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Positive Reflective Journaling as a Tool for Managing Stress and Promoting a Healthy Work Environment in Nursing Academia

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Positive Reflective Journaling as a Tool for Managing Stress and Promoting a Healthy

Work Environment in Nursing Academia

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Practice at the University of Kentucky

By

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Abstract

Background: Teaching and nursing are consistently cited as the two occupations that work under the highest levels of occupational stress. Positive Reflective Journaling may be a tool that helps to manage stress and influence a healthy work environment in academic nursing settings.

Purpose: The purpose of this study was to investigate whether Positive Reflective Journaling could be used as an adjunct to reduce stress and support a healthy working environment in nursing academia.

Methodology: Eighty-six faculty and staff from a University based School of Nursing were invited to participate in the study. A positive reflective journaling exercise was evaluated at two points in time by examining the psychometric properties of the Perceived Stress Scale-10 (PSS-10), and qualitative summary statements.

Results: Eight participants completed the pre-journaling survey. The post-journaling analysis was based on 7 participants, as one participant did not respond. Paired samples t-test used to evaluate changes in stress before and after the journaling intervention did not show a significant change in stress scores. Qualitative summary statements suggest favorable influences in identifying and managing the symptoms of stress.

Discussion: The literature shows journaling to be an effective use of time and helps in stress reduction; however, the results in this study showed only a small reduction in stress scores after journaling, but it was not statistically significant. Additional qualitative summary statements suggested that it was a positive and valuable use of time.

Conclusion: This study did not show a statistically significant change in pre- post-test stress scores. However descriptive summary summaries supported the value of positive reflective journaling. Additional research is recommended.

Keywords: nursing academia, PSS-10, stress, HWE, positive reflective journaling.

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Table of Contents

Positive Reflective Journaling as a Tool for Managing Stress and Maintaining a Healthy

Work Environment for Nursing Educators

Background and Significance

Occupational stress is common in nursing academia. According to Shirley (2006), nursing educators have high levels of stress as they are expected to participate in teaching, service, and research activities to receive promotion and tenure. Nurses must maintain licensure, clinical competence and keep their certifications current in order to teach. Faculty tend to have heavy workloads which interfere with personal activities outside of the usual office and clinical environment. As they try to meet the expectations of multiple entities their frustration and stress

levels increase.

Zandia (2020) and Nekoranec & Kmosena (2015), cite anxiety and stress as contributors to physical health problems including: hypertension, low energy, chest pain and insomnia and they can lead to long term mental health problems. Stress also inhibits higher order executive functions in the frontal lobe and activates emotional centers which can have a negative effect on faculty-to-faculty, and facultyto-student interactions (Zandia, 2020).

According to Nekoranec & Kmosena (2015), Dr. Hans Selve first described stress as a nonspecific biological response to any demand and noted that that the body has a limited capacity to respond to stressors. The workplace makes a variety of demands on people, and too much stress over too long a period of time exhausts one's ability to cope. Emotional problems such as anxiety, depression, cynicism, or inability to concentrate begin to show up. There may be behavioral problems such as addiction, poor job performance and increased injury rates (Lee, 2006; Scruth et al., 2018; Reinhardt et al., 2020). In nursing academia stress negatively affects faculty retention and decreases quality student interactions. It leads to low morale, workplace tension and an unhealthy work environment. According to Boyd (2020) from the American Institute of Stress, 46% of stress related complaints are related to workload and 20% to juggling work and personal lives. Stress is also related to 80% of workplace injuries and 40% of employee turnover.

In March of 2020, a working group from the Yale Center for Emotional Intelligence and the Collaborative for Social Emotional and Academic Learning polled teachers about their emotional lives. The working group reported that "46 percent of teachers reported high levels of stress every day, tying teaching with nursing as the most stressful occupation in the United States" (para. 2) (Brackett & Cipriano, 2020). The most common terms used to express their feelings were: "anxious, fearful, worried, overwhelmed and sad". Anxiety, by far, was the most frequently mentioned emotion.

Burton (2010) linked stress to burnout, workplace violence and unhealthy personal practices such as smoking, lack of exercise, overeating, and alcohol consumption. Those lead to an increase in absenteeism, short and long-term disability claims, and workers compensation claims.

