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Correlation Between Knowledge & Practice Regarding Asthma Among Caregivers

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Abstract

At about 14% of children and adolescents, asthma is the most prevalent chronic respiratory disease in children globally. Despite its great incidence, asthma in children has poor consequences, and it causes several preventable deaths annually. Coughing, wheezing, and shortness of breath are classic symptoms of asthma that are usually brought on by a variety of potential triggers. Due to a few diagnostic difficulties, pediatric asthma is still problematically over-diagnosed and underdiagnosed.

Methods: A correlational study using the total enumeration technique was carried out on 120 parents of children with asthma who were attending the pediatric outpatient department of a chosen hospital. Several facets of asthma knowledge and practice were covered by the trustworthy, pretested, and structured instruments used to gather the data. The analysis of the data was done with SPSS version 21.

Results: In a study involving 120 participants, it was found that there was a moderate positive correlation between caregiver knowledge and practice of Meter dose inhaler, nebulization technique, peak flow meter, and pursed lip breathing technique

Keywords: Children with asthma, Caregivers, knowledge and practices, asthma

1. Background of Study

Asthma prevalence in children is a serious issue that affects health systems worldwide. According to the World Health Organization, there are currently about 300 million individuals with asthma, and if present trends continue, this number may rise to 400 million in the coming years, or by 2025.

Asthma has a significant influence on public health because it causes around 250,000 premature deaths a year, the majority of which might be avoided with good treatment and intervention techniques. Asthma-related mortality rates in children are extremely low worldwide, ranging from 0 to 0.7 deaths per 100,000. In addition to being the most common chronic illness in children, this disorder ranks among the top twenty health problems worldwide in terms of disability-adjusted life years, underscoring the heavy burden it bears on young people.[1]

Asthma is a non-curable yet preventable condition. Managing asthma in children involves more than just

medication and protection against allergens; education is also crucial. The prevalence of asthma in children is rising, and a lack of awareness and proper practices among parents contributes to higher rates of morbidity and mortality associated with the condition.[2]

The severity of the condition, how children react to it, the efficacy of therapy, the social roles that children play, and the social context in which they live all have an impact on how asthma affects children.3Active involvement of both the child and the caregiver, as well as the acquisition of relevant knowledge and skills, is critical for asthma control and preventing exacerbations. Caregivers can notice signs by paying close attention and monitoring them regularly.[4]

Diagnosing asthma in children can be challenging, as many children may remain symptom-free for extended periods. Additionally, asthma symptoms often resemble those of other respiratory conditions, which can lead to misdiagnosis. Evidence shows that parents asthma knowledge affects how well they can manage and control the disease in children. As a result, parents need to receive training on asthma, medications, equipment, and self-management strategies, and have an action plan readily available.[5]

Parental opinions and practices are critical in improving children's asthma outcomes. Indeed, evidence reveals that parents of asthmatic children usually have considerable misconceptions about the disease and regularly fail to link medication use with asthma attack prevention.[6]

Because asthma is often underreported and undertreated, parents incorrectly think that their children will outgrow it. Parents who are not well-informed may not notice the signs, which could cause delays or inadequate treatment and follow-up, ultimately leading to worse health outcomes.[7]

Effective pediatric asthma management is challenging, and caregiver education is critical to providing excellent care and safety. Most at-home care for children with asthma is provided by their caregivers. Given their developmental stage, children rely on caregivers for effective asthma control and better health outcomes. The primary goals of asthma care are to reduce morbidity and mortality, promote healthy growth and development, encourage participation in age-appropriate activities, and lower school absenteeism.[8]

2. Materials and Methods

A correlational study was conducted to find a relation between caregiver knowledge, and practice among caregivers of children with asthma in the pediatric outpatient departments (OPDs) of Rajindra Medical College and Mata Kaushalya Hospital (MKH) in Patiala, Punjab, India This location was chosen due to its population density and significant pediatric asthma cases observed in clinical settings. Ethical clearance for the study was obtained from the Institutional Ethics Committee (approval number: SRHU/HIMS/ETHICS/E-12023/69), and administrative permissions were secured from the Medical Superintendent of both hospitals. Written informed consent was obtained from all participants, ensuring confidentiality and voluntary participation.

120 caregivers of asthmatic children attending the OPDs were enrolled in the study using a total enumeration technique, which ensured comprehensive coverage of the eligible population during the data collection period. A correlational design was adopted for the study.

