CLINICAL PRACTICE

Factors influencing new graduate registered nurses' transition to practice

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ABSTRACT

New graduate nurses lack confidence in skills and struggle adapting to role expectations. Ineffectual transition into practice is linked to turnover. The purpose of this project was to examine novice nurse transition to practice, programmatically evaluating barriers and strengths of a transition to practice program. Nursing partnerships can apply feedback and knowledge about nurses' perceived competence and confidence in patient care, supporting and strengthening transition to practice programs.

Key Words: Transition to practice, New graduate nurse, Confidence, competence, Job satisfaction, Nursing partnership

1. INTRODUCTION

The National Council of State Boards of Nursing (NCSBN) and the National Forum of State Nursing Workforce Centers (Forum)[1] collaborate every two years to conduct a national sample survey of Registered Nurses (RNs) and Licensed Practical/Vocational Nurses (LPN/LVNs). In 2020, this group reported that as of December 31, 2019, the total number of active RN licenses in the United States (US) was 4,948,914, increasing 309,366 (6.7%) compared to 2017. After adjusting for multiple licensing, total active RNs in the US was 4,198,031, increasing 246,970 (6.3%) compared to 2017. The median age for RNs in the US is 52 years, up one year from 2017, with the largest percentage of nurses in the 65 or older category. The aging nurse workforce will continue. NCBSN/Forum researchers estimate that greater than 1/5th of all nurse respondents responded affirmatively to retirement plans within the next five years.[1]

Nurses represent one of the largest sectors of the healthcare industry. The COVID-19 pandemic has placed a significant strain on the nursing workforce.[2] During the pandemic, nurses experienced the daily frontline responsibilities of caring for patients, experienced high levels of occupational risk to their health, and faced numerous challenges at the pandemic onset, including shortages of personal protective equipment and stress associated with the uncertainty of managing the effects of an unknown disease.[2] With the substantial number of RNs nearing retirement in the next five years and the exacerbated threat of earlier retirement because of the pandemic, there appears to be a real risk of significant losses to the frontline US nursing workforce stemming from working conditions contributing to high rates of burnout. Press Ganey[3] estimates that 30% of RNs nationally are at risk of leaving their organization.

With the aging nursing workforce considering retirement and the estimated high percentage of nurses at risk of leaving their organization, leaders must seek bedside nurse replace-

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ments. New graduates and less experienced nurses now and in the near future will be a ripe cohort. However, the age-experience gap created by novice nurses will be a challenge that requires attention. Millennial RNs under 35 represent a vast majority of today's cohorts entering the nursing profession. In 2015, nurses under 35 comprised 27% of the workforce and will dominate the field by 2030.[4]

The Gallup[5] report indicated that Millennials require a sense of accomplishment early in their career. For Millennial nurses, this sense of accomplishment is often deficient as a novice nurse entering into practice. Novice nurses may lack confidence in care delivery skills due to the demands of an overly complex clinical environment with sophisticated treatment interventions, technology, and acutely ill patients with shorter lengths of stay.[6] Novice nurses may subsequently experience self-doubt regarding clinical judgment and abilities, leading to anxiety and burnout.[7] Press Ganey[3] reports that new entry-level nurses under the age of 35 and employed less than a year lack a connection with their team, managers, or organization. A lack of commitment coupled with inadequate role transition negatively impacts the advancement from novice to expert nurse and has been associated with turnover. According to the 2021 NSI National Health Care Retention and RN Staffing Report,[8] 27.7% of RN turnover occurred during the first year of practice. Turnover costs average $46,100 per nurse turnover event, with annual attrition losses ranging from $5.2–$9.0 million in the US.[8]

More than ever, an effective transition to practice (TTP) program is needed due to COVID-19 amplifying attrition. Benner's[7] skill acquisition theory on how nurses achieve competence provides a model for developing a TTP program. Recognizing that new graduate registered nurses (NGRNs) remain in the novice to advanced beginner stages during practice year one, the training should target and enhance learned experiences. A TTP program may facilitate confidence in patient care, decrease job performance stress, and increase job satisfaction and retention. Organizations utilizing TTP programs, such as the Vizient/AACN Nurse Residency Program, had first-year retention rates of 86.1% in 2021 compared to the national average of 75.9%.[9] The average hospital can save $262,300 annually with each one percent positive change in RN turnover.[8]

1.1 Aim/objective

With the current nursing shortage across the country and the excessive cost of nursing turnover, recruitment and retention of new nurses is a priority for healthcare and nursing leaders. The purpose of this project was to examine novice nurse TTP, programmatically evaluating the barriers and strengths of a TTP program.

