





## Mental Health Wellness and Biofield Therapies: An Integrative Review

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### ABSTRACT

Biofield therapies such as Healing Touch and Reiki increase relaxation, decrease anxiety and stress, and improve mood. Understanding the efficacy of these therapies in terms of mental health wellness is important for nurses interested in complementary and integrative care. The goal of the present integrative review was to investigate the state of knowledge regarding biofield therapies and the impact on anxiety, mood, and mental health wellness. Electronic databases were searched for articles available in English and published from 2014 to 2016. Biofield therapies show safety and promise in reducing anxiety, improving mood, and cultivating mental health and wellness.

### Introduction

Wellness is defined as an integration of the aspects of being human—the physical, emotional, mental, spiritual, social, occupational, and environmental dimensions of self (Roscoe, 2009). Caretaking for each aspect of wellness strengthens our overall health. The World Health Organization (WHO, 1995, 2013) shares that overall health is an experience of harmony between our physical body, mind, and connection to society, with no sense of illness or disorder.

Mental health is a key component of health. When symptoms affect cognitive thoughts, affective emotions, and physical behaviors, the consequences can be impairment of healthy human functioning and psychological distress, which if clinically significant, can become a mental disorder (Department of Health and Human Services [DHHS], 2016; VandenBos, 2007; WHO, 2016). Mental health disorders have a negative impact on other aspects of wellness and, consequently, everyday life. Conversely, good mental health supports living in balance, which positively influences behaviors, regulates emotions, supports healthy relationships and coping skills with minimal signs or symptoms of distress (DHHS, 2016; VandenBos, 2007; WHO, 2016).

### Mind-body approaches

Intrinsic to mental health is the mind-body connection. Mind-body practices are a part of the complementary and integrative approaches used by over a third of adults in the United States and nearly 12% of children between the ages of 4 and 17 (Black, Clarke, Barnes, Stussman, & Nahin, 2015; Clarke, Black, Stussman, Barnes, & Nahin, 2015). These practices are used to help with symptom management, treatment of a variety of chronic health conditions including depression, anxiety (Burnett-

Zeigler, Schuette, Victorson, & Wisner, 2016), health recovery, and cultivating wellness (Black et al., 2015; Burnett-Zeigler et al., 2016; Clarke et al., 2015).

### Biofield therapies

Biofield therapies are among the mind-body approaches cited by the National Institutes of Health (NCCIH, 2016). The biofield is thought to originate from within the human body while simultaneously encompassing and interpenetrating the physical, emotional, mental, and spiritual aspects of holistic health (Jain et al., 2015). The biofield as an energetic field central to the healing process and return to wellness is a foundational principle of therapies such as Healing Touch and Reiki (Aghabati, Mohammadi, & Esmail, 2010). The biofield either flows freely or has a compromised flow depending upon the health of the individual. A person who is healthy and well presents with a smooth, uniform, evenly shaped biofield that is in constant motion, while a person who is unhealthy presents with an unevenly shaped biofield that is flowing inconsistently (Jackson et al., 2008; Kemper, Fletcher, Hamilton, & McLean, 2009; Peters, 1999). Consequently, assisting a person in self-healing and cultivating a return to health and wellness becomes the primary aim of a biofield therapy treatment.

Biofield therapies have been studied in relation to cancer and its symptoms (Anderson & Taylor, 2011; Bardia, Barton, Prokop, Bauer, & Moynihan, 2006; Coakley & Barron, 2012; Cotton, Luberto, Boganschutz, Pelley, & Dusek, 2014; Gonella, Garrino, & Dimonte, 2014; Mansky & Wallerstedt, 2006; Olson, Hanson, & Michaud, 2003; Pierce, 2007; Potter, 2013; Running & Seright, 2012; Sood, Barton, Bauer, & Loprinzi, 2007), and have demonstrated positive impacts on aspects of dementia such as decreases in agitation (Hawranik, Johnston, & Deatrich, 2008) and cortisol levels in saliva (Wang & Hermann, 2006; Woods &

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Dimond, 2002), lowered stress and increased cognitive response (McEwen, 2006; Uchida, Iha, Yamaoka, Nitta, & Sugano, 2012). Also, effects that demonstrate the impact of biofield therapies on the mind and body have emerged through understanding the physiological pathways and cellular mechanisms affected by these therapies (Anekonda & Quinn, 2011; Kiang, Ives, & Jonas, 2005; Kiang, Marotta, Wirkus, & Jonas, 2002; Yan et al., 2004).

Healing Touch is biofield therapy that is non-invasive, gentle, and supports the natural healing ability of the body (Anderson et al., 2016; Eschiti, 2007; Jain & Mills, 2010; Swengros, Herbst, Friesen, Mangione, & Anderson, 2014). Healing Touch is endorsed by the American Holistic Nurses Association and was originally developed by a nurse, Janet Mentgen (Eschiti, 2007). The therapy began as a pilot program in 1989 and grew into a multi-level, standardized curriculum and continuing education program, originally in nursing, that is for any individual who has an interest in integrative approaches to health. Healing Touch research covers several areas that include symptom reduction (e.g., pain, stress, anxiety, fatigue, mood, and nausea) for patients with illnesses such as cancer (Aghabati et al., 2010; Coakley & Barron, 2012; Cook, Guerrerio, & Slater, 2004; Danhauer, Tooze, Holder, Miller, & Jesse, 2008; Kemper et al., 2009; Olson et al., 2003; Post-White et al., 2003; Wilkinson et al., 2002), cardiovascular disease (Krucoff et al., 2005; MacIntyre et al., 2008; Maville, Bowen, & Benham, 2008; Seskevich, Crater, Lane, & Krucoff, 2004), post-traumatic stress disorder (Collinge, Wentworth, & Sabo, 2005; Jain et al., 2012), and dementia (Lu, Hart, Lutgendorf, Oh, & Schilling, 2013).

