

Research

The Effect of Reiki on Work-Related Stress of the Registered Nurse

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Purpose: The Reiki Master Teacher group at a large academic, urban medical center studied the effects of Reiki on work-related stress in Registered Nurse Reiki I class participants. Research suggests that work-related stress is an influential factor in nursing burn out and retention. Reiki, an ancient form of Oriental “energy work” or healing, has been found to decrease stress. **Methods:** The Perceived Stress Scale tool was administered prior to the Reiki I class and after three weeks of practicing self-Reiki. **Findings:** Seventeen participants returned follow-up data. Results indicated that practicing Reiki more often resulted in reduced perceived stress levels. **Conclusions:** Data from this small pilot study supports educating nurses about Reiki practice to decrease work-related stress.

Keywords: *Reiki; stress; stress management; nurses*

An adequate number of registered nurses in the workforce are essential to provide quality patient care. However, problems with nursing burnout and recruitment are global (Healy and McKay, 2000; Mariano, 2007; Shirey, 2006). It is crucial to provide stress management techniques to these health care providers. Reiki, an ancient form of Oriental energy work, is a tool accessible to registered nurses that has the potential to decrease work-related stress. In this pilot intervention study using a one-sample pre-post design, the effects of Reiki on work-related stress of the registered nurse is explored.

Review of the Literature

Stress in Nursing

The International Council of Nurses on Occupational Stress (ICN; 1899-2010) defines job stress as “the harmful emotional and physical reactions resulting from the interactions between the worker and her/his work environment where the demands of the job exceed

the worker’s capabilities and resources” (p. 1). According to the ICN, job stress can be caused by a multitude of factors: working conditions, relationships at work, role conflict and ambiguity, organization structure and climate, work-home interface, career development, and the nature of the job, that is, amount of physical and emotional stamina required, workload, and pace.

Beaudoin and Edgar (2003) support the fact that hassles continue to represent a significant part of nurses’ work, which include taking on nonnursing functions, continuously responding to interruptions that must be addressed in order to complete their work, short staffing, dealing with students, and the physical work layout. McVicar (2003) identified workload, leadership/management style, professional

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conflict and the emotional cost of caring as main sources of stress for nurses, but the magnitude of their impact was controversial.

The current study was conducted at a large academic, urban medical center, a national example of a strong and effective safety net system. In addition to previously cited job stressors, the specific demands of caring for patients from vulnerable socioeconomic backgrounds from diverse, inner-city populations include dealing with language barriers, poverty/lack of health care resources and finances, and the cultural diversity of the clients.

Shirey (2006) states that “the nursing profession is in one of the most crippling nursing shortages in history” (p. 193). Barclay (2006) cites that efforts toward recruiting persons into nursing school have been given much attention; however, much less attention has been paid to retaining practicing nurses in the profession. Stokowski (2008) relates that by 2010, 40% of nurses will be “older”—past the age of 50—and retaining them in the workforce is critical. Stokowski cites that reducing job stress and improving the ability of nurses to deliver high-quality care by providing adequate staffing are two keys to retaining older nurses in the workforce.

Interventions for Nursing Stress Management

Nursing administrators need to be aware that employee stress and burnout costs are estimated at approximately \$250 to \$300 billion annually (Milliken, Clements, & Tillman, 2007). The high cost of workplace stress and the pressing need to retain qualified registered nurses (RNs) in the workforce cry out for interventions to support stress management for this population.

In an effort to retain nurses, Andrus, Shanahan, and Assi's (2006) study, in which nurses were taught and supported in practicing complementary therapy techniques, demonstrated a 0% turnover rate by the conclusion of the study (January 2004-May 2005). This quantitative and qualitative study including 36 inpatient nurses also showed an increase in both patient and nursing satisfaction scores as well as an increase in nurse perception of caring practice scores.

In her literature review, Ross (2008) cites several holistically based practices used in an effort to reduce work-related stress of the RN: massage, repeating a mantra, and mindfulness-based stress reduction. All demonstrated positive effects on stress reduction, which substantiates the need for regular stress

reduction programs and the need for further study of holistic interventions to support nursing stress reduction. As stated earlier, the ICN has acknowledged contributing factors to job stress for nurses and suggests that nurses develop coping strategies, such as learning effective relaxation techniques.

