Medical Journal of Malaysia • Volume 67, Issue 2, Pages 181 - 185 • 2012

Document type
Article

Source type
Journal

ISSN
03005283

CODEN
MJMLA

Original language
English

PubMed ID
22822640

View less

Prevalence of sleep disordered breathing symptoms among malay school children in a primary school in Malaysia

Fadzil Abdullah A.A.[a], Jamalludin A.R.[b], Norrashidah A.W.[c], Norzila M.Z.[d], Asiah Kassim K.[d], Rus Anida A.[e], Hasniah A.L.[f], Ramli Z.[g], Samsinah H.[h]

Save all to author list

[a] Hospital Tengku Ampuan Afzan, Malaysia
[b] International Islamic University Malaysia, Malaysia
[c] Hospital Serdang, Malaysia
[d] Institut Pediatrik, Hospital Kuala Lumpur, Malaysia

View additional affiliations

Abstract

Sleep disordered breathing (SDB) is increasingly being diagnosed in children . However, there is no prevalence study done in Malaysia . The study objective was to evaluate the prevalence of SDB symptoms based on parental reports and associated risk factors among Malay school children aged 6 to 10 years old in a primary school using a translated University Michigan Paediatric Sleep Questionnaire (Malay UM-PSQ). The children whose parents responded to the questionnaire and consented were examined, documenting height, weight, skin fold thickness, neck and abdominal circumference, tonsillar size, nostril examination and presence of micrognathia or retrognathia. There were 550 respondents. The prevalence of parental report of SDB symptoms was 14.9% (95% CI 11.9, 17.9). Two hundred and eighty-five (51.8%) school children were males with mean age of 8.5 years (SD 1.1). The associated risk factors for SDB symptoms are male, obesity, large neck and waist circumference, positive history of asthma, history of recurrent tonsillitis, enlarged tonsil (>4+) and enlarged nasal turbinate. Multivariate analysis showed that male gender is the only significant independent risk factor of SDB symptoms (OR 2.1, 95% CI 1.2, 3.5).

Author keywords

Children ; Malay ; Risk factors; Sleep disordered breathing

Indexed keywords

Metrics

References (22)

View in search results format >

All

Export Print E-mail Save to PDF Create bibliography

1 Loughlin, G.M., Brouillette, R.T., Brooke, L.J., Carroll, J.L., Chipps, B.E., England, S.J., Ferber, P., (...), Wohl, M.E.

Standards and indications for cardiopulmonary sleep studies in children

(1996) *American Journal of Respiratory and Critical Care Medicine*, 153 (2), pp. 866-878. Cited 1081 times.
http://ajrccm.atsjournals.org/
doi: 10.1164/ajrccm.153.2.8564147

View at Publisher

2 Marcus, C.L., Chapman, D., Ward, S.D., McColley, S.A., Herrerias, C.T., Stillwell, P.C., Howenstine, M., (...), Laskosz, L.N.

Clinical practice guideline: Diagnosis and management of childhood obstructive sleep apnea syndrome

(2002) *Pediatrics*, 109 (4), pp. 704-712. Cited 906 times.
doi: 10.1542/peds.109.4.704

View at Publisher

3 Ali, N.J., Pitson, D.J., Stradling, J.R.

Snoring, sleep disturbance, and behaviour in 4-5 year olds (Open Access)

(1993) *Archives of Disease in Childhood*, 68 (3), pp. 360-366. Cited 768 times.
doi: 10.1136/adc.68.3.360

View at Publisher

4 Gislason, T., Benediktsdottir, B.

Snoring, apneic episodes, and nocturnal hypoxemia among children 6 months to 6 years old: An epidemiologic study of lower limit of prevalence

(1995) *Chest*, 107 (4), pp. 963-966. Cited 491 times.
http://www.chestjournal.org/
doi: 10.1378/chest.107.4.963

View at Publisher

5 Chervin, R.D., Hedger, K., Dillon, J.E., Pituch, K.J.

Pediatric sleep questionnaire (PSQ): Validity and reliability of scales for sleep-disordered breathing, snoring, sleepiness, and behavioral problems

(2000) *Sleep Medicine*, 1 (1), pp. 21-32. Cited 803 times.
www.elsevier.com/inca/publications/store/6/2/0/2/8/2
doi: 10.1016/S1389-9457(99)00009-X

View at Publisher

6 Hasniah, A.L., Jamalludin, A.R., Norrashidah, A.W., Norzila, M.Z., Asiah, K., Rus Anida, A., Ahmad Fadzil, A., (...), Samsinah, H.

Cross-cultural adaptation and reliability of pediatric sleep questionnaire in assessment of sleep-disordered breathing in the Malay speaking population

(2012) *World Journal of Pediatrics*, 8 (1), pp. 38-42. Cited 10 times.
doi: 10.1007/s12519-011-0279-3

View at Publisher

7 Deurenberg, P., Hautvast, J.G.A.J.

The assessment of the body fat percentage by skinfold thickness measurements in childhood and young adolescence (Open Access)

(1990) *British Journal of Nutrition*, 63 (2), pp. 293-303. Cited 290 times.
doi: 10.1079/BJN19900116

View at Publisher

8 Lind, M.G., Lundell, B.P.W.

Tonsillar Hyperplasia in Children: A Cause of Obstructive Sleep Apneas, CO2 Retention, and Retarded Growth

(1982) *Archives of Otolaryngology*, 108 (10), pp. 650-654. Cited 93 times.
doi: 10.1001/archotol.1982.00790580044015

