

# AWARENESS ON NUT ALLERGIES AMONG SCHOOL STUDENTS

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## Abstract

*The role of the immune system is to protect the body from germs and diseases. A food allergy is the over reaction by the immune system to a food protein. People are allergic to many kinds of food, majorly nuts. Anaphylaxis is a severe allergic reaction that comes on quickly and could even cause death in certain cases. The aim of this study was to assess awareness on nut allergies and to study the already existing knowledge on the topic among school students. Self administered questionnaire was created based on the awareness of the presence of nut allergy, their signs and symptoms. The questionnaire was distributed by person as fill out sheets at a nearby school. The study population included 200 school students belonging to the age group of 8 to 16 and years. The questions were carefully studied and corresponding answers were marked by the participants. The data was collected and statistically analysed. According to the survey results, about 81% of the total school population were aware about the presence of nut allergy. About 85% voted prevention is better to manage nut allergy. 70.8% were aware of signs and symptoms of nut allergy. 63% said their family members or friends have some kind of allergy to various nuts. Most of the school students had knowledge and were aware about the presence of nut allergies, but more awareness has to be spread as the allergies could turn out to be very serious or even fatal and can only be controlled only through prevention.*

**Keywords:** Awareness, nut allergy, school students

## Introduction

Thyroid disease is a global health issue that is impacting the well-being of many (Taylor et al., 2018). Thyroid diseases are amongst the most common endocrine disorders prevalent worldwide. According to reviews from various studies on thyroid disease, it has been approximated at about 42 million people in India suffering from thyroid diseases. (Vanderpump et al., 1995) The prevalence rate of thyroid diseases depends on the geographical location, age group, ethnicity, and most importantly the iodine intake of the population

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The role of the immune system is to protect the body from germs and diseases. A food allergy is the over reaction by the immune system to a food protein. People are allergic to many kinds of food, majorly nuts. Anaphylaxis is a severe allergic reaction that comes on quickly and could even cause death in certain cases. In many countries abroad, the people, especially school students are well aware about their allergies and schools are of vital importance as they are places where allergies are quick to be identified. The case is not so in India, more awareness is to be created here as there are no such cures to food allergy. Prevention of consumption of those food items are the only way to control the allergies.

Late investigations on cashew nut allergy recommend that its commonness is expanding. Cashew nut utilization by hypersensitive patients can cause serious reactions, including hypersensitivity. The rationale of the audit was to sum up the known information on cashew nut allergy to encourage clinical recognizable proof and advance familiarity with this developing food allergy among clinicians. ([Valk et al., 2014, 2017](#))

Cashew nut sensitivities have expanded quickly in the course of the most recent couple of years. Those youngsters that were adversely affected by peanuts, were encouraged to totally maintain a strategic distance from pistachios as well. In any case, it was later discovered that only 33% of the all out youngsters that were susceptible to cashews were sensitive to pistachios as well. This examination managed the conceivable prescient elements of allergy to pistachio in cashew hypersensitive children. ([Hasegawa et al., 2009](#))

There are different examinations on the nearness of nut sensitivities and their prescient variables. There are numerous investigations on autonomous nut sensitivities like pistachio and cashew nuts and the connection between them. There are even examinations to spread mindfulness among clinicians, however there have been no investigations to make mindfulness about nut hypersensitivities by and large and to spread mindfulness among school understudies. The aim of this study was to assess awareness on the presence of nut allergies and to study the already existing knowledge on the topic among school students.

## **MATERIALS AND METHODS:**

Self administered questionnaire was created based on the awareness of the presence of nut allergy, their signs and symptoms. The questionnaire was distributed by person as fill out sheets at a nearby school. The study population included 200 school students belonging to the age group of 8 to 16 and years. The participants were explained about the purpose of their study in detail. The questions were carefully studied and corresponding answers were marked by the participants. The data was collected and statistically analysed.

## **RESULTS:**

Awareness and knowledge on the presence of nut allergies are essential as they are a very serious issue and they have no cure. The only method of control is to avoid consumption of the food item itself. According to the survey results, about 81% of the total school population were aware about the presence of nut allergy (Fig 1). About 85% voted prevention is better to manage nut allergy (Fig 2). 70.8% were aware of signs and symptoms

of nut allergy (Fig 3).63% said their family members or friends have some kind of allergy to various nuts (Fig 4).