Both nursing and academia are viewed as stressful occupations. A way of managing stress and building a healthy work environment is needed. In nursing academic settings, journaling can be viewed as a way to develop self-care by recognizing and managing day to day stressors. Journaling has long been studied and has known benefits including "stress reduction, self-reflection, a way to set and achieve goals, a memory aid, and a form of self-expression that lifts and empowers people to understand their complex feelings" (para 3) (Ackerman, 2020). It is also helpful in managing depression as it gives people an opportunity to release pent-up negative emotions, keeping them in a more positive frame of mind, and it helps build a buffer between negative thoughts and a sense of well-being.

Purpose

The aim of this study was to investigate whether positive reflective journaling could assist in reducing stress and be used as an adjunct in support of a healthy work environment. The Perceived Stress Survey -10 (PSS-10) was used to study the impact of a journaling on the participants perception of stress in an academic setting.

Objectives

1. To educate and coach faculty and staff on the benefits of positive reflective journaling.

2. To initiate a routine/schedule among the faculty and staff of dedicating fifteen minutes at the end

of each workday to journal (document) three positive events/outcomes during the day.

3. To investigate supporting a healthy work environment by evaluating the effects of journaling on stress reduction.

4. To evaluate the value of positive reflective journaling from the perspective of the participants.

Theoretical Framework

The conceptual roots for social cognitive theory came from Edwin B. Holt and Harold Chapman Brown in 1931. They theorized that all animal action is based on fulfilling the psychological needs of feeling, emotion, and desire. In 1977 Dr. Albert Bandura claimed that Social Learning Theory showed a direct correlation between a person's perceived self-efficacy and behavioral change. He noted that selfefficacy comes from four sources: "performance accomplishments, vicarious experience, verbal persuasion, and physiological states" (p 195). Self-efficacy relates to the confidence one has in their own ability to manage one's motivation, behavior, and social environment. It is the centerpiece of Dr. Bandura's Social Cognitive Theory, in which "people are neither driven by inner forces nor automatically shaped and controlled by the environment. People function as contributors to their own motivation, behavior, and development within a network of reciprocally interacting influences" (Bandura, 1989, p. 8). Self-efficacy is directly related to an individual's coping skills in a given situation.

In his article: *Social Cognitive Theory: An Analytical Perspective,* Bandura (1999) stated that "thought processes are not only emergent brain activities, but they also exert determinative influence" (p 23) and that " the stronger the sense of coping efficacy the bolder people are in tackling the problems that breed stress and anxiety" (p 30). The Social Cognitive Theory and in particular, self-efficacy, is frequently used to guide behavioral changes. It compliments this study as the focus is on reflecting on one's daily experiences through a journaling intervention.

Self-efficacy is not concerned with skill sets, but a person's belief of what they can do, not will

6

do, under a variety of circumstances. Dr. Bandura (1997) also discusses self-efficacy in adults and how those perceptions may change with age. Self-efficacy also fits with this study on journaling, stress, and healthy work environments, as the average age of nursing faculty is now in their late 50's and early 60's (AACN, 2020) and are reaching retirement. The influences of a healthy work environment and selfefficacy are particularly important among this age group. It is based on the belief that they can and need to execute the demands placed on them. As an example, older faculty who entered adulthood before computers were in wide use find that not only having a mastery of those basic skills, but of all the different computer programs that they need to be competent in to teach, may be a daunting task. It threatens their very livelihood and their capabilities in other tasks, as self-efficacy includes mastery of experiences.

Anita Hoy (2004) in her paper presentation, cited a teacher's sense of self-efficacy as one of the variables that is consistently related to student achievement. Bandura's work provides explicit guidelines on how to enable individuals to exercise control over their personal and professional lives.

Literature Review

Stress is a major influence in unhealthy work environments and its affects are both physical and emotional. It is a major cause of job dissatisfaction and the reason for seeking new employment. In nursing academia, stress influences relationships with peers, staff, students, and administrators. Although the literature covers a wide variety of settings when discussing stress and healthy work environments, no systematic reviews on the topic of promoting a healthy work environment by reducing stress through journaling for nursing faculty or staff were identified. The objective of this review was to evaluate the research evidence available pertaining to journaling, its effectiveness on reducing perceived stress and the effects of stress on the individual, occupational stressors in nursing academia, the influence of journaling in setting goals and managing stress, and stress reduction in promoting a healthy work environment.