Reiki for Stress Management

Reiki, a form of complementary, energy medicine, not only provides the nurse with tools to promote patient healing but also supports stress reduction for the nurse. Reiki is provided with the practitioner placing his or her hands on or above a fully clothed recipient who is sitting in a chair or lying on a treatment table. Reiki practitioners also use self-Reiki as a healing therapy. This ancient, hands-on healing practice is “believed to rebalance the biofield, thus strengthening the body's ability to heal and increasing systemic resistance to stress,” as described by Miles and True (2003, p. 65). Everything in the universe is made up of energy, including the human body; a disruption in that energy can cause illness or disease. Moore (2005) states that Reiki supports the individual's energy to become “restored, free-flowing or balanced and one is more likely to feel relaxed and the body's own innate healing abilities are ‘jump-started’ and utilized for healing” (p. 2). Recipients of Reiki report a heightened state of awareness and inner peace and calm (Miles & True, 2003). Delal (2003) cites several teaching and suburban hospitals that offer Reiki to patients in a variety of settings and notes anecdotal positive effects: reducing symptoms including anxiety, depression, phobias, indigestion, loss of weight and appetite.

Taylor (2006) discusses the importance of research in energy medicine but cites the challenges of measuring the effects of an intuitive, holistic therapy, such as Reiki, within traditional scientific methods. Zahourek (2006) states that “Holistic nursing research is complex . . . where many individual, cultural, and environmental aspects affect the results” (p. 5). Miles and True (2003) suggest that involving Reiki practitioners who are knowledgeable about the theory and practice of Reiki as well as scientific inquiry will enhance the quality of this type of research.

In a survey of 223 professional complementary/alternative medicine (CAM) organizations, 66 respondents recommended Reiki as an effective method to decrease stress and anxiety (Long, Huntley, & Ernst, 2001). In a blind trial study with 45 subjects, MacKay, Hansen, and McFarlane (2004) noted that Reiki produced some effect on the autonomic nervous system.

According to Vitale (2007), "The AHNA (American Holistic Nurses Association) position statement on complementary alternative medicine (CAM) endorses energy work as valid nursing interventions to render holistic care for self and others" (p. 168). Reiki is a self-care practice for nurses (Gallob, 2003). Coates (2001) quotes a nurse who reported feeling drained at the end of her shift who began practicing Reiki regularly: "Once I started doing Reiki . . . I now feel happy and balanced. Reiki has reinstated and enhanced my love of nursing" (p. 2). The University of Minnesota Center for Spirituality and Healing (2009) reports that nurses who learned Reiki as a self-treatment in a pilot study reported "feeling less irritated, more compassionate, more alert, more grounded, more empowered, more peaceful and protected" (p. 3). In a phenomenological, qualitative study by Whelan and Wishnia (2003), 75% of the eight nurses who practiced Reiki reported feeling more peaceful, calm, and relaxed while providing a Reiki session; furthermore, 75% also felt increased satisfaction compared with previous or present nursing work.

In another phenomenological study, Vitale (2009) explored the lived experiences of 11 nurses who practiced self-Reiki by in-person interviews. Thematic category clusters surfaced with the study findings being consistent with the emerging literature that sees Reiki as "a part of holistic nursing practice . . . inducing the calmness needed to stay focused in stress-filled environments and enhance inner resources" (p. 137).

Study Rationale

Stress is prevalent in the nursing profession, and stress has the potential to interfere with the RN's ability to provide optimum patient care. It is desirable for the RN to identify and practice stress-reducing techniques, and Reiki provides such a method of stress reduction. The purpose of the study is to assess the impact of Reiki education, training, and practice on work-related stress of the RN. The hypothesis is that Reiki education, training, and practice will reduce work-related stress in the RN.

Inclusion/Exclusion Criteria

RNs enrolled in Reiki I classes at this large metropolitan hospital were eligible to participate in the study. The following candidates that were to be excluded from the study: (a) anyone experiencing major life changes within

6 months, that is, birth, death of close family member, relocation, job change, and so on, prior to taking Reiki I and/or during the 21-day self-Reiki practice time period and (b) those who received Reiki from another practitioner 6 months prior to class and/or during the 21-day self-Reiki period after the Reiki I class.

Recruitment/Consent Procedures/ Methodology

The goal was to recruit 30 RNs enrolled in Reiki I classes who agreed to participate in the study prior to the Reiki I class presentation. A total of 26 nurses agreed to participate in the study. Written informed consent was obtained by a nurse educator, who was not a supervisor of the participants, to prevent coercion. Further possible coercion was minimized by assuring that none of the Reiki Master Teachers were in any supervisory role with RNs taking the Reiki I class. All aspects of the informed consent were explained to the participants and confidentiality was maintained as specified in the informed consent.