2.1. Statistical analysis:

SPSS software (version 21) was used to analyze the data to do statistical evaluations and extract insights. Bivariate analyses were conducted to look for possible relationships between caregiver knowledge and demographic factors, and descriptive statistics were used to summarize the results. It is anticipated that the findings of this study will shed light on the relationship between knowledge and practices of caregivers

regarding asthma. The results could direct the creation of focused educational initiatives and interventions meant to enhance children's asthma management by highlighting areas in which caregivers are ignorant about or improperly manage asthma. This study also highlights the value of caregiver education in asthma care, specifically highlighting the necessity of hands-on training in inhaler use, symptom recognition, and asthma exacerbation management. These skills are essential for enhancing the health of children with asthma and lowering the healthcare burden in this population.

3. Results

Table 3.1 Baseline characteristics of the participants

S.No	Variable	Frequency	Percentage
1.	**Age (years)**		
	a) 25-30	51	42.5
	b) 31-35	43	35.84
	c) 36-40	13	10.83
	d) 41-45	13	10.83
2.	**Gender**		
	a) Male	06	05
	b) Female	114	95
3.	**Area of residence**		
	a) Rural	68	56.67
	b) Urban	52	43.33

Table 3.1 illustrates the baseline characteristics of the 120 caregivers involved in the current study. More than half (42.5%) of the participants were aged 25 to 30. A large number of them (95%) were female and lived in rural areas (56.66).

Table 3.2 Correlation between knowledge and practice of caregivers

Objective 1: To find a correlation between caregiver knowledge and practice of caregivers of children with asthma

Variable 1	Variable 2	r -value	p-value
Knowledge of caregivers	MDI with spacer	0.691**	<0.001
	Nebulization technique	0.658**	<0.001
	Peak flow meter	0.664**	<0.001
	Pursed lip breathing technique	0.611**	<0.001

The study found a moderate positive correlation between caregiver knowledge and practice of Meter dose inhaler, nebulization technique, peak flow meter, and pursed lip breathing technique (r=.0.691,0.658,0.664,0.611). The strong p-values (< 0.001) support the statistical significance of these relationships.

Discussion

The current study evaluated the knowledge and practices of asthma caregivers in a selected hospital in Patiala district, India. More than half of the participants were aged 25 to 30, most of whom were female and resided in rural areas. The study's findings were consistent with other studies, and a substantial correlation was found between attitudes and practice.[9] Additionally in one more study it was found that the knowledge, attitudes, and proactive activities of parents of preschool-aged children with asthma were found to be modest. It was found that the knowledge scores were connected to the attitudes and practices scores.[10]

References

1. Serebrisky D, Wiznia A. Pediatric Asthma: A Global Epidemic. Annals of Global Health. 2019 Jan 22;85(1). Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7052318
2. Dhirja, Sharma MC, Goyal JP, Remiya M. Knowledge and practices among parents of asthmatic children: a quasi-experimental study conducted at tertiary care center of Western India. Int J Community Med Public Health 2021;8:3430-9.
3. Menon K, Vora HD, Patel SV, Desai NP, Pandya PD, Vasavda HJ. Study of the knowledge, attitudes and practices of parents of children with bronchial asthma in a tertiary care hospital in Ahmedabad. Int J Contemp Pediatr 2024;11:679-85
4. Al-Zalabani AH, Almotairy MM. Asthma control and its association with knowledge of caregivers among children with asthma. A cross-sectional study. *Saudi Med J*. 2020;41(7):733-739. doi:10.15537/smj.2020.7.2516
5. Wutor VC. Parental Asthma-Related Knowledge and Asthma Control in their Children in Accra, Ghana. Texila International Journal of Public Health 2024;12(3). doi.org/10.21522/tijph.2013.12.03. art003.
6. Abu-Shaheen AK, Nofal A, Heena H. Parental Perceptions and Practices toward Childhood Asthma. Biomed Res Int. 2016;2016:6364194. doi:10.1155/2016/6364194.
7. Silvia LC, Podhini J, Palanisamy S. Parental knowledge, attitude toward asthma, and its correlation with compliance of asthma management in children. Indian Journal of Allergy Asthma and Immunology [Internet] 2022;36(1):40–6. Available from: https://doi.org/10.4103/ijaai.ijaai_32_22
8. Jordan K, Coffman M, Young JR, Steelman S, Yee L. Identification of caregiver's knowledge and perceptions of pediatric asthma management: A quality improvement initiative. Journal of Pediatric Nursing 2022; 65:16–21
9. Al-Ali L, Al Jasmi S, Al Yammahi L, Syeed A, Darwish E. Parental knowledge, attitudes, and practices regarding the use of prescribed inhalers in asthmatic children attending Ambulatory Healthcare Services Clinics. Ibnosina Journal of Medicine and Biomedical Sciences. 2019 Jun;11(02):68-76.
10. Tang J, Zhao Z, Guo R, Niu C, Zhang R, Wang L, Luo N. Preschool children's asthma medication: parental knowledge, attitudes, practices, and adherence. Frontiers in Pharmacology. 2024 Apr 3;15:1292308.