The Cochrane Library, Google Scholar, PsycINFO, and JBI Database of Systematic Reviews and Implementation Reports were searched for relevant evidence. Inclusion criteria consisted of

undergraduate and graduate nursing programs/faculty, stress management, anxiety, depression, burnout, occupational stress, journaling benefits, Perceived Stress Scale – 10 (PSS10), social sciences frameworks, Social Cognitive Theory, Albert Bandura, locus of control, self-efficacy, and healthy work environments. Exclusion criteria consisted of test anxiety, elementary and secondary education, occupational stress outside of academia, pharmacological management of stress.

Journaling

There is limited research on the use of journaling in an academic setting by nursing faculty or staff. The available evidence focuses on journaling by nursing students as class assignments (Epp, 2008; Miller, 2017; Jarvis, 2020). However, journaling is used in many settings. When cited as being used by faculty, journaling tended to focus on setting daily goals, writing down thoughts, and feelings but did not focus on reflecting on positive achievements.

Those who consider journaling as a constructive endeavor have demonstrated that journaling can have a positive impact on individuals' stress levels, self-worth, and intrapersonal characteristics (Marisano, et. al., 2010). It is often recommended by therapists as a means of exploring one's own thoughts and feeling through writing for self-understanding. The power of journaling for teachers was discussed on a "The Teaching Space" podcast (Ellis, 2018). Its uses were described as "self-help" through the "practice of writing down thoughts and feelings for the purpose of self-analysis, self-recovery and self-reflection" (para 7). Teachers are under enormous workloads that interfere with a work-life balance. More and more work is being handed to teachers, for no extra pay. Journaling was found to be a way of analyzing how one spent their time, reflecting on the practice of teaching, what worked well and what did not, so that time is not wasted on useless endeavors.

Watson (2010) conducted a study with 25 college students in education, on the role of reflective journaling for teachers. The study showed that journaling allowed student teachers to become involved and active participants in the learning process. It allowed them to take ownership of their ideas and develop problem solving skills. The journaling assignments required students to go beyond surface levels

of thinking. It gave them a structured way to internalize concepts and acknowledge strengths and weaknesses and to develop strategies for management. Through academic writing, student teachers were able to review which factors inhibited and which assisted their learning process.

Reflective Journaling has also been studied as an aid to decrease stress and anxiety for undergraduate nursing students in the clinical area. Stress and anxiety are known to negatively affect a student's ability to learn, and it can affect patient safety. Goodman and Henry (2019) conducted a study to evaluate the impact of reflective journaling on nursing student's anxiety in their first clinical. Students were randomly assigned to either writing a reflective journal with guidance, not write a reflective journal or writing a reflective journal without guidance.

The results showed that students who wrote a guided or non-guided reflective journal experienced less anxiety than those in the non-journaling group. Those in the non-journaling group said they would have benefited from having a journaling assignment. Students said that journaling helped them identify and process their feelings and increase confidence. The study supported the use of reflective journals to decrease the anxiety of nursing students in their first clinical experience.

Healthy Work Environments

A healthy work environment is an environment where employees feel empowered, equipped with appropriate resources, and can accomplish daily work tasks safely and effectively. Munro & Hope (2020, p.4) identified six standards that create the fundamentals of a healthy work environment. These standards include, "skilled communication, true collaboration, effective decision making, appropriate staffing, meaningful recognition, and authentic leadership".

In 2005, the National League for Nursing (NLN) defined a healthy work environment for nursing faculty as the "context that enables faculty to produce quality education" (Brady, 2010, para 3).   The NLN, in 2018 further stated that it is "imperative that academic leaders undertake activities to improve the health of the academic working environment to facilitate faculty satisfaction" (para 2). In targeting the problem, the NLN (2018) developed a Healthful Work Environment Toolkit that identified seven key

areas to improve the health of the academic work environment and facilitate faculty satisfaction. These include: (1) Fostering Safe, Civil, and Collegial Learning Environments, (2) Salary, (3) Benefits, (4) Workload, (5) Role Development and Mentorship, (6) Scholarship, and (7) Leadership. Listed within each area are resources that can help to engage faculty, students, and staff in a dialogue about how to build a healthy work environment.

