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Differences in Perceived Patient Mobility Barriers Among Nurses from Various Departments and Location Work Sites

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Purpose

The purpose of this study was to examine differences in perceived early mobility barriers between registered nurses (RNs) and nurse assistants (NAs), and whether differences in barriers exist among nurses working in different departments or hospital sites

Methods

Hospital nurses from the Inland Northwest completed the Patient Mobilization Knowledge, Attitudes, and Behaviors (PMKAB) survey

- PMKAB consists of 25 survey items
- Each PMKAB survey item is scored on an ordinal scale from 0 to 4, for a global score of up to 100 points possible
- Higher scores indicate more perceived mobility barriers

- 387 Registered Nurses (RNs) and 110 Nurse Assistants (NAs) from 8 hospitals and 4 different specialties responded

- PMKAB global scores, and PMKAB knowledge, attitude, and behavior subscale scores calculated

- Mann Whitney U Tests and Kruskal Wallis tests were conducted with SPSS version 26

Results

Table 1: Differences in PMKAB Scores between RNs and NAs

Score Category	PMKAB Scores (Mean ± SE)		P
	RNs (n=387)	NAs (n=110)	
Knowledge Subscale	3.09 ± 0.08	3.42 ± 0.20	0.133
Attitude Subscale	13.28 ± 0.23	12.50 ± 0.42	0.091
Behavior Subscale	22.36 ± 0.32	20.01 ± 0.63	<1.001
Global Score	38.74 ± 0.55	35.93 ± 1.05	0.008

RNs reported significantly greater perceived mobility barriers than NAs (Table 1)

Results

Table 2: Difference in PMKAB Scores between Nurses from Various Departments

Score Category	PMKAB Scores (Mean ± SE) for Different Departments			
	Medical (n=154)	Surgical (n=114)	Telemetry (n=141)	Float Pool (n=65)
Knowledge Subscale*	3.26 ± 0.14	2.64 ± 0.17	3.23 ± 0.14	3.66 ± 0.22
Attitude Subscale*	13.73 ± 0.35	11.68 ± 0.46	13.47 ± 0.38	13.63 ± 0.51
Behavior Subscale*	22.19 ± 0.50	19.82 ± 0.63	22.38 ± 0.54	23.62 ± 0.72
Global Score*	39.19 ± 0.85	34.15 ± 1.10	39.08 ± 0.91	40.91 ± 1.16

*Indicates overall significant difference between departments (p<0.01)

- There were significant differences between specialties in PMKAB global scores and all three subscales (Table 2)
- There were significant differences between hospitals by bed size with respect to nurse-reported PMKAB global scores and all three subscales (Table 3)

Table 3: Differences in PMKAB Scores between Nurses from Different Hospitals with Varying Bed Sizes

Score Category	PMKAB Scores (Mean ± SE) for Different Hospitals							
	650 beds (n=166)	530 beds (n=107)	390 beds (n=103)	230 beds (n=45)	180 beds (n=25)	127 beds (n=19)	25 beds (n=19)	22 beds (n=13)
Knowledge Subscale*	3.63 ± 0.13	2.78 ± 0.18	2.90 ± 0.15	3.47 ± 0.33	3.16 ± 0.38	2.66 ± 0.26	2.89 ± 0.45	2.69 ± 0.40
Attitude Subscale*	13.90 ± 0.33	12.80 ± 0.47	13.39 ± 0.41	12.38 ± 0.66	12.84 ± 1.18	11.00 ± 0.82	11.84 ± 1.03	11.38 ± 1.03
Behavior Subscale*	23.36 ± 0.51	21.02 ± 0.63	22.16 ± 0.61	20.11 ± 0.97	20.88 ± 1.15	21.16 ± 1.26	20.11 ± 1.50	18.00 ± 1.50
Global Score*	40.89 ± 0.84	36.60 ± 1.08	38.44 ± 0.99	35.96 ± 1.76	35.88 ± 2.30	34.82 ± 1.86	34.82 ± 2.68	32.08 ± 2.52

*Indicates overall significant difference between hospitals (p<0.01)

Discussion

- Results suggest that differences in perceived barriers to early patient mobilization do exist between RNs and NAs
- Findings indicate RNs had greater perceived mobility barriers than NAs in PMKAB global scores and in the behavior subscale, and a trend toward significantly greater perceived mobility barriers in the attitude subscale
- Our results are in line with the common clinical practices of NAs, whose primary roles often entail assisting patients with bed mobility, transfers, and other mobilization techniques associated with toilet management tasks and other activities of daily living¹
- Findings indicate the need for targeted interventions for RNs to improve attitudes and behaviors regarding perceived barriers to early mobilization of hospitalized patients
- Of the 4 departments, the surgical department showed the lowest PMKAB scores in all categories indicating high levels of confidence with early mobilization of hospitalized patients; results are consistent with the complex patient management and early mobilization orders frequently prescribed by surgeons for patients within surgical departments
- Of the 8 hospitals, the facility with 650 beds had the highest levels of perceived barriers to early patient mobilization; findings may not be associated with bed size, and further investigation is needed to understand the driving forces behind these differences
- Future work should emphasize targeted interventions among nursing staff, especially in specialties or work locations with higher reported mobility barriers, to address barriers and enhance patient mobilization activities^{2,3}

References

Available upon request