

Exploring the Relationship Between Psychological Capital and Turnover Among New Nurses

Martha L. Grubaugh, PhD, RN, NE-BC, Larissa Africa, MBA, BSN, RN, FAAN, and Figaro L. Loresto Jr, PhD, RN

The COVID-19 pandemic drastically changed the health care work environment and exacerbated workplace demands and stress. New graduate nurses (NGNs) transitioning into their first registered nurse role were not exempt. Little is known about the emotional well-being of NGNs during the COVID-19 pandemic. In this article, we share NGN psychological capital (PsyCap) trends from 2019 to 2022 and explore the relationship between NGN PsyCap and turnover. Organizational, leadership, and individual implications for practice are discussed. Findings from this study can help health care leaders tailor emotional development and coping strategies for this important segment of the nursing workforce.

Transitioning into practice is stressful for new graduate nurses (NGNs), and the challenges they experience during this time contribute to high turnover. In 2022, first year registered nurse (RN) turnover was 27.7% and cost hospitals an average of \$46,100 per nurse.¹ Evidence has shown that a structured and supportive nurse residency program increases confidence, improves competence, and decreases turnover among new graduate nurses.²

The COVID-19 pandemic drastically changed the health care work environment and exacerbated workplace demands and stress among nurses such as extended work hours, inadequate staffing, unavailable appropriate personal protective equipment, fear, uncertainty, and rapid changes in workflow and policies.³⁻⁵ Unfortunately, NGNs were not exempt from these experiences, and the pandemic only compounded NGN stress as they transitioned into their first RN role. Stress negatively contributes to emotional health and well-being, and if not addressed, can impact one's physical and mental status, job performance, attendance, and turnover. These outcomes are significant and can impact national economies, organizational finances, future nursing workforce supply, quality, and patient safety.⁶

Little is known about the emotional well-being of NGNs during the COVID-19 pandemic, and understanding more about its relationship with turnover can help health care leaders identify emotional development and coping strategies for this important segment

of the nursing workforce. Therefore, the purpose of this article is to share research findings regarding the relationship between NGN psychological capital (PsyCap) and turnover (TO). Our aims are twofold: one, assess PsyCap trends over time, and two, evaluate the relationship between PsyCap and TO. Implications for practice and system and leadership considerations are discussed.

Nurse well-being and its relationship to patient outcomes was a concern prior to the pandemic. In 2007, the Institute for Healthcare Improvement published The Triple Aim⁷ and then expanded it to the Quadruple Aim to include improving the work life of health care providers.⁸ Although efforts and research occurred to address workplace mental health and

KEY POINTS

- It is important to measure new graduate nurse psychological capital to determine their emotional well-being.
- Over time, efficacy scores increased and reduced the risk of turnover, while optimism scores decreased and increased the risk of turnover.
- It is important to consider future research and implications that include organizational and leadership support for development of psychological capital.

wellness, the pandemic exacerbated an already stressed nursing workforce. In fact, a study conducted by the American Nursing Foundation (ANF) in 2021 found that nurses are not emotionally healthy (34%), have experienced trauma as a result of COVID-19 (42%), and may leave their position (50%).⁹ If the emotional impact of the pandemic is not understood and addressed, there could be significant workforce and patient sequelae.

The Institute of Medicine, American Academy of Nursing, and the National Council of State Boards of Nursing have recommended, and some in so much as requiring, the use of a well-structured nurse residency program to support the transition of NGNs.^{2,10,11} The Versant Transition to Practice Program (TTP) is a competency-based framework and approach to transition NGNs into practice. The framework allows health care organizations to assess and validate an NGN's clinical practice through competency validation at the point of care and provide a supportive component structure that includes professional development, self-care strategies, and an evidence-based practice/performance improvement project. Versant collects a variety of outcomes to address program effectiveness, individual clinical performance, and the work environment. Outcomes are self-reported and collected at different periods of time during the program and ongoing. Actual TO is maintained by client partners on Versant Voyager, a web-based management system.

One outcome that Versant collects is PsyCap. Psychological capital was developed by Luthans and colleagues^{12,13} and is a state-like construct grounded in motivation,¹⁴ positive psychology,¹⁵ Bandura's theories of social cognition and agency,¹⁶⁻¹⁸ and clinical psychology.¹⁹ PsyCap provides a conceptual model of how individual psychological resources allow more effective personal and organizational performance.¹³ The construct of PsyCap is characterized by 4 components: hope, efficacy, resilience, and optimism, and is otherwise known as HERO.