1.2 Background

Before the pandemic, the University of Alabama at Birmingham (UAB) Hospital, an academic medical center, onboarded 400 NGRNs annually, with turnover averaging 21.5% within the first one to two years of employment. A 12-month TTP program was implemented for NGRNs to decrease turnover and attrition costs. The program consisted of online modules and in-person classes focusing on delegation, time management, patient engagement, diversity, quality and safety, research- and evidence-based practice, ethical decision-making, and resiliency. Program mentorship enhanced the NGRN transition to the hospital and work unit.

2. METHODS

We developed and deployed an electronic survey to programmatically evaluate a new nurse TTP program using the Casey-Fink (CF) tool.[10] A Google Forms link to the survey was emailed to 139 newly licensed nurses employed in June and July 2019. Three email reminders encouraging participation were sent during the four-week survey period.

2.1 Program evaluation

The authors utilized a program evaluation process to evaluate the TTP program. Program evaluation is a systematic method for collecting, analyzing, and using information to assess the effectiveness and efficiency of a project or program, in this case the novice nurse TTP.[11] A summative evaluation was used in the form of an electronic survey, also referred to as the evaluation tool.

2.2 Setting

The setting for this project is an urban academic medical center located in the southeastern US. The organization has a strong nursing academic practice partnership consisting of a School of Nursing (SON) and the Academic Health Center (AHC) nursing department. The academic partner is a Commission on Collegiate Nursing Education[12] accredited degree-granting school of nursing offering Bachelor, Master, and Doctoral level nursing degrees. The SON enrolls approximately 2,500 students annually and matriculates an average of 1,000 students annually in the combined programs (based on 2018-2019 data). The SON receives more than $17 million in extramural funding (2021) and is consistently ranked among the top ten public nursing schools for its academic and research programs.[13]

The AHC is one of the three largest public hospitals in the US. The medical center has 1,207 licensed beds with an average of 55,000 admissions per year and 6,000 ambulatory daily visits. The health system employs 1,400 physicians, 3,600 nurses, and 800 advanced practice providers, and since 2002 has received American Nurses Credentialing Center

(ANCC) Magnet designation[14] in nursing five consecutive times (2002, 2006, 2011, 2015, 2019).

2.3 Institutional review board

Institutional Review Board approval was obtained for the TTP programmatic evaluation.

2.4 Design of the CF survey

The CF instrument has a Cronbach alpha coefficient of 0.89[10] and was chosen based on its ability to discriminate between nurses with a range of experience during the first year of practice. The survey is a self-report instrument taking 15-20 minutes to complete. It is organized into five sections and divided into five subscales affecting new nurse comfort and confidence levels.[10]

2.5 Data collection and analysis

The authors designed an electronic evaluation incorporating multiple-choice, open-ended, and Likert scale questions using the CF tool to evaluate a cohort of novice nurses completing a TTP program in their first year of practice. The survey provided an opportunity to analyze the experience quantitatively and qualitatively and address the defined goals. The authors analyzed these data with descriptive statistics calculating mean scores for each item, using the Statistical Package for the Social Sciences[15] (SPSS)^{TM} analytical software. Permission to use the survey was obtained from the developers of the tool, Casey and Fink, through the University of Colorado Health.

Section one asks the NGRN to select the top three skills they feel uncomfortable performing independently from a list of 20 tasks ranging from assessment to wound care, with the option "I am independent in all skills." An open response item allows the NGRN to report unit skills not listed.

Section two considers aspects related to comfort and confidence (communication and leadership, patient safety, support, professional satisfaction, and stress). There are 24 four-point Likert scale items with responses including strongly disagree, disagree, agree, and strongly agree, and one item with a yes or no response to a series of six stressors. An open response option allows the NGRN to list other possible stressors not listed. The patient safety subscale was negatively worded and recoded. Higher Likert scores are positive for all domains except the stress subscale, where lower scores indicate lower reported stress.

