EFFECT OF SCHOOL ENVIRONMENT ON VOIDING AND DEFCATION HABITS IN KOREAN CHILDREN 5-13 YEARS OLD: A NATIONWIDE MULTICENTER STUDY

Hypothesis / aims of study
To evaluate the effect of school environment on voiding or defecation habits in 5-13 year old Korean children.

Study design, materials and methods
A randomly selected cross sectional study was conducted in 53 schools on nationwide scale in Korea. The total 11,764children aged 5-13 years were asked to complete questionnaires, which included items about the daytime voiding symptoms (DVSs), overactive bladder (OAB), nocturnal enuresis (NE) and voiding/defecation frequency at school. The school environment was investigated by number and type of a chamber pot, public use, cleanliness, brightness and smell of school toilet.

Results
The overall rate of no voiding children at school was 8.68%, and increased with the age from 4.49% to 9.66%. The common reasons for no voiding at school were dirty and bad smelling school toilet (46.76%) and feeling of inconvenience of school toilet from home toilet environment (30.48%). The school environmental factors on no voiding at school toilet were type of a chamber pot (p=0.0001), public use (p=0.0001), cleanliness (p=0.004), brightness (p=0.018) and smell of school toilet (p=0.045).

Risk factors on DVSs, NE and OAB were type of a chamber pot (NE; p=0.0001), public use (DVSs, NE and OAB; p=0.0001), cleanliness (NE and OAB; p=0.001 and 0.012) and brightness (DVSs, NE and OAB; p=0.034, 0.002 and 0.0001). The difference of type of a chamber pot between home and school made a higher prevalence of DVSs.

The overall rate of no defecating children at school was 34.9%, and increased with the age from 24.3% to 38.5%. The common reasons for no defecating at school were feeling of inconvenience of school toilet for difference from home toilet (45.73%) and dirty and bad smelling school toilet (37.87%). The school environmental factors on negative defecation habits were public use (p=0.026), brightness (p=0.05) and smell of school toilet (p=0.019).

Interpretation of results
The environmental factors of school toilet have a negative impact on voiding or defecation habits in 5-13 year old Korean children. Moreover, these factors can influence on prevalence of DVSs, NE and OAB.

Concluding message
The environmental factors of school toilet have an important influence on voiding or defecation habits in 5-13 year old Korean children.

References

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Is this a clinical trial? No
What were the subjects in the study? HUMAN
Was this study approved by an ethics committee? Yes
Specify Name of Ethics Committee The Korean Enuresis Association
Was the Declaration of Helsinki followed? Yes
Was informed consent obtained from the patients? Yes