Hope: Having a willingness and pursuit of success despite challenges and obstacles.

Efficacy: Having the conviction and confidence about one's abilities within their role.

Resilience: Having the ability to positively cope and adapt when faced with risk or adversity.

Optimism: Having a positive outlook and attitude about the future.

PsyCap is measured using a 24-item psychological capital questionnaire (PCQ). It measures personal emotional health and well-being using the HERO subscales.^{13,20,21} Research has shown that PsyCap has both positive and negative relationships with employee work outcomes. Higher PsyCap has been associated with better job performance, job satisfaction, work engagement, organizational commitment, well-being, and performance.²²⁻²⁷ Conversely, lower PsyCap has

been linked to higher stress, anxiety, turnover intentions, and cynicism for change.²²

Current demands and the future of health care will require standardization to elevate practice, the development of workforce engagement for personal and organizational success, and the use of outcomes to establish sustainable systems to withstand current and future challenges. Emotional well-being, such as PsyCap, is a useful outcome for organizations and nurse leaders to use as they are evaluating culture and leadership, and considering development interventions to support the well-being and emotional needs of the nursing workforce, including NGNs.

METHODS

This research study was a secondary data analysis of data extracted from the Versant National Database. The database houses individual-level survey data of program participants and has been collected since 1999. Versant collects metrics at different points in time during the residency program and beyond. The different occasions of measurement (OOM) include Beginning of Immersion (BOI), End of Immersion, and annually. Versant uses its data for program evaluation and quality improvement; therefore, approval and oversight from an Institutional Review Board (IRB) is not required.

The data utilized for the study was from NGN participants who started a Versant TTP program in 2019 and responded to the PCQ between 2019 and 2022. The PCQ is a reliable and valid instrument that measures PsyCap. Versant measures PCQ items on a 5-point Likert scale to align with other Versant survey scales. Permission was obtained to measure on this scale versus a 6-point Likert scale. For this study, the Cronbach's alpha of the PCQ was 0.90 and each subscale of Hope, Efficacy, Resilience, and Optimism was 0.85, 0.88, 0.71, and 0.68, respectively.

PsyCap scores were the main variable of interest and TO was the primary outcome and defined at the individual NGN level as a binary variable of NGN resigned/turnover or NGN retained. To assess PsyCap trend, PsyCap subscales were aggregated across the different OOM, and an analysis of variance was conducted to detect any differences. To evaluate relationships between the variables, a t-test was conducted to compare the PsyCap subscales scores between those nurses who turned over and those who did not. Further, a multivariate logistic regression was conducted to evaluate the odds of turnover based on PsyCap subscale. For more in-depth discussion on the research methods, please refer to [Supplemental Material A](#).

RESULTS

There were a total of 4328 NGNs encompassing 9792 responses to the PCQ. Respondents were across 45