Section three consists of nine five-point Likert scale items that rate various aspects of job satisfaction with responses including very dissatisfied, dissatisfied, neither dissatisfied nor satisfied, satisfied, and very satisfied; higher Likert scores imply greater job satisfaction.

Section four focuses on role transition and work environment difficulties and includes four multiple-response questions. One open-ended item allows respondents to share comments or concerns about the TTP program and was evaluated for themes and quantified for a mixed methods analysis.

Lastly, the fifth section includes 15 multiple-choice questions collecting demographic data.

3. RESULTS

3.1 Demographics

Fifty eligible nurses completed the CF survey, resulting in a 36% response rate. Respondents belonged to the Millennial generation at 19 to 29 years, with the majority being female (84%) and Caucasian (82%). Most held a Bachelor of Science degree (70%) and had previous healthcare experience (88%). They primarily worked night or evening shifts (68%) with adult populations in the intensive-care unit (ICU) (48%) and medical-surgical unit (18%).

3.2 Skills and procedure performance

The top three nursing activities and interventions NGRNs felt uncomfortable performing independently were: 1) code/emergency response (68%), 2) chest tube care (32%), and 3) death, dying, and end-of-life care (32%); only one nurse reported independence in performing all skills and procedures. Chemo-administration and continuous renal replacement therapy were reported as unit-specific skills that NGRNs were uncomfortable performing independently. One participant recommended paid time for opportunities to practice specific skills outside their unit.

3.3 Comfort and confidence

The comfort and confidence section resulted in coefficient alpha of .93. Ninety-eight percent of NGRNs agreed or strongly agreed they were comfortable and confident communicating with patients and families (M = 3.47, SD = .616). At the same time 100% were comfortable and confident communicating with physicians (M = 3.35, SD = .483). However, 47% of NGRNs noted that they did not know how to communicate with a dying patient (M = 2.59; SD = 0.674). About one-third of NGRNs indicated a lack of comfort and confidence in making a nursing plan of care changes (M=3.04; SD = 0.69), delegation (M = 3.2; SD = 0.601) and completing job responsibilities (M = 3.31; SD = 0.552).

The safety section evaluated aspects of the organization, prioritization, time management, feelings of being overwhelmed, knowledge, and experience. Eighty-five percent of NGRNs reported having difficulty organizing patient care needs (M = 3.10, SD = .692), and 76% struggled with prioritizing patient care needs (M = 3.02, SD = .721). Although

63% of respondents were overwhelmed by responsibilities and workload (M = 2.65, SD = .934), only one nurse reported being unable to complete patient care assignments. Unfortunately, 79% of NGRNs feared harming a patient due to a knowledge deficit and inexperience (M = 3.11, SD = .840).

The unit orientation length varied, with training lasting less than eight to twelve weeks. Eighty-eight percent of NGRNs had one to three primary preceptors, with 12% having four or more. Preceptor feedback was positive, with 90% of NGRNs reporting their preceptor provided encouragement and feedback about their work (M = 3.64, SD = .484) and 84% reporting their preceptor helped them gain confidence in practice (M = 3.43, SD = .587). The NGRNs also felt supported by staff, managers, and RNs on their units (M = 3.40-3.69, SD = .466-.765). A small percentage of nurses indicated they did not have opportunities to practice skills and procedures more than once (10%) and felt the job expectations were unrealistic (14%).

3.4 Job Satisfaction

Around 96% of the NGRNs (n = 46) indicated satisfaction, excitement, and being challenged by work and nursing specialty. All agreed or strongly agreed that family and friends supported them. However, more than half of the participants (58%) were experiencing stress in their personal life (M = 2.64, SD = .792). They chose from six potential causes of stress: finances (52%), personal relationships (52%), student loans (39%), living situations (26%), job performance (26%), and childcare (7%). Other reported causes of stress ranged from "mental health" (n = 2) to difficulties with "time management" (n = 3).

