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Reflective Journaling Intervention to Impact Self-awareness, Professional Health, and Overall Well-being in Nurses

by

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Abstract

Background. Burnout among nurses has been on the rise and was exacerbated with the pandemic. Reflective journaling after work may be a strategy to decrease feelings of burnout. Reflective journaling, as an intervention, has been shown to improve self-awareness, compassion fatigue, and burnout among nurses. The purpose of this study was to pilot a 4-week reflective journaling intervention in hospital-based nurses and describe participant professional quality of life, self-awareness, and overall well-being.

Theoretical Framework. The Theory of Reasoned Action (TRA) was chosen as the theoretical framework because it identifies the belief that performing a particular behavior will lead to a specific outcome. The model focuses on how intentions and behaviors are affected by attitudes over time.

Methods. A single group pre/post quasi-experimental design was used with measures collected at baseline and immediately following the 4-week reflective journaling intervention. Nebraska hospital-based registered nurses who worked at least two shifts per week were asked to participate. The intervention included viewing a 15-minute training video on reflective journaling. Journaling prompts and reminders were sent via email twice a week. Participants were asked to journal at least five minutes after a shift using a journal prompt link that was sent via email using REDCap, a secure electronic database. Demographic data was collected only at baseline and measures of professional quality of life (ProQOL), self-awareness (SAOQ), and overall well-being (SF-36) were collected at baseline and at the completion of the study.

Results. Twelve nurses were enrolled in total and completed baseline measures. The sample was comprised of all Caucasian females with an age range of 23-58 years and average of 7.1 years in nursing. The nurses worked in a variety of settings including emergency, intensive care, transport, oncology, organ transplant, pediatrics, and step-down critical care. Both night shift and

day shift nurses participated in the study. Five participants completed 50% (4/8) of the requested journal entries. Journal entries were between 1 and 306 words in length. Participants were separated between completers and non-completers. One component of the SF-36 was statistically significant, completers were more emotionally stressed than the non-completers. Topics written about included feelings of being overwhelmed, frustration, and gratitude for journaling as an outlet.

Conclusions. Recruitment and intervention engagement of nurses on the front lines during a pandemic was a challenge and has implications for future interventions. Only one participant completed both pre and post measures and only half of the participants completed at least one journal. At baseline, participants who completed journaling reported a higher level of emotional problems that affected their ability to work effectively. Participant comments suggest reflective journaling has value, which should be investigated further. Strategies to recruit and retain participants in a reflective journaling intervention study will be needed.

Introduction

Purpose Statement

The purpose of this project was to pilot a 4-week reflective journaling intervention in hospital-based nurses and evaluate the effect of post-shift reflective journaling on professional quality of life, self-awareness, and over-all wellbeing. In the United States, there is an increasing problem with nursing shortages and turnover rates (Adams et al., 2019). With the demand for healthcare professionals increasing, nurse burnout is also on the rise (Reith, 2018). According to Reith (2018), more than one-third of nurses are experiencing symptoms of burnout. This data was obtained before the COVID-19 pandemic. Critical care nurses have the highest burnout rates, affecting more than half of nurses who work in intensive care units (Anderson et al., 2020). Between 2018 and 2021, symptoms of burnout among nurses rose from 35% to 54% (Annamaraju et al., 2022). The rising issue of burnout is contributing to nursing shortages, which is detrimental to the quality of patient care.

There is a correlation between nurse burnout and quality of patient care. For example, for every additional patient added to an average nurse workload, there is a 7% increase in patient mortality (McGillis Hall & Visekruna, 2020). Many nurses have reported compassion fatigue, trauma fatigue, and some novice nurses have reported a lack of confidence (Bakker et al., 2015). Burnout is one of the main risk factors for nurse turnover and the impact of burnout on organizational turnover is significant with a 12% increase in nurse attrition for each incremental increase on an emotional exhaustion scale (Butler, Gee, & Kelly, 2020). Nurse attrition creates increased strain and stress on the remaining nurses, exacerbating the symptoms of burnout (Adams et al., 2019).

Problem Statement

As the need for healthcare workers increase, it is critically important to support nurse wellness with interventions that will decrease and/or prevent burnout and compassion/trauma fatigue and increase confidence and self-awareness. Nurse wellness is of utmost importance for not only nurses, but also patients and hospitals. When nurses cannot maintain compassion or self-awareness, patient care can be hindered, which could lengthen recovery time and extend the hospital stay for patients (Beighton et al., 2017). Nurse burnout and poor perceived worksite wellness support are associated with increased medical errors by nurses (Arslanian-Engoren et al., 2021). Higher job satisfaction in nurses is associated with improved patient outcomes, increased patient safety, and decreased healthcare costs and turnover (Chang et al., 2020).