Reiki is another non-invasive biofield therapy. Reiki techniques were developed by Mikai Usui to support holistic healing and health (Bossi, Ott, & DeCristofaro, 2008). The roots of Reiki emerged approximately 3,000 years ago in Tibetan Buddhist scriptures and returned to use in Japan in 1920 by Usui (Bossi, et al., 2008). Studies of the impact of Reiki on cancer have been noted (Marcus, Blazek-O'Neill, & Kopar, 2013) and the relaxation that occurs for both Healing Touch and Reiki are further elucidated with studies on the relaxation response and the relationship to the psychoneuroimmunological framework (Mackay, Hanson, & McFarlane, 2004; Taylor, Goehler, Galper, Innes, & Bourguignon, 2010). Healing Touch and Reiki have the added advantage of being non-invasive and working well for individuals who are unable to be touched whether by choice or because of the clinical environment.

The empirical research on Healing Touch and Reiki prior to 2014 points to efficacy in diminishing anxiety, improving mood, and supporting wellness. For example, Healing Touch studies addressing anxiety, mood, and mental aspects of quality of life (QoL) have demonstrated beneficial results (Jain et al., 2012; Kemper et al., 2009; Krucoff et al., 2001; Krucoff et al., 2005; Maville et al., 2008). Reiki improved relaxation, anxiety/worry, mood, attitude, loneliness/isolation in patients with cancer (Marcus et al., 2013). Anxiety has been shown to decrease in a variety of patient populations following Healing Touch (MacIntyre et al., 2008; Maville et al., 2008; Seskevich et al., 2004), and depressive symptoms were diminished in patients with cancer (Lutgendorf et al., 2010; Post-White et al., 2003), as well as active duty military diagnosed with PTSD (Jain et al., 2012).

## Purpose

Given the previous evidence, the aim of the present integrative review was to summarize the state of the science regarding the effects of Healing Touch and Reiki, in terms of anxiety, mood, and wellness with a special focus on mental health wellness. Whittemore and Knafl's (2005) updated method for integrative reviews was used to guide the literature review process and enhance understanding of the data.

## Methods

### Search strategy

A literature search was conducted using PubMed and Google Scholar using the following search strategy criteria: (a) the PubMed strategy included the primary keyword in the title and secondary keywords in the title/abstract; (b) the Google Scholar strategy included the primary keyword as an "exact phrase" and secondary keywords as "at least one" in the title. The primary keyword "Healing Touch" and an additional secondary keyword (anxiety, stress, mood, depression, depressive, depressed, depressing, sad, sadness, dysthymia, dysthymic, posttraumatic stress disorder, PTSD, mental health, mental, disorder, relaxation response, relaxation, resilience, resilient, resiliency, wellness, well-being, wellbeing, quality, biofield) were used. The primary keyword "Reiki" and an additional secondary keyword (anxiety, stress, mood, depression, depressive, depressed, depressing, sad, sadness, dysthymia, dysthymic, posttraumatic stress disorder, PTSD, mental health, mental, disorder, relaxation response, relaxation, resilience, resilient, resiliency, wellness, well-being, wellbeing, quality, biofield) were used. Articles were included if available in English and published between 2014–2016. The rationale for the date range and keyword list was to capture the most recent research related to anxiety, mood, and mental health wellness involving these two biofield therapies, which are commonly used by nurses in the clinical setting. Study designs included both qualitative and quantitative methodologies. Citations and patents were excluded in all searches. A total of 80 potential studies were located. After duplicates were eliminated and additional records identified through other sources were added, 56 articles were screened according to the inclusion and exclusion criteria described above, which left 43 articles that met eligibility. After full-text articles were assessed, 30 articles (11 Healing Touch and 19 Reiki) were identified and included in the integrative review as shown in Table 3 (Moher, Liberati, Tetzlaff, & Altman 2009).

### Evaluation and analysis

The information was evaluated and analyzed using a deductive-inductive approach (Patton, 2002) and followed a five-step process of data analysis that consisted of data reduction, data display, data comparison, conclusion drawing, and verification (Whittemore & Knafl, 2005). Further, the first author kept field notes throughout the integrative review process.