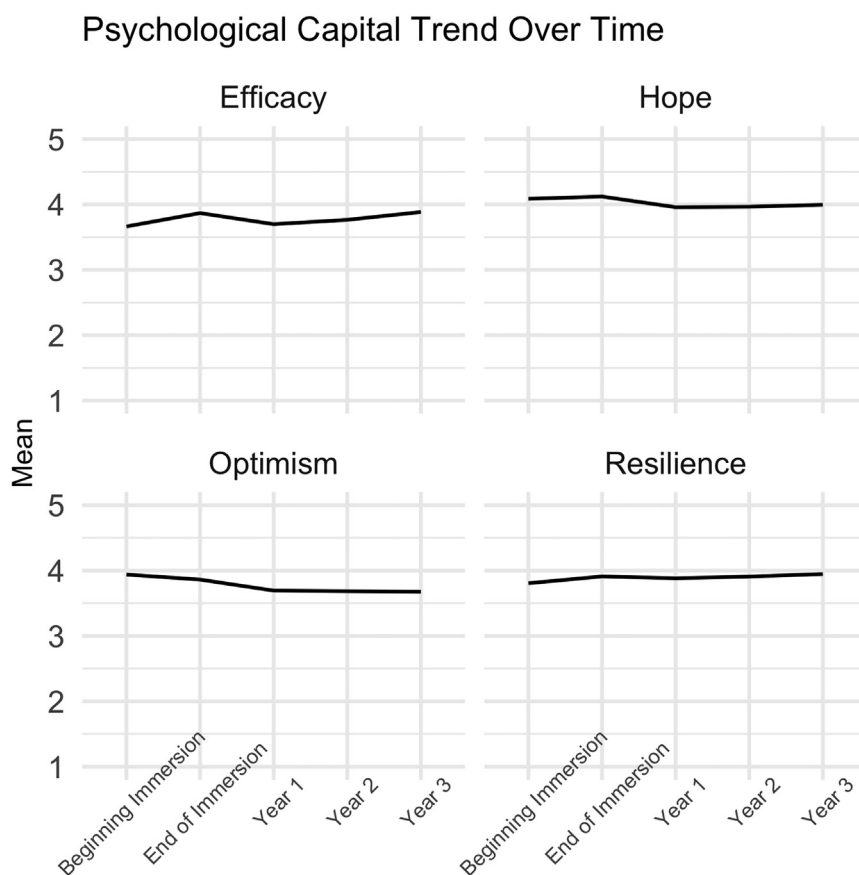


Figure 1. Psychological Capital Trend Over Occurrence of Measurement by Subscale

acute care organizations, 1 outpatient service location, 4 pediatric hospitals, and 1 home health organization, spanning 6 states. The sample consisted of 86% female (3703/4328) and 66% non-Hispanic white (2877/4328), and 59% have a Bachelor of Science in Nursing (2555/4328).

There were statistically significant changes of PCQ scores across occurrence of measurement. **Figure 1** displays the changes of PCQ scores. Efficacy had a 6% increase from Beginning of Immersion (3.66) to Year 3 (3.88). Optimism had a 7% decrease from Beginning of Immersion (3.93) to Year 3 (3.67).

Table 1 displays the bivariate results comparing PCQ subscale scores between those who turned over and those who did not. There was a statistically

significant difference in Optimism scores between those who turned over (mean = 3.91, sd = 0.43) and those who did not (mean = 3.88, sd = 0.41) ($t = -2.17$, p value = 0.03). Multivariate logistic regression results suggested a statistically significant protective impact of efficacy to turnover (OR: 0.84, 95% CI: 0.71 to 0.98). A unit increase in the Efficacy score decreased risk of TO by 16%. Optimism increased the risk of turnover by 26% for every 1 unit increase in optimism score (OR: 1.26, 95% CI: 1.01 to 1.56). **Table 2** summarizes these results.

DISCUSSION

There is scant research that longitudinally measures PsyCap within nursing, and specifically of NGNs. The

Table 1. Average Psychological Capital Scores by Subscale and by Turnover Status

Psychological Capital Subscale	Retained (n = 3364) Mean (SD)	Resigned or Terminated (n = 964) Mean (SD)	p Value
<i>Hope</i>	4.08 (0.42)	4.08 (0.45)	0.85
<i>Efficacy</i>	3.74 (0.56)	3.71 (0.61)	0.19
<i>Resiliency</i>	3.84 (0.41)	3.86 (0.43)	0.09
<i>Optimism</i>	3.88 (0.41)	3.91 (0.44)	0.03

Table 2. Odds Ratio of Psychological Capital Subscales from Multivariate Regression

Psychological Capital Subscale	OR (95% CI)	p Value
<i>Hope</i>	0.91 (0.71 to 1.17)	0.84
<i>Efficacy</i>	0.84 (0.71 to 0.98)	0.02
<i>Resiliency</i>	1.24 (0.98 to 1.56)	0.07
<i>Optimism</i>	1.26 (1.01 to 1.56)	0.04

PCQ subscales in this research study performed within an acceptable range, with optimism being the least reliable.²⁸ This supports future and ongoing use of the PCQ.

There was a statistically significant increase in efficacy from BOI to Year 3. Also, higher efficacy scores reduced the risk of TO. These findings are reasonable given that when there is more time in a role, there is more opportunity for continued learning, practice, and exposure to new experiences, which increases confidence and conviction in clinical knowledge, skills, and abilities. Existing research indicates that efficacy increased in nurses with more years of experience,²⁹ and RN efficacy, hope, and optimism were correlated with intentions to stay.³⁰

Optimism statistically decreased from BOI to Year 3, and higher optimism scores increased TO risk. It is possible that NGNs are entering their first RN role with excitement and fresh ideas only to be met with the challenging nuances of existing cultures and rigid systems. Over time, they may feel they are unable to contribute, develop, and effect change. In a 2022 ANF survey, findings indicate that young nurses are less emotionally healthy and less optimistic about the future.³¹ It is difficult to determine whether the ANF findings are entirely related to pandemic experiences or younger generations of RNs and NGNs have different support and development needs for their emotional well-being. Our finding that the odds of TO increase with higher optimism scores is not consistent with previous research by Luthans and Jensen.³⁰ It is possible that more optimistic NGNs see and have opportunities beyond their current position and are not afraid to pursue those opportunities.