Nurse burnout is associated with a higher turnover rate, creating a substantial financial burden on hospitals. In 2020, the national average turnover rate for nurses was 9% to 37% with the variance dependent on the geographic location (Annamaraju et al., 2020). The estimated cost when a nurse leaves their position ranges from $11,000 to $90,000 per nurse and an estimated nine million dollars is associated with other costs such as unfilled vacancies, patient deferment to other facilities, training, and orientation (Halter et al., 2017). According to Nursing Solutions Incorporated (2016), hospitals can lose an estimated five to eight million dollars annually related to bedside nurse turnover.

Healthy Nurse, Healthy Nation (HNHN) is a free nurse wellness initiative created by the American Nurses Association (ANA) in 2017. It has improved the health interventions that support and encourage nurse well-being and these health interventions should be considered and implemented into systemic policies and practices among healthcare facilities (Anderson et al., 2020). The program focuses on five different aspects of health: nutrition, physical activity, rest,

quality of life and safety. In 2021, the ANA created a COVID-19 resource center aimed at informing and supporting nurses during the COVID-19 pandemic. It offers free resources, tools, and programs for nurses to improve mental health and resilience. The ANA well-being initiative now includes the Narrative Expressive Writing Program. This program is a five-week guided expressive writing program for nurses to increase mindfulness and resilience and reduce psychological distress (American Nurses Association, 2021). Mindfulness, or self-awareness, is associated with an increase in confidence and creativity, improved decision-making, healthy relationships, and the ability to communicate more effectively (Eurich, 2018).

Reflective journaling is personal, written records of individual experiences navigated by guided prompts (Northern Illinois University Center for Innovative Teaching and Learning, 2012). Reflective journaling is an inexpensive, easily implemented intervention that has shown promising results in recent years to improve self-awareness, trauma/compassion fatigue, compassion satisfaction, and burnout among nurses (Copeland, 2020). Adams and Putrino (2010), reported exceedingly positive outcomes from oncology nurses who participated in a structured journaling burnout prevention intervention.

Specific Aims

In hospital-based nurses working in the Midwest, the aims of this study were to:

1. Collect baseline data on professional quality of life, self-awareness, and overall well-being
2. Create and deliver education and training on work-related self-reflection
3. Pilot a twice weekly reflective journaling program over a 4-week period
4. Examine the effect of professional quality of life, self-awareness, and overall well-being post-intervention

Clinical Question

The clinical research question for this study is: (P) In hospital-based nurses working in the Midwest, does twice weekly, (I) guided reflective journaling, improve (O) professional quality of life, self-awareness, and overall well-being of nurses after (T) 4-weeks.

Methodology

Study Design

A single group pre and post-test quasi-experimental design was used. Measures were collected from participants at baseline and immediately following the 4-week intervention.

Subjects

The target population for this project was registered nurses employed at four different hospitals in Nebraska. Participants were included in the study if they were a registered nurse working directly with patients at least two shifts per week. Participants were excluded if they were a non-nurse healthcare professional, a travel nurse, a supervisor, a manager or working in a director role. The nurses were recruited from these hospitals on a voluntary basis and informed consent was obtained from all participants. Participants were invited to participate at unit meetings, shift huddle, and through email invitation.

Setting

Four hospitals based in Nebraska participated in the study including Good Samaritan, Children's Hospital, Nebraska Medicine, and CHI Bergan Mercy. Good Samaritan Hospital is a 268-bed regional referral center in Kearney. They offer an advanced level trauma center with an AirCare emergency helicopter transport and an ambulance program. Good Samaritan also has cardiac care, a level II neonatal intensive care unit, a nationally accredited cancer center, comprehensive neurosurgery, advanced orthopedic programs, and inpatient and outpatient mental health services.

Children's Hospital is a full-service pediatric specialty healthcare center in Omaha with 145 beds. Services include: acute pain management, adolescent medicine, allergy, asthma, and immunology, audiology, autism diagnostic clinic, autoimmune disorders, behavioral health, blood disorders, bone injuries, cancer, cardiology, urgent care, advocacy teams, complex care, critical care neonatology, critical care pediatric intensive care, critical care transport, dermatology, diabetes, dialysis, ear, nose and throat, emergency medicine, endocrinology, eye care, fetal care, foster care, gastroenterology, hepatology and nutrition, general surgery, genetics, gynecology, helmet clinic, home healthcare, infectious diseases, nephrology, neurosurgery, metabolic management, mental health, physical and occupational therapy, palliative care, radiology, rheumatology, rehabilitation, sports medicine, trauma, transport, and wound clinic.