A demographic data questionnaire and Cohen's Perceived Stress Scale (PSS) were completed by study participants. The PSS (see Figure 1) is the most widely used psychological instrument for measuring the perception of stress. According to Cohen, Kamarck, and Mermelstein (1983),

The PSS is a brief and easy-to-administer measure of the degree to which situations in one's life are appraised as stressful. It has been proven to have substantial reliability and validity; thus it provides a potential tool for examining issues about the role of appraised stress levels in the etiology of disease and behavioral disorders. (p. 394)

A coefficient α reliability of .78 is reported; there is an extensive discussion of the validity of the PSS in the cited article by Cohen et al. (1983), "A Global Measure of Perceived Stress." A 10-item instrument, the PSS employs a Likert-type scale with questions of a general nature, relatively free of content specific to any subpopulation group. In this study, the questions were asked related to feelings and thoughts in the work environment; each question was prefaced with "How often in the past three weeks . . ." Sheldon Cohen, the tool's creator, approved changing the time frame from 1 month to 3 weeks and stated that this change does not interfere with the tool's validity and/or reliability.

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last three weeks at work. In each case, please indicate with a check how often you felt or thought a certain way.

1. In the last three weeks, how often have you been upset because of something that happened unexpectedly?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
2. In the last three weeks, how often have you felt that you were unable to control the important things in your life?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
3. In the last three weeks, how often have you felt nervous and "stressed"?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
4. In the last three weeks, how often have you felt confident about your ability to handle your personal problems?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
5. In the last three weeks, how often have you felt that things were going your way?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
6. In the last three weeks, how often have you found that you could not cope with all the things that you had to do?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
7. In the last three weeks, how often have you been able to control irritations in your life?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
8. In the last three weeks, how often have you felt that you were on top of things?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
9. In the last three weeks, how often have you been angered because of things that were outside of your control?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often
10. In the last three weeks, how often have you felt difficulties were piling up so high that you could not overcome them?
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

Figure 1. Sheldon Cohen Perceived Stress Scale (Adaptation)

Note: Reprinted with permission from the American Sociological Association.

The nurse educator also distributed the 21-day record for self-Reiki practice and provided instructions for its completion. To protect against coercion, the class participants were instructed to simply return the invitational letter and write "no" if they chose not to participate. When obtaining informed consent, participants were told that they would receive a small inspirational gift (value \$3.00) via hospital interoffice mail for participating in the study once they had returned the follow-up materials and self-Reiki diary.

The PSS and a self-addressed, stamped, return envelope were mailed to participants at the end of the 21-day postclass period. An additional form was also mailed, asking if the participant had experienced any major life changes, if they had received any Reiki sessions from others, and/or received/practiced any integrative therapies in the past 21 days. The term *integrative therapies* rather than *complementary/alternative*

therapies (CAM) was used in the questionnaires. AHNA (2010) defines CAM as therapies that supplement conventional medical care. For the purposes of this study the terms *CAM* and *integrative therapies* are used interchangeably. The follow-up questionnaire listed the following options for integrative therapies other than Reiki that participants may have experienced: massage, reflexology, meditation, yoga, and acupuncture; they were also able to specify "other" therapies that may not have been listed. The participants were contacted by phone to remind them to return the questionnaire at the appropriate time.

Procedure

The study proposal was submitted to and approved by the medical center's institutional review board.

Participants received information about the study and an invitational letter to participate in the study immediately prior to the class. Once informed consent was obtained, they completed an 11-item demographic form and the 10-item PSS. They attended the Reiki I continuing education program, which included information about Reiki I, as outlined in a content objective/outline format; the 8-hour session was held in a nursing classroom at the medical center.

All instructors had been educated as Reiki Master Teachers at that institution. Each Reiki Master Teacher received a handbook that was compiled by this group to standardize teaching content and materials. The handbook contains class content outline and objectives, PowerPoint slides for class, handout materials, and guidelines for performing attunements, self-Reiki, seated Reiki, and lying Reiki treatments. Each instructor had a handbook to refer to when teaching classes in this institution. Using the handbook helped insure consistency of material presented.

As part of the class, each participant received a Reiki I attunement from the Reiki Master Teachers. As noted, this procedure is standardized in the Reiki Master Teacher handbook; it takes approximately 5 to 10 minutes per student. Reiki attunement is a form of initiation that opens the student to a higher energy vibration and gives them the ability to channel Reiki energy (Paul, 2006). During the attunement, the student sits in a chair with feet on the ground. The Reiki Master Teacher administers the attunement by standing behind the student and moving to the front of the student, while contacting his or her head and hands at intervals during the process. Relaxing music was played during the process. No words are spoken during the attunement.

