A Survey on Prevalence of Primary Nocturnal Enuresis and Its Risk Factors in Chinese University Students (#102)

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Introduction

It is well known that the prevalence of primary nocturnal enuresis (PNE) decreased with age and many factors such as gender, family history, inhabitation (living in rural or urban areas), arousal difficulty has been found to be involved in its development [1]. However, the PNE prevalence and changes of its risk factors with growth of child are still unclear. We hypothesis that the prevalence of PNE will not continue decrease and some of risk factors might change in adolescent. Consequently, the aim of present study is to investigate the PNE prevalence and its risk factors in Chinese adolescent by a survey in university students.

Methods

A total of 13,874 questionnaires (93.7%) were collected and 13,385 of which (90.4%) was qualified for statistical analysis. The overall prevalence of PNE was 1.15%, 1.1% in boys and 1.2% in girls. The PNE prevalence in different age group is ranged from 0.93% to 1.46% and no significant difference between them (p >0.05) (Table 1). The prevalence was 1.0% in urban areas and 1.2% in rural areas (difference between them is not significant), 7.9% with family history and 0.9% with no family history (difference between them is significant), 3.85% with urgency, 1.87% with urgency history and 0.9% with no urgency history, 7.69% with UI, 4.61% with UI history and 0.92% with no UI history. Prevalence of MPNE and NMPNE is 66.4% (101/152 cases) and 33.6% (51/152 cases) of all PNE cases. A total of 27% (41 cases) of PNE occurred daily, 29.6% (45 cases) weekly, and 43.4% (66 cases) monthly; 21% of PNE has history of seeking treatment; 65.6% shown psychological burden, 45% feel life troubles and 54.3% influence on sleep.

Results

A total of 13,417 first grade students (aged 18-22 years, 4,256 boys and 9,129 girls) from two universities in Henan province was involved in this study from Sep. 2018 to Dec. 2018. They come from 23 provinces and 368 cities all over the country. An anonymous questionnaire was used to collect the following information: ① gender, date of birth, inhabitation (living in rural or urban areas), weight; ② Whether the bedwetting continue to now after 5 years old; ③ PNE frequency; ④ PNE family history; ⑤ easy to wake up at night or not? ⑥ Whether the PNE influence psychology, life and sleep; ⑦ Have ever received treatment or not? ⑧ Whether exist frequent, urgency and incontinent? The PNE criteria in this study is one who continue bedwetting at least one time per month and never stopped more than 3 months. Exclusion criteria were obvious organic diseases such as lower bladder urinary tract obstruction, neurological diseases, and incomplete questionnaires.

Conclusions

PNE prevalence decrease with age in children until the adolescent and its risk factors of PNE are genetic, day time frequent/urgency/urinary incontinence as well as lacking of treatment in Chinese adolescent. The PNE induced a significant impact on the physical and mental health in adolescent.

References