IMPLICATIONS

The health care landscape continues with increased demands, complexity, and change. The pandemic exacerbated the burdens placed on nurses and thus has taken a toll on their well-being, and many are deciding to leave their position. The ANF 2022 survey indicates that 63% of nurses under age 35 intend to or are

considering leaving their position.³¹ One of the top reasons is work that negatively affects their health and well-being. It is important to look at implications that include organizational and leadership support for personal development of PsyCap elements. This perspective supports the framework for clinician burnout and professional well-being recommended by the National Academies of Science, Engineering, and Medicine.³² Additional literature supports that both personal and organizational resources/interventions are helpful in preventing early career burnout and subsequent personal and job-related outcomes in NGNs.³³

Organizational

Health care organizations need to consider a well-being strategy that includes structures, programs, policies, and effective leadership that help achieve goals and support the well-being of all employees.³⁴ It is more than a wellness program or a chief well-being officer. It is about listening, learning, and responding that fosters a positive culture and true support for well-being. In fact, the 2022 ANF Survey found there was a decrease in RN perception of organizational support, and only 19% of RNs under age 35 feel that their organizations really care about their well-being.³¹ Different and comprehensive operation system metrics need to be measured beyond RN satisfaction. PsyCap is a metric that could not only be used to measure individual well-being, but also provide a perspective on the status of organizational well-being as a whole.

Leadership

Leaders are accountable for the well-being of their team. It is important to look beyond traditional and transactional styles of leadership to address that responsibility. Authentic and human-centered leadership are 2 such styles that take into consideration the complexity of health care and positive psychology, and focus outward to listen and care for others.^{35,36} These styles include being genuine and open, building transparent relationships, showing compassion, and recognizing the humanity and health of everyone. A leader that role-models self-care and self-compassion and many of the aforementioned attributes will be able to develop trust and a positive culture. As a result of the pandemic, it is important to reconstruct and repair not only individuals, but also the work environment to improve well-being. To achieve this, RN leaders need to focus on relationships, accountability, and community.³⁷

Personal/Individual

PsyCap and the HERO components are state-like constructs and as such are open to personal

Table 3. Individual Activities to Increase HERO

- Conduct “hope huddles” with teammates
- Practice gratitude
- Develop your specific vision and goals
- Consider pathways and alternate pathways to your goals
- Build an open or growth mindset
- Practice positive self-talk
- Frame feedback for learning and growth and not failure
- Moderate social media
- Conduct a mental rehearsal
- Reflect on past successes
- Reframe negative responses
- Observe and learn from others overcoming obstacles
- Develop a supportive network
- Identify a mentor
- Practice mindfulness and meditation
- Contribute to innovation and creativity (e.g., participate in shared governance)
- Take advantage of organizational well-being activities and education/debriefing sessions (e.g., Schwartz Rounds)
- Visualization of success and happy events

development and improvement. There are different strategies to develop hope, efficacy, resilience, and optimism. It is important for RN leaders to support both individual and team PsyCap development efforts. Since PsyCap is a higher-order construct, many activities to develop one component will also develop others. See [Table 3](#) for evidence-based examples of individual activities to increase HERO.^{21,38,39}

Future Research

Additional research related to moderating and mediating effects on PsyCap scores and subscale scores is needed to help understand additional influencing factors. Since PsyCap can be individually developed, specific interventions to increase well-being and retention of NGNs should be studied. Considerations for multirater evaluations could help others learn how others perceive their levels of PsyCap and provide self-awareness of how they demonstrate each component of

PsyCap. Lastly, post-COVID-19 tracking, trending, and comparisons will be useful to gauge the overall well-being of NGNs going forward.

LIMITATIONS

It is important to consider limitations of this study. First, this study is primarily descriptive, and therefore, causal relationships cannot be inferred. This does not dissuade from the meaningfulness of these results but does necessitate further research. All surveys were self-reported by program participants, and actual turnover was reported by the organization on a continual basis. There is potential for self-reporting bias with program participants selecting a more socially acceptable answer or not being able to accurately assess themselves. Additionally, there could be entry errors or delayed reporting of turnover by the organization, which could impact the turnover outcome. Lastly, generalizability is limited as it only incorporates NGNs from organizations that have implemented a Versant TTP program which may not be representative of the broader NGN population.