Initially, deduction occurred when the data were initially reduced to exclude duplicates with the remaining articles screened and reviewed for eligibility using the inclusion and

**Table 1.** Healing Touch and Mental Health Synthesis Matrix for Integrative Review 2014 to 2016.

| Author(s), date, keywords                                                  | Study design                                                                                                                                                    | Sample/setting                                                                                                        | Study aim                                                                                                                                            | Key findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Level of evidence |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Foley, et al., (2016)<br>Keyword: Anxiety, Relaxing                        | <i>Design:</i> Two-group, randomized pilot study<br>Quantitative                                                                                                | <i>Sample:</i> Adults post-operative surgical patients<br><i>Setting:</i> Hospital: Inpatient                         | To examine effects of Healing Touch (HT) on post-op pain, anxiety, blood pressure, and pulse rate.                                                   | <i>Key findings:</i> Sample size: 81<br>Study was on HT alone.<br>–Anxiety: Significant decrease with HT. No significance with TNC.<br>–Pain reduction: HT as effective as traditional nursing care (TNC)<br>–Narcotics: Trend toward a decrease in use with HT.<br>–HT is viable for anxiety reduction and may be helpful for pain reduction and narcotics use.                                                                                                                                                                                                                                                                                    | Level 2           |
| Goldberg, et al., (2016)<br>Keyword: Anxiety, Stress                       | <i>Design:</i> Randomized controlled pilot study (quasi-experimental, non-blinded, multivariate randomized design before and after treatment).<br>Quantitative. | <i>Sample:</i> Adult women undergoing a breast biopsy.<br>Out-patient clinic: Breast care management                  | To examine effects of Healing Touch (HT) on women                                                                                                    | <i>Key findings:</i> Sample size: 73 women: 42 in HT group, 31 in control group.<br>Study was on HT alone.<br>–State anxiety: statistically significant reduction, which continued the following day.<br>–Trait anxiety: significant change pre- to post with “a marginally significant change” the next day.<br>–Coping resources categories of Emotional and Spiritual/ Philosophical had significant changes.<br>–HT is helpful in reducing anxiety with this population.                                                                                                                                                                        | Level 2           |
| Anderson, et al., (2015)<br>Keyword: Anxiety                               | <i>Design:</i> Quasi-experimental.<br>Quantitative.                                                                                                             | <i>Sample:</i> Adults, post-surgical laparoscopic bariatric. Hospital.                                                | To examine feasibility and effects of Healing Touch (HT) for pain, nausea, and anxiety                                                               | <i>Key findings:</i> Sample size: 46: 21 for HT group, 25 control group<br>Study was on HT alone.<br>–Pain: significant reduction on days 1,2&3<br>–Nausea: significant reduction on days 1&2<br>–Anxiety: significant reduction on days 1,2&3<br>–HT is “feasible and acceptable” for this patient population.                                                                                                                                                                                                                                                                                                                                     | Level 3           |
| Marletta, et al., (2015)<br>Keyword: Anxiety, Quality—                     | <i>Design:</i> Systematic review                                                                                                                                | <i>Sample:</i> Studies on pain                                                                                        | To review Healing Touch (HT) studies and effects on pain                                                                                             | <i>Key findings:</i> Sample size: 14 studies<br>Review of HT studies<br>–HT had promising effects on pain, anxiety, fatigue, bio-chemical parameters in several studies. Limitations within these studies should be addressed when considering further research                                                                                                                                                                                                                                                                                                                                                                                     | Level 1           |
| Lincoln, et al., (2014)<br>Keyword: Anxiety                                | <i>Design:</i> Retrospective cohort analysis, historic cohort.<br>Quantitative.                                                                                 | <i>Sample:</i> Inpatient adults in orthopedic surgery, maternal care, hospice, and intensive care. Post-op. Hospital. | To explore whether “concomitant use of” Healing Touch (HT) & Healing Harp (HH) had a greater impact on pain, anxiety, nausea vs HT alone.            | <i>Key findings:</i> Final data set:<br>For Pain: HT = 1978; HT + HH = 37<br>For Anxiety: HT = 1129; HT + HH = 13<br>For Nausea: HT = 279; HT + HH = 4<br>Combo study: HT and HH together. Not HT alone.<br>–Inconclusive. Lack of clarity between whether HT or Harp.<br>–Study design has weakness. Lacks consistency in use of tech: Each HT + HH treatment changed to meet patient needs and treatment duration ranged between 20–30 minutes.<br>–Incomplete data sets.<br>–Study found HT & HH together significantly reduced moderate to severe pain, anxiety more than HT alone though results are to be “interpreted with extreme caution.” | Level 4           |
| FitzHenry, et al., (2014)<br>Keyword: Anxiety, Quality of life, Depression | <i>Design:</i> Randomized placebo-controlled.<br>Quantitative.                                                                                                  | <i>Sample:</i> Adults with breast cancer undergoing radiation therapy (RT). University RT clinic                      | Investigate the effect of Healing Touch (HT) on fatigue in breast cancer patients undergoing Radiation Therapy (RT)                                  | <i>Key findings:</i> Sample size: 44/41<br>Study on HT alone.<br>–Sham group had greater reduction in fatigue than HT group.<br>–HT did not have impact fatigue or QOL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Level 2           |
| Lu, et al., (2016)<br>Keyword: Mood, Well-being, Relaxation, Quality       | <i>Design:</i> Randomized prospective design.<br>Quantitative.                                                                                                  | <i>Sample:</i> Adult patients undergoing stem cell transplant (SCT). Hospital.                                        | To identify the feasibility and preliminary efficacy of utilizing Healing Touch (HT) and Relaxation Therapy (RT) with patients who have received SCT | <i>Key findings:</i> Sample size: 46: 13 HT, 13 RT, 20 historic patients who received usual care (UC)<br>Combo study: HT and RT. Not HT alone.<br>–3 groups: HT group, RT group, UC comparison group<br>–Psychological measures: improved with both HT and RT than UC                                                                                                                                                                                                                                                                                                                                                                               | Level 2           |

(Continue on next page)

