2018 New England Section Health Policy Essay Competition

Topic: How should urologists continue to improve patient quality of care? Please define a specific quality of care issue and propose a solution?

Quality of Care Issue: Non-pharmacologic/non-surgical treatment of bladder and bowel dysfunction in the pediatric patient population

Proposed Solution: Improved education of caregivers in the school

Essay

Pediatric bladder and bowel dysfunction (BBD) is an increasingly common and complicated disease complex. Currently, BBD is the most common condition seen in the pediatric urology clinic, accounting for 30-40% of all outpatient referrals.[5,8] According to the International Children's Continence Society, BBD is defined as the presence of both lower urinary tract dysfunction (LUTD) and bowel dysfunction.[3] LUTD encompasses a wide-range of clinical conditions including overactive bladder, voiding postponement, dysfunctional voiding, and stress urinary incontinence.[3,4]

The underlying causes of BBD have not been clearly determined.[4,11] Leading theories propose a disruption in the interaction between the rectum, bladder, and sphincter muscle complexes.[4,8] The theories hypothesize that constipation disrupts normal bladder physiologic function, and this ultimately leads to symptomology.[4,8] The disease will perpetuate itself without intervention because the pathophysiology is cyclic.[8] Still, the question remains – what sets this dysfunction off in the first place? There has been much work devoted to investigating the non-biological determinants of BBD.[11] There is increasing awareness of the association between negative psychosocial and environmental factors and the initiation of this disease.[4,11]

BBD can have a serious impact on a child's quality of life.[4,5] Many of the symptoms are embarrassing and lead to low self-esteem, social isolation, shame, poor school performance, and negative behavioral changes.[8] Beyond the psychosocial consequences, BBD is implicated in other urologic health consequences including recurrent UTIs and vesicoureteral reflux.[4,8] In addition, if the complex interplay between the pelvic floor muscles, urethra, anus, bladder, and bowel is not normalized, then the pattern can progress into adulthood.[9]

Despite its ubiquity, it remains a difficult problem to treat.[1,5] The cornerstone of management is conservative therapy and includes implementation of a bowel program, initiation of timed voiding, and counseling.[1] For the clinician, it can be time consuming.[5] Treatment demands structured conversation and education.[5] Patients need to be counseled on normal lower urinary tract function, proper hygiene, fluid intake, correct posturing, regular voiding, and avoidance of holding maneuvers.[1] These are the tools necessary to break the cyclic pattern of BBD. Due to variability in presentation and disease complexity, there are significant differences

in how BBD is ultimately managed.[1,5] Patient counseling is unique to each clinician, and the child has significant influences outside of the healthcare clinic that impact their ability to implement what they have learned from the physician.

In order for the physician's counseling to stick, it must be reinforced with the child at home and in school. The patient must be given constant, positive reminders by caregivers throughout the day. Caregivers need a strong understanding of normal pediatric voiding patterns in order to help physicians. School teachers and nurses will need education on this condition to be effective in their role.

Children spend a significant number of their waking hours in school.[7] Toileting behaviors are intertwined in children's interaction with school teachers, nurses, and rules systems.[7] Several studies have demonstrated that public school elementary teachers have limited knowledge about pediatric BBD.[2,7,] In addition, these studies have shown that not all teachers understand the consequences of limiting access to bathrooms during the day. By directly interviewing children, Lundblad et al. concluded that a school's toileting rules system was stressful and potentially ineffective at allowing students to void and/or stool.[10]

I believe that an opportunity exists to provide school systems with better knowledge about pediatric BBD. I propose bi-annual educational sessions on BBD for teachers and nurses. These could be completed at "teacher work-days" or as a part of teacher orientation immediately before the school year starts. In the first session, basic instruction would be given with a short instructional video and a handout. The handout could be kept in the classroom for reference throughout the school year. This is critical for providing basic understanding about pediatric voiding and stooling. Teachers are already burdened with an array of responsibilities, and the session should be kept as concise as possible. The second session would be organized as a question and answer conference led by the school nurse. Its purpose would be to actively engage teachers in discussion about BBD. The school nurse would require the tools to intelligently lead this session. Because of this, I propose an additional annual educational session between the school nurses and a representative from a local urology clinic. This meeting would allow the nurse to be an extension of the urologist into the school system. I think that these 3 proposed sessions must take place annually so that knowledge about BBD remains fresh. A pilot year is feasible at my home institution.

References

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