Figure 1: Awareness of nut allergy

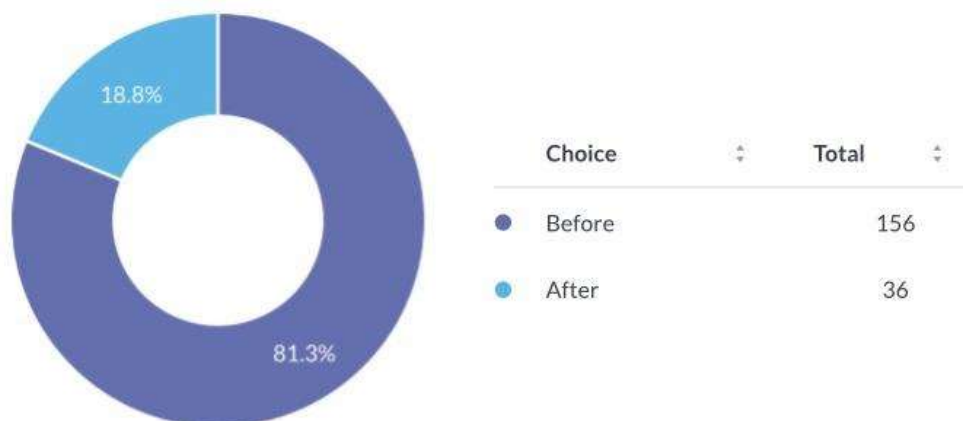


Figure 2: Opinion of preventive measures nut allergy

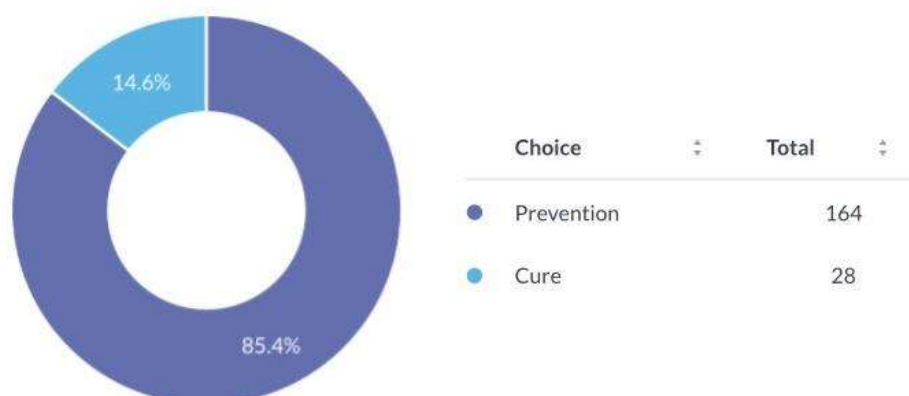
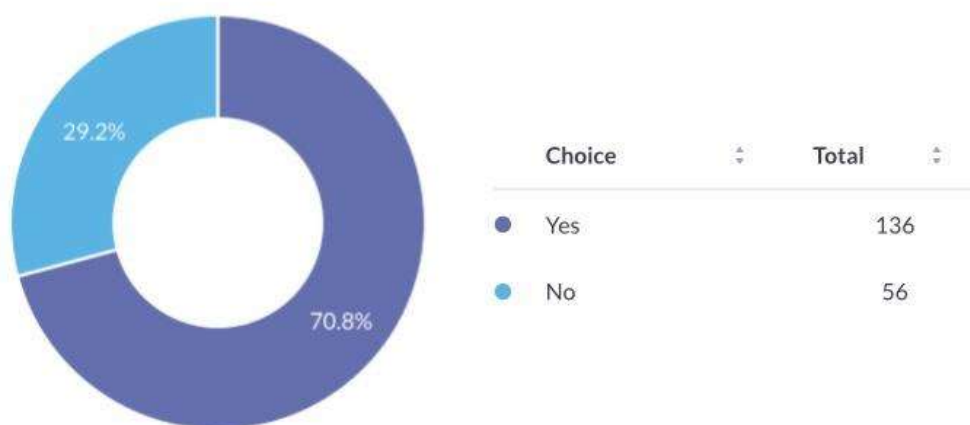
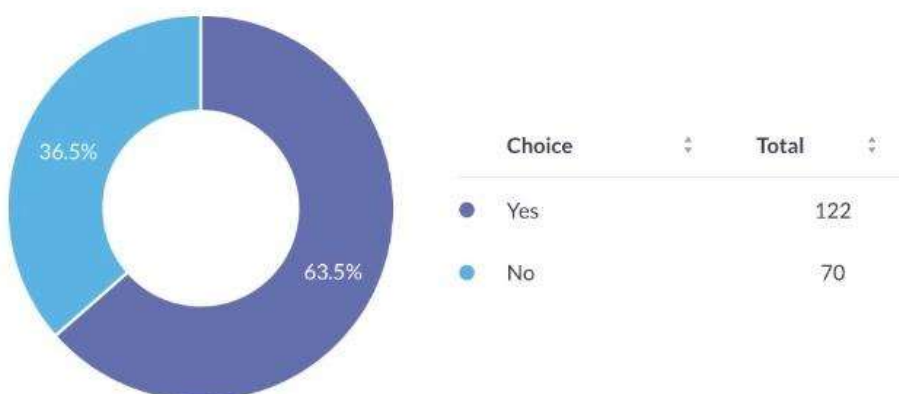