3.5 Difficulties with role transition and the work environment

A survey item that assessed multiple variables, including confidence in physician and patient communication skills, delegation, knowledge deficit, and critical thinking, was identified as causing the most difficulty with the RN role transition (65%). One participant stated that the transition was "a steep learning curve I have not mastered." More than half of the nurses experienced fears about patient safety (57%). Additionally, participants suggested improving unit socialization (56%) to help them feel supported and integrated into the unit.

Peer support was the most satisfying aspect of the work environment (89%), and respondents reported high satisfaction with work hours (M = 4.02, SD = .820), employee benefits (M = 3.98, SD = .742), opportunities for career advancement (M = 3.90, SD = .895), and choosing work shifts (M = 3.73, SD = 1.132). However, the self-scheduling technology for work shifts was frustrating due to a platform change and perceived "uneven" shifts and off days.

The least satisfying aspects of the work environment were the nursing work environment itself (47%) and the system (41%). Two nurses commented that bullying, gossiping, and favoritism occurred within their units. Additional items scoring low in satisfaction were monthly weekends off (M = 3.68, SD = 1.096), job responsibility (M = 3.65, SD = .903), vacation (M = 3.45, SD = 1.022), and salary (M = 3.04, SD = 1.212).

4. DISCUSSION

In general, our NGRN cohort participants surveyed in our TTP program before the pandemic were highly satisfied with the nursing profession and the specific nursing unit where they were employed. The participants reported that their most significant satisfiers were related to relationship development, work-life balance/scheduling flexibility, and professional development. The same participants also identified the most significant dissatisfiers being related to financial stressors, including compensation and student debt, staffing ratios and shortages, and organizational patient acuity and complexity.

The NGRNs were assigned the same work shift as their preceptor, allowing for professional and personal relationship development. Additionally, the cohort was comprised of nurses of the same generation (Millennials), which may have provided more significant opportunities to bond with potentially compatible peers. The NGRNs noted a sense of belonging, a team approach within their unit, and helpful and friendly staff. Many units had a bulletin board with staff photos highlighting personal facts to help one learn about their colleagues and associate names with faces. Participants suggested additional opportunities for socialization and introductions with colleagues could further promote comfort with interprofessional (IP) team interactions and communication in the clinical setting. Work relationships promoting social and psychological support and a sense of belonging are integral to positive program outcomes and increasingly crucial during the COVID-19 era. Initiating a campaign such as the "Nurses Support their Young" pledge[16] is one way to foster a culture of support and acceptance in the work environment. Nurse managers could recognize quarterly individuals who support and model inclusivity by rewarding incentives such as cash, paid time off, gift cards, or free parking.

The shift work allowed flexibility in scheduling and opportunities for extended days off, a crucial aspect of work-life balance. Nurses at UAB Hospital self-schedule work shifts. They utilize Smart Square's scheduling program that eval-

uates staffing metrics found to impact morale.[17] Furthermore, most participants worked night shifts, which tend to be less hectic, attracting nurses wanting to avoid overwhelming workloads and earn differential pay. There is usually more time for preceptor guidance and learning on the night shift that can positively influence the NGRN perceptions of confidence and competency in care.

The NGRNs working in medical-surgical areas spent six to eight weeks with a preceptor, while those working in critical care precepted for 11 to 12 weeks.[18] Additionally, unit educators and managers periodically met with the NGRN and preceptor to assess progress and provide emotional support, which may have contributed to their feeling supported during the orientation period. If the NGRN was not performing well or additional learning needs were identified, training, an extended orientation, and a preceptor assignment change might be initiated.[18] Incorporating ongoing pulse surveys designed to gain insight into roles, communication, relationships, and the overall work environment could measure NGRN perceptions of support throughout their transition and beyond.[3] Communicating the survey results and actions to address concerns may help the NGRN feel heard and appreciated.

Preceptors completed a 19.5-hour, three-part training program.[18] The hospital also implemented evidence-based strategies that supported preceptor needs, including clinical assignment reduction, preceptee and preceptor scheduling for the same shifts and sharing patient assignments, and fewer preceptees for each preceptor.[19] The literature does not specify an ideal number of preceptors best facilitating transition; however, UAB Hospital limited the number of preceptors to three or fewer for most nurses. The teaching style and guidance consistency may have enhanced perceived support and increased self-assurance.

