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PREVALENCE, CAUSATIVE FACTORS AND MANAGEMENT OF NOCTURNAL ENURESIS IN SOUTH AFRICAN CHILDREN

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Dissertation submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg in fulfillment of the requirements for the degree of

MSc Med in Urology

Johannesburg, 2008

DECLARATION

I, Margaret Willemina Fockema declare that this dissertation is my own work. It is being submitted for the degree of Master of Medicine in the branch of Urology in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

……. (Signature of Candidate)

……..day of……..2008

DEDICATION

I dedicate this work to my daughters Jeanette and Elisca

Publications and presentations

Fockema MW. (2006) Enuresis in South Africa. All for Kids Congress 2006

Abstract

Prevalence, causative factors and management of nocturnal enuresis in South African children

Objective

A cross sectional study using a self-administered questionnaire to establish the prevalence and causative factors of nocturnal enuresis in 5-10 year old South African children.

Subjects and methods

A questionnaire was distributed to the parents of 4700 school going children between the ages of 5-10 years in selected areas of Gauteng, Kwa-Zulu Natal and the Western Cape in South Africa. Where permission was granted, schools listed in these areas, and schools from different socio-economic areas (suburbs differing in affluence), were contacted telephonically. Those willing to participate were included in the study. Parents anonymously filled out the questionnaire and returned it to school. Data were reported as frequency and percentages in tables and graphs. The Chi-square test was used to compare proportions between groups with Fisher's Exact test used to correct for small numbers of observations ($n \leq 5$). Age differences were determined using Student's t-test. A p value of less than 0.05 was considered to be statistically significant.

Results

The questionnaire response rate was 72.1%. The overall prevalence of nocturnal enuresis was 16.0%, 14.4% for mono-symptomatic nocturnal enuresis and 1.6% for daytime incontinence. A positive family history was found in 50.5% children and constipation was a problem in 16.0% of children with enuresis. Various stress factors were linked to enuresis according to

the parents' perceptions. Only 28.3% had received a form of treatment and 13.5% had been treated by a doctor. A higher prevalence rate of enuresis could not be linked to a lower socio-economic grouping. Parents' awareness of treatment modalities available to their children is outdated and most of the management of the problem was done by the parents themselves.

Conclusion

These results suggest that the prevalence of nocturnal enuresis and associated causative factors in South Africa is similar to the prevalence in other countries, although it is difficult to compare these prevalence rates as studies use different inclusion criteria.

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Nomenclature

Abbreviations (Acronyms)

NE	Nocturnal enuresis
PNE	Poly-symptomatic nocturnal enuresis
MNE	Mono-symptomatic nocturnal enuresis
CNS	Central Nervous system
DSM III	Diagnostic and Statistical Manual of Mental disorders, Third Edition
DSM IV	Diagnostic and Statistical Manual of Mental disorders, Fourth Edition
ICD-10	International Classification of Diseases and Related Health Problems 10th revision version for 2007
ICCS	International Children's Continence Society
ICS	International Continence Society