Nebraska Medicine is located in the metro area of Omaha and has 809 licensed beds in Omaha and Bellevue. Nebraska Medicine has a wide variety of services including behavioral health, cancer care, dermatology, diabetes, ear nose throat, eye care, gastrointestinal care, cardiovascular, intestinal failure, living organ donation, neurological care, neurosurgery, orthopedics, pain, pancreatic care, physical and occupational therapy, pregnancy and birth, primary care, radiology, sports medicine, telehealth, transplant, trauma, urologic conditions, vascular care, weight loss and woman's health. CHI Bergan Mercy is also located in Omaha and is a 400-bed facility. They provide a full range of medical services including a level I trauma center, academic medical center campus, cardiovascular care, emergency services, surgery, maternity, cancer care and diagnostic imaging.

Measures

Measures were collected at baseline and immediately following the four-week intervention using the secure data management program Research Electronic Data Capture (REDCap). Professional health, self-awareness, and overall well-being were measured using the Professional Quality of Life (ProQOL), the Self-Awareness Outcome Questionnaire (SAOQ), and the Short Form Health Survey (SF-36) respectively (Table 1). The ProQOL and SF-36 are publicly available for use and permission to use the SAOQ was obtained from the investigator who developed it (Sutton, 2016). Time to complete the measures was estimated to be 20 minutes.

Intervention

Following collection of demographic and baseline measures, training for the four-week reflective journaling intervention began with a 10-minute educational video. This training educated participants on what reflective journaling is, what it is used for, the benefits of journaling and how to submit the journal entry using a link to REDCap (Appendix A). Following the training, participants received journaling prompts (Appendix B) twice weekly via email to guide reflection. During the 4-week intervention, participants were to complete a total of eight online journal entries: two journal entries each week, within one hour of completing their work shift. An online journal format rather than a handwritten format was used for infection prevention purposes during the COVID-19 pandemic and to track compliance with the journaling schedule. Participants were asked to journal for a minimum of five minutes with no maximum time expected. To ensure completion of journaling, individuals received email reminders twice weekly. To encourage participation, a drawing was for a $20 gift card from individuals who completed both journal entries for each week. All health systems allowed participants to complete journaling entries on the clock if not exceeding 15 minutes per session.

Table 1.
Study Measures

Concept	Tool	Description	Scoring	Psychometrics
Professional Health	Professional Quality of Life (ProQOL)	30 item, 5-point Likert scale measuring compassion satisfaction, burnout, & traumatic stress. (Staum, 2012)	Compassion satisfaction, burnout, & secondary traumatic stress scales each totaled. Scores ≤ 22 are considered "low", 23-41 "moderate", and ≥ 42 "high".	In nurses working in the United States, Cronbach's alpha is established for the 3 subscales: compassion satisfaction (.72), burnout (.53) and secondary traumatic stress (.77). (Hagan, 2019)
Self-Awareness	The Self-Awareness Outcome Questionnaire (SAOQ)	38 item, 5-point Likert scale measuring self-awareness. (Sutton, 2016)	Scores calculated by the means of each scale (Reflective self-development, acceptance, proactive at work, & emotional costs). Higher scores represent a greater self-awareness.	In the working adult population, Cronbach's alpha is established for each of 4 subscales: reflective self-development (.87), acceptance (.83), proactive at work (.81) and emotional costs (.77). (Sutton, 2016).
Overall Well-being	Short Form Health Survey (SF-36)	36 items; 25 Likert, 4 true/false, 7 yes/no to assess physical functioning, pain, role limitations due to physical health and/or emotional problems, emotional well-being, social functioning, energy, & general health perceptions (RAND, 2016)	Scoring is a two-step process; first pre-coded numeric values are recorded by a scoring key. High score defines a more favorable health state. Then each item is scored on a 0 to 100 scale. The scores represent % of total possible scores. Items in the same scale are averaged together to create the 8 scale scores.	In community dwelling adults, internal consistency is established with Cronbach's alpha > 0.8 on scales measuring physical functioning, role limitations due to physical problems, role limitations due to emotional problems, mental health, energy, & pain. Social function Cronbach's alpha = .76. (Jenkinson, Wright, & Coulter, 1994)

Data Collection

Participants were assigned a unique identification number for confidentiality while completing study measures and journal entries. A demographic survey including age, gender, race, years in nursing, certifications, degrees, and time worked on their specific unit was collected at baseline only. The ProQOL (professional health), the SAOQ (self-awareness), and the SF-36 (general wellness) were collected pre and post 4-week intervention. All measures were completed through UNMC's online REDCap, a HIPPA-compliant, secure web application for building and managing online surveys and databases (REDCap, 2021). REDCap is accessed online and allows you to create and manage online surveys for easy distribution for research studies or other purposes. REDCap is geared toward collecting data for research studies with both online and offline data capture and can be accessed anywhere (REDCap, 2021). It has been utilized in over 100 different countries and translated into five languages. Results from REDCap are easily downloaded in file forms that are compatible with the Statistical Analysis Software (SPSS), the analysis software to be used in this project. REDCap meets the UNMC standards for human subject data protection. There is minimal risk of loss of confidentiality using REDCap as it uses a secure web connection and requires authentication to log in.