Reports indicate that the Millennial generation is more likely to seek employment where leadership roles and professional advancement opportunities exist.[5] The UAB Hospital offers the Professional Nursing Development Program, a clinical ladder with three levels rewarding staff who pursue achievements in leadership, education, research, and clinical care. Promotion is based on achievement rather than tenure. Research indicates that clinical ladders improve job satisfaction, personal recognition, and patient care, decreasing turnover.[20] The UAB Hospital's Educational Assistance Program (EAP) offers 100% tuition assistance and has no work contract or service requirements motivating nurses to pursue advanced degrees boosting salary potential. Hospital administrators also empower nurses to get involved at the unit level, in interdisciplinary committees, and in the Nursing Practice Congress (NPC). The NPC encourages collaboration among staff nurses, nurse educators, managers, directors, and clinical specialists to ensure the nurse, a frontline worker, contributes to the high nursing practice standards.[17]

While UAB Hospital offers a Public Service Loan Forgiveness Program, more assistance is needed to support the nurses' financial well-being. Participants voiced financial and personal relationship stressors. These stressors and dissatisfaction with a salary can contribute to workplace stress. Reports indicate that financial concern is the most significant stress source for many graduate nurses entering the workforce with college debt exceeding $25,000.[21] Financial stress linked to prolonged emotional stress can lead to conflicts in personal relationships,[22] which may negatively impact job satisfaction. The work environment historically affects turnover more than wages,[5] and work environment stressors increased during the pandemic. Traveling nursing companies incentivized nurses to join their agency, offering signing bonuses as high as $20,000 and hourly rates reaching $150.[23] Although most hospitals cannot compete with the traveling agencies, offering increased salaries, hazard pay, and retention bonuses could retain existing nurses. Also, sign-on bonuses in high-need areas could be paid out over a contracted time, encouraging extended employment.

Moreover, a TTP program that offers financial wellness curriculum, including financial counselors or one-on-one coaching, healthcare expense savings, retirement savings, and emergency fund savings, can reduce financial stress.[24] These financial programs may lessen personal stress, improve job satisfaction, and save thousands of dollars in turnover costs.

Nurse-to-patient ratios and patient assignments for new nurses are also environmental factors that must be addressed. Respondents reported nurse-to-patient ratios as high as 1:5 on non-ICU units, possibly contributing to perceptions of deficient time to complete nursing tasks. Nurses nationally are experiencing increased workloads due to the intensified nursing shortage heightened by the pandemic.[2] As nurses' TTP, the revelation of perceived deficiencies and limitations, combined with high patient workloads, could lead to a sense of vulnerability, anxiety, and stress. The pandemic can perpetuate these factors. The advanced beginner nurse cannot think critically about priority setting and has clinical reasoning deficits essential to recognizing cues to prevent failure to rescue.[7] Although staff and students in the academic partnership participate in low- to high-fidelity simulation (SIM) experiences, using the data from our survey to create SIM scenarios that target NGRN perceived deficits may bridge identified gaps in psychomotor skill acquisition, enhancing

learning and confidence.[25]

Implementing a Performance-Based Development System (PBDS) assessment could identify additional issues and potential threats to patient safety. The PBDS assesses critical thinking, interpersonal relationships, and technical skills, providing an action plan based on learning needs to develop skills critical to patient safety.[6] The action plan could require additional SIM training based on individual needs. Additionally, an interview tool used during onboarding, such as the Stay Interview, could allow managers to learn what motivates new nurses to stay while shedding light on factors that might cause one to leave. The goal is to reinforce job aspects perceived as working well by providing individualized Stay Plans that support and develop new nurse hires and increase satisfaction and retention.[26]

Additional factors contributing to the NGRNs dissatisfaction with the work environment may have included a lack of confidence in their skill set. Most nurses were employed in the ICU. The challenging skills and procedures identified (code/emergency response, chest tube care, death, dying, and end-of-life (EOL) care) may reflect this patient population. However, it is essential to note that RNs working at UAB Hospital care for medically complex patients in various non-ICU work areas.[17] The NGRNs' discomfort in performing skills may be due to limited exposure during undergraduate clinical. Even after employment, participants conveyed having few opportunities to practice skills. Despite the expectation that NGRNs will be competent and able to execute practical skills while managing multifaceted clinical situations, there is no consensus on essential skills. Establishing an academic nursing partnership allows for collaboration in identifying a standardized skill set that the NGRN should perform competently on day one of employment. The identified skills must be incorporated into the nursing curriculum providing ongoing training and evaluation, which continues during the TTP period for new nurses.

