Prevalence of enuresis and its related factors among children in Iran: A systematic review and meta-analysis

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Introduction: Enuresis is the second most common disorder among children after allergic disorders. According to the results of previous studies, different estimates of enuresis prevalence and its related factors have been reported. Combining the results of these studies is valuable. This study aims to estimate the prevalence of enuresis and its related factors among Iranian children.

Materials and Methods: Relevant articles published during 2000 to 15 May 2015 were identified by a comprehensive search within national and international databanks. Having applied inclusion/exclusion criteria and quality assessment, eligible papers were selected. In addition, references of the articles were reviewed to enhance the search strategy. Standard error of the prevalence in each study was calculated using binomial distribution. Random effects model was used to combine the results. All data analyses were performed using STATA SE V.11 software.

Results: We entered 15 eligible articles into the systematic review/meta-analysis recruited 20832 Iranian children. Prevalence (95% CI) of enuresis among all
children, boys and girls were estimated as of 11.01% (9.2-12.8), 13.9%(11.2-16.7) and 8.4%(6.3-10.6) respectively. Enuresis was more common among children with positive familial history, those with deep sleep, high water consumption, sniffing, low educated and low income parents, mouth breathing, urinary tract infection and children with history of corporal punishment.

**Conclusion:** Our study showed that a considerable proportion of Iranian children are suffering from enuresis and male gender is a predictive factor for this disorder.

**Keywords:** Enuresis; Prevalence; Iran; Meta-analysis