Over the past century, the average human lifespan has doubled, leading to estimates that older adults will represent 21.1% of the world’s population by 2050 (Admi, Shadmi, Baruch, & Zisberg, 2015). Older adults are defined as individuals older than 65 and are the largest population using acute care services in Canada, totaling 40% of hospital stays in 2010 (Canadian Institute for Health Information, 2011). Older adults often have multiple chronic diseases and present with clinical conditions that do not fit into specific disease categories, commonly referred to as geriatric syndromes, that present implications for diminishing function, life satisfaction, and quality of life (Brown-O’Hara, 2013). One geriatric syndrome is urinary incontinence (UI), affecting 6.4% to 43% of older adults in acute care (da Silva & Santos, 2005; Ostaszkiewicz, O’Connell, & Millar, 2008; Wu, Matthews, Vaughan, & Markland, 2015; Zürcher, Saxer, & Schwendimann, 2011) and 43% to 77% in long-term care (Offermans, Du Moulin, Hamers, Dassen, & Halffens, 2009).

UI can be defined as the involuntary loss of urine resulting from the inability to reach the toilet due to cognitive, functional, or mobility impairments in the presence of an intact lower urinary tract system (Abrams, Cardozo, Khoury, & Wein, 2013). UI is costly to acute hospital systems, places older patients at high risk for perineal/perianal skin breakdown, threatens patient dignity, and delays discharge (Connor & Kooker, 1996).

**BACKGROUND**

Older adult care in acute hospital settings can be challenging due to the population’s increased susceptibility to complications beyond original health concerns (Fedarko, 2011). For many older adults, UI is managed with inappropriate continence strategies, overreliance on continence aids, and urinary catheters, putting them at risk of developing permanent UI (Zisberg, Gary, Gur-Yaish, Admi, & Shadmi, 2011). Use of continence aids and urinary catheters

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**ABSTRACT**

Urinary incontinence (UI) is a geriatric syndrome affecting older adults in long-term and acute hospital care. Most research has focused on nurses’ perceptions of UI in long-term care and community settings rather than acute hospital settings. The purpose of the current integrative review was to understand nurses’ perceptions and use of continence strategies for hospitalized older adults. Literature published from 1996-2016 was reviewed. Critical appraisal of the articles by two researchers yielded 10 articles that described nine studies. Findings revealed that nurses lack knowledge or motivation to thoroughly assess UI in older adults, often focusing on containment strategies (e.g., adult briefs) rather than conducting an assessment and promoting continence. More education about UI assessment, management, and research is needed to improve nursing care of hospitalized older adults. [Journal of Gerontological Nursing, 43(10), 46-55.]

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Marnie Colborne, RN; and Sherry Dahlke, PhD, RN, CGC(C)
has been linked to negative effects, such as pressure ulcers, recurrent urinary tract infections (UTIs), depression, social withdrawal, and functional dependency (Abrams et al., 2013; Palese et al., 2007), as well as falls and fall-related injuries due to the urgency of toileting (Chiarelli, Mackenzie, & Osmotherly, 2009).

Nursing staff who care for acutely ill hospitalized older adults are in a key position to influence continence. For the purposes of the current study, the term nursing staff is used to include RNs, licensed practical nurses (LPNs), and health care aides (HCAs). Research in long-term and community settings has identified nurses’ negative attitudes toward the aging population, lack of knowledge regarding UI (Holroyd-Leduc, Lyder, & Tannenbaum, 2006; Liu, Norman, & While, 2013; Welford, 2014), misconceptions about the aging process (Ehlman et al., 2012; Holroyd-Leduc et al., 2006; Welford, 2014), and high incidence of inappropriate continence products (McCarthy, McCormack, Coffey, Wright, & Slater, 2009; Palese et al., 2007). Although little is known about nurses’ perceptions toward hospitalized older adults experiencing UI, it has been identified that hospitalized older adults are often marginalized, with their needs assigned a lower priority compared to other patients (Dahlke, Phinney, Hall, Rodney, & Baumbusch, 2015). Understanding nurses’ perceptions and use of continence strategies for older adults in acute hospital settings is the first step in informing nursing research questions and tailoring education and practice to enhance quality care for hospitalized older adults.

