

# The Impact of Social Determinants of Health on Adherence to Urinary Tract Infection Treatment: A Scoping Review

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## Purpose

The purpose of this scoping review is to assess the literature and determine what is known about the effect of utilizing Social Determinants of Health (SDH) screening tools in clinical practice and allocating needed resources to children diagnosed with a Urinary Tract Infection (UTI) to improve compliance with treatment plans.

## Background

### Pediatric UTIs

- The incidence of pediatric UTIs is estimated between 5-12%.<sup>[4]</sup>
- Most common cause is *Escherichia coli* (*E. coli*).<sup>[1]</sup>
- Presenting symptoms may include fever, dysuria, malodorous urine, abdominal tenderness, irritability, or fatigue.<sup>[1]</sup>
- Most common treatment includes antibiotics and symptomatic care.
- Changes in work schedules and school routines and worries about childcare are a few of the concerns caregivers may have when dealing with a child with a UTI.<sup>[1]</sup>

### Recurrent UTIs and Complications

- Inadequate antimicrobial therapy or incomplete treatment due to various reasons may lead to recurring UTIs and long-term complications.<sup>[7]</sup>
- Females may be more susceptible to recurrent UTIs.<sup>[7]</sup>
- Rate of pediatric UTI recurrence is estimated between 30-50%.<sup>[7]</sup>
- Complications of recurring UTIs may include renal scarring or chronic renal insufficiency.<sup>[4]</sup>

### Existing Literature

- Current literature does not fully specify whether screening for patient needs impacts compliance to treatment plans in pediatric patients who suffer from recurring UTIs.
- Literature supports the connection between screening for patient needs and improving healthcare delivery.<sup>[9]</sup>
- By screening for SDH needs, providers can better direct care plans to meet families where they are at and provide resources to assist families in receiving assistance from the community.<sup>[9]</sup>

## Methods

The UTHSC Online Library was utilized to access PubMed, Cochrane, Elsevier Clinical Key, CINAHL, and JAMA databases from October 2021-November 2023

### Eligibility Criteria for Inclusion:

- Published in the English language
- Published in the last ten years
- Published in reputable medical or pediatric journals
- Published in full text
- Focuses on the diagnosis of a UTI in children, addressing SDH, social needs screening in clinical practice, or social needs screening tool

### Literature Search:

- The initial literature search yielded 1,054 articles and ten articles met the requirements to be included in the review.
- The Ohio State University College of Nursing Rapid Critical Appraisal (RCA) tool was utilized to screen each article for its level of evidence and quality.
- The review included one Level 1 article, four Level 2 articles, one Level 5 article, and four Level 6 articles.

### Data was gathered from the ten articles for five outcomes:

- Social needs screening tool used
- Prevalence of UTI in the pediatric population
- SDH addressed
- In-Person services addressed
- Improved health outcomes

## Results

Outcomes Synthesis Table	1	2	3	4	5	6	7	8	9	10
Outcome #1 Social Needs Screening Tool Used	NE	✓	✓	NE	✓	✓	NE	✓	✓	NE
Outcome #2 Prevalence of UTI in Pediatric Population	✓	NE	NE	✓	NE	NE	✓	NE	NE	✓
Outcome #3 Social Determinants Addressed	NE	✓	✓	NE	✓	✓	NE	✓	✓	✓
Outcome #4 In-Person Services Addressed	✓	✓	✓	✓	NE	✓	NE	✓	✓	NE
Outcome #5 Improved Health Outcomes	NE	NR	NE	NE	NE	✓	NE	✓	NE	NE

**Article Key:** 1- Campbell et al., (2021), 2- Drake et al., (2021), 3- Garg et al., (2015), 4- Gates et al., (2018), 5- Gottlieb et al., (2014), 6- Gottlieb et al., (2016), 7- Leung et al., (2019), 8- Pantell et al., (2020), 9- Sokol et al., (2021), 10- Yaeger et al., (2018)

**Symbol Key:** NE = Not Examined, NR = Not Reported, ✓ = applicable or present

## Results

- The literature supports the connection between unmet social needs and patient outcomes.
- A common finding among articles that examined the use of screening tools in practice was that addressing social needs is an important component of primary care.
- The literature highlights the importance of the medical home and the role of the provider in improving patient outcomes.
- Providers can assist with identifying patient needs and allocating in-person resources.

## Implications for Practice

- Unmet patient needs can impact patient compliance and overall health outcomes.
- The diagnosis of a UTI can create stress for patients and their caregivers.
- Addressing unmet social needs can potentially reduce barriers to compliance that caregivers may face when attempting to comply with treatment plans.
- The literature highlights a heightened awareness of the provider and clinic/hospital system role in improving healthcare delivery by screening for patient needs.
- High-quality patient care delivery is achieved by screening for patient needs and providing necessary interventions to improve compliance and health outcomes.

### Further research is warranted for SDH screening in the pediatric population

- There is limited current research of pediatric specific social needs screening tools utilized in practice.
- Future research should focus on identifying the best implementation of screening tools to improve patient compliance, healthcare delivery, and patient outcomes.
- Future research should also specifically focus on the implementation of social needs screening tools to improve barriers to compliance in patients who face recurring UTIs.

## References



Scan the QR Code to review references.