Analysis

Statistical Analysis Software SPSS v.28 was used to analyze the data collected for demographics, ProQOL, SAOQ and SF-36. Demographic results were analyzed as follows: for age, an age range with a mean age and standard deviation were calculated; race was analyzed by the totals of participants that are White, African American, Hispanic, Asian, American Indian, Native Hawaiian and other; gender was analyzed by total males, females, and other; years in nursing was evaluated by a calculated range with a mean and a standard deviation.

The ProQOL uses an ordinal Likert scale from one to five, with one being "never" and five being "very often." A total score for each of the ProQOL sub scales was calculated including: compassion satisfaction, burnout, and secondary traumatic stress. The totals from each subscale are ranked from low with a score of 22 or less, moderate with a score between 23 and 41 and high with a score of 42 or more. The mean for central tendency and standard deviations were calculated for each category of low, moderate, and high for compassion satisfaction, burnout, and secondary traumatic stress. A Pearson correlation was used to evaluate the difference between completers (at least one journal entry) and non-completers (no journal entries) on professional health, self-awareness, and overall well-being change scores. A Pearson correlation was also used to evaluate the relationship between age and time as a nurse.

Results

Demographics

There was a total of 12 participants from the two recruitment waves. The first wave at CHI Bergan progressive care unit enrolled three participants. The second wave of the study at Nebraska Medicine, Children's Hospital and Good Samaritan enrolled nine participants. Participant demographics are reported in Table 2. All participants were Caucasian female. Most of the sample worked the day shift in the intensive care unit.

Table 2.
Participant demographics (n = 12)

	Mean (SD) or %
Age	33.5 (10)
Years in nursing	7.1 years (6.9)
Female	100.0%
Degree	
Registered Nurse	58.3%
Bachelor of Science in Nursing	66.7%
Shift	
Day	41.7%
Night	25.0%
Mid	16.7%
Health System	
Good Samaritan	25.0%
Children's Hospital	33.3%
Nebraska Medicine	16.7%
Catholic Health Initiates	25.0%
Certifications	
CCRN	16.7%
TNCC	33.3%
BLS	100.0%
ACLS	75.0%
Current Unit	
ICU	24.0%
Resource	8.3%
Transport	8.3%
PICU	8.3%
Step Down Critical Care	8.3%
Emergency	16.7%
Cancer Center	8.3%
SOTU	8.3%
PCU	8.3%

ACLS = Advanced Cardiovascular Life Support, BLS = Basic Life Support, CCRN = Critical Care Registered Nurse, ICU = Intensive Care Unit, PCU = Progressive Care Unit, PICU = Pediatric Intensive Care Unit, SOTU = Solid Organ Transplant Unit, TNCC = Trauma Nurse Core Course

Recruitment

Multiple strategies were utilized for recruitment. The first wave of the study was completed at CHI Bergan Mercy on the progressive care unit. Different recruitment strategies were as follows: flyers were hung around the unit, charge nurses would discuss the study opportunity during shift change huddle, emails were sent multiple times to the unit nurses with the direct link to participate, as well as a zoom presentation of the study was offered during one of their monthly unit meetings. Participation was low during the first wave at CHI Bergan on the PCU unit (three participants). It was decided to repeat the study at other hospital systems in hopes of recruiting more participants.

Nebraska Medicine in Omaha, Good Samaritan in Kearney, and Children's Hospital in Omaha became stakeholders for the second wave of the study. Recruitment strategies for the second wave were expanded to multiple floors at each hospital. Recruitment emails and flyers were sent to the stakeholders of each facility to distribute among their nursing staff. Email updates were sent to the stakeholders each week with numbers of participants who had joined from their facility. A one-minute TikTok video about the reflective journaling study was made and distributed to the nursing staff at Good Samaritan in Kearney to gain interest.