**PURPOSE**

The aim of the current integrative literature review was to review empirical and non-empirical sources to identify research related to nurses’ perceptions and use of continence strategies with hospitalized older adults in acute hospital settings.

**METHOD**

The integrative literature review process outlined by Whittmore and Knafl (2005) and review methods developed by Arksey and O’Malley (2005) guided the review to ensure that a rigorous and transparent process was maintained. The five stages of Arksey and O’Malley’s (2005) method include (a) identifying the research aim and questions, (b) identifying relevant studies, (c) selecting studies, (d) charting the data, and (e) collating, summarizing, and reporting results.

Literature from 1996-2016 was reviewed using CINAHL, MEDLINE, Scopus, Proquest, Web of Science Core, Google, and Google Scholar. Search terms with the following keywords in combination included, but were not limited to: “nurse,” “registered nurse,” “licensed practical nurse,” “health care aid,” “nursing aid,” “health personnel,” “older adult” or “person” or “individual,” “senior,” “elderly,” “geriatric,” and “incontinent aid” or “product” or “strategy,” “brief,” “diaper,” “catheter,” “commode,” “urinal,” “timed toileting,” “behavioral training,” and “pelvic floor exercises.” Reference lists of included studies were checked by the current authors with emphasis on systematic and traditional literature reviews. To avoid publication bias, key journals were hand searched and continence-related web postings were also reviewed.

Inclusion criteria included research studies published in English and that were related to nursing, continence, and acute hospital settings. Articles or other resources in which the focus was on examining long-term care or community settings and with emphasis on care from other disciplines were excluded. At
the end of the review process, nine studies with a total of 10 articles met the inclusion criteria. Reasons for exclusion are presented in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram (Moher, Liberati, Tetzlaff, & Altman, 2009) (Figure).

Data Abstraction and Analysis
All 10 relevant articles were charted (i.e., a technique used for synthesizing and interpreting data according to key issues and themes) to present a current understanding concerning nurses’ perceptions and use of continence strategies (Table). This approach provided succinct organization of the literature to compare sources on specific issues, variables, or sample characteristics (Whittemore & Knafl, 2005).

RESULTS
The review yielded 10 articles describing nine different studies (Table)—one study was represented by two articles (Dingwall & McLafferty, 2006a,b). Studies were conducted in a variety of regions: Sweden (n = 1), Australia (n = 1), Scotland (n = 3), United Kingdom (n = 1), Norway (n = 1), and the United States (n = 2); one study’s origin was unclear (Connor & Kooker, 1996).

Four studies were qualitative and exploratory in nature (Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b; Kristiansen et al., 2011). Four studies were quantitative, using the following study designs: nonexperimental, descriptive (Connor & Kooker, 1996; Henderson & Kashka, 2000), and two cross-sectional surveys (Kadir, 2004; Vinsnes, Harkless, Halbakk, Bohm, & Hunskaar, 2001). One study used a mixed-methods design with audits and questionnaires (Irwin, Patterson, Boag, & Power, 2001), and one used a mixed-methods design with qualitative interviews (Brady et al., 2016).

Types of acute hospital units included medical/surgical (Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b; Irwin et al., 2001; Kadir, 2004; Kristiansen et al., 2011; Vinsnes et al., 2001), specialty units for older adults (Dingwall & McLafferty, 2006a,b), critical care units (Connor & Kooker, 1996), and acute rehabilitation units (Brady et al., 2016; Irwin et al., 2001). Henderson and Kashka (2000) included nurses from hospital, home health, and long-term care settings, with most participants (57%) from hospital settings. This study was included due to the large number of participants from hospital settings.

