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Patient perspectives on indwelling urinary catheter use in the hospital

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Abstract

Urinary tract infections are one of the most common hospital-acquired infections, with 70%–80% resulting from catheter-associated urinary tract infections (CAUTIs). We undertook a qualitative study to assess patient perspectives of indwelling urinary catheters using a semistructured interview. We found that patient awareness and patient engagement regarding indwelling urinary catheters and their consequences could be improved in the hospital setting. Implementing educational programs incorporating patient preferences for both health care workers and patients is likely to increase the involvement of patients in decision-making regarding urinary catheters and may lead to a decline in CAUTIs.

Keywords

Patient perspectives; Catheter-associated urinary tract infections

INTRODUCTION

Urinary tract infections are one of the most common hospital-acquired infections, with 70%–80% resulting from an indwelling urinary catheter.¹ Approximately 12%–16% of adult hospital inpatients will have an indwelling urinary catheter at some time during their hospitalization, and each day the indwelling urinary catheter remains, a patient has a 3%–7% increased risk of acquiring a catheter-associated urinary tract infection (CAUTI).^{2–4}

Although indwelling urinary catheters are medically necessary in some situations, studies have found that many times urinary catheters are unnecessarily placed. This may be because

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of convenience of catheter use, lack of using alternative excretion methods, or provider preference.⁵ Catheter use is associated with negative infectious and noninfectious outcomes, including infection, mechanical trauma, mobility impairment, nonbacterial urethral inflammation, urethral strictures, and CAUTI, which are related to an increase in length of hospital stay and mortality.^{6,7}

Optimizing urinary catheter insertion and maintenance practices remains a challenge, despite recent advances in this field.⁸ Much effort has focused on provider perceptions and practices, but there are little data on the perceptions of catheter use by the end user, the patient. We undertook a qualitative study to examine patient's perspective on indwelling urinary catheters in the acute care setting.

METHODS

Inclusion and exclusion criteria

Twenty hospitalized adult patients with indwelling urinary catheters were interviewed over a 2-month period at the University of Wisconsin Hospital. Intensive care unit, paralyzed, isolation, pediatric, and highly sedated patients were excluded from this study. We made every effort to select a diverse group based on age and race of patients for this study.

Procedure

A semistructured interview guide was used for the interview conducted in the patient's room at a time when there were no visitors or hospital staff present and with the treating team's approval. This work was considered quality improvement. Written consent was obtained from each patient prior to participation in this study. The interviews were audio recorded and transcribed, with all patient identifiers removed from transcripts. Demographic information was also collected from each subject.

Questions were used (Table 1) in interviews to guide the overall aim, which was to examine the patient's perspective on urinary catheter use.

Analysis

After collection of data, a systematic textual inquiry was used following the steps of Corbin and Strauss for coding data by line-by-line coding for qualitative assessment to detect trends.⁹ Two individuals independently coded the interview transcripts using line-by-line coding to create broad categories for each question. The coding between the 2 coders was then compared, and broad categories were developed. Inter-rater reliability was high.

RESULTS

In this study, 9 men and 11 women, with a mean age of 59.6 years (range, 18–86 years) were interviewed. All individuals in our sample were white. All patients were aware of the indwelling urinary catheter. Using the Corbin and Strauss line-by-line coding method, recurring themes were identified within interviews.

Nine out of the 20 (45%) patients reported indwelling urinary catheters to be convenient because they did not have to get up and go to the bathroom. Six out of the 20 (30%) patients reported they were aware an indwelling urinary catheter increased the risk of infection. Ten out of the 20 (50%) patients reported an indwelling catheter as uncomfortable or painful. Five out of the 20 (25%) patients reported feeling a sense of limitation or restriction in mobility with an indwelling urinary catheter. Thirteen out of the 20 (65%) patients reported that the risk involved with having an indwelling urinary catheter was not explained to them. The 2 most commonly recurring themes were that the patients reported they had not received education regarding risks or were not informed about alternative methods of excretion.

DISCUSSION

In this study, to assess patient perspectives of indwelling urinary catheters, we found that 75% of patients perceived that they had not received adequate education about indwelling urinary catheter consequences, 100% of patients felt that alternative methods of excretion were not discussed, and 65% of patients felt that they had not received adequate information on the risks of having an indwelling urinary catheter. Although data on patient engagement and awareness of health care-associated infections are scant, such programs may have relevance for reducing health care-associated infection. Patient engagement has had success in hand hygiene programs where patient empowerment has been shown to improve hand hygiene behavior of providers.¹⁰ Our data have implications for development of comprehensive programs to promote patient awareness and patient engagement in reducing the risk of CAUTI.

This study highlighted the importance of health care workers providing education to patients to make them more aware of the risks involved in having an indwelling urinary catheter. A discrepancy in health care worker's knowledge has also been found in regard to proper urinary catheter care in other studies.¹¹ Health care workers involved in catheter care should undergo training on how to properly engage and educate patients because lack of knowledge about indwelling urinary catheters is likely a major contributing factor in patient decision-making regarding urinary catheters.

Limitations of our study include the small sample size and lack of diversity in the sample, with the chance of it impacting generalizability. We also did not correlate patient responses with CAUTIs or assess the type of education provided to patients. Future studies that seek to develop educational programs should evaluate process and clinical outcomes.

In conclusion, we found that patient awareness and engagement regarding indwelling urinary catheters and their consequences could be improved. Implementing educational programs for both health care workers and patients that incorporate patient preferences is likely to increase the involvement of patients in decision-making regarding urinary catheters and may lead to a decline in CAUTIs.

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Table 1

Interview questions

Questions
How has your experience been in the hospital thus far?
How has your experience with a urinary catheter been?
Have you had a urinary catheter in the past? If so, how was that experience?
What did the hospital staff inform you about this catheter prior to it being placed?
What alternative methods of going to the bathroom were explained to you?
How you feel during the day with this urinary catheter?
What usual activities can you do with this urinary catheter?
What can you do/not do with this urinary catheter?
How did your health care providers describe the risk and benefit of a urinary catheter?
What do you feel are the positives of a catheter?
What do you feel are the negatives of a catheter?
Did you request a catheter? Why or why not?
Do you have any questions or concerns about the urinary catheter that have not been answered?

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