B1-21: Predictors of Nurses’ Behavioral Intention to Disinfect Needleless Intravenous Systems

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**Abstract:**

**Introduction:** While 15 seconds is cited as the optimal disinfection time for intravenous (IV) needleless systems, there remains a paucity of literature regarding why nurses fail to consistently adhere to this guideline. Research Question: What are the relationships among autonomy, self-efficacy, values/beliefs and nurses’ behavioral intentions (BI) to “scrub the hub?” Purpose: To examine predictors of behavioral intention to utilize best practice disinfection techniques in needleless IV systems.

**Method(s):** Descriptive design; Convenience sample (N=171); Scales: Dempster Practice Behaviors, General Self Efficacy, and Smith/Becker’s Attitudes Toward Disinfection Techniques (investigator-designed and based upon Fishbein & Ajzen’s Theories of Planned Behavior and Reasoned Action). This scale measures beliefs, values, control, social norm and motive to comply with disinfection of needleless connectors. Power Analysis: $\alpha = .05$, medium effect, power $= 0.95$, N=138. Data Analysis: descriptives, correlations. Limitation: lack of generalizability.

**Results:** Mean age: 35.17 years (SD 11.48; 21-71 years); white, non-Hispanic (71.3%, n=122), female (81.9%; n=140), BSN or higher (71.0 %, n=122), and registered nurses an average of 9.03 (SD=11.32) years. Years of experience correlated with autonomy ($r=0.31; \ p=0.00$) and self-efficacy ($r=0.24; \ p=0.002$). Negative correlations were found on age ($r=-0.17; \ p=0.03$) and years of experience ($r=-0.23; \ p=0.003$) with BI to use optimal disinfection techniques. There was a correlation between concern for preventing bloodstream infection and BI ($r=0.26; \ p=0.001$). While colleagues at all levels influenced nurses’ BI, staff nurses’ attitudes most influenced decisions to “scrub the hub” ($r=0.45; \ p=0.00$).

**Discussion & Conclusions:** While experienced nurses were more autonomous and self-efficacious, they were less likely to utilize optimal disinfection techniques. Traditional nursing education focuses on cognitive and psychomotor domains; however, emphasis on the affective domain is vital in preventing bloodstream infections. Since nurse peers have the greatest impact on BI, preceptor training should promote mutual educational exchange between new and experienced staff.

**Abstract History:**
This abstract has not been presented or accepted for presentation in whole or in part at the SNRS or other scientific meeting.

**Financial Disclosure:**
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