Content analysis of the studies revealed that nursing team members lacked knowledge regarding the importance of assessing for UI, types of UI, and different types of continence strategies. The following themes were identified across studies and will be discussed: nursing assessment, continence management strategies, nursing knowledge, older adult care perceptions, acute care settings, and nursing role in continence care.

Nursing Assessment
Researchers found a lack of comprehensive assessment for UI in seven studies (Brady et al., 2016; Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty,
<table>
<thead>
<tr>
<th>Authors, Location</th>
<th>Aim/Purpose</th>
<th>Method</th>
<th>Sample</th>
<th>Appraisal Score</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Brady et al. (2016), Scotland</td>
<td>To investigate patients’ and nursing staff’s perspectives of the implementation of an augmented continence care intervention after stroke</td>
<td>Mixed-methods study and qualitative interviews using thematic analysis</td>
<td>23 nurses/nursing assistants from a mixed acute/rehabilitation stroke ward</td>
<td>CASP: Qualitative: 8/10 (strong) Quantitative: 7/9 (strong) MMAT: Qualitative: 75% Quantitative: 75%</td>
<td>Only two of 23 participants attended a continence course. After an educational program was implemented, nursing staff had increased knowledge and confidence toward continence care. Participants believed incontinence was a nursing issue and within their role.</td>
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<tr>
<td>Connor &amp; Kooker (1996), unclear</td>
<td>To explore the nursing management of UI in the acute inpatient setting of a teaching medical center</td>
<td>Non-experimental, descriptive correlational design, 29-item Likert scale, 103-item questionnaire, and chi-square analysis</td>
<td>208 nursing staff from a 200-bed teaching medical center</td>
<td>CASP: 10/12 (strong) MMAT: 75%</td>
<td>Critical care staff viewed UI as frustrating and rationale for pad use included convenience and time saving.</td>
</tr>
<tr>
<td>Cooper &amp; Watt (2003), Australia</td>
<td>To gain an understanding of how RNs in an acute care hospital assess and manage clients with UI</td>
<td>Exploratory in nature, qualitative questionnaires, focus groups, content analysis</td>
<td>33; focus groups from an acute hospital with eight medical/surgical wards</td>
<td>CASP: 8/10 (strong) MMAT: 100%</td>
<td>Pads were often offered for convenience and due to lack of time and staffing, or an inability to assess patients properly. UI was seen as an inevitable issue in older adults.</td>
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<tr>
<td>Dingwall &amp; McLafferty (2006a), Scotland</td>
<td>To explore whether nurses working in older adult medicine and acute medical settings promote continence or use containment strategies</td>
<td>Qualitative/exploratory, inductive approach, semi-structured interviews using NVivo 2 software and thematic analysis</td>
<td>21 RNs and non-RN staff from seven acute medical wards and 15 Medical Friendly for the Elderly units from three hospitals</td>
<td>CASP: 12/12 (strong) MMAT: 100%</td>
<td>Older adults likely to be labeled as incontinent of urine without assessment. Incontinence was seen as untreatable, incurable, inevitable, and a low priority for nursing staff. Incontinence containment rather than continence promotion techniques were used to better fit unit routine. Staff believed there was not enough education training for assessing or caring for incontinence.</td>
</tr>
<tr>
<td>Dingwall &amp; McLafferty (2006b), Scotland</td>
<td>To identify nurses’ perceptions of indwelling urinary catheters in older adults</td>
<td>Qualitative, exploratory with five focus groups and four single semi-structured interviews using NVivo 2 software and thematic analysis</td>
<td>21 RNs and non-RN staff</td>
<td>CASP: 9/10 (strong) MMAT: 75%</td>