In 2005, the American Association of Critical Care Nurses (AACN) set six essential standards for a healthy work environment. These standards were: (1) communication, (2) true collaboration, (3) effective decision-making, (4) appropriate staffing, (5) meaningful recognition, and (6) authentic leadership. In 2016, AACN proposed a seventh standard that further addressed academic concerns: "faculty and staff engage and are supported in developing self-care as a foundation to the creation of a healthy work and learning environment, where all members of the academic community can thrive" (Harmon, et. al., 2018, p. 22). The benefits of healthy work environments are their influence on the empowerment, motivation, and satisfaction of employees.

Evidence-based research on healthy work environments also reveals a positive correlation between nurses with a self-reported healthy work environment and better patient outcomes, than nurses with a self-reported unhealthy work environment. Evidence also shows that there is less nursing burnout (Kelly & Todd, 2017), higher personal resilience, and nurses are less likely to leave their job (Jyothindran et al., 2020). The presence of a healthy work environment facilitates satisfaction for the nurse in their place of employment. Boswell (2017) stated that one of the most important considerations that influences a healthy work environment is employee satisfaction, and employee satisfaction impacts the overall organizational performance.

Stress

Lee (2006) described the effects of burnout as a feeling of reduced personal accomplishment and is often used to describe nurses who are exhausted in their role. It is often a driving force for seeking new employment. According to (Laschinger, et al., 2015), the lack of authentic leadership contributes

10

significantly to the occurrence of burnout.

Stress reduction is essential, especially as the average age of nursing faculty is increasing. According to AACN's report on *2019-2020 Salaries of Instructional and Administrative Nursing Faculty,* the average ages of doctoral-prepared nurse faculty holding the ranks of professor, associate professor, and assistant professor were 62.6, 56.9, and 50.9 years, respectively. This means that nursing faculty are reaching retirement age in large numbers.

Situations that are consumed with overwhelming demands contribute to exhaustion and destroy feelings of accomplishment. A retrospective study by Lee, et. al (2017) analyzed variables of relationships with nurse faculty job satisfaction and found that the most important element of job satisfaction was leadership within the nursing department.

There is limited research on the use of journaling to manage the symptoms of stress in academic settings for nursing faculty and staff. There are several scholarly articles in support of healthy work environments for nursing educators, however, none could be found about journaling to achieve that end.

It is expected that this research will provide a framework for further research on ways to manage stress and realign the perception of achievement when working in highly stressful situations. It will add to the gap in existing literature on positive reflective journaling, stress management, and promoting a healthy work environment for nursing educators and staff. Future researchers may use the findings of this study to explore the relationship between stress, the well-being of nursing faculty, staff, and students.

Methods

Design

This project used a quasi-experimental research design method, utilizing a pre-post intervention design.

Setting

The setting for this study was a publicly funded University based School of Nursing in Kentucky.

Total university enrollment exceeds 14,000 students, with over 12,000 undergraduate students and nearly 2,000 graduate students and offers a BSN, MSN, and DNP degrees in nursing. Nursing faculty and staff in the School of Nursing number 86 (NKU, 2019a).

<p style="text-align:center">Congruence of project to selected agency's mission/goals/strategic plan.</p>

The University seeks, among other things, to "deliver a student-centered education, engage in impactful scholarly and creative endeavors and empower graduates to have fulfilling careers and meaningful lives" (NKU, 2020b).   Short term goals include "engaging with community partners in educational, scholarly and service activities, and to support a caring, collegial environment, excellent academic programs and a healthy place to work" (DANS, 2017).

This project is congruent with the University mission, goals and strategic plan through the following initiatives: a) the University is allowing an educational research project from another University to be conducted in the School of Nursing which is supportive of collegiality and scholarly activities, b) the project is engaging the larger community of nursing educators as one of the faculty members from the School of Nursing is sitting on the DNP committee at the University of the Principal Investigator, c) the School of Nursing has expressed an interest in the research project as it investigates the relationship of stress to a healthy work environment.

Stakeholders

The stakeholders for this study are the faculty and staff of the Northern Kentucky University School of Nursing, the University of Kentucky College of Nursing, the Principal Investigator, and the participants who volunteered for the study.