Engagement

Of the 12 participants, six completed at least one journal and only one participant completed the post-intervention survey. Due to the fact only one person completed the post-intervention survey, pre/post analysis was not performed as planned. Five participants completed 50% (4/8) of the requested journal entries. Journal entries were between 1 and 306 words in length. Table 3 presents the baseline data obtained from the participants. It was decided to compare data between the individuals who completed journaling versus the participants who did

not journal. As shown in Table 3, the non-completers are defined as participants that completed the baseline survey but did not complete any journaling (eight journal opportunities). The completers are defined as participants that completed the baseline survey and at least one journal entry.

Professional Quality of Life

Professional quality of life was measured by the ProQOL. At baseline there was no significant difference between completers and non-completers on the three subscales of compassion satisfaction, burnout, and secondary traumatic stress. Both groups scored in the "moderate" level in all three subscales.

Self-awareness

Self-awareness was measured by the SAOQ which has four subscales; reflective self-development, acceptance, proactive at work and emotional costs. At baseline, there was no significant difference between completers and non-completers. Both groups scored similarly on each of the subscales; between 3.2 and 3.9 (range 1 to 5) indicating a mid-range level or "frequent" occurrence of self-awareness.

Wellbeing

Overall well-being was measured using the SF-36. Baseline results identified low scores for all participants for energy (fatigue) and feelings of overall general health. The subscale measuring role limitations due to emotional problems was shown to be statistically different between the completers and non-completers. The completers scored an average of 27.8/100 and the non-completers scored and average of 61.1/100 (p = 0.017). The participants who completed the reflective journaling scored themselves as feeling like their emotional problems limited (affected) their workplace role.

Participant Journaling Content

Low participation impacted the planned analysis in the study. As noted, only baseline data could be analyzed and the research team decided to compare baseline measures between participants who completed journaling and participants who did not complete journaling.

Table 3.
Post-Shift Reflective Journaling Outcomes

	Items	Non-Completers		Completers	
	Items	*Mean*	*SD*	*Mean*	*SD*
ProQOL	**30**				
Compassion Satisfaction	10	38.7	6.4	37.8	6.3
Burnout	10	24.7	6.5	27.8	5.0
Secondary Traumatic Stress	10	25.8	5.9	25.7	4.6
SF-36	**36**				
Physical Functioning	10	97.5	2.7	80.0	37.3
Role Limitations - Physical	4	83.3	25.8	79.2	24.6
Role Limitations – Emotional*	3	61.1	25.1	27.8	13.6
Energy/Fatigue	4	49.2	23.1	35.8	13.9
Emotional Well-being	5	67.3	16.7	54.0	17.7
Social Functioning	2	70.8	18.8	62.5	19.4
Pain	2	80.4	12.8	80.8	8.5
General Health	5	58.3	9.3	55.8	12.4
SAOQ	**38**				
Reflective Self-Development	11	3.9	0.2	3.5	0.8
Acceptance	11	3.8	0.5	3.6	0.5
Proactive at Work	9	3.9	0.4	3.6	0.6
Emotional Costs	7	3.2	0.4	3.7	0.5
*p value = 0.017					

Participant journals were explored for common topics. There were 30 journals entries submitted, which ranged from 1 to 306 words in length. There were different journal questions

each entry as noted in Appendix B. During the 4th and last week of the intervention participants were asked to "free journal" (meaning no prompt was provided) and four total "free journal" entries were reviewed for common topics. Topics identified in the free journal were frustration, feelings of being overwhelmed, overloaded, stressed, and helpless.

Though we cannot compare pre/post data as planned, we did have positive feedback from participants through their journaling. Journaling topics included how journaling prior to leaving work served as an "outlet", recognition of events that could have gone differently and released them, and a "brain dump" prior to returning home where their "family does not understand." A direct quote from a participant was "It provided me an outlet to talk about my day. It forced me to think about things that went well and things I would have liked to change." Another participant remarked, "I'm starting to really like these journals after each shift and wish they wouldn't end. I hope someone, somewhere reads these and maybe develops an app with prompted quick journal entries."

Report to Stakeholders

Stakeholders from the four Nebraska hospital systems who participated were provided an email with the poster presentation attached. Included in the email attachment was a brief 10-minute voiceover summary of the project and the results. Contact information including phone numbers and email addresses from the study conductors were provided for questions and comments of the stakeholders.

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Discussion

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Interpretation of Findings

Healthy Nurse Healthy Nation is a program through the American Nurses Association that aims to improve the health of the nation's nurses. The program encourages nurses to develop

healthy coping strategies, like reflective journaling, to avoid burnout. The ANA cites many mental health benefits from journaling including the ability to process difficult emotions, reduce stress, and the promotion of calm and peace (ANA, 2021). Although there was a small sample size, these mental health benefits were expressed in the participant journal entries in this study. Burnout among healthcare workers is a problem that was exacerbated by the pandemic. In December 2021, the United States House of Representatives passed the Lorna Breen Act. This bill provides resources and support to all healthcare workers dealing with burnout and mental health needs (Library of Congress, 2022). Between 2018 and 2021, symptoms of burnout among nurses rose from 35% to 54% (Annamaraju, Haddad, & Toney-Butler, 2022). Local, state, and federal governments are attempting to find ways to combat this. Reflective journaling has the potential to be a useful strategy to reduce burnout.