<td>Despite nursing knowledge, urinary catheterization use continued according to medical direction or nurse preference rather than based on appropriate assessment. Some nurses believe catheterization occurred according to patient age. Containment strategies continued to be used rather than management strategies.</td>
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<tr>
<td>Authors, Location</td>
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<td>Henderson &amp; Kashka (2000), United States</td>
<td>To determine if nurses’ knowledge about UI in adults, attitude toward clients with UI, and belief about UI in general affects continence-related practice behavior</td>
<td>Cohort study using regression analysis of knowledge, attitude, and belief variables and examining their effect on practice from Likert-scale questionnaire responses</td>
<td>126 RNs from home health, hospital, and long-term care settings</td>
<td>CASP: 11/12 (strong) MMAT: 75%</td>
<td>Attitude has a significant impact on practice. Knowledge was significantly related to attitude but was not related to practice. The research question only supported the attitude variable.</td>
</tr>
<tr>
<td>Irwin, Patterson, Boag, &amp; Power (2001), United Kingdom</td>
<td>To determine the adequacy of diagnosis for patients with a continence problem and the provision and appropriateness of treatment, and to assess health care staff’s knowledge about UI</td>
<td>Mixed-methods study; an audit was completed to determine diagnosis of incontinence in patients, as well as qualitative individual interviews with a 27-item questionnaire</td>
<td>65 nurses from three inpatient wards and one stroke inpatient ward</td>
<td>CASP Qualitative: 5/10 (moderate) Quantitative: 6/9 (moderate) MMAT Quantitative: 75% Qualitative: 50%</td>
<td>Lack of adequate UI diagnosis as well as a lack of inaccurate intervention choice and depth of knowledge of incontinence. There was an underuse of therapeutic strategies coupled with significant overuse of containment strategies.</td>
</tr>
<tr>
<td>Kadir (2004), United States</td>
<td>To determine the incidence of incontinence aids used in a restructured hospital, and reasons and appropriateness for using incontinence aids</td>
<td>Cross-sectional surveys, t tests</td>
<td>One nurse from four acute care units in a level 5 restructured hospital</td>
<td>CASP Qualitative: 5/10 (moderate) Quantitative: 6/9 (moderate) MMAT Quantitative: 75% Qualitative: 50%</td>
<td>One half of the population (50.5%) used incontinence aids inappropriately, with 41.5% of these patients being of old age. Of aids used, 73% were adult diapers and 12% were indwelling catheters; 35.8% of nurses said they were unaware of possible alternatives, 29.5% followed patients’ requests, and 12.6% followed relatives’ requests for incontinence aids.</td>
</tr>
<tr>
<td>Kristiansen et al. (2011), Sweden</td>
<td>To provide a description of how older adults in poor health experience UI and their family’s and nursing staff’s views, and determining participants’ experiences with a newly invented pad system</td>
<td>Qualitative, exploratory, 24 interviews using content analysis</td>
<td>Two public health hospital geriatric wards and three public nursing home wards with 22 staff members</td>
<td>CASP: 7/10 (moderate) MMAT: 75%</td>
<td>Nursing staff expressed that UI is part of the normal aging process and explored benefits of incontinence strategies tailored for the individual.</td>
</tr>
</tbody>
</table>
In two studies, it was suggested that unclear diagnoses of UI were the result of poor assessment (Dingwall & McLafferty, 2006a,b; Irwin et al., 2001). For example, Irwin et al. (2001) showed that in a 200-patient study, a specific diagnosis to the cause of incontinence was not identified in 80% of those who were incontinent. Cooper and Watt (2003) found that 33% of nurses admitted to not knowing how to conduct a UI assessment, and thus were unclear about what action to take.

