The obtained data were subjected to statistical analysis using “student’s t” test.

RESULTS

Demographic Variables: During the study period, 80 patients were selected, of which 20 patients were excluded due to lack of interest and also due to lack of information of patient. The data on remaining 60 patients were collected. 30 patients under each group were assessed.

The table 1 shows demographic variables of patients in both counseling and control groups. In Counseling Group, 7 (23.33%) of patients were in the age group of 21-30 years, 8 (26.66%) of patients were in the age group of 31-40 years, 9 (30%) of patients were in the age group of 41-50 years and 6 (20%) of patients were in the age group of 51-60 years. In control Group 6 (20%) of patients were in the age group of 21-30 years, 8 (26.66%) of patients were in the age group of 31-40 years, 9 (30%) of patients were in the age group of 41-50 years and 7 (23.33%) of patients were in the age group of 51-60 years. A significant increase in the knowledge, attitude and practices of patients were seen in all the age groups of counseling group when compared to control Group. In both the groups, 14 (46.66%) of patients were males and 16 (53.33%) of patients were females. Most of the patients participated in the study were females. Both the genders have shown a significant increase in knowledge, attitude and practices in counseling group when compared to control group. In counseling group, 13 (43.33%) patients were smokers and 17 (56.66%) patients were non-smokers. In Control group, 15 (50%) patients were smokers and 15 (50%) patients were non-smokers. Both the smokers and non-smokers have shown a significance increase in knowledge, attitude and practice is seen in counseling group when compared to control group. In both the groups, out of 30 (100%) patients included in the study, 13 (43.33%) were literates and 17 (56.66%) were illiterates in counseling group and in control group, 12 (40%) were literates and 18 (60%) were illiterates. Most of the patients participated in the study were illiterates.

Assessment of Patient Counseling by Using KAP Questionnaire: Patient counseling has become a cornerstone for pharmaceutical care and improves patient’s quality of life. It has been observed that most of the individuals were unaware about asthma and its treatment. The knowledge of the patients about asthma were assessed before and after counseling with structured
Table 2: Assessment of patient counseling by KAP questionnaire

1. Do you know what asthma is?
☐ Yes ☐ No ☐ Refused

2. Do you know about the triggering factors of asthma?
☐ Yes ☐ No ☐ Refused

3. Has a doctor or other health professional ever taught you how to recognize early signs or symptoms of an asthma episode?
☐ Yes ☐ No ☐ Refused

4. Has a doctor or other health professional ever taught you what to do during an asthma episode or attack?
☐ Yes ☐ No ☐ Refused

5. A peak flow meter is a hand held device that measures how quickly you can blow air out of your lungs. Has a doctor or health care professional ever thought you how to use a peak flow meter to adjust your daily medications?
☐ Yes ☐ No ☐ Refused

6. Have you ever taken a course or class on how to manage your asthma?
☐ Yes ☐ No ☐ Refused

7. Whether you are coming for regular check up properly
☐ Yes ☐ No ☐ Refused

8. Whether you are taking medication for asthma properly
☐ Yes ☐ No ☐ Refused

9. Whether you are following any dietary restrictions
☐ Yes ☐ No ☐ Refused

10. Whether you are a smoker
☐ Yes ☐ No ☐ Refused

Table 3: Total Mean Score for KAP Questionnaire

<table>
<thead>
<tr>
<th>KAP Score</th>
<th>Counseling Group</th>
<th>Control Group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean ± S.D</td>
<td>24.56±1.35</td>
<td>17.53±1.59</td>
<td>0.0001* S</td>
</tr>
</tbody>
</table>

*S - Extremely statistically significant

KAP questionnaire containing 10 questions (Table 2) related to disease, causative factors, medications and lifestyle modifications.

Table 3 show total Mean score for KAP questionnaire at the end of the study and it was found that there was a significant improvement in knowledge, attitude and practices of asthma patients in counseling group when compared to Control group which was similar to the study conducted by Ulla Narhi et al. [13].

DISCUSSION

Asthma is one of the diseases with large number of people affected around the world, even in India; 300 million people worldwide were affected by asthma [14]. Asthma has been considered a disease primarily affecting children and young adolescents but a substantial number of asthmatic patients develop this problem in elderly stage and elderly asthmatic patients appear to have more severe disease [15]. Patient counseling is one of the most important aspects in developing patient’s knowledge about disease, management, precautions and improving over-all quality of life. Our study even revealed that majority of patients had lack of knowledge about disease, precautions and management before counseling. After counseling, the knowledge, attitude and practices of patients were assessed based on KAP Questionnaire and the results showed significant improvement in knowledge, attitude and practices of asthma patients regarding disease, risk factors, management precautions. Tarique Hakim Merghani et al. [16] conducted a study on “knowledge, attitude and behavior of asthmatic patients regarding asthma in urban areas in Khartom state, Sudan” and concluded that most patients after the study were reluctant to accept as asthmatic rather considered themselves as allergic due to poor knowledge about disease and this study supported our study which showed similar kind of results. Another study performed
by Fatima Rasool et al., suggested that asthmatic patients training by health care professional was possible in everyday practice regarding the inhaler use [17]. The patient’s understanding of the importance of treatment influenced compliance more positively, which reflects the importance of counseling with the patient [18]. In our study, many patients conveyed their thankfulness for providing patient counseling which improved their knowledge, attitude and practices regarding the disease, lifestyle changes and medications.

CONCLUSION

This study concludes that clinical pharmacists provided patient education showed a positive and effective improvement knowledge, attitude and practices of asthma patients.

REFERENCES

8. From the Global Strategy for Asthma Management and Prevention, Global Initiative for Asthma (GINA) [http://www.ginasthma.org].