Facilitators and barriers to implementation

In attempting to access research data regarding positive reflective journaling, the barriers encountered limited the effectiveness and productivity in gathering evidence-based research. This related to the 1) specificity of the research question, 2) methods and data analysis of previous research, and 3) appropriate population sizes for this project.

Another barrier was the intrusion of COVID-19 into the academic setting. During the initial planning of this project COVID-19 was an unknown entity. By the time, the project was ready to get underway, campus had been locked down, and the faculty, staff and students were all working from home. COVID -19 led to increased health related fears and stress among everyone. The purpose of this study was not to evaluate the influence of COVID 19 on faculty and staff, but its influence cannot be ignored. It may have led to poor participation in the study which was a barrier to implementation.

Facilitators of the study included the assistance I received from the academic research offices at both the University of Kentucky (UK) and Northern Kentucky University (NKU) and the faculty and staff who volunteered for the journaling study. Another facilitator was the help I received in the development of the project, proposal review, study design, journaling surveys and statistical analysis. Discussions with my advisors and faculty at UK and NKU were invaluable.

Population

The target population for this study consisted of 86 normal volunteers from the University School of Nursing who were invited to participate. Inclusion criteria were age 18100, any race, sexual identification, and work status (Full-time, Part-time, and Adjunct). The study was open to nursing administration, faculty, student advisors and staff. Children, persons with impaired capacity, non-English speaking persons, and persons who were not employed by the School of Nursing were excluded from the study. Names and email addresses were provided by the College of Health and Human Services which houses the School of Nursing.

<div align="center">Procedure</div>

The Associate Dean for Health and Human Services at NKU was contacted about the study. Information was shared about its purpose, the process and the opportunity for the faculty and staff in the SON to participate. After a letter of support was received, the pre- and post- journaling survey was developed on the Research Electronic Data Capture (REDCap) system.

The study was submitted to the University of Kentucky's Institutional Review Board (IRB), with a request for Waiver of Documentation of Informed Consent. After the study and waiver of

documentation of consent received approval, an email was sent to the faculty and staff on record in the School of Nursing inviting them to participate. The email included two attachments. One had information about the purpose of the study, risks/benefits, the journaling process, weekly reminders process, and offered potential volunteers an opportunity to contact the Principal Investigator via email or phone with questions. The second attachment provided background information on journaling, its benefits, its use in education, and reviewed the documentation requirements. A return email constituted agreement to participate in the study and the waiver of documentation of informed consent. The window for volunteering for the study was open for ten days but late volunteers were accepted for up to two weeks.

Volunteers were sent an email link in REDCap that gave them access to the pre-journaling survey, with a request for it to be completed upon receipt. A small journal was sent to them via USPS in which to record three daily accomplishments for the next thirty days.   The writing assignment began once the volunteer received their journal. Volunteers were free to keep their journals and were instructed not to return them.

Each week a group email was sent to the faculty and staff of the SON, encouraging those who were participating in the study to continue with journaling for the full 30 days, and thanking them for their participation. At the beginning of the fourth week a group email was sent with a link to the post-journaling survey in REDCap, to be completed at the end of 30 days. This email was repeated for the following two weeks.

Measures and instruments

The Perceived Stress Scale -10 (PSS-10) is a 10-item, "psychometrically sound instrument to measure the perceptions of stress in an individual. The items are rated from 0 – 4 on a Likert Like scale and are general rather than specific questions. It is the most widely used psychological instrument for measuring the perception of stress, and it is a measure of the degree to which situations in one's life are appraised as stressful" (para.1) (Baik, et al., 2017).

Cohen and Williamson (1988) reported that the psychometric properties of the PSS-10 were originally evaluated in a large national sample of 2,387 American adults. Scores on the PSS-10 demonstrated adequate internal consistency reliability ($\alpha = .78$); moderate concurrent criterion validity with the amount of stress experienced during an average week ($r = .39$, $p < .001$) and the frequency of stressful life events within the past year ($r = .32$, $p < .001$). Adequate convergent validity was evidenced by expected negative associations with perceived health status ($r = -.22$, $p < .001$) and positive associations with psychosomatic symptoms ($r = .28$ to $.34$, $p < .001$) and health service utilization ($r = .22$, $p < .001$).

