



Prevalence of asthma and related symptoms amongst medical students of

Faculty of Medicine, University of Kelaniya

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Introduction

- Asthma is an increasingly common chronic respiratory disease worldwide that affects both sexes of almost all ages.
- Such a rise is of concern as it influences the quality of life of affected individuals.
- Therefore, it is important to study the occurrence of asthma among different populations.
- In this light, this study aimed to assess the prevalence of asthma and related symptoms in medical students of Faculty of Medicine, University of Kelaniya.

Objectives

To determine the prevalence of asthma and related symptoms amongst medical students of Faculty of Medicine, University of Kelaniya

Material & Methods

- A questionnaire based survey was conducted among medical students of the Faculty of Medicine, University of Kelaniya. Stratified random sampling was done to collect data from 360 students from September 2019 – February 2020.
- The prevalence of asthma according to gender, Batch and other demographic factors of the students were calculated.
- Further statistical analysis was conducted using IBM SPSS software and sample size was adjusted according to the population to achieve the target objectives.

Results

Reported prevalence of asthma is 47.04%. The prevalence of asthma among male participants is 23.9% and that of female participants is 23.3%. There is no statistically significant

difference in prevalence of asthma among males and females.($p=0.901$) (Figure1)

Distribution of Asthmatic Participants According to Sex

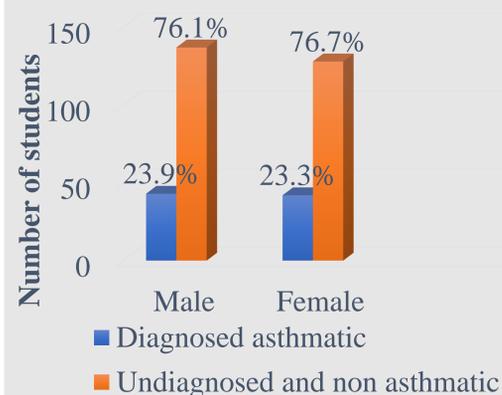


Figure 1

There was a significant association between having asthmatic symptoms such as wheezing (54.1%), tightness of chest (35.2%), cough at sleep (58.8%), breathlessness at sleep (36.4%) and asthma attack (64.7%) in the past 12 months and asthma status ($p=0.00$). (Figure 2)

Prevalence of respiratory symptoms within last 12 months among participants

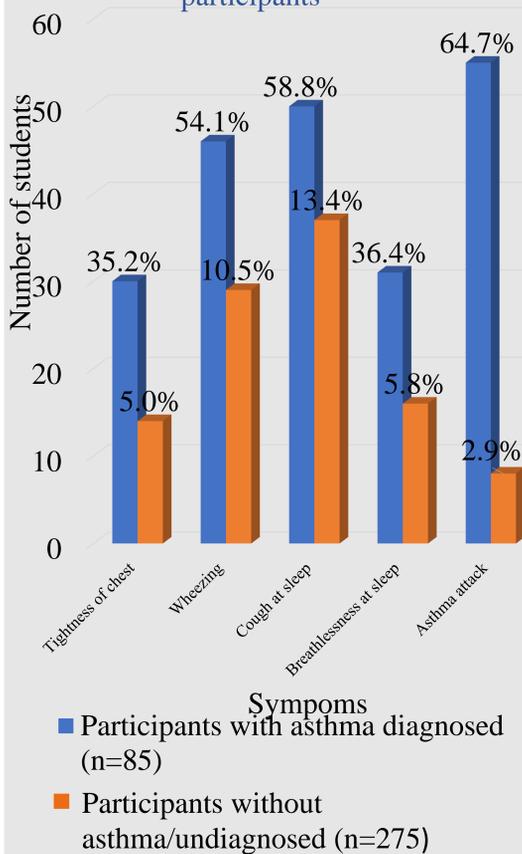


Figure 2

There is a significant drop in academic performance in diagnosed participants ($p=0.00$); 36.47% missed academic activities, 44.7% suffered from interference in self-studying and 21.17% faced exacerbations of asthma during

stressful situations. (Figure 3)