Table 1. (Continued)

| Author(s), date, keywords                                          | Study design                                                                                    | Sample/setting                                                                                                                                                                                                                         | Study aim                                                                                                                             | Key findings                                                                                                                                                                                                                                                                                                                                                                                                                                  | Level of evidence |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
|                                                                    |                                                                                                 |                                                                                                                                                                                                                                        |                                                                                                                                       | –LOS: Shorter LOS with HT & RT but not significant and pertained to type of transplant. HT subjects discharged 2 days sooner on average<br>RT group discharged 1.5 days sooner than UC<br>–Feasibility:<br>HT: “more feasible and better tolerated”<br>RT: 60% completed and could “tolerate the intervention.” 40% left due to “active participation” needed for RT. For the 60%, clinical improvement in emotional and physical wellbeing   |                   |
| Anderson, et al., (2016)<br>Keyword: Well being                    | Design: Qualitative                                                                             | Sample: Focus groups of nurses. Hospital.                                                                                                                                                                                              | To examine nurse perceptions of Healing Touch (HT) training program at a multihospital health system                                  | <i>Key findings:</i> Study on HT alone.<br>5 themes identified:<br>–Benefit to patient<br>–Benefit to RN<br>–Holism beyond task orientation<br>–Integrating HT into acute care<br>–Barriers & challenges                                                                                                                                                                                                                                      | Level 5           |
| Berger, et al., (2016)<br>Keyword: Psychotherapy, Counseling       | Design: Qualitative                                                                             | Sample: Bereaved patients, Counselors, HT practitioners. Hospice bereavement center.                                                                                                                                                   | To develop theory regarding use of Healing Touch (HT) with counseling with bereaved population                                        | <i>Key findings:</i> Sample size: 13<br>Combo study: HT and counseling together.<br>–HT and counseling work well together as a model.<br>–Emerging themes: “trust, openness, intention, and spirituality within the holistic context”                                                                                                                                                                                                         | Level 5           |
| Ghiasuddin, et al., (2015)<br>Keyword: Distress                    | Design: Qualitative                                                                             | Sample: Children, pediatric oncology patients and their parents. Ethnic backgrounds: Largely “Asian American and/or Native Hawaiian or other Pacific Islander” with remainder “Hispanic, Samoan, Micronesian (Marshallese).” Hospital. | To examine ethnic and cultural characteristics of an ethnically diverse patient population and family reactions to Healing Touch (HT) | <i>Key findings:</i> Sample size: 9<br>Study on HT alone and was part of a larger study of HT with children. Keyword “distress” related to earlier study.<br>“Health related themes/values” identified:<br>1. “emphasis on family/clan”<br>2. “mind/body connection”<br>Conclusions: HT seemed to be accepted by the participants. Attitudes and beliefs for some but not all participants were centered within “traditional cultural values” | Level 5           |
| Running, A., & Hildreth, L. (2016)<br>Keyword: Stress [management] | Design: Quasi-experimental, single-group pretest-posttest design. Quantitative and qualitative. | Sample: Students aged 18–47 years. University library.                                                                                                                                                                                 | To examine impact of Healing Touch (HT) on stress. Replication study of McKay Method study.                                           | <i>Key findings:</i> Sample size:<br>Study on HT alone.<br>–Self-reported stress was significantly reduced after the bioenergy (Healing Touch) intervention                                                                                                                                                                                                                                                                                   | Level 3           |

exclusion criteria. Data display and data comparison occurred simultaneously. Data displays were created by arranging salient information logically extracted from top-level information within the existing framework of each article (author name, article title, type of study, location, population, study results) and placed into an organized format using a synthesis matrix for literature reviews as a guide as shown in Tables 1 and 2 (Johns, 2015). As data within each study were reviewed and compared, they were organized according to similar topics, themes and how the findings of each study related to anxiety, mood, and mental health wellness (Whittemore & Knafl, 2005). The matrices were completed by determining the logical level of evidence for each article (Melnik & Fineout-Overholt, 2011). Conclusion drawing happened organically as the data emerged into an organized whole. Data verification was accomplished by the first and second authors through independently cross-checking each topic and finding with the original article to ensure consistency, accuracy and then discussing the results for agreement.

## Results

Designs, populations, and sample sizes varied across the studies included. Healing Touch study designs included systematic reviews, randomized, quasi-experimental, retrospective cohort and qualitative research. Studies were largely conducted in hospital settings, which primarily explored different facets of cancer and cancer treatment, such as biopsy, stem-cell transplant, radiation therapy, and cultural characteristics of ethnically diverse peoples (FitzHenry et al., 2014; Ghiasuddin, Wong, & Siu, 2015; Goldberg et al., 2016; Lu, Hart, Lutgendorf, Oh, & Silverman, 2016), and post-operative measures (Anderson et al., 2015; Foley, Anderson, Mallea, Morrison, & Downey, 2016; Goldberg et al., 2016; Lincoln et al., 2014). Bereavement, nurse perceptions, and mixed populations of hospice, maternal care, and intensive care also were included (Anderson et al., 2016; Berger, Cheston, & Stewart-Sicking, 2016; Lincoln et al., 2014). Sample sizes ranged from 4 to 81 participants.