Each participant was provided with detailed handouts that outlined information provided in class as well as instructions for continued practice. They provided and received a Reiki treatment to and from fellow students. The self-Reiki technique was also demonstrated by the instructors and the students practiced it in class; in addition, each participant received a handout with positions and guidelines for performing self-Reiki at home. As stated, they were asked to perform 10 to 15 minutes of self-Reiki daily. As explained by Paul (2006), "Chakra is an Indian Sanskrit word that means spinning wheel of energy, vortex or energy center. The human body has multiple chakras . . . Seven major chakras have been identified" (pp. 35-36). The self-Reiki treatment involves placing your hands at each major chakra point on the body: atop the head (crown

chakra); over the eyes, then over the ears, then over the back of the head (third eye or brow chakra); over the throat, then over the cervical area on the back (throat chakra); over the sternum/upper chest, front, and then back (heart chakra); over the area between the sternum and umbilicus area, front, and then back (solar plexus chakra); over the lower abdomen area, front, and then back (sacral chakra); and over both groins, then over the coccyx (root chakra; Paul, 2006). A self-Reiki diary was given to each participant, and they were instructed to practice self-Reiki as outlined in the handouts for a period of 21 days. In the diary, they recorded the length of time they practiced self-Reiki and included any pertinent comments about the treatment.

As stated, data were collected prior to class to assess the RN's baseline stress level and was reassessed after 21 days of self-Reiki practice. This time frame was based on the experiences of Mikao Usui (1865-1926), who developed the Usui method of Reiki practice. It is said that Mikao Usui went into 21-day retreat of fasting, prayer, and meditation (Haberly, 1990). During this time, he received a Reiki healing, became enlightened, and saw the Reiki symbols for the first time. It is recommended that students learning Reiki I practice self-Reiki for a 21-day clearing cycle following their first class and Reiki attunement. Participants were asked not to discuss their Reiki practice and experiences with each other during the 21-day period of self-Reiki.

At the end of 21 days, they were mailed an envelope containing the perceived stress scale, an instructional letter, a three-item questionnaire and a self-addressed, stamped, return envelope. The questionnaire contained questions requiring "yes" or "no" answers about experiencing major life stressors and receiving Reiki and/or integrative therapies during the 21 days. They also received reminder call(s) from the nurse educator to request that they complete and return study forms. They received no more than three reminder calls to complete and return the forms. At home, the participant completed the perceived stress scale, a 21-day diary of self-Reiki, and the three-item follow-up questionnaire.

Potential Risks/Discomfort

Reiki has the potential to create a profound state of relaxation. Sometimes, issues or concerns that have been masked or inhibited may surface. This may cause anxiety

or discomfort for the participant. Emotional release, such as crying, may occur (Paul, 2006). Other potential risks do exist: mild headache, diarrhea, nausea, temporary skin rash, a runny nose and cold symptoms, or excessive perspiration. These side effects are the body's way of detoxifying (Haberly, 1990; Stein, 1996). Per anecdotal reports these side effects are mild and brief.

If adverse reactions were noted in class, the instructor was to insure that the student was not experiencing anxiety or discomfort when he or she was ready to leave class. If any adverse effects still existed at the end of class, the instructor would assess the student, and if indicated, direct the student to the hospital's emergency department for optional evaluation and treatment. If the student needed emotional follow-up, he or she would be referred to the hospital's Employee Assistance Program. If the student expressed any unpleasant reactions or symptoms during the 21-day self-Reiki practice, he or she would be encouraged to contact a Reiki Master Teacher and/or the hospital's Employee Assistance Program.

Potential Benefits

Reiki is a healing practice and the benefits generally outweigh the risks. The following benefits have been reported in the literature as a result of receiving Reiki: decreased pain and/or anxiety (Delal, 2003; Miles & True, 2003; Moore, 2005), decreased blood pressure, decreased muscle tension, increased immune responsiveness (Wardell & Engebretson, 2001), strengthened immune system and accelerated healing (Moore, 2005), decreased pain and improved sleep patterns (Chapman & Milton, 2002; Delal, 2003), and relief of symptoms of depression and stress (Delal, 2003; Shore, 2004).

An RN who is less stressed, which is a potential benefit of Reiki practice, is better able to provide optimum care to patients. In addition, RNs who practice Reiki for their patients can offer the benefits listed above to their patients. Increased patient satisfaction resulting from Reiki has also been documented in the literature (Andrus et al., 2006; Moore, 2005). RN Reiki practice could have positive implications for RN and patient care universally.

