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Preceptor's Perspective of New Nurse Self-Directed Learner Readiness in Relationship to Hospital/Patient Safety

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Purpose:

The primary goal of this research was to understand if a relationship exists between aspects of new nurse self-directed learner readiness (SDLR) and aspects of hospital patient safety culture to gain insight about nursing education and the impact of new graduate readiness for autonomous practice through the preceptor's perception.

Methods:

This quantitative study used a general linear model with correlations and regressions to explore the relationships of data that appeared unequal and qualitative in nature in a quantitative manner. This quantitative correlational study focused on evaluating the relationship and interrelationship between SDLR via perceived new nurse competence and team work (TEA), management support (MAN), communication openness (COM), and feedback and communication about errors in relation to patient safety culture (ERR). Of the 297 respondents, the final sample size was n = 121. All of the analyses were two-sided with a 5% Cronbach's alpha level. The alpha scores ranged from .74 (TEA) to .92 (SDLR), indicating good reliability. Descriptive statistics were used for the variables. Regressions were applied to the dependent variable self-directed learner readiness to determine if a predictive ability exists of the independent variables as singular and or collaborative indicators of significance toward the perceived self-directed learner readiness.

Results:

This study found positive evidence to suggest that all four dimensions of patient safety culture are correlated with self-directed learning readiness. The perception of preceptors was that the new nurse is capable as a self-directed learner in relationship to the four areas of hospital patient safety surveyed. There was insufficient statistical evidence to suggest that more than one of the four dimensions of patient safety culture together better predicted perceived SDLR of the new nurse than any single dimension alone.

Conclusion:

The results of this study do not support the data reviewed in other studies showing new nurses are not ready for practice. However, this study is limited in the breadth of questions pertaining to direct patient practice activities, which causes a limitation of the data set's ability to show or confirm such correlations. The data presented in this research provides insight to nurse managers, nurse preceptors, and nurse educators to consider in the development of new nurse support environments. The data presented in this research may assist educators in creating curriculum that prepares students for SDLR and aspects of hospital patient safety.

Future research should look closer at determining the characteristics of evaluation. A comparative analysis of what constitutes 'readiness' and evaluation practices by educators and preceptors would provide greater understanding of the perceived and real knowledge-practice gap. An analysis of preceptor training and the management of preceptorship could help identify trends in practice for a greater understanding of preceptors' perspectives of new nurse readiness for practice.

Title:
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Keywords:
new nurse readiness, preceptors' perspectives and quantitative research

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Abstract Summary:
This quantitative correlational study used a mixed-linear design to focus on evaluating the relationship and interrelationship between self-directed learner readiness via perceived new nurse competence and

team work, management support, communication openness, and feedback and communication about errors in relation to hospital patient safety culture.

Content Outline:

1. Introduction

- This quantitative correlational study sought to address the relationship between new nurse readiness for practice and aspects of the hospital culture of patient safety through the preceptor's perspective.
- The purpose of this quantitative research was to…
    - Explore new nurse readiness from the preceptor's perspective
    - Discover if a relationship existed between the newly-licensed nurse's self-directed learner readiness (SDLR) and aspects of hospital patient safety culture (HPSC) via the preceptor's perception.
    - Gain insight from the nurse preceptor for nurse educators to address the knowledge-practice gap(s)
    - Explore the predictive ability of self-directed learner readiness for the ability to build a prediction equation model
- WHY: Nurse educators and nurse preceptors are uniquely positioned to help students operationalize self-directed learning skills (Pryce-Miller, 2010; Mulube & Jooste, 2014). If nurse educators are capable of identifying knowledge-practice gaps that will be perceived by the nurse preceptor, gaps can be addressed prior to graduation thereby producing a better prepared RN ready for practice.