In two studies, researchers found there was a lack of assessment, diagnosis, or proper documentation of incontinence, and nursing staff continued to use continence strategies while unfairly labeling the older adult with having UI (Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b). Kadir (2004) found that a lack of assessment led to inappropriate use of continence strategies in 50.5% of 203 patients, resulting in associated perineal rash and UTIs in some patients. Researchers suggested there was a lack of assessment tools made available for nursing staff or there was dissatisfaction with current assessment methods among nurses (Connor & Kooker, 1996; Dingwall & McLafferty, 2006a,b; Irwin et al., 2001). Dingwall and McLafferty (2006a) identified that nurses working in acute care either were unaware of UI assessment tools, designed their own assessment tool, or used assessment tools that were not validated for use with older adults.

**Continence Management Strategies**

The most common nursing strategies to manage UI were adult incontinence pads (adult briefs) or washable under sheets (Brady et al., 2016; Connor & Kooker, 1996; Dingwall & McLafferty, 2006a,b; Irwin et al., 2001). Dingwall and McLafferty (2006a,b) identified that catheters were inserted based on nursing preference or habit rather than assessment or medical need. Urosheath (Kadir, 2004) or a combination of methods (Connor & Kooker, 1996) were also cited as continence strategies. For example, Connor and Kooker (1996) found that 79% of nursing staff were using diapers and indwelling catheters. Although bladder retraining and timed toileting every 2 hours was mentioned, it was not clear if this was common practice or the rationale nurses used to implement these strategies (Connor & Kooker, 1996). Several studies mentioned timed toileting (Brady et al., 2016; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b). Interestingly, behavioral training or pelvic floor exercises were mentioned but not viewed as the first step in continence management or as part of the nursing role (Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b).

Nursing staff chose containment strategies, such as adult briefs, for the following reasons: self-reported UI (Dingwall & McLafferty, 2006a), patient or family request (Dingwall & McLafferty, 2006a,b; Kadir, 2004), convenience due to lack of time or staff, nursing habit/ward routine (Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b; Irwin et al., 2001), or unawareness of other interventions (Kadir, 2004). Containment methods were often used based on issues other than UI (e.g., when older adults had decreased cognitive ability, behavioral challenges, and decreased functional capacity such as mobility and speaking (Dingwall & McLafferty, 2006a,b; Kadir, 2004)). Cooper and Watt (2003) found that when UI dis-
ruptured care, nursing interventions were implemented without evidence of an appropriate assessment or rationale.

**Nursing Knowledge**

Nursing staff knowledge was less than perceived knowledge, with emphasis on lack of knowledge on UI types and associated interventions (Cooper & Watt, 2003; Irwin et al., 2001). In other words, nursing staff knew less about managing UI than they believed they did. However, all nine studies reported that nursing staff identified they needed more knowledge about UI and suggested information about managing UI be incorporated into basic nursing programs and hospital-based education initiatives (Brady et al., 2016; Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b; Henderson & Kashka, 2000; Irwin et al., 2001; Kadir, 2004; Kristiansen et al., 2011; Vinsnes et al., 2001). Cooper and Watt (2003) found a lack of knowledge despite that 19 of 33 nursing staff (58%) received some form of UI education in their undergraduate program, with 6% receiving education through in-service. Connor and Kooker (1996) found that of 322 nursing staff surveyed, 46.2% received education on UI. In contrast with these findings, Brady et al. (2016) suggested education was understated by nursing staff because only two of 23 participants (14 RNs, nine HCAs) attended an offered continence course. Nurses’ (Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b; Henderson & Kashka, 2000; Irwin et al., 2001; Kadir, 2004; Kristiansen et al., 2011; Vinsnes et al., 2001). Some researchers attributed an unclear diagnosis of UI to nursing staff’s bias toward older adults (Connor & Kooker, 1996; Dingwall & McLafferty, 2006a,b; Vinsnes, 2001). After surveying 126 nurses, Henderson and Kashka (2000) suggested that nurses’ attitudes influence management of UI because despite being aware of UI, only 56% of nurses reported performing continence-related behavior one half of the time. Misconceptions and misguided beliefs regarding UI contributed to nursing staff beliefs that UI is always incurable (Dingwall & McLafferty, 2006a,b) or a normal part of aging (Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b; Henderson & Kashka, 2000; Kristiansen et al., 2011). Vinsnes et al. (2001) suggested that nursing assistants held positive attitudes toward UI, whereas RNs and LPNs did not. These researchers reported that nursing assistants received more education on continence care than RNs, but this finding was not reported in any other study.