Data Analysis

For demographic data, means, standard deviations, and ranges are reported for continuous variables, and

Ns (%) are reported for categorical variables. The PSS score was obtained by reversing the scores on the four positive items, for example, 0 = 4, 1 = 3, 2 = 2, and so on, and then summing across all 10 items. Items 4, 5, 7, and 8 are the positively stated items. One nurse who completed the PSS at follow-up did not fill in one of the items. In this case, the mean of the other items (appropriately accounting for the reverse scoring) was imputed for the missing item prior to calculating the PSS-10 score. Higher test scores imply higher stress. A copy of the perceived stress tool is shown in Figure 1. Changes in the PSS from baseline to Week 3 were assessed using the Wilcoxon signed rank test. Medians are also reported when using the Wilcoxon. The Wilcoxon signed rank is a commonly used nonparametric method that can be applied to continuous or ordinal data and is appropriate for the total PSS scale used as an outcome for this study. Because of small sample sizes and possible nonnormality, it was chosen to use this nonparametric approach, rather than using a parametric analysis such as the paired *t* test. Statistical significance was based on a .05 level of significance. All analyses were performed using SAS, Version 9.1.

Results/Discussion of Findings

A total of 26 nurses (24 female and 2 male) completed the baseline PSS with 17 (65%) completing the follow-up PSS. Baseline and follow-up characteristics of the nurses can be found in Tables 1 and 2, respectively. The mean age of the nurses was 44.6 years, the mean years practicing nursing was 19, and the mean hours worked per week was 26. The study sample appears to represent an experienced nursing population that has dealt with the typical nursing stressors on a regular basis. The most predominant areas of practice were maternal/child nursing, intensive care unit nursing, PACU (postanesthesia care unit) nursing, medical nursing, and other practice areas not specified.

Of the 17 nurses completing follow-up, there was a statistically significant mean 5.9 point decrease (median decrease of 7 points) in the PSS score from baseline to follow-up ($p = .0063$ based on the Wilcoxon signed rank test). 82% of the nurses (14/17) had decreases in PSS. As seen in Table 3, the mean baseline and follow-up PSS scores for these nurses were 17.9 and 12.0, respectively. Changes in the PSS ranged from a decrease of 18 points to an increase of 10 points, with most of the nurses (14 out of 17) having decreases in PSS.

Table 1. Distribution of Nursing Characteristics at Baseline^a

	N	Mean	SD	Range
Age	19	44.6	12.2	25-67
Years in nursing	21	19.1	12.3	1-48
Hours per week worked as a nurse	26	34.1	6.5	24-48
PSS baseline score	26	17.2	4.8	7-26
	N	%		
Gender				
Female	24	92.3		
Male	2	7.7		
Degree				
Diploma	5	19.2		
Associates	8	30.8		
BSN	11	42.3		
MS	1	3.9		
Missing	1	3.9		
Area of nursing practice				
Outpatient clinic	1	3.9		
Maternal/child	6	23.1		
ICU	5	19.2		
Pediatrics	2	7.7		
PACU	5	19.2		
Rehabilitation	1	3.9		
Medical floor	4	15.4		
Surgical	1	3.9		
Other	7	26.9		
Ethnic background				
White	21	80.8		
African American	1	3.9		
Other	3	11.5		
Missing	1	3.9		
Major life stressor in past 6 months	5	19.2		
Reiki treatment in past 6 months	1	3.9		
Regular engagement in integrative therapy	8	30.8		
Integrative therapy				
Massage	2	7.7		
Meditation	3	11.5		
Yoga	5	19.2		
Acupuncture	2	7.7		
Other	4	15.4		
Integrative care education				
Reiki	1	3.9		
Meditation	2	7.7		
Reflexology	1	3.9		
Other	2	7.7		

Note: PSS = Perceived Stress Scale; ICU = intensive care unit; PACU = postanesthesia care unit.

a. Out of 26 nurses.

Table 4 includes self-Reiki diary comments, which demonstrate examples of clinically significant changes, supporting the 5.9 point decrease in PSS scores, the most common of which included slept better/well; fell

Table 2. Distribution of Nursing Characteristics at Follow-Up^a

	N	%
Major life stressor in past 6 months	1	5.9
Reiki treatment in past 3 weeks (other than self-Reiki)	3	17.7
Engaged in or received integrative therapy in past 3 weeks	6	35.3
Integrative therapy (past 3 weeks)		
Massage	1	5.9
Meditation	2	11.8
Yoga	5	29.4
Acupuncture	1	5.9
Other	1	5.9

a. Out of 17 nurses completing follow-up.