Table 2. Reiki and Mental Health Synthesis Matrix for Integrative Review 2014 to 2016.

| Author(s), date, keywords                                                                 | Study design                                                                                      | Sample/setting                                                                                             | Study aim                                                                                                                                                                                                                                | Key findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Level of evidence |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Thrane, et al., (2017)<br>Keyword: Anxiety, Relaxation                                    | Design: Pre-post mixed-methods single group pilot. Quantitative and qualitative                   | Sample: Children (7 to 16 y/o) receiving palliative care and their parents.<br>Setting: Homes of children. | To examine Reiki effect on pain, anxiety and relaxation. Examine whether Reiki is feasible and acceptable "feasibility, acceptability"                                                                                                   | <i>Key findings:</i> Sample size = 8 verbal children, 8 non-verbal children, 16 mothers, 1 nurse. Study was on Reiki alone.<br>Decrease in pain, anxiety, heart and respiratory rates:<br>Of note:<br>– Significant decrease for pain for non-verbal children in T1<br>– Significant decrease respiratory rate for verbal children in T2.<br>– No statistical significance because of small sample size.<br>– Complementary therapies, like Reiki, may be a favorable added therapy for pain and anxiety management.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level 3           |
| Kurebayashi, et al., (2016)<br>Keyword: Anxiety, Stress                                   | Design: Clinically controlled, randomized. Quantitative.                                          | Sample: Adult volunteers from ambulatory care and military personnel.<br>Setting: Out-patient services.    | To examine whether Massage and Reiki reduce stress and anxiety using 3 groups:<br>G1 = Massage + Rest Group,<br>G2 = Massage + Reiki,<br>G3 = Control Group without treatment                                                            | <i>Key findings:</i> Sample size = 101<br>Combo study on Massage & Reiki, not Reiki alone.<br>– Decrease in general stress (stress, anxiety, state, anxiety-trace):<br>– Statistically significant stress reduction in G2 and G3.<br>– Anxiety reduction in intervention groups G2 and G1 compared to control group G3.<br>– Group 2 (G2) had best results.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Level 2           |
| Rosenbaum & Velde (2016)<br>Keyword: Anxiety, Mood, Stress, Quality [of life], Well-Being | Design: Repeated measures analysis (ANOVA). Quantitative                                          | Sample: Patients with cancer. Setting: Cancer resource center.                                             | To examine impact of Yoga, Massage and Reiki on patients with cancer and their self-perception of subjective well-being, understand impact on "6 wellbeing outcomes (stress, pain, anxiety, mood, overall health, and quality of life)." | <i>Key findings:</i> Sample size: 150<br>Combo study was on Yoga, Massage and Reiki as 3 services available to patients.<br>– Yoga, Massage and Reiki were all seen to decrease anxiety and stress and improved mood, self-perception of "overall health and quality of life."<br>– Overall health: perceived health increase with all 3 therapies<br>– Perceived Quality of life: Increased<br>Reiki: Increase (7.3 mean)<br>– Massage: (7.92 mean score)<br>– Yoga: (7.94 mean score)<br>– Statistical significance<br>– Stress: Reiki, massage and yoga showed reduction in stress.<br>– Anxiety: Reiki, Massage and Yoga are "equally effective" ways to decrease anxiety<br>– Mood: Pre- & post scores = significant increase, interaction effect, not significant.<br>– Cancer pain reduction seen with Reiki "to a greater extent" when compared to Yoga and Massage.<br>– Pain: Decrease in pain with Reiki not Yoga or Massage.<br>– Center recommends reenrollment in Reiki for pain. | Level 3           |
| Bremner et al., (2016)<br>Keyword: Well-Being, Anxiety, Depression, Stress                | Design: Mixed method experimental design, randomized control trial. Quantitative and qualitative. | Sample: Adults with HIV. Setting: 2 HIV Clinics.                                                           | To examine the impact of Reiki as an additional therapy.                                                                                                                                                                                 | <i>Key findings:</i> Sample size: 37<br>Combo study was on Reiki with Music, not Reiki alone.<br>– 2 groups:<br>RMG = "Reiki with Music Group"<br>MOG = "Music Only Group"<br>– RMG:<br>Significant decreases in pain relief and stress<br>Significant decrease in state anxiety throughout study for RMG.<br>– Decrease in depression scores for both groups.<br>– In short, RMG helped to decrease stress, anxiety and depression.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level 2           |