The life-threatening consequences of COVID-19 reinforced the need for palliative care training to increase the NGRN's confidence when dealing with death, dying, and EOL. TTP curricula should include symptom management, supported decision-making, and EOL care, such as the EOL Nursing Education Consortium,[27] designed for students and nurses new to the practice. Other recommendations include providing palliative resources and services information, opportunities to hear from patients and families dealing with death and observing senior-staff role model communication techniques.[28]

A nursing academic/clinical partnership can foster innovative approaches to training and preparing the new nursing workforce, focusing on relationship development, enhancing confidence, and organizational commitment. Current nursing externships, internships, and apprenticeships provide unique benefits to students and new nurses. The authors recommend that the nursing partnership combine aspects from these preparatory career opportunities and develop a new program. The new program would mobilize nursing students to meet the workforce's needs while providing practice-based learning, income, and tuition assistance for the student. For example, a second-semester student could apply for a year-long program and employment with a clinical partner after completing the nursing fundamentals coursework. The student would be compensated for ten work hours per week, providing basic patient care under the supervision of an RN and completing the nursing program's clinical rotations at their place of employment. The clinical partner would adhere to the university's academic calendar and not schedule students to work during final exams or require them to work on university-recognized holidays.

In this model, the student gains real-world work experience and a needed source of income without jeopardizing academic progression or well-being by working excessive hours. The student would not complete clinical rotations with a staff RN until the preceptorship or assimilation course, which traditionally occurs in the final semester of a nursing program. Therefore, the nursing school can assess and implement student learning activities that align with the curriculum, ensuring the development of foundational concepts and skills. The nursing program's clinical faculty would teach and oversee the initial clinical rotations and collaborate with partner RNs hired as adjunct faculty during the final preceptorship. In doing so, partnership stakeholders share the burden of training and provide critical feedback that allows faculty to determine whether a student met course objectives and can provide competent, safe patient care. Although the student would not receive financial reimbursement for clinical course hours, the student would earn more than a patient care tech or nursing assistant and receive tuition reimbursement for up to a year of nursing coursework. The student would agree to work for the clinical partner upon graduation for two years minimally, or the student would have to pay back the organization's tuition expenses.

Students in this program model have opportunities for organizational enculturation and opportunities to learn about and become comfortable with various patient acuity and complexity. A program that utilizes students as employees to provide patient care under RN supervision may strengthen clinical knowledge and skills, enhancing NGRN confidence and practice readiness. Financial benefits to the student should decrease stressors associated with income and debt.

Additionally, the program could provide a robust pipeline of committed employees, minimizing the nursing shortage and maximizing nursing productivity by reducing new nurse onboarding and attrition. Improved staff ratios should also help increase RN job satisfaction. Organizational savings could be used to increase the starting hourly rate for NGRNs who complete at least one year in the program, positively impacting satisfaction with compensation.

Furthermore, offering NGRNs who participated in the program opportunity to progress to specialty units quickly and giving them priority to coveted work shifts should encourage job satisfaction and intent to stay. Obtaining grant funding and donor contributions could help offset expenses and sustain the program. With adequate funds, the partnership could acquire housing options for the students enrolled in the program. Discounted or free campus housing would be a financial benefit for students and a recruiting tool, given the negative impact of COVID-19 on college enrollment and the number of nursing student applicants.

Another consideration is for nursing programs to extend the traditional final semester preceptorship to two semesters, where the student works one-on-one with an RN mentor. This change could allow for increased patient care hours, greater occasions to observe the RN model professional practice, enhanced critical thinking and reasoning skills, and the successful transition from student to NGRN. The partnership could also assess new hire competencies during the clinical preceptorship allowing for early recognition of deficits and implementation of remediation interventions before the student graduates. During the two-semester clinical preceptorship, students would enroll in a support course taught by faculty and clinical partners that focus on aspects of TTP, such as a healthy work environment, resilience, work-life balance, and professional nursing identity. The course would augment the curriculum in the TTP program providing knowledge and insight into "real world" nursing and potentially empowering NGRNs as they enter the workforce, improving the TTP.