Since then, other studies have similarly reported that the PSS-10 has good internal consistency reliability (Barbosa-Leiker et al., 2013; Golden-Kreutz et al., 2004; Reis et al., 2010), and adequate convergent validity based on associations with measures of physical and mental health (Mitchell et al., 2008; Roberti et al., 2006; Wu and Amtmann, 2013).

The pre-journaling survey consisted of the PSS-10, and independent demographic variables of gender (male/female/gender neutral, prefer not to answer), racial/ethnic composition (American Indian, Asian, black, or African American, Hispanic, or Latino, more than one race, Native Hawaiian, or other Pacific Islander, white or Caucasian, prefer not to answer), type of position (faculty, administration, staff, or advisor) and work status (full-time, part-time, adjunct). Volunteers were asked to provide their month and day of birth in a two-digit format as a unique identifier to provide an anonymous correlation between pre and post journaling surveys.

The post-journaling survey consisted of the PSS-10 and questions about whether journaling: helped the participant identify what was causing their stress, helped prioritize problems or concerns and helped manage symptoms of stress. Responses were rated from $1 - 5$ on a Likert Like scale from: (1). Strongly Disagree, to (5). Strongly Agree. Open ended descriptive questions were asked about the value of journaling: whether journaling was a positive experience, whether it was a valuable use of time, and whether they would continue to journal. The frequency of journaling was questioned, with options ranging from: daily, every 2-3 days, every 4-5 days, once a week, more than once a week, or not at all.

Data collection

Study datum was collected and managed using REDCap electronic data capture tools hosted at the University of Kentucky. REDCap (Research Electronic Data Capture) is a secure, webbased software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources (Harris et al. 2009, 2019).

Data analysis

Descriptive statistics including means and standard deviations, or frequency distributions, were used to summarize participant demographic characteristics, the value of journaling and the frequency. The paired samples t-test was used to evaluate changes in stress before and after the journaling intervention. Open-ended summary statements about the value of journaling were collected. All quantitative data analysis was conducted using SPSS, version 25 with an alpha of .05.

Results

The purpose of this study was to evaluate the impact of positive reflective journaling on the participants perception of stress as an adjunct in promoting a healthy work environment.

Demographics

Eight (n=8) volunteers completed the Pre-Journaling Survey. The demographic summary of those participants (Table 1) shows that the age range was from 51-76 years, with a mean of 61.0 (SD=8.21). All (100%) of the population were White/Caucasian and female. Six (75%) identified as faculty, one (12.5%) identified as administration, and 1 (25%) identified as staff. Six (75%) were full-time, one (12.5%) was part-time, and one (12.5%) was Adjunct or part-time. Less than half (43%, Table 2) reported journaling every day, 29% journaled every 2-3 days, and 14% said they journaled every 4-5 days.

Findings

   The Post-Journaling Survey analysis was based on 7 participants, as one participant did not respond to the post survey request. Changes in the PSS-10 showed a small improvement in stress scores *(p=.62)* but did not show a statistically significant change from the pre-journaling intervention (M=14.9, SD = 4.5) to the post journaling intervention (M=13.3, SD=7.9) (Table 3).

   Additionally, paired samples item analysis was calculated for each individual question.   The stress score on question one increased from 1.86 (.69) pre-test, to 2.57(.54), *p* .09 post-test. The paired stress scores on questions 2, 3, 6 and 9 all dropped to a mean of .43 after the intervention although it was not at a significant level (Table 3). Prior to the intervention the stress items with the highest mean scores were questions one (1.86) and three (2.43).

   Table 4 summarizes the value of journaling as reported by participants. On a scale of 1-5 with higher scores representing more agreement with the statement: "journaling has helped me"

a. identify what is causing my stress or anxiety, b. prioritize my problems or concerns, and

c. manage my symptoms of stress favorably. The M(SD) 4.14(.69) did not vary for all questions. Participants did seem favorable to the intervention based on qualitative summary statements that it "helped me identify specific worries", "it was a helpful and a positive experience", "it was a valuable use of my time and I will not likely continue to journal", it was useful to identify the top 3 most positive experiences", and it "provides clarity" (Table 5).