1. Body
2. **Main Point #1**__Research continues to document a significant perceived and real knowledge-practice gap. _

- 50% of novice nurses are not recognizing life-threatening scenarios (NCSBN, 2008)
- 75% of medication errors are done by novice nurses (Smith & Crawford, 2003)
- 43% of 566 newly graduated nurses reported errors in the first year of nursing practice (Harrison, 2007)
- 77% of newly-licensed registered nurses are not adequately translating theory into practice (Kavanagh & Szweda, 2017)
- 23% of the 5,000 participating new nurses demonstrated readiness for practice and entry-level competencies (Kavanagh & Szweda, 2017)

Supporting point #2

- *Organizational changes attempting to address the problem:*
    - Changes in the management of the nurse's progression of learning through the use of extended residency programs
    - National push for the entry-level training to be a BSN
        - The goal is for 80% of entry-level RN's to have a BSN by 2020 (IOM, 2011)

- *Continued Problem:*
    - Inconsistent/ unknown methods of the preceptors practice evaluating novice nurses
    - The National Board of Nursing published less than 50% of graduates are identified as definitely ready and prepared to manage patient care safely and effectively (Palumbo, Rumbar, & Boyer, 2012)
    - Knowledge-practice gaps remain (Kavanagh & Szweda, 2017)

1. **Main Point #2**___Literature Review and Research Questions____

2. Supporting point #1 – Shortened summary of an extensive literature review.

- Much of the research in the field of nursing education focused on pedagogical practice, pre-licensure clinical experiences and student evaluation (Germann, et al., 2009; Levett-Jones, et al., 2011; Numminen, et al., 2014), implementing a responsive curriculum, considerations of a standardized curriculum (Swider, et al., 2006; Bull, Shearer, Phillips, & Fallon, 2015) and the expected learning continuum of skill acquisition (Benner, 2001). Clinical research included entry-level competency of the new nurse as evidenced by results of problem-based assessments (Del Bueno, 2005; Kavanagh & Szweda, 2017), what the preceptor needs to support the new nurse (Bull, et al., 2015), formal preceptor training (Myrick, Luhanga, Billay, Foley, & Yonge, 2012), and clinical competence throughout the nursing career (Takase, 2013),yet a well-established perception of a knowledge-practice gap remains (Flood & Robinia, 2014; Kavanagh & Szweda, 2017); therefore, a responsibility remains to identify, reduce, and address issues that contribute to potential patient harm (Joint Commission, 2017). This research focused on preceptor's perceptions about the new nurse and hospital patient safety.
- Others have worked to correlate educational outcomes with perceptions of competence (Numminen, et al., 2014). The problem with this approach is educational outcomes are based on meeting professional nursing guidelines and preparing the student nurse to take the national licensure examination (NCLEX-RN) (Kavanagh & Szweda, 2017), thus leaving the gap between experienced nurses' expectations and entry-level practice requirements unabridged. This quantitative correlational study approached the concept of curriculum and competence by examining new nurse's SDLR in relation to hospital patient safety culture.
- The greatest limitation in the literature is the lack of information because measuring competency is complex.
    - Statistically difficult to correlate characteristics of theoretical education to practical applications (Minnick, Mion, Johnson, & Cantrambone, 2007).
    - Efforts have been made to show the incongruence between education and clinical practice (Palumbo, Rumbar, & Boyer, 2012; Flood & Robinia, 2014; Kavanagh & Szweda, 2017), but the assessment methodology may limit the statistical significance.

2. Supporting point #2 – Research Questions

1. *a)* The overarching research question was, what, if any correlation is there between perceived new nurse self-directed learning readiness and patient safety culture among nurse preceptors working in the hospital setting? _
2. *b) Five research questions were built using four composites from the Hospital Survey of Patient Safety Culture and the dependent variable of self-directed learning readiness (SDLR).* ___

- **Research Question #1:** What, if any correlation is there between perceived new nurse self-directed learning readiness (SDLR) and the teamwork within hospital units' aspect of patient safety culture (TEA) among nurse preceptors working in the hospital setting?
    - **$H1_0$**: There is no correlation between perceived new nurse self-directed learning readiness (SDLR) and teamwork within hospital units (TEA).
    - **$H1_a$**: There is a correlation between perceived new nurse self-directed learning readiness (SDLR) and teamwork within hospital units (TEA).
- **Research Question #2:** What, if any correlation is there between perceived new nurse self-directed learning readiness (SDLR) and the hospital management support for patient safety aspect of patient safety culture (MAN) among nurse preceptors working in the hospital setting?
    - **$H2_0$**: There is no correlation between perceived new nurse self-directed learning readiness (SDLR) and hospital management support (MAN).
    - **$H2_a$**: There is a correlation between perceived new nurse self-directed learning readiness (SDLR) and hospital management support (MAN).
- **Research Question #3:** What, if any correlation is there between perceived new nurse self-directed learning readiness (SDLR) and the communication openness aspect of patient safety culture (COM) among nurse preceptors working in the hospital setting?