In addition to these considerations, a recommendation would be to increase the sample size to boost the response rate. Only one hospital TTP program was evaluated. Additional research is needed in various settings regarding patient outcomes as a younger, inexperienced nursing population dominates healthcare and opportunities to address the age-complexity gap created by the significant need to utilize NGRNs to fill a nursing shortage.

5. CONCLUSIONS

Improving the work environment, innovating around patient care delivery, and re-envisioning how nurses are prepared for practice are key to sustaining the nursing workforce. With the long-term effects of the COVID-19 pandemic on the nursing workforce and the exodus of seasoned nurses from the profession, establishing an effective TTP program can support NGRNs, producing competent and highly educated nurse leaders. The UAB Hospital's TTP program positively assisted nurses with role transition despite concerns identified with safety and the work environment. Although the TTP program includes evidence-based strategies, revisions are needed to enhance the integration of the NGRN into a professional RN. Collecting objective data on graduate nurses' critical thinking processes and skill competency may identify deficiencies and opportunities for developing educational methods to incorporate into the nursing curriculum and TTP programs.

CONFLICTS OF INTEREST DISCLOSURE
The author declares that there is no conflict of interest.

REFERENCES

[1] Smiley RA, Ruttinger C, Oliveira CM, et al. The 2020 national nursing workforce survey. Journal of Nursing Regulation. 2021 Apr; 12(1): S1-S96. https://doi.org/10.1016/S2155-8256(21)0 0027-2

[2] International Council of Nurses: the global nursing shortage and nurse retention [Internet]. [cited 2021 Mar 8]. Available from: https://www.icn.ch/sites/default/files/inline-fil es/ICN%20Policy%20Brief_Nurse%20Shortage%20and%20R etention.pdf

[3] Press Ganey: new findings from press ganey reveal millennial nurses are most likely to quit, and nearly 30% of nurses are at risk of leaving their organization [Internet]. [cited 2021 Mar 8]. Available from: https://www.pressganey.com/news/new-findings-f rom-press-ganey-reveal-millennial-nurses-are-mos t-likely-to-quit-and-nearly-30-of-nurses-are-at-r isk-of-leaving-their-organization

[4] Buerhaus PI, Skinner LE, Auerbach DI, et al. State of the registered nurse workforce as a new era of health reform emerges. Nursing Economics. 2017 Sept/Oct [cited 2021 Jan 9]; 35(5): 229-237. Available from: https://www.proquest.com/docview/1954855004/fu lltextPDF/FB98F44612894C18PQ/1?accountid=8240

[5] Gallup: how millennials want to work and live [Internet]. [cited 2021 Mar 8]. Available from: https://www.gallup.com/workplace /238073/millennials-work-live.aspx

[6] Kavanagh JM, Szweda C. A crisis in competency: The strategic and ethical imperative to assessing new graduate nurses clinical reasoning. Nursing Education Perspectives. 2017 Mar/Apr; 38(2): 57-62.

PMid:29194297 https://doi.org/10.1097/01.NEP.0000000
000000112

[7] Benner P. From novice to expert: Excellence and power in clinical nursing practice. Menlo Park, CA: Addison-Wesley Publishing Company; 1994.

[8] Nursing Solutions Incorporated. 2021 National healthcare retention & RN staffing report [Internet]. [cited 2022 Apr 18]. Available from: https://www.nsinursingsolutions.com/Documents/Libr ary/NSI_National_Health_Care_Retention_Report.pdf

[9] Vizient: vizient, AACN celebrates 20 years of nurse residency program success transition to practice program supports more than 224,000 new nurses [Internet]. [cited 2022 June 28]. Available from: https://newsroom.vizientinc.com/en-US/releases/viz ient-aacn-celebrates-20-years-of-nurse-residency-p rogram-success-transition-to-practice-program-sup ports-more-than-224000-new-nurses-nl