Discussion

   The literature shows journaling to be an effective use of time and it helps in stress reduction (Marisano, et. al., 2010, Goodman and Henry, 2019, Watson, 2010).   The results in this study showed a small reduction in stress scores after journaling, but they did not show a statistically significant change. This makes it difficult to make any conclusion based on the low number of participants. Qualitative feedback from the volunteers indicated that they found journaling helpful in identifying the cause of stress/anxiety, and helpful in prioritizing problems and managing the symptoms of stress. These finding

are supported in the literature when discussing coping strategies for stress and the benefits of journaling (Ackerman, 2020; Nekoranec & Kmosena 2015; Zetlin, 2019).

Ohlund and Yu (2021) state that having only a small, statistically insignificant change in the perception of stress may be related to internal validity issues. The internal validity issues with this project consisted of a) not enough subjects (n=7) to provide sufficient evidence to support the hypothesis that journaling would be beneficial in decreasing stress and supporting a healthy work environment in nursing academia, b) length of time between pre-test and post-test. The longer a time between a pre-test and posttest, the more likely it is that events may have occurred that threaten the results. Participants journaled for a period of 30 days during the middle of the COVID pandemic. They were not questioned about any changes in personal or work relationships during that time, which may have had an influence on the post-testing, c) the influence of a pre-test on the post-test. A pre-test influence can influence a post-test as subjects want to perform well when they know that they are being observed/tested, and d) attrition. Attrition was a problem as one member of the group did not respond to the post-test requests. When you have a group as small as this, the loss of even one person can impact the results.

According to the feedback from the question "how often did you journal ?", 43% of the group said they journaled daily, while 28% journaled no more than four times a week. This indicates that there was only fair compliance with the request to journal daily. Thus, compliance may have influenced post-testing scores. It was surprising to see that for question one, one participant indicated an increase in stress. I have to wonder what might have been going on in their life, as it was an unexpected result.

Prior to COVID 19, faculty burnout and retention issues were already high with 10% of faculty on medications for stress related complaints and 30% having missed work due to stress (Zandia, 2020). Faculty are now teaching from home, taking care of their children's academic needs, while trying to maintain a household. It is difficult to assess stress the cause of stress levels but when faculty are at home their home life impacts their performance as instructors.

This was a small research group that has only been tested once on stress reduction. Research needs replication and cross-validation multiple times before the results can be interpreted with any

confidence. Extreme sample characteristics, such as highly educated academic faculty and staff, tend to regress toward the mean and not show any statistically significant changes. External validity or as a support the generalizability of journaling as a means to decrease stress or as a support to a healthy work environment. Each research subject is different, as is each situation. Even though different observations may be seen in other studies, the validity of each study is an indication of the truth of only that study. The design and data collection for this small study would be easy to replicate for a larger sample size. Additional research needs to be undertaken to further understand the findings from this small study.

Implications for Practice

The immediate plan is to share the research findings with the faculty and staff and discuss whether positive reflective journaling can be used as a valuable tool for stress reduction and improving the work environment.

Though the findings did not support the use of journaling as a means of helping educators manage their stress levels and maintain a healthy work environment, based on the literature review a number of recommendations for decreasing stress were found. Recommendations such as: providing seminars geared towards stress management that include how to choose priorities, learning what triggers stress, not reacting to imagined insults, not keeping anger and frustrations bottled up, learning to move on and taking time for daily exercise and recreation (Ackerman, 2020, Boyd, 2020, Zetlin, 2019).

Limitations

The largest limitation was that the project garnered few volunteers as only10 % of identified faculty and staff chose to participate. There was only fair compliance with the request to journal daily and one subject did not complete the post-journaling survey. With COVID -19 restrictions in place during the study there was no ability to network on campus to support the research.

Conclusion

This study was focused on the value of journaling as a way to manage stress and provide a healthy work environment. The study only showed a slight improvement in stress scores, but they were

not statistically significant. The open-ended descriptive statements at the end of the post-journaling survey give the best insight as to the benefit that the subjects thought about journaling. There were no negative comments, but that has to be tendered with the realization that this was a small sample with only fair compliance. Given that the Principal Investigator works within the School of Nursing, one has to wonder about whether the subjects were biased in their responses and did not want to give any negative feedback.