**Acute Care Settings**

Most studies identified that acute hospital settings did not support nursing staff to focus on less acute issues such as UI, citing a lack of time and staff (Brady et al., 2016; Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a; Irwin et al., 2001; Kadir, 2004). Nursing staff in acute hospital settings place lower priority on continence strategies due to an emphasis on medical diagnosis rather than chronic conditions (Brady et al., 2016; Vinsnes et al., 2001). Four research teams reported that nursing staff described using incontinence pads out of convenience related to lack of time and as an alternative to acquiring assistance from other staff members (Connor & Kooker, 1996; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a,b). Nursing staff also used high absorbency pads to increase the time between change intervals (Dingwall & McLafferty, 2006a). Connor and Kooker (1996) found that 51% of nursing staff instructed patients to “just urinate in the diaper,” a practice that contributed to further episodes of UI.

**Nursing Role in Continence Care**

Several studies identified that nursing staff were unclear if UI management was solely their responsibility or the role of the multidisciplinary team (Brady et al., 2016; Cooper & Watt, 2003; Dingwall & McLafferty, 2006a; Irwin et al., 2001). Nurses in two studies believed urinary assessment was exclusively

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**Misconceptions and misguided beliefs regarding urinary incontinence contributed to nursing staff beliefs that urinary incontinence is always incurable.**
a nursing role (Brady et al., 2016; Dingwall & McLaugherty, 2006a), whereas nurses in another study did not believe UI management was a nursing issue (Cooper & Watt, 2003). One study suggested that UI should be a multidisciplinary role involving multiple members of the health care team rather than exclusively limiting it to one health profession (Irwin et al., 2001).

**DISCUSSION**

The current article represents, to the current authors’ knowledge, the only review of nursing staffs’ perspectives of and strategies in managing UI with hospitalized older adults. The findings suggest that lack of nursing knowledge, misguided or negative beliefs about the aging process, and the medical focus of an acute care setting contributed to nurses’ decision making regarding use of continence strategies. Nursing staff did not assess for UI with hospitalized older adults due to a lack of knowledge of how to conduct a proper assessment. This lack of assessment could be due to nursing staff’s limited access or understanding of how to use assessment tools or not believing it was their role to assess for UI. UI assessment is often overlooked in the acute hospital setting and gaps exist in nursing knowledge about UI and care (Keilman & Dunn, 2010; Lawhorne, Ouslander, Parmelee, Resnick, & Calabrese, 2008; Park, De Gagne, So, & Palmer, 2015; Saxer, de Bie, Dassen, & Halfens, 2008). Researchers studying long-term care and community settings also reported gaps in nursing care related to UI (Palese et al., 2007), suggesting that despite a higher proportion of professional nurses in acute hospital settings than in long-term care settings, nursing practice with UI is not different between settings.

Lack of assessment influenced nursing staff’s strategies for managing UI. The current findings identified that practice guidelines were not followed. This finding is congruent with that from Palese et al. (2007), who found that long-term care nurses did not adhere to practice guidelines or evidence-informed literature when implementing incontinence aids. Inadequate assessment of UI led to inappropriate nursing interventions and care in the studies reviewed, similar to others reporting on a variety of health care settings (McCarthy et al., 2009; Zürcher et al., 2011). Similar to the current findings, other researchers reported that nurses in various health care settings often use containment strategies out of convenience, nursing habit, and patient preference, or due to lack of time (McCarthy et al., 2009; Palese et al., 2007; Zisberg et al., 2011).

