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Nurses' and Nursing Assistants' knowledge, beliefs, and attitudes about urinary incontinence and the effect of education:

A systematic review

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Aim: To systematically describe, critique, and summarise research about the effect of education about urinary incontinence (UI) on nurses' and nursing assistants' (NAs') knowledge, beliefs, and attitudes about UI, continence care practices and patient outcomes.

Design: A systematic review of quantitative research

Population: Nurses or NAs (1,210 overall sample)

Intervention: Education, training, coaching, mentoring about UI

Outcomes: Knowledge/beliefs about UI aetiology and management; attitudes; continence care practices and patient outcomes

Appraisal: The Mixed Methods Appraisal Tool (MMAT) (Pluye et al. 2011)

Search results: 17/4,249 studies eligible. Meta-analysis not possible

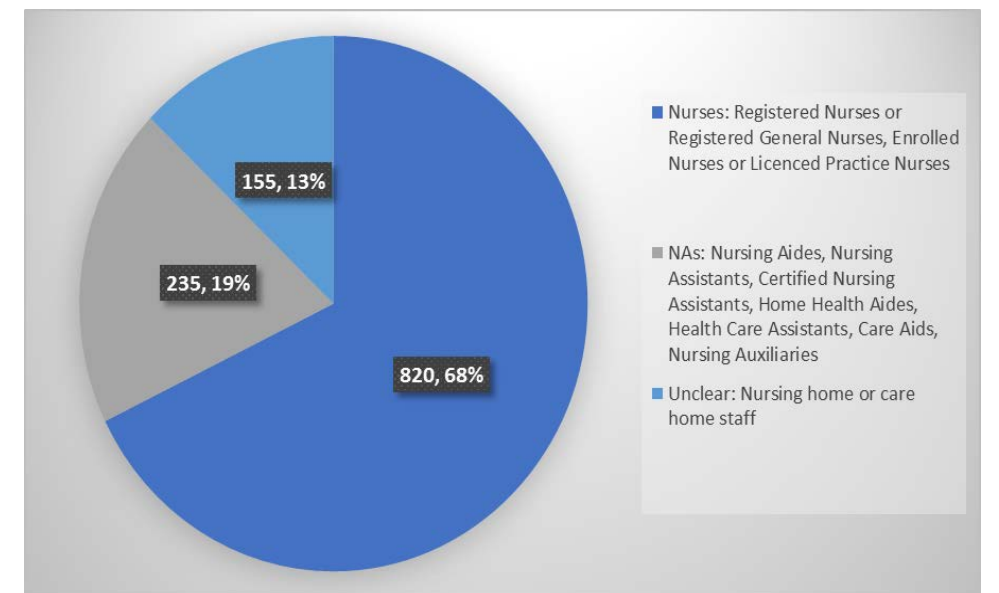


Table 1. Summary of findings

Effect of education on knowledge				
Practice setting	Type of study	Authors	Findings	MMAT
N/H (n=6)	Uncontrolled	Collette 2003	Increased knowledge & ability to plan an effective intervention	25%
		Ehlman 2012	Increased knowledge – statistical significance for one item	25%
		Lekan Rutledge 2000	No difference	50%
		Mathis 2013	Improved knowledge of UI type – Statistical significance for some items	25%
		Rahman 2012	Increased knowledge – no difference between groups	50%
	Controlled	Campbell 1991	Slight, but significant improvement	25%
Community /Primary (n=2)	Uncontrolled	De Gagne 2015	Statistically significantly improved	50%
	Controlled	Signall 2001	Statistical significance for some items	50%
Acute/sub-acute (n=1)	Uncontrolled			
	Controlled	Williams 1991	Improved	25%
Effect of education on continence care practices				
Practice setting	Type of study	Authors	Findings	MMAT
N/H (n=3)	Uncontrolled	Collette 2003	Improved ability to plan effective intervention	25%
		Lekan-Rutledge 2000	High adherence at each stage	50%
		Rahman 2012	Increased in number of assessments	50%
	Controlled			
Community /Primary (n=3)	Uncontrolled	Sampselle 2000abc	Improved identification of UI	
	Controlled	Chester 2006	No differences in staff adherence – low overall	100%
		Signall 2001	Statistical significance for improved UI monitoring and treatment planning	50%
Acute/sub-acute (n=2)	Uncontrolled	Frasure 2014	50% improved staff adherence	50%
	Controlled	Thomas 2015	No difference in adherence	100%

Effect of education on patient outcomes				
Practice setting	Type of study	Authors	Findings	MMAT
N/H (n=5)	Uncontrolled	Lekan-Rutledge 2000	Modest reduction in UI	50%
		Rahman 2012	More residents who were continent	50%
		Remsburg 1999	No difference	50%
		Vinsnes 2007	No change	75%
	Controlled	Sackley 2008	Insufficient evidence	50%
Community /Primary (n=3)	Uncontrolled	Sampselle 2000abc	Significant reductions in most outcomes of interest	50%
		Skelly 1998	Reduced UI	50%
	Controlled	Chester 2006	No difference	100%
Acute/sub-acute (n=2)	Uncontrolled	Frasure 2014	No difference	50%
	Controlled	Thomas 2015	No difference	100%

Interpretation - Uncontrolled studies show education improves nurses'/NAs' UI knowledge, beliefs, attitudes, practice and patient outcomes. In general, these effects are not shown in available controlled studies.

Take home message - More controlled studies are needed to determine the effect of education on nurses'/NAs' knowledge about UI, continence care practice and patient outcomes, as well as the best educational approaches.

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