Table 3. Distribution of the Perceived Stress Scale (PSS) Score Among Nurses Completing Follow-Up (N = 17)

	Mean	Median	SD	Range
Baseline	17.9	18.0	4.9	10-26
Week 3	12.0	11.0	6.2	4-28
Change from baseline to Week 3*	-5.9	-7.0	7.2	-18-10

* $p = .0063$, based on the Wilcoxon signed rank.

asleep (22); felt relaxed, calm, peaceful (19); felt warm/hot (13). As cited in the literature review, these comments support and reinforce reported benefits of Reiki.

As stated, 17 nurses completed follow-up and 9 nurses did not. Nurses who completed follow-up were slightly more likely to be non-Hispanic White than non-completers (88% vs. 67%). On average, completers were also slightly younger (43 vs. 48 years), had less experience in nursing (18 vs. 22 years) and worked fewer hours per week (33 vs. 36 hours) than noncompleters. Nurses who completed follow-up were also slightly more likely to have participated in or received education in other integrative therapies than noncompleters. In other respects, completers and noncompleters were quite similar. When designing a future trial, it might be beneficial to do focus groups with nurses from a variety of backgrounds.

Possible reasons for attrition are based on speculation: Participants did not practice self-Reiki during the 21-day period and/or did not complete the self-Reiki diary, no effects noted by participants practicing self-Reiki, lack of interest, misplacing the self-Reiki or follow-up questionnaire forms. Potential ways to improve return of follow-up data in the future would be to stress

Table 4. Reiki Self-Diary Comments

Comment	Frequency	Comment	Frequency
Cold	3	Eased headache	1
Warm/hot	13	Unable to relieve headache	1
Relaxed, calm, peaceful	19	Energy over temples/eyes	2
Slept better/well, fell asleep	22	Better PMS	1
Saw color	1	More confident	1
Foot numb	1	Anxious after, felt rushed	2

Note: PMS = premenstrual syndrome.

Table 5. Distribution of the Perceived Stress Scale (PSS) Score Among Nurses Completing Follow-up ($N = 14$) Inclusion/Exclusion Criteria Violators Have Been Removed

	Mean	Median	SD	Range
Baseline	16.9	17.0	4.5	10-24
Week 3	11.3	11.5	5.1	4-24
Change from baseline to Week 3*	-5.6	-7.5	6.7	-14-10

* $p = .0127$, based on the Wilcoxon signed rank.

the importance of returning the diaries and questionnaires regardless of the consistency of practice, effects of self-Reiki, and/or consistency of recording data to support the strength of the research study.

The original plan was to exclude participants with major life stressors to eliminate confounding factors from other sources of stress not related to the work environment. It was thought that these candidates' baseline increased stress level would challenge the effects of Reiki. This was not found to be true: The nurse with the 18-point decrease had had a major life stressor within 6 months of baseline but reported performing self-Reiki on all 21 days of follow-up for approximately 30 minutes per day. The nurse with the 10-point increase in PSS score did not report any self-Reiki during the follow-up period (this information was missing). The mean baseline PSS score for the nine nurses who did not complete follow-up was just slightly lower than the mean for those completing follow-up (15.7 vs. 17.9). These results seem to indicate that the more self-Reiki was performed, regardless of the degree of reported stress of the participant, the more effective self-Reiki is in supporting stress reduction.

There were six nurses who were included in the study who did not meet the inclusion/exclusion criteria. These included five nurses who indicated a major stressor within 6 months of baseline and one nurse who had a

Reiki treatment within 6 months of baseline. Excluding these nurses from the analysis did not change the conclusions of the study (see Table 5). (Note that only three of these nurses had follow-up information.)

Eight nurses were engaged in some form of integrative therapy prior to the study, and six reported integrative therapy experiences in the 3-week period of self-Reiki. One might think that these nurses were more receptive to integrative therapies and would register a more significant decrease in stress. Subgroup analyses were conducted on those nurses who performed regular integrative therapy at baseline and nurses who were highly compliant with the self-Reiki (defined as performing self-Reiki at least 15 out of 21 days for at least 10 minutes per day) or had low compliance with self-Reiki. As seen in Table 6, the change in PSS for nurses performing regular integrative therapy at baseline was similar to the overall change in PSS (5.3-unit decrease). However, nurses who were highly compliant with self-Reiki had a larger mean decrease in PSS of 8.8 points (median of 12 points, $p = .0469$), whereas those who had low compliance had a smaller, nonsignificant decrease (mean of 3.8 points, median of 6.5 points).

