

Nurses' Transition to Practice in the Context of the Covid-19 Pandemic: A Multi-site, Longitudinal Study

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Learning Outcomes

- Describe transition to practice outcomes for new nurses during the Covid-19 pandemic
- Discuss implications of the study findings for transition to practice research, education, and practice



Background

- The transition between nursing school and nursing practice is recognized as a turbulent time for new nurses
- Transition to practice (TTP) programs can successfully support new nurses through this challenging period
- TTP program outcomes have not been well studied related to the COVID-19 pandemic

Study purpose

- The purpose of this study was to analyze the associations between TTP outcomes and the COVID-19 pandemic



TTP research before the pandemic

- New nurses felt unprepared for practice, lacked confidence in their skills and care coordination abilities, experienced heavier workloads than expected, and had insufficient communication and professional skills
- Feelings of being overwhelmed led new nurses to lose confidence or leave their jobs
- TTP programs help transition new nurses into practice by providing support to increase new nurses' knowledge, skills, and abilities



TTP research during the pandemic

- 67.5% of new nurses had fewer clinical practice experiences than their pre-pandemic counterparts, resulting in the nurses feeling overwhelmed, concerned for lack of efficiency, afraid of making mistakes after their orientation
- 96% of new nurses rated their experience as negative and reported an inability to form effective peer relationships, lowered confidence in their preparation and abilities, and increased concern for personal health and safety
- For Vizient/AACN NRP participants no differences before and during the pandemic from the Casey-Fink Graduate Nurse Experience Survey and Nurse Resident Progression Survey

Research questions

- What are the differences in TTP outcome measures of new nurses who transitioned to practice in 2017–2019 (pre-COVID-19 cohort) compared with those who transitioned in 2020 and 2021 (COVID-19 cohort) at baseline?
- What are the differences in TTP outcome measures of new nurses transitioning to practice in the pre-COVID-19 cohort compared with the COVID-19 cohort at 12 months?
- What are the associations between changes from baseline to 12 months in TTP outcome measures and COVID-19 exposure adjusting for differences in demographic variables such as gender, ethnicity, degree, and grade point average (GPA)?

Study design

- We used a correlational longitudinal design to analyze self-reported survey data previously collected and stored in the Vizient/AACN NRP database using two Vizient/AACN NRP survey instruments: the Casey-Fink Graduate Nurse Experience Survey and the Nurse Resident Progression Survey at baseline and 12 months from nurses transitioning to practice from 2017 to 2021 across 13 hospitals in a single health system in Southeast Texas.

Sample and setting

- The sample was comprised of new nurses from 13 hospitals in a large not-for-profit health system in Southeast Texas who participated in the health system's Vizient/AACN NRP
- On average, the health system accepts approximately 526 nurse residents into the program annually with a 1-year retention rate of 96%
- The new nurses in the study sample were defined as those who had less than 12 months of work experience

Data collection

- The health system collected data regarding new nurses from its 13 hospitals in collaboration with Vizient
- New nurses who participated in the Vizient/AACN NRP responded to surveys via an electronic portal
- The responses to the surveys were submitted electronically into Vizient and automatically entered into their database
- A data coordinator from Vizient then prepared and shared data from the Vizient database with the research team for analyses

Outcome measures

- Outcome measures were selected from the pre-existing Vizient/AACN NRP surveys to answer the proposed research questions
- The predictor measures included time (baseline and 12 months) and the COVID-19 pandemic status, measured as a dichotomous variable with “no exposure” for the control group of new nurses transitioning to practice in 2017, 2018, and 2019 and “positive exposure” for the cohorts of new nurses transitioning to practice in 2020 and 2021
- The covariate measures included age, gender, ethnicity, nursing degree type, and GPA

Analysis

- Baseline and 12-month characteristics were described as frequency (%) for categorical variables and as mean (SD) for continuous variables
- The longitudinal analysis was carried out with linear mixed effects models for each scale score

Results

- Data were available for 2,673 new nurses from 13 hospitals who were enrolled in the TTP program; 1,475 of the nurses were enrolled in either 2017, 2018, or 2019 (before the COVID-19 pandemic) and 1,198 entered in 2020 (after March) or 2021 (after the COVID-19 pandemic began)
- New nurses entering practice during the COVID-19 pandemic were more diverse, had a higher overall GPA, and were more likely to have a bachelor's degree
- When adjusting for the demographic composition of the cohorts, differences were identified in the changes from baseline to 12 months in advocacy, patient safety, and commitment scores

Key Findings

Scale	β^a	95% CI Lower	Upper	p Value
<i>Casey-Fink Graduate Nurse Experience Survey</i>				
Support	0.00	-0.04	0.04	.906
Patient safety	-0.15	-0.20	-0.11	<.001
Stress	0.04	-0.04	0.12	.361
Communication/leadership	-0.03	-0.07	0.01	.199
Professional satisfaction	-0.02	-0.07	0.03	.358
Job satisfaction	-0.05	-0.11	0.00	.054
<i>Nurse Resident Progression Survey</i>				
Advocacy	-0.06	-0.12	-0.01	.021
Collaboration	-0.02	-0.06	0.03	.430
Leadership	0.00	-0.05	0.05	.971
Commitment	-0.05	-0.09	-0.01	.017

^aLinear mixed models for each scale are summarized by the interaction term β , which represents the difference in improvement from baseline to 12 months in the COVID-19 cohort relative to the pre-COVID-19 cohort. For example, β of -0.05 represents the difference in negative improvement from baseline to 12 months in the COVID-19 cohort compared to the pre-COVID-19 cohort. The models are adjusted with propensity scores to control differences in distributions of demographic composition of the cohorts.

Implications

- Standardized TTP programs such as Vizient/AACM NRP continued to offer the same level of support to new nurses in a pandemic when delivered virtually versus in person prior to the pandemic.
- Healthcare facilities should strive for standardized TTP programs with an emphasis on quality and safety nursing education competencies (e.g., quality improvement, patient safety, teamwork).
- The cohorts of new nurses in our study were surveyed in the first year and a half of the pandemic. Experiences of new nurses entering practice in the later stages of the pandemic may differ due to the exacerbated and prolonged staffing shortages that are still in effect.

References and Contact Information

- Djukic, M., Padhye, N., Ke, Z., Yu, E., McVey, C., Manuel, W., Short, Y., Pine, R., & Caligone, S. (2023). Associations Between the COVID-19 Pandemic and New Nurses' Transition to Practice Outcomes: A Multi-site, Longitudinal Study. *Journal of nursing regulation*, 14(1), 42–49.
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- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10074067/>
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