CONCLUSION

Leaders are vital for promoting positive work environments that foster well-being, strengthen organizational commitment, and increase retention of NGNs. The COVID-19 pandemic had a compounding effect on the stress that NGNs experienced as they transitioned into their new role as an RN. It is important to consider a systems approach to obtaining and providing support to build psycho-emotive resources of NGNs, thus improving their overall PsyCap, psychological/health outcomes, retention, and ultimately patient outcomes. It will take the right organizational culture and support and the right leader and leadership style to meet the future well-being needs of RNs and NGNs.

REFERENCES

1. Nursing Solutions, Inc. *2022 NSI National Health Care Retention & RN Staffing Report*. March 2022. Available at: https://nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf. Accessed April 18, 2022.
2. Mensinger JL, Brom H, Havens DS, et al. Psychological responses of hospital-based nurses working during the COVID-19 pandemic in the United States: a cross-sectional study. *Appl Nurs Res*. 2022;63:151517.
3. Kelley MM, Zadvinskis IM, Miller PS, et al. United States nurses' experiences during the COVID-19 pandemic: a grounded theory. *J Clin Nurs*. 2022;31(15-16):2167-2180.
4. Norful AA, Rosenfeld A, Schroeder K, Travers JL, Aliyu S. Primary drivers and psychological manifestations of stress in frontline healthcare workforce during the initial COVID-19 outbreak in the United States. *Gen Hosp Psychiatry*. 2021;69:20-26.
5. Office of the U.S. Surgeon General. *The U.S. Surgeon General's Framework for Workplace Mental Health and Well-being*. 2022. Available at: <https://www.hhs.gov/sites/default/files/workplace-mental-health-well-being.pdf>. Accessed January 11, 2023.
6. Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff (Millwood)*. 2008;27(3):759-769.

7. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med*. 2014;12(6):573-576.
 8. American Nurses Foundation. *Pulse of the Nation's Nurses Survey Series: Mental Health and Wellness*. October 13, 2021. Available at: <https://www.nursingworld.org/~4aa484/globalassets/docs/ancc/magnet/mh3-written-report-final.pdf>. Accessed January 13, 2022.
 9. Institute of Medicine. *The Future of Nursing: Leading Change, Advancing Health*. The National Academies Press. Washington, DC: National Academies Press; 2011.
 10. Goode CJ, Glassman KS, Ponte PR, Krugman M, Peterman T. Requiring a nurse residency for newly licensed registered nurses. *Nurs Outlook*. 2018;66(3):329-332.
 11. Spector N, Blegen MA, Silvestre J, et al. Transition to practice study in hospital settings. *J Nurs Regul*. 2015;5(4):24-38.
 12. Luthans F, Youssef CM. Human, social and now positive psychological capital management: investing in people for competitive advantage. *Organ Dyn*. 2004;33(2):143-160.
 13. Luthans F, Youssef CM, Avolio BJ. *Psychological Capital: Developing the Human Competitive Edge*. Oxford, UK: Oxford University Press; 2007.
 14. Stajkovic AD. Development of a core confidence-higher order construct. *J Appl Psychol*. 2006;91(6):1208-1224.
 15. Snyder CR, Lopez SJ. *Oxford Handbook of Positive Psychology*. 2nd ed. Oxford, UK: Oxford University Press; 2009.
 16. Bandura A. The explanatory and predictive scope of self-efficacy theory. *J Soc Clin Psychol*. 1986;4(3):359-373.
 17. Bandura A. *Self-efficacy: The Exercise of Control*. New York, NY: W.H. Freeman and Company; 1997.
 18. Bandura A. The reconstrual of "free will" from the agentic perspective of social cognitive theory. In: Baer J, Kaufman JC, Baumeister RF, eds. *Are We Free? Psychology and Free Will*. Oxford, UK: Oxford University Press; 2008:86-127.
 19. Masten AS, Reed MG. Resilience in development. In: Snyder CR, Lopez SJ, eds. *Handbook of Positive Psychology*. Oxford, UK: Oxford University Press; 2002:74-88.
 20. Luthans F, Avolio BJ, Avey JB, Norman SM. Positive psychological capital: measurement and relationship with performance and satisfaction. *Pers Psychol*. 2007;60:541-572.
 21. Luthans F, Avolio BJ, Avey JB. *Psychological Capital Questionnaire Manual*. Mind Garden, Inc.; 2014.
 22. Boamah S, Laschinger H. Engaging new nurses: the role of psychological capital and workplace empowerment. *J Res Nurs*. 2015;20(4):265-277.
 23. Laschinger HKS, Grau AL, Finegan J, Wilk P. Predictors of new graduate nurses' workplace well-being: testing the job demands-resources model. *Health Care Manage Rev*. 2012;37(2):175-186.
 24. Avey JB, Reichard RJ, Luthans F, Mhatre KH. Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Hum Resour Dev Q*. 2011;22(2):127-152.
 25. Avey JB, Luthans F, Smith RM, Palmer NF. Impact of positive psychological capital on employee well-being over time. *J Occup Health Psychol*. 2010;15(1):17.
 26. Avey JB, Luthans F, Youssef CM. The additive value of positive psychological capital in predicting work attitudes and behaviors. *J Manage*. 2010;36(2):430-452.
 27. Avey JB, Luthans F, Jensen SM. Psychological capital: a positive resource for combating employee stress and turnover. *Hum Resour Manage*. 2009;48(5):677-693.
 28. DeVellis R. *Scale Development: Theory and Applications*. 4th ed. Thousand Oaks: Sage Publications; 2017.
 29. Sweet J, Swayze S. The multi-generational nursing workforce: analysis of psychological capital by generation and shift. *J Organ Psychol*. 2017;17(4):19-28.
 30. Luthans KW, Jensen SM. The linkage between psychological capital and commitment to organizational mission: a study of nurses. *J Nurs Adm*. 2005;35(6):304-310.
 31. American Nurses Foundation. *Pulse of the Nation's Nurses Survey Series: COVID-19 Two Year Impact Assessment Survey*. March 1, 2022. Available at: <https://www.nursingworld.org/~4a2260/contentassets/872ebb13c63f44f6b11a1bd0c74907c9/covid-19-two-year-impact-assessment-written-report-final.pdf>. Accessed May 6, 2022.
 32. National Academies of Sciences, Engineering, and Medicine. *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*. Washington, DC: National Academies Press; 2019.
 33. Laschinger HKS, Fida R. New nurses burnout and workplace wellbeing: the influence of authentic leadership and psychological capital. *Burn Res*. 2014;1(1):19-28.
 34. Shanafelt T, Stolz S, Springer J, Murphy D, Bohman B, Trockel M. A blueprint for organizational strategies to promote the well-being of health care professionals. *NEJM Catal Innov Care Deliv*. 2020;1(6):1-17.
 35. Avolio BJ, Gardner WL. Authentic leadership development: getting to the root of positive forms of leadership. *Leadersh Q*. 2005;16(3):315-338.
 36. Leclerc L, Kennedy K, Campis S. Human-centered leadership in health care: a contemporary nursing leadership theory generated via constructivist grounded theory. *J Nurs Manag*. 2021;29(2):294-306.
 37. Pappas S. The role of nurse leaders in the well-being of clinicians. *J Nurs Adm*. 2021;51(7/8):362-363.
 38. Dimino K, Horan KM, Stephenson C. Leading our frontline HEROES through times of crisis with a sense of hope, efficacy, resilience, and optimism. *Nurse Leader*. 2020;18(6):592-596.
 39. Salanova M, Ortega-Maldonado A. Psychological capital development in organizations: an integrative review of evidence-based intervention programs. In: Van Zyl LE, Rothmann S, eds. *Positive Psychological Intervention Design and Protocols for Multi-Cultural Contexts*. Cham, Switzerland: Springer; 2019:81-102.
- Martha L. Grubaugh, PhD, RN, NE-BC, is a nurse researcher and independent consultant, Parker, Colorado. Research completed (when): Executive Director, Versant Center for the Advancement of Nursing, Las Vegas, Nevada. She can be reached at martha.grubaugh@cuanschutz.edu. Larissa Africa, MBA, BSN, RN, FAAN, is President and CEO of Versant Competency Healthcare Solutions in Las Vegas, Nevada. Figaro L. Loresto Jr, PhD, RN, is a Nurse Scientist, Children's Hospital Colorado, and Assistant Professor, University of Colorado Anschutz Medical Campus, College of Nursing, in Aurora, Colorado. Research completed (when): Biostatistics Consultant at Versant Competency Healthcare Solutions, Las Vegas, Nevada.

Note: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1541-4612/2023/\$ See front matter
Copyright 2023 by Elsevier Inc.
All rights reserved.
<https://doi.org/10.1016/j.mnl.2023.02.002>