A review of prior journaling interventions was completed. The studies reviewed measured varying outcomes, however, all outcomes had positive results with the involvement of the intervention of reflective journaling. According to Copeland (2020), reflective journaling for only five minutes a day, three times a week was sufficient enough to be beneficial in all areas of the Compassion Satisfaction and Fatigue survey (ProQOL). The longer the intervention duration the more improvement in the outcomes and writing reflection improved over time (Epp, 2008). One comparative study by Copeland (2020), compared four separate interventions. Journaling was the only intervention in which all aspects of ProQOL and teamwork perceptions scores moved in the desired direction. The studies also presented a positive relationship between knowledge and emotion (Roca, Reguant, Tort & Canet, 2020). The studies that utilized the ProQOL tool, which measured compassion satisfaction, burnout, and trauma/compassion fatigue,

were a level III strength of evidence and utilized quasi-experimental with qualitative components creating a moderate quality of evidence.

The best outcomes often occurred from interventions that included journaling prompts to focus thoughts and ideas and prevent mental block after completing a taxing shift (Kuiper, 2004). Weekly focus topics provided developed and increased open-mindedness, truth-seeking, critical thinking maturity, self-confidence, systematicity, analyticity, and inquisitiveness (Zori, 2015). Reflective journaling had positive outcomes on nurses' mental health and well-being in all publications reviewed.

Strengths

The study design provided ease of use and accessibility via an online format for both the data collection and journal entries. The intervention was low-cost, required little participant time commitment, and was easily implemented. The prompts provided a leeway into each journal to help participants start into the expression of their journaling. Participants noted the journals as being an outlet for them after their shifts and that they enjoyed doing them. The study had included a 15-minute training video to help participant understand reflective journal and also how to complete the study. Each facility allowed the participants to complete their reflective journaling while on the clock, which helped with overall satisfaction and participation in the study.

Limitations

The study took place during a pandemic where nurses were likely overwhelmed and unable to participate in any extra work activity. This limitation made it difficult to recruit participants into the study and to stay engaged with journaling each week. Also, due to the pandemic, in-person recruitment at unit meetings was not possible. The pre/post-intervention

measures were only completed by one participant, which led to a lack of data for the planned analysis.

Conclusions

Participants who completed journaling shared positive feelings after post-shift reflective journaling. At baseline, participants who completed journaling reported a significantly higher level of emotional problems that affected their ability to work effectively. This should be investigated in the future and might explain why those participants completed journaling. Interventions that support and encourage nurse well-being, such as reflective journaling, should be considered and implemented into systemic policies and practices among healthcare facilities. Recruitment and retention strategies should be explored to increase participation and adherence to reflective journaling to decrease burnout, thus, ideally reducing nurse turnover.

Recommendations

It is recommended to explore recruitment and retention strategies for a post-shift reflective journaling intervention for nurses and repeat the study with a larger sample size. Recruitment would best be done through several modalities such as flyers, videos, in-person recruitment, and through social media. An educational PowerPoint with video on what reflective journaling is, how to do it and how the program will run is an effective way to educate participants on the intervention. For engagement with the intervention, it is recommended to allow nurses to stay on the clock while completing the journal entries, as well as keep them engaged and involved with reminders and motivational quotations. It is suggested to explore new ways to gain interest and retention in a program such as reflective journaling. Overall, it is recommended to consider implementation of interventions that support overall wellbeing in nurses among healthcare facilities.

References

Adams, A., Hollingsworth, A., & Osman, A. (2019). The implementation of a cultural change
toolkit to reduce nursing burnout and mitigate nurse turnover in the emergency
department. *Journal of Emergency Nursing*, *45*(4), 452-456. doi:
10.1016/j.jen.2019.03.004

Adams, K., & Putrino, J. (2010). Expressive writing to promote self-care. *Oncology Nursing
Society Institutes of Learning*.