    - **$H3_0$**: There is no correlation between perceived new nurse self-directed learning readiness (SDLR) and communication openness (COM).
    - **$H3_a$**: There is a correlation between perceived new nurse self-directed learning readiness (SDLR) and communication openness (COM).
- **Research Question #4:** What, if any correlation is there between perceived new nurse self-directed learning readiness (SDLR) and the feedback and communication about errors aspect of patient safety culture (ERR) among nurse preceptors working in the hospital setting?
    - **$H4_0$:** There is no correlation between perceived new nurse self-directed learning readiness (SDLR) and feedback and communication about errors (ERR).
    - **$H4_a$:** There is a correlation between perceived new nurse self-directed learning readiness (SDLR) and feedback and communication about errors (ERR).
- **Research Question #5:** Do two or more of the independent variables, teamwork within hospital units (TEA), hospital management support (MAN), communication openness (COM), and feedback and communication about errors (ERR), explain a greater percentage of variance in perceived new nurse self-directed learning readiness (SDLR), than any single independent variable alone?
    - **$H5_0$:** Two or more of the independent variables, Teamwork within hospital units (TEA), hospital management support for patient safety (MAN), communication openness (COM), and feedback and communication about errors (ERR) do not add independent information in predicting perceived new nurse self-directed learning readiness (SDLR).
    - **$H5_a$:** Two or more of the independent variables, Teamwork within hospital units (TEA), hospital management support for patient safety (MAN), communication openness (COM), and feedback and communication about errors (ERR) add independent information in predicting perceived new nurse self-directed learning readiness (SDLR).

1. Main Point #3_____Method and Design_____

1. Supporting point #1

- Theoretical Framework
- Quantitative – linear mixed design
    - General Linear Model
        - Correlations
        - Regressions
    - A correlational study was chosen because it is the most appropriate approach to examine the relationship of preceptor perception to student level of self-directed learner readiness (SDLR). This study addressed new graduates developed human behavior and attributes. Perceived gaps in clinical practice and perceptions of readiness for practice are qualitative in nature. A qualitative design was the least prescriptive method for acquiring a replicable predictive formula to understand student readiness through the eyes of a potential multitude of nurse preceptors (Leedy, & Ormrod, 2010). This research was more than a descriptive study exploring perceptions; it was a quantitative analysis of how preceptors perceive readiness for autonomous clinical practice in relation to specific hospital practices.
    - A linear mixed model design allowed the researcher to explore the relationships of data that appeared unequal and qualitative in nature in a quantitative manner (Blozis, 2007). The flexibility of the general linear model provided the framework for examining correlations between the variables while anticipating potential subsequent research with the goal of building a prediction equation model (Steinberg, 2008; Blozis, 2007). Regressions were applied to the dependent variable (SDLR) to determine if a predictive ability exists of the independent variables as singular and or collaborative indicators of significance toward the perceived self-directed learner readiness (Bannon, 2013).

Supporting point #2

a) _____ Abstract sent to the American Critical Care Nurses Association (ACCN)

- Survey link embedded in ACCN's electronic newsletter to members for 4 weeks
- Criteria for eligibility
    - Current nurse preceptor of a newly-licensed RN, or,
    - Precepted within the previous 6 months
    - Newly -licensed RN is a first time licensed
- Volunteers requested
- No compensation of any nature offered

*b) ___Tools_*

Self-Directed Learning Readiness Scale, and

- Permission from Dr. Murray Fisher in Australia
    - Measures individual attributes

Hospital Survey on Patient Safety Culture (Hospital SOPS)

- 4/12 composites chosen
    - Teamwork, management support of safety culture, communication, and feedback and communication about errors
- Measures group culture
    - Independent variables conducted by the individual but sustained through group efforts.
    - Preceptors were asked to gauge their perceptions of student engagement within the patient safety culture of the hospital.
- Open to the public and used in hospitals worldwide
    - 30 countries and 18 languages

III. Results

Descriptive Statistics for the Patient Safety Culture and Self-Directed Learning Scores

(Note to the reviewer: I have a Descriptive Statistics table and Scatter Plots that present nicely if you desire them! It is challenging to know what to include and what is considered too much information for you here.)