Figure 3: Awareness of signs and symptoms of nut allergy



1.

Figure 4: Family or friends having nut allergy



## DISCUSSION:

The aim of this study was to create awareness on the presence of nut allergies and to study the already existing knowledge on the topic among school students. A food allergic reaction could end up very serious at times causing anaphylaxis and even death in extreme cases. There are no known cures to allergies so prevention of consumption of the food item that induces the allergic response is the best way to control the allergies. For this to happen efficiently, school students must be aware of the nut allergies.

Ongoing examinations on cashew nut allergy propose that its predominance is expanding. Cashew nut utilization by unfavorably susceptible patients can cause extreme reactions, including hypersensitivity. The thought process of the survey was to sum up the known information on cashew nut allergy to encourage clinical recognizable proof and advance familiarity with this developing food allergy among clinicians. (Ebisawa et al., 2015; Hasegawa et al., 2009)

Cashew nut hypersensitivities have expanded quickly in the course of the most recent couple of years. Those youngsters that were adversely affected by peanuts, were encouraged to totally keep away from pistachios as well. In any case, it was later discovered that, lone 33% of the complete youngsters that were oversensitive to cashews were hypersensitive to pistachios as well. This investigation managed the conceivable prescient elements of allergy to pistachio in cashew unfavorably susceptible children. (Shah et al., 2013)

Instructors are the primary respondents to food unfavorably susceptible responses in school understudies. Schools consequently assume a significant job in the attention to nearness of nut allergies. (Out of the 4-8% of understudies who are susceptible to nuts, around 1-2% of their sensitivities are because of peanuts. (Shah et al., 2011) The examination by Bartnikas et al in this issue of the Journal gives the primary huge informational collection (2,223 schools and 1,116,667 understudies over a 5-year time frame) investigating the impact of school sans peanut approaches on clinical results, in particular epinephrine organization, for treatment of hypersensitivity. This investigation showed that without peanut arrangements are profoundly factor among school regions, especially as to explicit estimates set up by the schools (Bartnikas et al., 2017)

Peanut limitation strategy may likewise additionally single out food-unfavorably susceptible youngsters, who have just been appeared to have expanded frequency of tormenting because of food allergy. Likewise, guardians of unfavorably susceptible kids have contended that the nutrition of their youngsters might be undermined in sans peanut schools. These guardians point to peanuts as a reasonable and great wellspring of protein. School peanut prohibitive arrangement suggestions ought to incorporate sufficient staff management and destroying areas from the study hall, and future strategy proclamations should actualize intercessions experimentally demonstrated to have a constructive outcome (Avery et al., 2003 ;Banerjee et al., 2007)

Schools can create arrangements dependent on age related dangers of introduction by utilizing a suspicion that the more youthful the age, the almost certain the youngsters are to contact one another and debase each other's food and increment the danger of allergen presentation or to share nourishments. (Watura, 2002) A huge gathering of small kids is likewise increasingly hard to screen and control. Hence, the act of restricting peanuts from preschool age to bring down grade school age isn't extraordinary (Primeau et al., 2000)

Numerous examinations have archived the critical impact of food sensitivities on diminishment of personal satisfaction for the two kids and parents. Fear and uneasiness can prompt solicitations for pointlessly prohibitive school situations and influence human services arranging, bringing about clashes among the family, doctor, and school community (Bollinger et al., 2006; Muñoz-Furlong, 2004). The confinement of the investigation incorporate the generally little example size. Creating awareness on a wider level would benefit a lot of people as these allergies have no cure and prevention is the only way to control them.

## CONCLUSION:

Most of the school students had knowledge and were aware about the presence of nut allergies, but more awareness has to be spread as the allergies could turn out to be very serious or even fatal and can only be controlled only through prevention.