Ajzen, I & Fishbein, M. (1975). Belief, attitude, intention, and behavior: An introduction to
theory and research. Retrieved from https://people.umass.edu/aizen/f&a1975.html

American Nurses Association. (2021). *COVID-19 resource center*. Retrieved on April 20, 2021
from https://www.nursingworld.org/practice-policy/work-environment/health-
safety/disaster-preparedness/coronavirus/ana-response-to-coronavirus-disease-covid-19/

Anderson, E., Blok, A., Charns, M., Mohr, D., Rinne, S., Swamy, L., & Wiener, R. S. (2020).
Impact of workplace climate on burnout among critical care nurses in the veterans' health
administration. *American Journal of Critical Care, 29*(5), 380-389. doi:
10.4037/ajcc2020831

Annamaraju, P., Haddad, L., & Toney-Butler, T. (2022). Nursing shortage. *Statpearls.*

Annamaraju, P., Haddad, L., & Toney-Butler, T. (2020). Nursing shortage. *Statpearls*.

Arslanian-Engoren, C., Braun, L., Dunbar, S., Dunbar-Jacob, J., Gawlik, K., Hsieh, A., Lewis, L., Melnyk, B., Millan, A., Orsolini, R., Robbins, L., Tan, A., Tucker, S., & Wilbur, J. (2021). Critical care nurses' physical and mental health, worksite wellness support, and medical errors. *American Association of Critical-Care Nurses, 30*(3), 176-184. doi: 10.4037/ajcc2021301

Bakker, J., Benoit, D., Kompanje, E., Nijkamp, M., & Van Mol, M. (2015). The prevalence of compassion fatigue and burnout among healthcare professionals in intensive care units: A systemic review. *PLoS One. 10*(8), doi: 10.1371/journal.pone.0136955

Beighton, C., Boiko, O., Drennan, V., Gale, J., Gourlay, S., Halter, M., Harris, R., & Pelone, F. (2017). The determinants and consequences of adult nursing staff turnover: a systematic review of systematic reviews. *BMC Health Services Research, 17*(1), 824. doi:10.1186/s12913-017-27070

Butler, R., Gee, P., & Kelly, L. (2020). Impact of nurse burnout on organization and position turnover. *Nursing Outlook. 69*(1), 96-102. doi:10.1016/j.outlook.2020.06.008

Chang, S., Cho, Y., & Han, K. (2020). Associations of happiness and nursing work environments with job crafting among hospital nurses in South Korea. *International Journal of Environmental Research and Public Health. 17*(11): 4042. doi: 10.3390/ijerph17114042

Cheng, S., Kuo, C., Chien-Lin, K., Lee-Hsieh, J., & Turton, M. (2011). Using clinical caring journaling: nursing student and instructor experience. *Journal of Nursing Research, 2*(19), 141-149.

Copeland, D. (2020). Brief workplace intervention addressing burnout, compassion fatigue, and

    teamwork: a pilot study. *Western Journal of Nursing Research*, 1-8. doi:

    10.1177/019394592093804

Dimitroff, L., Sliwoski, L., O'Brien, S., & Nicholas, L.W. (2016). Change your life through

    journaling: The benefits of journaling for registered nurses. *Journal of Nursing Education*

    and Practice, 7(2). doi:10.5430/jnep.v7n2p90

Epp, S. (2008). The value of reflective journaling in undergraduate nursing education: a literature

    review. *International Journal of Nursing Studies, 45*. doi:10.1016/j.ijnurstu.2008.01.006

Eurich, T. (2018). What self-awareness really is (and how to cultivate it). *Harvard Business*

    Review. Retrieved on April 27, from http://thebusinessleadership.academy/wp-

    content/uploads/2019/08/What-Self-Awareness-Really-Is-and-How-to-Cultivate-It.pdf

Hagan, J. L. (2019). Psychometric Evaluation of the ProQOL Version 5 for Assessing

    Compassion Satisfaction, Burnout and Secondary Traumatic Stress in

    Nurses. *International Journal of Studies in Nursing*, *4*(3), 60.

Jenkinson, C., Wright, L., & Coulter, A. (1994). Criterion validity and reliability of the SF-36 in

    a population sample. *Quality of Life Research*, *3*(1), 7-12.

Kuiper, R. (2004). Nursing reflections from journaling during a perioperative period. *Journal of*

    Association of Perioperative Nurses, 79(1), 196-218.

Library of Congress.(2022). H.R.1667 — 117th Congress (2021-2022)

McGillis, L. & Visekruna, S. (2020). Outlook on nursing: a snapshot from Canadian nurses on

    work environments pre-covid-19. Canadian Federation of Nurses Unions.

Melnyk, B.M., & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing and healthcare*: A *guide to best practice* (4th ed.). Philadelphia, PA: Wolters Kluwer/ Lippincott Williams & Wilkins.