All of the analyses were two-sided with a 5% Cronbach's alpha level. The alpha scores ranged from .74 (TEA) to .92 (SDLR), indicating good reliability.

Variable	**Cronbach's alpha (n = 121)**	**Number of items**
Patient Safety Culture - Teamwork	0.74	4
Patient Safety Culture - Management Support	0.89	3
Patient Safety Culture - Communication Openness	0.82	3
Patient Safety Culture - Communication About Errors	0.79	3
Self-Directed Learning Readiness	0.92	40

Results: Pearson's Correlation Statistic

	ERR	TEA	MAN	COM
Pearson Correlation	.331	.287	.306	.348
p-value	<.001	.001	.001	<.001
N	121	121	121	121

Multiple Linear Regression for Testing Hypothesis 5

Model [a, b]		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	p-value
	(Constant)	2.948	.150		19.713	<.001
	Patient Safety Culture - Communication Openness	.168	.041	.348	4.047	<.001

a. Dependent Variable: Self-Directed Learning Readiness

b. $R^2 = .12$

- Research Question 1
- The null hypothesis was rejected
- There is **significant positive correlation** between perceived new nurse self-directed learning readiness (SDLR) and teamwork within hospital units (TEA).

- Research Question 2
- The null hypothesis was rejected
- There is **significant positive correlation** between perceived new nurse self-directed learning readiness (SDLR) and hospital management support (MAN)

- Research Question 3
- The null hypothesis was rejected
- There is a **significant positive correlation** between perceived new nurse self-directed learning readiness (SDLR) and communication openness (COM).

- Research Question 4
- The null hypothesis was rejected
    - There is **significant positive correlation** between perceived new nurse self-directed learning readiness (SDLR) and feedback and communication about errors (ERR).

- Hypothesis 5 tested using multiple linear regression analysis
- Dependent variable: the perceived new nurse self-directed learner readiness score
- **The null hypothesis was not rejected**
    - two or more of the patient safety culture scores do not add independent information in predicting perceived new nurse self-directed learning readiness (SDLR).

Implications & Conclusions

1. This study found positive evidence to suggest that all four dimensions of patient safety culture are correlated with self-directed learning readiness.

- The perception of preceptors was that the new nurse is capable as a self-directed learner in relationship to the four areas of hospital patient safety surveyed.
- *Implications for educators*
    - The mean scores of the regression analysis are consistent with high levels of SDLR, indicating pre-licensure nursing education is succeeding in preparing nurses for practice in these four areas of patient safety culture and self-directed learner readiness.
    - This data can assist educators in creating and or affirming curriculum and clinical training practices that prepare the student nurse for standards of practice related to these four composites of hospital patient safety culture and self-directed learner readiness.

- *Implications for preceptors*
    - **Preceptors:** knowing that communication openness is the strongest predictor of SDLR may help preceptors realize the importance of designing clinical experiences that foster development of SDL skills.
    -
- *Implications for hospital leadership*
    - Leadership is important to the environment of support functions.
    - It is significant to identify that there is a statistically significant positive correlation between perceived SDLR of the new nurse and the hospital management support aspect of patient safety culture.

- There was insufficient statistical evidence to suggest that more than one of the four dimensions of patient safety culture together better predicted perceived SDLR of the new nurse than any single dimension alone.
    - ***Significance***: consider different variables for a prediction equation model.
    - Hospital patient safety culture composites are not the best variables for understanding how preceptors will perceive their preceptee (new graduate) as ready for practice.

1. The results of this study do not support the data reviewed in other studies showing new nurses are not ready for practice. However, this study is limited in the breadth of questions pertaining to direct patient practice activities, which causes a limitation of the data set's ability to show or confirm such correlations.
2. Future research should look closer at determining the characteristics of evaluation. A comparative analysis of what constitutes 'readiness' and evaluation practices by educators and preceptors would provide greater understanding of the perceived and real knowledge-practice gap. An analysis of preceptor training and the management of preceptorship could help identify trends in practice for a greater understanding of preceptors' perspectives of new nurse readiness for practice.
3. The greatest significance of this study for the researcher is the opportunity to open the dialogue in hopes to advance the dialogue related to clinical nursing education and clinical nursing theory.

Questions

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