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## CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest

## REFERENCES

1. [Avery, N. J., King, R. M., Knight, S., & Hourihane, J. O. \(2003\). Assessment of quality of life in children with peanut allergy. In \*Pediatric Allergy and Immunology\* \(Vol. 14, Issue 5, pp. 378–382\). <https://doi.org/10.1034/j.1399-3038.2003.00072.x>](https://doi.org/10.1034/j.1399-3038.2003.00072.x)
2. [Banerjee, D. K., Kagan, R. S., Turnbull, E., Joseph, L., St Pierre, Y., Dufresne, C., Gray-Donald, K., & Clarke, A. E. \(2007\). Peanut-free guidelines reduce school lunch peanut contents. \*Archives of Disease in Childhood\*, 92\(11\), 980–982.](#)
3. [Bartnikas, L. M., Huffaker, M. F., Sheehan, W. J., Kanchongkittiphon, W., Petty, C. R., Leibowitz, R., Hauptman, M., Young, M. C., & Phipatanakul, W. \(2017\). Impact of school peanut-free policies on epinephrine administration. In \*Journal of Allergy and Clinical Immunology\* \(Vol. 140, Issue 2, pp. 465–473\). <https://doi.org/10.1016/j.jaci.2017.01.040>](https://doi.org/10.1016/j.jaci.2017.01.040)
4. [Bollinger, M. E., Dahlquist, L. M., Mudd, K., Sonntag, C., Dillinger, L., & McKenna, K. \(2006\). The impact of food allergy on the daily activities of children and their families. \*Annals of Allergy, Asthma & Immunology: Official Publication of the American College of Allergy, Asthma, & Immunology\*, 96\(3\), 415–421.](#)
5. [Ebisawa, M., Ballmer-Weber, B. K., Vieths, S., & Wood, R. A. \(2015\). \*Food Allergy: Molecular Basis and Clinical Practice\*. Karger Medical and Scientific Publishers.](#)

6. Hasegawa, M., Inomata, N., Yamazaki, H., Morita, A., Kirino, M., & Ikezawa, Z. (2009). Clinical features of four cases with cashew nut allergy and cross-reactivity between cashew nut and pistachio. *Allergology International: Official Journal of the Japanese Society of Allergology*, 58(2), 209–215.
7. Muñoz-Furlong, A. (2004). Food allergy in schools: concerns for allergists, pediatricians, parents, and school staff. In *Annals of Allergy, Asthma & Immunology* (Vol. 93, Issue 5, pp. S47–S50). [https://doi.org/10.1016/s1081-1206\(10\)61732-2](https://doi.org/10.1016/s1081-1206(10)61732-2)
8. Primeau, M. N., Kagan, R., Joseph, L., Lim, H., Dufresne, C., Duffy, C., Prhcal, D., & Clarke, A. (2000). The psychological burden of peanut allergy as perceived by adults with peanut allergy and the parents of peanut-allergic children. *Clinical and Experimental Allergy: Journal of the British Society for Allergy and Clinical Immunology*, 30(8), 1135–1143.
9. Shah, S. S., Parker, C. L., & Davis, C. M. (2011). The Power of Education: Food Allergy Intervention and Prevention in Houston Independent School District (HISD). In *Journal of Allergy and Clinical Immunology* (Vol. 127, Issue 2, pp. AB139–AB139). <https://doi.org/10.1016/j.jaci.2010.12.554>
10. Shah, S. S., Parker, C. L., & Davis, C. M. (2013). Improvement of teacher food allergy knowledge in socioeconomically diverse schools after educational intervention. *Clinical Pediatrics*, 52(9), 812–820.
11. Valk, J. P. M. van der, van der Valk, J. P. M., Dubois, A. E. J., van Wijk, R. G., Wichers, H. J., & de Jong, N. W. (2014). Systematic review on cashew nut allergy. In *Allergy* (Vol. 69, Issue 6, pp. 692–698). <https://doi.org/10.1111/all.12401>
12. Valk, J. P. M. van der, van der Valk, J. P. M., el Bouche, R., van Wijk, R. G., de Groot, H., Wichers, H. J., Dubois, A. E. J., & de Jong, N. W. (2017). Low percentage of clinically relevant pistachio nut and mango co-sensitisation in cashew nut sensitised children. In *Clinical and Translational Allergy* (Vol. 7, Issue 1). <https://doi.org/10.1186/s13601-017-0145-z>
13. Watura, J. C. (2002). Nut allergy in schoolchildren: a survey of schools in the Severn NHS Trust. In *Archives of Disease in Childhood* (Vol. 86, Issue 4, pp. 240–244). <https://doi.org/10.1136/adc.86.4.240>