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|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| DiScipio (2016)<br>Keyword: Relaxation,<br>Trauma, Anxiety,<br>Depression                                         | Design: Quasi-experimental.<br>Quantitative and qualitative.                      | Sample: Cancer survivors.<br>Setting: Yoga studio.                                 | To examine self-perception of relaxation resulting from Restorative Yoga combined with Reiki in a treatment session.       | <p><i>Key findings:</i> Sample size: 26<br/>Combo study was on Restorative Yoga (RY) with Reiki, not Reiki alone.<br/>— 2 groups:<br/>RY (7), RY and Reiki group (19)<br/>— Positive: Subjective perception of relaxation was higher for participant who scored high in “Meaning and Peace” which is related to wellbeing. Non-Reiki group had difficulty overcoming intrusive thoughts. Reiki group showed easier time in overcoming intrusive fearful thoughts.<br/>— Negative: Yoga: For some participants during the “restorative relaxation period” of Restorative Yoga was accompanied by anxious and/or depressive intrusive thoughts.<br/>— Reiki: Subjective perception of relaxation was greater for participants who received Reiki when compared to group who didn’t.<br/>— Clinical suggestions: Screen/treat first for mental-health issues especially “generalized and anticipatory anxiety ... depressive ideation linked to trauma of diagnosis of cancer.” “Trauma-like symptoms including intrusive thoughts linked to anxiety and depression before referral to complementary programs that offer meditative or relaxation interventions”</p> | Level/3 |
| Alarcão, et al., (2016)<br>Keyword: Quality [of life],<br>Well-being                                              | Design: Randomized control trial, cross-sectional design.<br>Quantitative.        | Sample: Adult patients with blood cancer.<br>Setting: Hospital.                    | To examine Reiki’s effect on quality of life (QoL) for this patient population, and to compare QoL between 2 study groups. | <p><i>Key findings:</i> Sample size at start 116, at end 100.<br/>Study was on Reiki alone.<br/>— 2 groups: True Reiki and Sham Reiki.<br/>— Statistically significant improvements in “general, physical, environmental, and social dimensions of the WHO QoL-Bref” with no statistical significance in psychological domain.<br/>— Reiki group: Unmarried men with higher level of education had higher life satisfaction versus those in Sham Reiki group.<br/>— Conclusion: Use of Reiki is safe and effective in domains of physical, social and environmental domains of WHO-QoL-Bref, which indicates increasing feelings of wellbeing and improves overall global QoL. This study resulted in Reiki’s use as a complementary therapy at this hospital for this population.</p>                                                                                                                                                                                                                                                                                                                                                                            | Level/2 |
| Siegel, et al., (2016)<br>Keyword: Well-being                                                                     | Design: Pilot: intentional, nonrandomized and non-probabilistic.<br>Quantitative. | Sample: Cancer patients undergoing chemotherapy. Setting: Hospital.                | To examine effects of Reiki on symptoms of “cancer and well-being.”                                                        | <p><i>Key findings:</i> Sample size: 50, 36 in Reiki group, 14 in comparison group formed after Reiki sessions.<br/>Study was part of a larger study. This study was on Reiki alone.<br/>— Reiki group:<br/>21 reported feeling better<br/>12 felt worse<br/>3 reported no change<br/>— Comparison group:<br/>6 patients reported feeling better<br/>8 felt worse<br/>— Reiki had clinically significant effects for over 50% of participants.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Level/3 |
| Kirschbaum et al., (2016)<br>Keyword: Anxiety, Stress,<br>Wellbeing, Relaxation,<br>Depression, Quality [of life] | Design: Qualitative study.                                                        | Sample: 10 women who received Reiki post cancer treatment.<br>Setting: Not stated. | To explore self-“perceptions and experiences” and determine “outcome measures for an intervention study.”                  | <p><i>Key findings:</i> Sample size: 10<br/>Study was on Reiki alone.<br/>4 themes:<br/>“1. Limited understanding of Reiki prior to receiving any Reiki<br/>2. Release of emotional strain during Reiki – feelings of a release of energy, a clearing of the mind from cancer, inner peace/relaxation, hope, a sense of being cared for<br/>3. Experience of physical sensations during Reiki, such as pain relief and tingling<br/>4. Physical, emotional and cognitive improvements after Reiki, such as improved sleep, a sense of calm and peace, reduced depression and improved self-confidence”</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Level/5 |

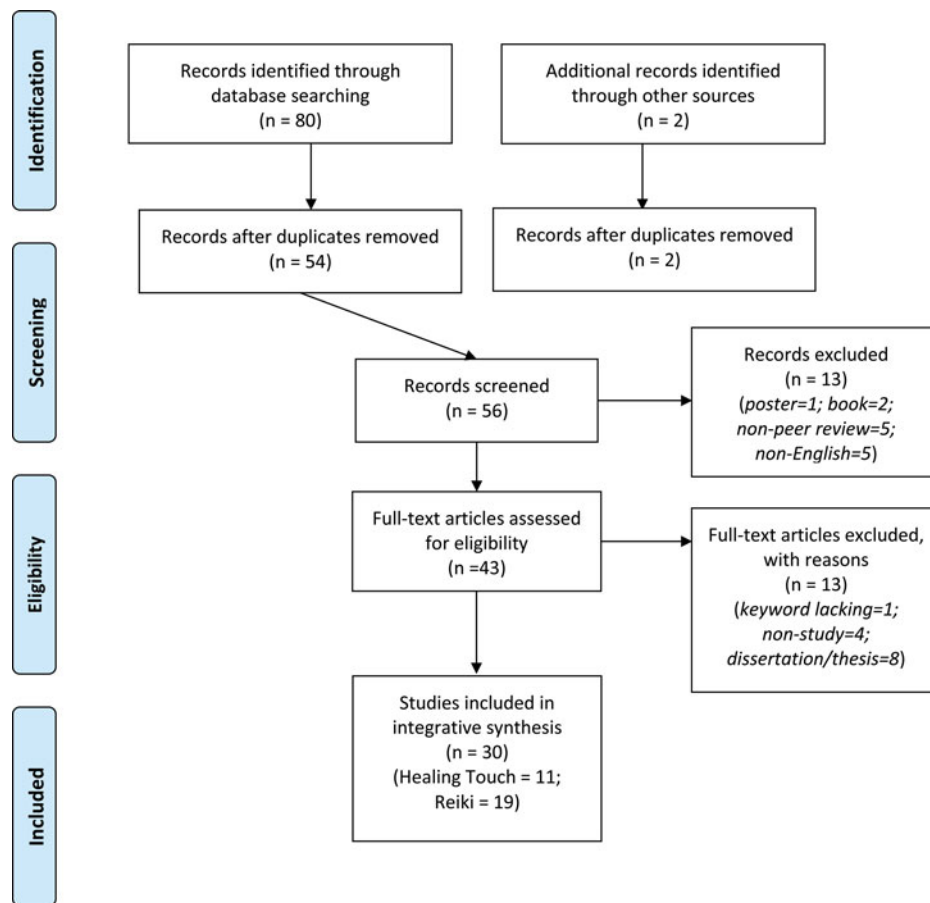
(Continue on next page)