Healthy work environments are essential to every type of job. In academia, stress impacts the administration, faculty, and staff and it influences their overall health, well-being and learning experiences. Healthy work environments and positive work culture are what academia strives towards, but it can be difficult to achieve. When educators experience burnout, it is often hard to implement change, so prevention is essential.

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List of Tables

Table 1

DEMOGRAPHIC SUMMARY OF THE STUDY SAMPLE

VARIABLE	N	MEAN (SD) OR N%
Age	8	61.0 (8.21)
Gender	8	
Female		8 (100.0%)
Male		-
Gender Neutral		-
Prefer not to answer		-
Race/Ethnicity	8	
American Indian		-
Asian		-
Black or African American		-
Hispanic or Latino		-
More than one race		-
Native Hawaiian or other		
Pacific Islander		-
White or Caucasian		8 (100.0 %)
Prefer not to answer		-
Position	8	
Faculty		6 (75.0 %)
Staff		1 (12.50 %)
Administration		1 (12.50%)
Advisor		-
Work Status	8	
Full Time		6 (75.0%)
Part Time		1 (12.50%)
Adjunct		1 (12.50%)

Table 2

FREQUENCY OF JOURNALING _____

VARIABLES	N (%)
Daily	3 (43%)
Every 2-3 days	2 (29%)
Every 4-5 days	1 (14%)
Once a week	1 (14%)

Table 3

_STRESS SCORE CHANGES BEFORE AND AFTER JOURNALING INTERVENTION____

PSS-10	N	PRE-INTERVENTION Mean (SD)	POST-INTERVENTION Mean (SD)	PAIRED DIFFERENCES Mean (SD)	_p_
PSS-10 Sum	7	14.90 (4.5)	13.30 (7.9)	-	.62
Question 1	7	1.86 (.69)	2.57 (.54)	-.71 (.96)	.09
Question 2	7	2.00 (.81)	1.57 (.79)	.43 (.79)	.20
Question 3	7	2.43 (.54)	2.00 (1.0)	.43 (1.30)	.40
Question 4	7	0.71 (.76)	0.57 (.79)	.14 (1.21)	.77
Question 5	7	1.14 (.70)	1.14 (1.34)	.00 (1.30)	1.00
Question 6	7	1.57 (.53)	1.14 (1.07)	.43 (1.30)	.41
Question 7	7	1.14 (1.07)	1.00 (1.00)	.14 (.70)	.60
Question 8	7	1.29 (.76)	1.13 (.90)	.15 (.70)	.60
Question 9	7	1.57 (.54)	1.14 (.69)	.43 (.98)	.29
Question 10	7	1.14 (.69)	1.00 (1.16)	.14 (1.21)	.77

TABLE 4

DESCRIPTIVE STATISTICS SUMMARY OF VALUE OF JOURNALING

VALUE OF JOURNALING	N	MEAN (SD)
Helps identify cause of stress/anxiety	7	4.14 (.69)
Helps Prioritize Problems	7	4.14 (.69)
Helps manage symptoms of stress	7	4.14 (.69)

Table 5

Open Ended Descriptive Statements

Participant (*n*=7)	Responses
1	It helped me identify specific worries and to realize many were not any of my business or totally out of my control.
2	Journaling was a positive experience for me. I used to journal in my past but got out of the habit of doing it daily. I think it is a valuable use of my time and I plan to continue it in the future. Once you see the things you accomplish in black and white, it becomes real and decreases the feelings of anxiety.
3	Journaling was a positive and valuable experience for me. I will most likely continue to journal. Journaling helped put life in perspective and relieve stress. It is inspirational to see accomplishments on paper.
4	I enjoyed journaling. It was useful to actually identify the top 3 most positive experiences regularly. Reflection is always useful.
5	This was a positive experience, and I can see the benefit. The issue for me is to mindfully take the time to do so. I may consider this going forward.
6	Invaluable writing out the storm. Provides clarity when you let the pen move, always interesting to see what comes out on the page.
7	When journaling or thinking about the words to use in journaling this action….

Note. The responses in the table above are related to the following questions: Was journaling a positive experience for you? Was it a valuable use of your time? Will you continue to keep a journal? Table participants are numbered in no particular order.