Northern Illinois University Center for Innovative Teaching and Learning. (2012). *Reflective journals and learning logs*. An instructional guide for university faculty and teaching assistants. Retrieved from https://www.niu.edu/citl/resources/guides/instructional-guide

Nursing Solutions Incorporated. (2016). 2016 National healthcare retention & RN staffing report. Retrieved on April 9, 2020 from https://avanthealthcare.com/pdf/NationalHealthcareRNRetentionReport2016.pdf

Padden-Denmead, M. L., Scaffidi, R. M., Kerley, R. M., & Farside, A. L. (2016). Simulation with debriefing and guided reflective journaling to stimulate critical thinking in prelicensure baccalaureate degree nursing students. *Journal of Nursing Education, 55* (11). doi:10.392801484834-20161011-07

Research Electronic Data Capture. (n.d.). REDCap. Retrieved March 31, 2021 from https://projectredcap.org

Reith, Thomas. (2018). Burnout in the United States healthcare professionals: A narrative review. *Cureus. 10*(12). doi:10.7759/cureus.3681

Roca, J., Reguant, M., Tort, G., & Canet, O. (2020). Developing reflective competence between simulation and clinical practice through a learning transference model: A qualitative study. *Nurse Education Today, 92*. doi.org/10.1016/j.nedt.2020.104520

Stamm, B. H., Higson-Smith, C., Hudnall, A. C., & Stamm, H.E. (2020). Professional quality of

    life scale (ProQOL). Statistics Solutions. Retrieved from

    https://www.statisticssolutions.com/professional-quality-of-life-scale-proqol/

Sutton, A. (2016). Measuring the effects of self-awareness: Construction of the self-awareness

    outcomes questionnaire. *Europe's Journal of Psychology, 12*(4), 645-658. doi:

    10.5964/ejop.v12i4.1178

Zori, S. (2015). Teaching critical thinking using reflective journaling in a nursing fellowship

    program. *Journal of Continuing Nursing Education, 47*(7), 321-329.

Appendix A

Education Outline for Reflective Journaling

- What is reflective journaling
  - Definition
  - Explanation
- Why reflective journal
  - Benefits
  - Supporting evidence
    - Research
- How to reflective journal
  - Process
  - Example

Appendix B

Journal Prompts:

Describing: *Theme I - Journaling allowed me to unleash my inner most thoughts*

Week 1: What emotions am I experiencing currently? What has been stressing me out lately?

Week 2: What am I thankful for today? What are three positive things that happened while at work today?

Week 3: What am I grateful for today? What are three things that I appreciate today? What is something that is stuck on my mind?

Week 4: Free Journal. Write about anything that comes to your mind today.

Interpreting: *Theme II - Journaling helped me to articulate and understand my feelings concretely*

Week 1: As I look back on today's shift, I should have spent

More time:

Less time:

Week 2: What circumstances are difficult to handle right now? Why?

Week 3: What challenges have you overcome? At work? At home? In general?

Week 4: Free Journal. Write about anything that comes to your mind today.

Learning: *Theme III - Journaling helped me make more reasonable decisions*

Week 1: What can you do or change in your life to focus more on your health and well-being? Please be honest!

Week 2: What is in my control? What situations are out of my control? How does that make me feel? How has reflective journaling helped you? What have you learned about yourself through this process?

Week 3: Reflect on yourself as a nurse from one year ago and 5 years ago if it pertains to you.

Week 4: What are my goals? What can I do to improve or keep going?

Appendix C

Weekly journaling text message reminders: All reminders end with "Don't forget to complete your post-shift reflective journaling!" (shown only in Reminder 1 for example)

<u>Week 1:</u>

Reminder 1:

"Self-reflection is the school of wisdom." - Baltasar Gracian

Don't forget to complete your post-shift reflective journaling!

Reminder 2:

You will overcome this. Write, reflect, reframe, rethink.

<u>Week 2:</u>

 Reminder 1:

"Self-reflection is a humbling process. It's essential to find out why you think, say, and do certain things – then better yourself." - Sonya Teclai

Reminder 2:

 "By three methods we may learn wisdom: First, by reflection, which is noblest; Second, by imitation, which is easiest; and third by experience which is bitterest." - Confucius

<u>Week 3:</u>

Reminder 1:

"You attract what you are, not what you want. So, if you want it then reflect it." - Tony Gaskins

Reminder 2:

Your talent determines what you can do. Your motivation determines how much you're willing to do. Your attitude determines how well you do it." - Lou Holtz

<u>Week 4:</u>

Reminder 1:

"Reflection is one of the most underused yet powerful tools for success." - Richard Carlson

Reminder 2:

"Time spent in self-reflection is never wasted – it is an intimate date with yourself." - Dr Paul TP Wong