Table 2. (Continued)

| Author(s), date, keywords                                         | Study design                                                                     | Sample/setting                                                                                                                     | Study aim                                                                                                                                                       | Key findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Level of evidence |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Demir, et al., (2015)<br>Keyword: Anxiety, Stress                 | Design: Randomized control trial.<br>Quantitative.                               | Sample: Cancer patients receiving chemotherapy. Adults, M & F. Setting: Institute.                                                 | To examine the impact of distant Reiki on pain, anxiety and fatigue.                                                                                            | <i>Key findings:</i> Sample size: 18<br>Study was on Reiki alone. Remote Reiki.<br>—Significant decrease in pain, stress, and fatigue.<br>—Reiki may help to diminish “pain, anxiety and fatigue.”                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Level 2           |
| Midilli & Eser (2015)<br>Keyword: Anxiety                         | Design: Randomized controlled clinical trial.<br>Quantitative.                   | Sample: Women who had cesarean delivery.<br>Setting: Hospital.                                                                     | To examine Reiki's impact on “pain, anxiety and hemodynamic parameters” on days 1 and 2 post operatively.                                                       | <i>Key findings:</i> Sample size: 100 at start, 90 at completion.<br>Study was on Reiki alone.<br>—Statistically significant reduction in pain intensity, anxiety, breathing rate and in time/number of analgesics needed, however, it did not affect BP or pulse rate.<br>—Reiki is suitable in reducing pain and anxiety for this population.                                                                                                                                                                                                                                                                                                       | Level 2           |
| Rosada et al., (2015)<br>Keyword: Stress, mental, mental health   | Design: Repeated-measures, crossover design, randomly assigned.<br>Quantitative. | Sample: Mental Health Clinicians, M & F.<br>Setting: Community Mental Health Agencies.                                             | To examine effects of 30-minute sessions of Reiki on burnout.                                                                                                   | <i>Key findings:</i> Sample size: 45<br>Study was on Reiki alone.<br>—Statistically significant reduction in burnout.<br>Significant reduction in depersonalization among single participants only.<br>—Reduction of primary self-stated symptom on MYMOP among single population only.<br>—Decrease in emotional exhaustion.<br>Increase in personal accomplishment.<br>—Of note:<br>Single participants gained more than partnered participants. White participants stated more of an increase in personal accomplishment than nonwhite participants.<br>—Reiki may be useful in support of clinicians' mental health in community health settings. | Level 2           |
| Bukowski (2015)<br>Keyword: stress, relaxation                    | Design: Cohort study. Mixed: qualitative and quantitative                        | Sample: College students.<br>Setting: Student's personal “residence”                                                               | To examine the impact of a self-administered Reiki on “stress reduction and relaxation”                                                                         | <i>Key findings:</i> Sample size: 20<br>Study was on Reiki alone. Self-Reiki.<br>—Signification reduction in stress.<br>—Of note:<br>17 believed Reiki as a technique reduces stress<br>18 “agreed” Reiki reduces stress levels<br>19 participants stress levels post study did not return to “pre-study stress levels.”<br>—Self-Reiki may reduce stress and have a “calming effect”                                                                                                                                                                                                                                                                 | Level 4           |
| Thrane & Cohen (2014)<br>Keyword: Anxiety                         | Design: Systematic review.<br>Quantitative.                                      | Sample: RCTs of adults = cancer patients (4), post-surgical patients (1), community dwelling older adults (2)                      | To examine effects of Reiki on pain and anxiety and ascertain effect sizes.                                                                                     | <i>Key findings:</i> Sample size: 7 studies = 4 cancer, 1 post-surgical, 2 community dwelling.<br>Review was on Reiki alone.<br>—Effect sizes range, within group differences: $d = 0.24$ anxiety decrease to $d = 2.08$ for pain decrease.<br>—Effect size range, between group differences for pain decrease = $d = 0.32$ to $d = 4.5$<br>—11 out of 12 studies had at least one statistically significant result.<br>—Evidence indicates Reiki decreases pain and anxiety.                                                                                                                                                                         | Level 1           |
| Bukowski & Berardi (2014)<br>Keyword: Stress, Well-being, Relaxed | Design: Case study, Qualitative.                                                 | Sample: Child, 9 y/o with history “of perinatal stroke, seizures, and type-I diabetes” & parent.<br>Setting: “Private quiet room.” | To examine impact of Reiki on relaxation and future seizures of the child with sub-aim of examining impact on sleep patterns of child and stress of the mother. | <i>Key findings:</i> Sample size: 1 – 2<br>Study was on Reiki alone.<br>—Child:<br>Decrease in stress<br>Sense of wellbeing stayed same<br>Improvement in sleep patterns during study<br>No reports of seizures during the study<br>—Mother:<br>Decrease in stress<br>—Reiki may be a useful addition for sleep disturbance and stress resulting from medical conditions.                                                                                                                                                                                                                                                                             | Level 5           |



