



# 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

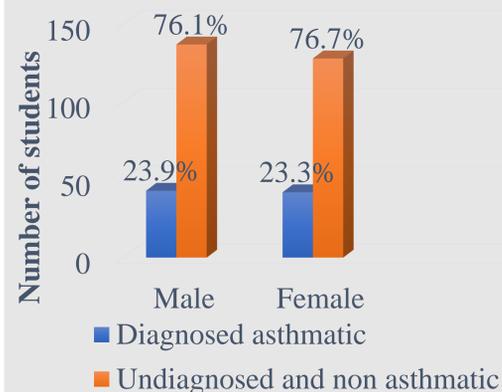


Figure 1

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

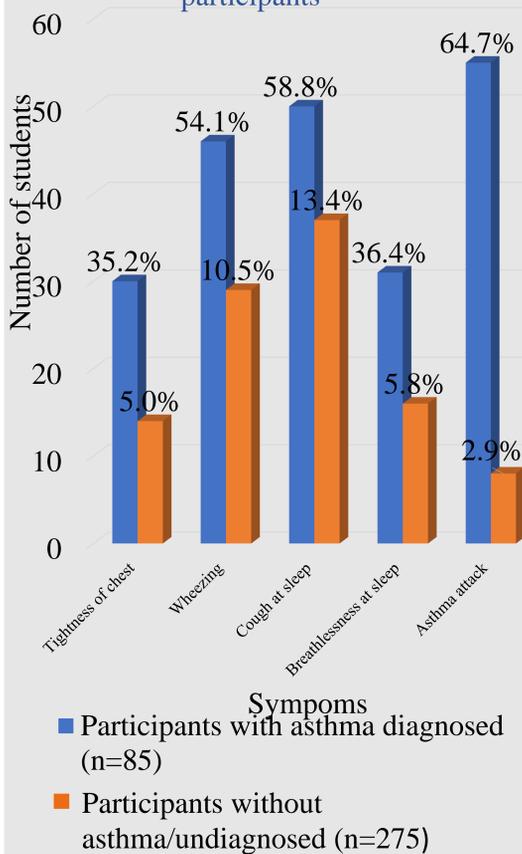


Figure 2

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

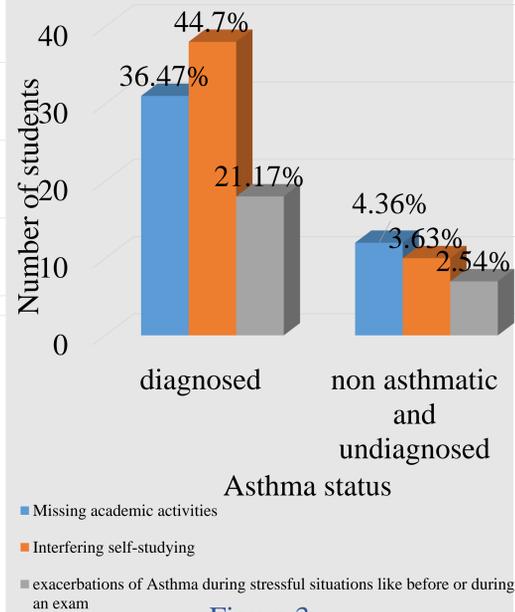


Figure 3

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

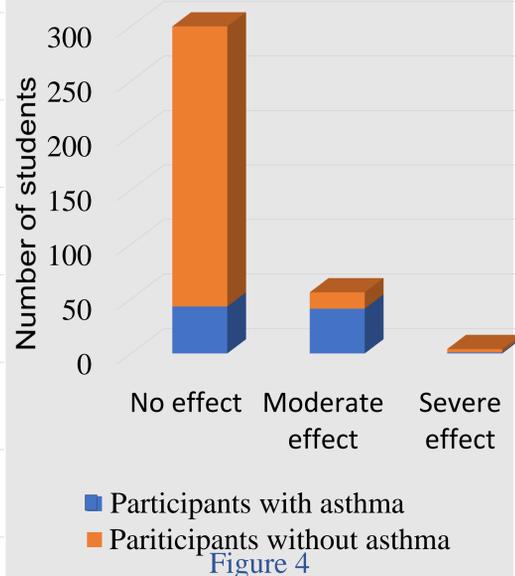


Figure 4

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

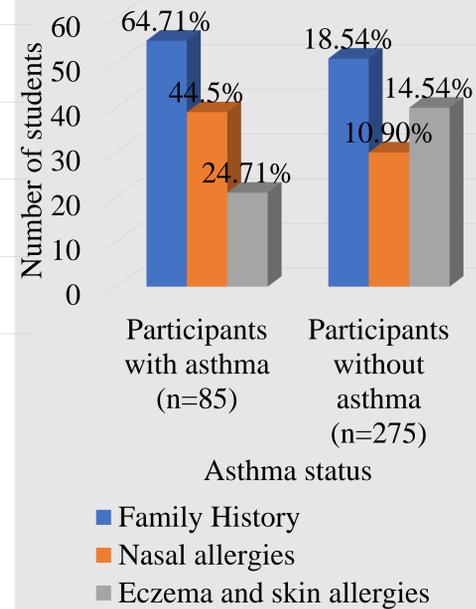


Figure 5

## 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.*  
Alkhalidi, A. M. et al. (2018) *Bronchial Asthma among Medical students in Saudi Arabia, The Egyptian Journal of Hospital Medicine.*

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