Other researchers have confirmed the current findings that although nurses play a critical role in managing UI, they frequently hold negative attitudes toward it and lack the knowledge, skills, and motivation to appropriately manage it (McCarthy et al., 2009). Moreover, acute care culture emphasizes biomedical acute problems as more important than chronic and/or functional problems, such as UI (Dahlke et al., 2015). The emphasis on biomedical acute problems helps explain the current findings of nursing staff’s lack of enthusiasm in managing UI according to best practice guidelines. Nursing staff reports of time pressures in acute hospital settings help explain their negative perceptions of UI and use of adult briefs for convenience (Connor & Kooker, 1996; Kristiansen et al., 2011). Best practice guidelines include pelvic floor exercises, timed toileting, habitual voiding, behavioral training, and bladder diaries (Abrams et al., 2013; Canadian Continence Foundation [CCF], 2001; National Institute for Health and Care Excellence [NICE], 2015). Nursing staff in the studies reviewed expressed wanting more education about UI and how to manage it. Similarly, Saxer et al. (2008) suggested that education about UI should be included in undergraduate and nursing practice education. Education could be promoted on acute hospital units through interventions such as continence training programs. These types of programs have proved successful in increasing nursing staff knowledge of different reasons for UI, as well as greater insights into use of UI assessment tools (Brady et al., 2016).

**NURSING IMPLICATIONS**

Many UI practice guidelines are available for health care professionals (CCF, 2001; Lucas et al., 2015; NICE, 2015) or are specifically aimed for nursing use (Abrams et al., 2013); all identify UI assessment strategies, as well as interventions that are most appropriate for specific types of UI.

**Nursing Assessment**

Assessments should focus on daily fluid intake, output, and individual use of caffeine, alcohol, aspartame, or other bladder irritants; post-void residual volumes and UTI should be assessed (Abrams et al., 2013). There are limited UI assessment tools used by nursing staff reported in the literature. Obtaining historical data is essential to the diagnosis and management of UI (Bright, Drake, & Abrams, 2011). With the aging population, it may be necessary to use cognitive assessment tools to determine if they understand directions (Cooper & Watt, 2003). Bladder diaries are simple tools that yield important assessment data and are routinely used by clinicians (Palese et al., 2007; Wilkinson, 2009). A bladder diary is used to document voiding habits and provides information on frequency, urgency, severity of symptoms, amount voided, post-void residual, nocturnal voiding, pad use, and fluid intake (Abrams et al., 2013). Scholars suggest using...
bladder diaries from 24 hours to 2 weeks (Bright et al., 2011). However, “diary fatigue” increases with duration; <7 days is optimal for patient use (Bright et al., 2011). Other tools used include micturition charts (recording only the times of micturition for a minimum of 24 continuous hours) and frequency volume charts (record voided volumes and times of micturition for a minimum of 24 hours) (Bright et al., 2011; Lucas et al., 2015). Symptom questionnaires, which identify type of UI, have undergone rigorous validation with the International Consultation on Incontinence Modular Questionnaire (Bristol Urological Institute, 2014). The next steps in assessment should be directed by UI symptoms, and may include abdominal palpation, bladder scans, in-and-out catheterization, urinalysis/midstream urine collection, and bladder ultrasounds (Cooper & Watt, 2003).

**Conclustion**

Geriatric syndromes are prevalent in acute hospital settings because they arise from acute and chronic health issues. UI affects many older adults and it is essential that nursing staff do not overlook this syndrome as unimportant or as a normal consequence of aging. Given the lack of nursing knowledge about UI assessment, incorporating education about this topic into undergraduate nursing education programs would be a step forward in the care of older adults. Moreover, it is vital that nursing staff use existing clinical practice guidelines to inform their practice. Proper understanding of the etiology of UI and the implementation of evidence-informed nursing care is needed to increase the quality of care for hospitalized older adults. Use of UI assessment tools by nursing staff to properly identify appropriate continence strategies is the first step in understanding which continence strategy to use. To the authors’ knowledge, the current article is the only representation of nurses’ perceptions of UI and their use of continence strategies with hospitalized older adults; thus, more research is needed to better understand how to overcome barriers to nursing staff’s assessment of and decision making about UI in hospitalized older adults.

**References**