[10] Casey K, Fink R. The graduate nurse experience survey (revised) [Internet]. [cited 2021 Jan 8]. Available from: https://www.uchealth.org/wp-content/uploads/201 6/10/PROF-CF-survey-2006.pdf

[11] Centers for Disease Control and Prevention: program performance and evaluation office [Internet]. [cited 2022 Nov 8]. Available from: https://www.cdc.gov/evaluation/index.htm

[12] American Association of Colleges of Nursing: commission on collegiate nursing education [Internet]. [cited 2022 June 28]. Available from: https://www.aacnnursing.org/CCNE

[13] Lollar J. School ranks No. 6 in nation for NIH funding [Internet]. Birmingham, AL: The University of Alabama at Birmingham; [cited 2022 Feb 10]. Available from: https://www.[xxx].edu/nursi ng/news/home/sustainable-scholarship/item/2613-sch ool-ranks-6-in-nation-for-nih-funding

[14] American Nurses Credentialing Center: find a magnet organization. [Internet]. [cited 2022 Nov 8]. Available from: https://www.nursingworld.org/organizational-progr ams/magnet/find-a-magnet-organization/

[15] IBM Corp. Released 2019. IBM SPSS Statistics for Macintosh, Version 26.0. Armonk, NY: IBM Corp. https://doi.org/10.4324/ 9780429056765-3

[16] Walker A. Nurses support their young [Internet]. [cited 2018 Sept15]. Available from: https://nurse.org/articles/stop-nurse -workplace-bullying/

[17] Poe T. Health system nursing services. Personal collection of T. Poe, UAB Hospital, Birmingham, AL: [2019 June 7].

[18] Pernell G. Health system nursing services. Personal collection of G. Pernell, UAB Hospital, Birmingham, AL: [2018 May 5].

[19] Blegen MA, Spector N, Ulrich BT, et al. Preceptor support in hospital transition to practice programs. JONA: The Journal of Nursing Administration. 2015 Dec; 45(12): 642-649. PMid:26565643 https://doi.org/10.1097/NNA.0000000000000278

[20] Coleman YA, Desai R. The effects of a clinical ladder program on professional development and job satisfaction of acute care nurses. Clinical Journal of Nursing Care and Practice. 2019 July; 3: 44-48. https://doi.org/10.29328/journal.cjncp.1001016

[21] Jones-Schenk J, Leafman J, Wallace L, et al. Addressing the cost, value, and student debt in nursing education. Nursing Economics. 2017 Jan/Feb; 35(1): 7-13, 29.

[22] Pascale R, Primavera R. Sometimes lack of money is the root of relationship evil. So Happy Together [Internet]. [cited 2018 May 16]. Available from: https://www.psychologytoday.com/us/blo g/so-happy-together/201805/sometimes-lack-money-i s-the-root-relationship-evil

[23] Boyle P. Hospitals innovate amid dire nursing shortages [Internet]. Association of American Medical Colleges; [cited 2021 Sept 7]. Available from: https://www.aamc.org/news-insights/ hospitals-innovate-amid-dire-nursing-shortages

[24] Price Waterhouse Coopers. Special report: Financial stress and the bottom line [Internet]. [cited 2021 Jan 7]. Available from: https://www.pwc.com/us/en/private-company-service s/publications/assets/pwc-financial-stress-and-bot tom-line.pdf

[25] Korhan EA, Yilmaz DU, Celik GO, et al. The effects of simulation on nursing students' psychomotor skills. International Journal of Clinical Skills. 2018; 12(1): 185-195. https://doi.org/10.417 2/Clinical-Skills.1000132

[26] Finnegan R. The stay interview: a manager's guide to keeping the best and brightest. New York, NY: American Management Association; 2015.

[27] End of Life Education Consortium: ELNEC-undergraduate/new graduate curriculum [Internet]. [cited 2021 Jan 7]. Available from: https://elnec.academy.reliaslearning.com/about -elnec-undergraduate.aspx

[28] Croxon L, Deravin L, Anderson J. Dealing with end of life—New graduated nurse experiences. Journal of Clinical Nursing. 2018 Jan; 27(1-2): 337-344. PMid:28557177 https://doi.org/10.1111/ jocn.13907