One instance of discomfort occurred after the attunement process, when the students give Reiki to each other. The recipient's face became reddened, and the person sat up from a lying position on the treatment table, reporting feeling their heart racing. The instructor went to this student, held the person's feet, and offered reassurance. After a few minutes, the student felt better and took a break from receiving Reiki. The instructors talked with the student, sharing an excerpt from a Reiki book that describes emotional release/healing occurring in some cases during a Reiki class/attunement. The student expressed gratitude for the information, finished the class without further discomfort, and was able to provide Reiki for another student that same afternoon. The Reiki teachers were not contacted by this student regarding any residual adverse effects from the Reiki class.

Table 6. Distribution of the Perceived Stress Scale (PSS) Score Among Nurses Completing Follow-Up Subgroup Analyses

	Mean	Median	SD	Range
Nurses performing regular integrative therapy (N = 6)				
Baseline	15.7	15.5	4.6	10-23
Week 3	10.3	10.5	5.0	4-16
Change from baseline to Week 3	-5.3	-6.5	5.2	-12-3
Highly compliant nurses' self-Reiki (N = 7)				
Baseline	18.7	18.0	5.6	10-26
Week 3	9.9	8.0	4.0	4-16
Change from baseline to Week 3*	-8.8	-12.0	7.3	-18-3
Low-compliance nurses' self-Reiki (N = 10)				
Baseline	17.4	18.0	4.5	11-24
Week 3	13.6	11.5	7.1	6-28
Change from baseline to Week 3	-3.8	-6.5	6.7	-12-10

* $p = .0469$, based on the Wilcoxon signed rank.

Study Limitations

The small sample size of 26 with returns from 17 participants was a study limitation. The exclusion criteria for those who had received Reiki and/or experienced a major life change in the previous 6 months decreased the number of those who elected not to participate in the study. However, as noted, the six nurses who disregarded the exclusion criteria and participated in the study did not appear to change the overall conclusions.

There was no control group for this pilot study, so any observed effects may not be because of Reiki alone; because there is a "placebo effect" to almost any intervention investigated, this may have influenced the study results indicating the positive effects of self-Reiki practice. The study was conducted at a single site and may not be generalizable to other institutions or hospitals.

Conclusions

Data from this small pilot study support educating nurses about Reiki practice to decrease work-related stress. In this study, the more often nurses practiced Reiki, the higher the stress reduction scores.

Implications for Nursing Practice and Further Study

Because self-Reiki practice has been shown to reduce work-related stress for the RN, Reiki education and practice should be supported. Reiki has the potential to reduce nurses' stress in other settings as well. It has been documented in the literature that nurses who

practice Reiki for themselves and their patients report reduced stress, so that Reiki has the potential to have positive effects not only for nursing staff but also for patients.

Further research is clearly warranted. Performing a larger confirmatory, randomized controlled study comparing the effects of practicing self-Reiki with the absence of practicing self-Reiki on work-related stress would be an important next step. The use of a wait-list control and multiple sites are also under consideration. Other possible areas for future research include (a) examining the effects of Reiki on RN recruitment and retention, in addition to measuring perceived work-related stress; and (b) measuring patient satisfaction on nursing units where nurses practice self-Reiki as well as providing Reiki for their patients.

References

- American Holistic Nurses Association. (2010). *Position statement on the role of nurses in the practice of complementary and alternative therapies*. Retrieved from <http://www.ahna.org/Resources/Publications/PositionStatements/tabid/1926/Default.aspx#P1>
- Andrus, V., Shanahan, M., & Assi, M. J. (2006). Enrich the professional practice environment for RNs. *Beginnings (American Holistic Nurses Association)*, 26(5), 10-11.
- Barclay, L. (2006). Retaining older nurses in hospital practice: A newsmaker interview with Barbara Hatcher, Ph.D, R.N., M.P.H. *Medscape Medical News*. Retrieved from www.medscape.com/viewarticle/537115
- Beaudoin, L. E., & Edgar, L. (2003). Hassles: Their importance to nurses' quality of work life. *Nursing Economics*, 21, 106-113.