Impact of asthma status on academic performance

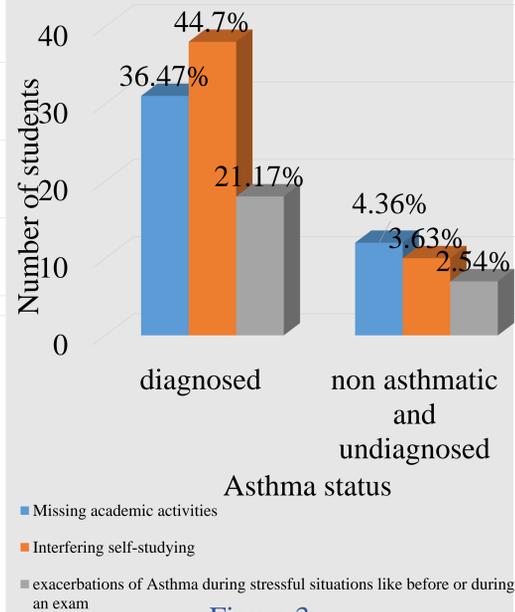


Figure 3

There was a significant association between student perception on how asthma symptoms/attack interfere their academic activities and asthma status. ($P<0.05$). (Figure 4)

Student perception on how asthma Symptoms/ attacks interfere the academic activities

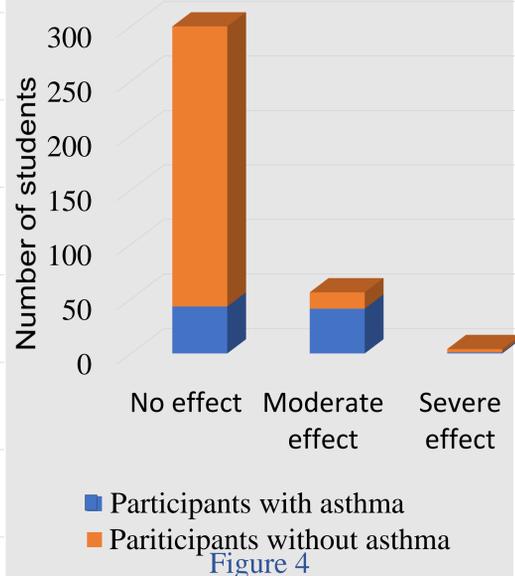


Figure 4

Having a positive family history have 8.052 times greater odds of being an asthmatic, Nasal allergies have 6.924 times greater odds of being an asthmatic and eczema and skin allergies have a 1.928 times greater odds of being an asthmatic compared to participants without these risk factors(figure 5)

Prevalence of risk factors among participants with asthma and participants with undiagnosed asthma or with out asthma

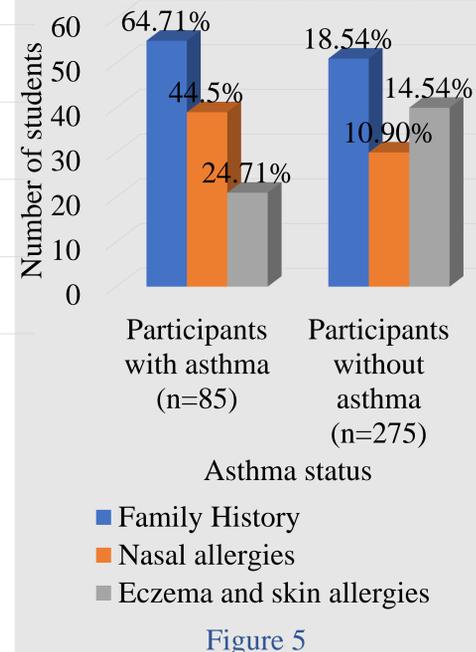


Figure 5

Conclusions

- Prevalence of asthma among medical undergraduates of Faculty of Medicine, University of Kelaniya is 47.04%. Further, there was no significant association between asthma status and gender.
- Among participants with undiagnosed asthma and without asthma, there is a very low prevalence of respiratory symptoms compared to diagnosed asthmatics.
- There is a significant drop in academic performance in diagnosed participants. Further, results indicate positive association between stress from academic activities and increase in symptoms.

Recommendations

It may be useful to investigate the association between asthma and related symptoms with sleep deprivation, smoking, exposure to formalin during dissections and air quality of the faculty premises.

References

- Alawad, A. O., Akhh, K. and Merghani, T. H. (n.d.) *Prevalence of Asthma among University Students and Workers in Khartoum State, Sudan.*
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