View at Publisher

9 Archbold, K.H., Pituch, K.J., Panahi, P., Chervin, R.D.

Symptoms of sleep disturbances among children at two general pediatric clinics

(2002) *Journal of Pediatrics*, 140 (1), pp. 97-102. Cited 209 times.
doi: 10.1067/mpd.2002.119990

View at Publisher

10 Spruyt, K., O'Brien, L.M., Macmillan Coxon, A.P., Cluydts, R., Verleye, G., Ferri, R.

Multidimensional scaling of pediatric sleep breathing problems and bio-behavioral correlates

(2006) *Sleep Medicine*, 7 (3), pp. 269-280. Cited 28 times.
doi: 10.1016/j.sleep.2005.08.013

View at Publisher

11 Johnson, E.O., Roth, T.

An epidemiologic study of sleep-disordered breathing symptoms among adolescents (Open Access)

(2006) *Sleep*, 29 (9), pp. 1135-1142. Cited 60 times.
www.journalsleep.org
doi: 10.1093/sleep/29.9.1135

View at Publisher

12 Arens, R., Marcus, C.L.

Pathophysiology of upper airway obstruction: A developmental perspective (Open Access)

(2004) *Sleep*, 27 (5), pp. 997-1019. Cited 278 times.
www.journalsleep.org
doi: 10.1093/sleep/27.5.997

View at Publisher

13 DELASNERIE-LAUPRETRE, N., PATOIS, E., VALATX, J.-L., KAUFFMANN, F., ALPEROVITCH, A.

Sleep, snoring and smoking in high school students (Open Access)

(1993) *Journal of Sleep Research*, 2 (3), pp. 138-142. Cited 25 times.
doi: 10.1111/j.1365-2869.1993.tb00077.x

View at Publisher

14 Anuntaseree, W., Rookkapan, K., Kuasirikul, S., Thongsuksai, P.

Snoring and obstructive sleep apnea in Thai school-age children: Prevalence and predisposing factors (Open Access)

(2001) *Pediatric Pulmonology*, 32 (3), pp. 222-227. Cited 143 times.
doi: 10.1002/ppul.1112

View at Publisher

15 Liu, X., Ma, Y., Wang, Y., Jiang, Q., Rao, X., Lu, X., Teng, H.

Brief report: An epidemiologic survey of the prevalence of sleep disorders among children 2 to 12 years old in Beijing, China

(2005) *Pediatrics*, 115 (1), pp. 266-268. Cited 65 times.
http://pediatrics.aappublications.org/cgi/reprint/115/1/S1/266
doi: 10.1542/peds.2004-0815I

View at Publisher

16 Corbo, G.M., Fuciarelli, F., Foresi, A., De Benedetto, F.

Snoring in children: Association with respiratory symptoms and passive smoking (Open Access)

(1989) *British Medical Journal*, 299 (6714), pp. 1491-1494. Cited 179 times.
doi: 10.1136/bmj.299.6714.1491

View at Publisher

17 Goodwin, J.L., Babar, S.I., Kaemingk, K.L., Rosen, G.M., Morgan, W.J., Sherrill, D.L., Quan, S.F.

Symptoms related to sleep-disordered breathing in white and hispanic children: The Tucson Children's Assessment of Sleep Apnea study

(2003) *Chest*, 124 (1), pp. 196-203. Cited 94 times.
http://www.chestjournal.org/
doi: 10.1378/chest.124.1.196

View at Publisher

18 Sogut, A., Altin, R., Uzun, L., Ugur, M.B., Tomac, N., Acun, C., Kart, L., (...), Can, G.

Prevalence of obstructive sleep apnea syndrome and associated symptoms in 3-11-year-old Turkish children

(2005) *Pediatric Pulmonology*, 39 (3), pp. 251-256. Cited 84 times.
doi: 10.1002/ppul.20179

View at Publisher

19 Brooks, L.J.

Obstructive Sleep Apnea Syndrome in Infants and Children: Clinical Features and Pathophysiology

(2005) *Principles and Practice of Pediatric Sleep Medicine*, pp. 223-229. Cited 13 times.
http://www.sciencedirect.com.ezlib.iium.edu.my/science/book/9780721694580
ISBN: 978-072169458-0
doi: 10.1016/B978-0-7216-9458-0.50024-6

View at Publisher

20 Lumeng, J.C., Chervin, R.D.

Epidemiology of pediatric obstructive sleep apnea (Open Access)

(2008) *Proceedings of the American Thoracic Society*, 5 (2), pp. 242-252. Cited 815 times.
http://pats.atsjournals.org/cgi/reprint/5/2/242
doi: 10.1513/pats.200708-135MG

View at Publisher

21 Corbo, G.M., Forastiere, F., Agabiti, N., Pistelli, R., Dell'Orco, V., Perucci, C.A., Valente, S.

Snoring in 9- to 15-year-old children: Risk factors and clinical relevance

(2001) *Pediatrics*, 108 (5), pp. 1149-1154. Cited 130 times.
doi: 10.1542/peds.108.5.1149

View at Publisher

22 Verhulst, S.L., Schrauwen, N., Haentjens, D.
Sleep disordered breathing in overweight and obese children and adolescents: Prevalence, characteristics and the role of fat distribution
(2006) *Arch Dis Child*, 42, pp. 159-167. Cited 2 times.

Fadzil Abdullah, A. A.; Department of Paediatric, Hospital Tengku Ampuan Afzan, Malaysia; email:afadzil@iium.edu.my

Back to results | 1 of 1

Top of page