- Chapman, E., & Milton, G. (2002). *Reiki as an intervention in drug and alcohol withdrawal and rehabilitation, almost a decade of experience*. Paper presented at the 21st World Conference of the World Federation of Therapeutic Communities, Melbourne, Victoria, Australia.
- Coates, K. (2001, May). Healing touch: Practitioners of Reiki harness human energy to restore body's balance. *Nurse-Week*. Retrieved from <http://www.nurseweek.com/news/features/01-05/reiki.html>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.
- Delal, H. (2003, November). Healing through Reiki. *ADVANCE for Nurse Practitioners*. Retrieved from <http://nurse-practitioners.advanceweb.com/Article/Healing-Through-Reiki.aspx>
- Gallob, R. (2003). Reiki: A supportive therapy in nursing practice and self care of nurses. *Journal of the New York State Nurses Association*, 34(1), 9-13.
- Haberly, H. (1990). *Reiki: Hawayo Takata's story*. Olney, MD: Archedigm.
- Healy, C., & McKay, M. (2000). Identifying sources of stress and job satisfaction in the nursing environment. *Australian Journal of Advanced Nursing*, 17, 30-35.
- International Council of Nurses. (1899-2010). *Occupational stress and the threat to worker health*. Retrieved from http://www.icn.ch/images/stories/documents/publications/publications/fact_sheets/19h_FS-Occupational_Stress.pdf
- Long, L., Huntley, A., & Ernst, E. (2001). Which complementary and alternative therapies benefit which conditions? A survey of the opinions of 223 professional organizations. *Complementary Therapies in Medicine*, 9, 178-185.
- MacKay, N., Hansen, S., & McFarlane, O. (2004). Autonomic nervous system changes during Reiki treatment: A preliminary study. *Journal of Alternative and Complementary Therapies*, 10, 1077-1081.
- Mariano, C. (2007). The nursing shortage: Is stress management the answer? *Beginnings (American Holistic Nurses Association)*, 27(1), 3.
- McVicar, A. (2003). Workplace stress in nursing: A literature review. *Journal of Advanced Nursing*, 44, 633-642.
- Miles, P., & True, G. (2003). Reiki-review of a biofield therapy history, theory, practice, and research. *Alternative Therapies*, 9, 62-71.
- Milliken, T., Clements, P., & Tillman, H. (2007). The impact of stress management on nursing productivity and retention. *Nursing Economics*, 25, 203-210.
- Moore, A. (2005). Reiki energy medicine: Enhancing the healing process. *Integrative Medicine Quarterly News*, 2, 1-5. Retrieved from <http://www.harthosp.org/IntMed/pdf/ReikiEnergyMedicine.pdf>
- Paul, N. (2006). *Reiki for dummies*. Hoboken, NJ: Wiley.
- Ross, C. (2008). *Literature review for nursing stress interventions*. Retrieved from <http://ezinearticles.com/?Literature-Review-For-Nursing-Stress-Interventions&id=1534683>
- Shirey, M. R. (2006). Stress and coping in nurse manager: Two decades of research. *Nursing Economics*, 24, 193-203.
- Shore, A. G. (2004). Long-term effects of energetic healing on symptoms of psychological depression and self-perceived stress. *Alternative Therapies Health and Medicine*, 10(3), 42-48.
- Stein, D. (1996). *Essential Reiki*. Sydney, New South Wales, Australia: Crossing Press.
- Stowkowski, L. (2008). Old, but not out: The aging nurse in today's workplace. *Medscape Nurses*. Retrieved from <http://www.medscape.com/viewarticle/585454>
- Taylor, A. G. (2006). One nurse's vision for research in CAM energy modalities. *Beginnings (American Holistic Nurses Association)*, 26(5), 16-17.
- University of Minnesota, Center for Spirituality and Healing and Life Science Foundation. (2009). *What does the research say about Reiki?* Retrieved from <http://www.takingcharge.csh.umn.edu/explore-healing-practices/reiki/what-does-research-say-about-reiki>
- Vitale, A. (2007). An integrative review of Reiki touch therapy research. *Holistic Nursing Practice*, 21, 167-179.
- Vitale, A. (2009). Nurses' lived experiences of Reiki for self-care. *Holistic Nursing Practice*, 23, 129-145.
- Wardell, D. W., & Engebretson, J. (2001). Biological correlates of Reiki touch healing. *Journal of Advanced Nursing*, 33, 439-445.
- Whelan, K. M., & Wishnia, G. S. (2003). Reiki therapy: The benefits to a nurse/Reiki practitioner. *Holistic Nursing Practice*, 17, 209-217.
- Zahourek, R. (2006). What is holistic nursing research? Is it different? *Beginnings (American Holistic Nurses Association)*, 26(5), 4-6.
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