|                                                                                                                          |                                                                                            |                                                                                                                                        |                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p>Nova, et al., (2014)<br/>           Keyword: Stress, Anxiety, Depression, Mental health</p>                           | <p>Design: Cross sectional experimental study. Randomized. Quantitative.</p>               | <p>Sample: Adults, Mental health professionals. Setting: Same room and location. Unknown location.</p>                                 | <p>To explore impact of Reiki "on risk level for secondary traumatic stress (STS) and its associated symptoms"</p>                  | <p>Key findings: Sample size: 67 MSW student-interns: 28 LCSW: 34; LPC: 3<br/>           Study was on Reiki alone.<br/>           – Risk levels studied: STS, anxiety, depression, somatic symptoms, anger and hopelessness.<br/>           – No significant differences found between the 3 groups (Reiki, placebo and control)<br/>           – Null finding: Reiki was found to be ineffective on risk level for STS and associated symptoms.<br/>           Reiki not a best practice for "moderate STS and its associated symptoms."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Level 2</p> |
| <p>Orsak et al., (2015)<br/>           Keyword: Quality [of life], mood, distress, relaxing</p>                          | <p>Design: Randomized design. No control group, just a comparison group. Quantitative.</p> | <p>Sample: Adults with breast cancer undergoing chemotherapy. Setting: 2 cancer centers.</p>                                           | <p>To explore the impact of Reiki and companionship upon quality of life (QoL), mood, and symptom distress during chemotherapy.</p> | <p>Key findings: Sample size: 36 (35 F, 1 M)<br/>           3 groups: Reiki, Companion, Usual care<br/>           Combo study was on Reiki and companionship. Not Reiki alone.<br/>           – Reiki:<br/>           Increase in relaxation increase. No side effects.<br/>           No effect on distress between Reiki and Companion groups.<br/>           Improved QoL, mood and decrease in fatigue occurred but was not as high as in the companion group.<br/>           – Companion:<br/>           Highest level of QoL.<br/>           No effect on distress between Reiki and Companion groups.<br/>           – Improved QoL, mood and decrease in fatigue occurred and was better in companion group than Reiki group.<br/>           – Both Reiki and companionship may be considered for use during chemotherapy as they are feasible, acceptable, and may reduce side effects."<br/>           Key findings: Sample size: 3 RCT studies<br/>           Study was on Reiki alone.<br/>           – There is not enough evidence for or against Reiki as a benefit to anxiety and/or depression.<br/>           – Quality of evidence is moderate.<br/>           Very few RCT which look at people with anxiety and/or depression. Inconclusive.</p> | <p>Level 2</p> |
| <p>Joyce &amp; Herbison (2015)<br/>           Keyword: Depression, Anxiety</p>                                           | <p>Design: Systematic review. Quantitative.</p>                                            | <p>Sample: 16 y/o and older. Adults with anxiety or depression or both</p>                                                             |                                                                                                                                     | <p>Key findings: Sample size: 213 (162 received 1 Reiki, 51 received multiple Reiki)<br/>           Study was on Reiki alone.<br/>           – Quantitative: "Clinically meaningful and statistically significant short-term" decrease in distress, anxiety, depression, pain. Decrease in fatigue. These were self-reports.<br/>           176 (82.6%) liked session<br/>           176 (82.6%) found session helpful<br/>           157 (73.7%) "plan to continue to use Reiki"<br/>           175 (82.2%) would recommend<br/>           – Qualitative:<br/>           Increased relaxation<br/>           Increased spiritual well being<br/>           – Program may be useful aspect of cancer care.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Level 3</p> |
| <p>Fleisher et al., (2014)<br/>           Keyword: Anxiety, Distress, Depression, Relaxation, [Spiritual Well-being]</p> | <p>Design: Mixed methods. Quantitative and qualitative.</p>                                | <p>Sample: Participants attending an integrative Reiki volunteer program at the center. Setting: Academic medical oncology center.</p> | <p>Outcome evaluation study to examine results of Reiki volunteer program.</p>                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>Level 2</p> |
| <p>Charkhandeh, M., Talib, M. A., &amp; Hunt, C. J. (2016)<br/>           Keyword: Depression</p>                        | <p>Design: Randomized. Quantitative.</p>                                                   | <p>Sample: Adolescents 12 – 17 years with major depression. Setting: unclear</p>                                                       |                                                                                                                                     | <p>Key findings: Sample size: 188<br/>           Study was on Reiki and CBT.<br/>           – More effective for girls than boys.<br/>           – CBT significantly greater decrease in depression scores compared to Reiki or control with Reiki having greater decreases than control.<br/>           – Both CBT and Reiki were effective in reducing depressive symptoms with CBT having a significantly greater decrease.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Level 2</p> |

**Table 3.** Healing Touch & Reiki Search Flow Diagram 2014 – 2016.

PRISMA 2009 Flow Diagram From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097 For more information, visit [www.prisma-statement.org](http://www.prisma-statement.org).

PRISMA 2009 Flow Diagram From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097 For more information, visit [www.prisma-statement.org](http://www.prisma-statement.org).

Reiki study designs included systematic reviews, mixed method, randomized, crossover and qualitative research. Studies were largely conducted in hospital settings and centers, which primarily explored different facets of cancer treatment (Alarcao & Fonseca, 2016; Demir, Can, Kelam, & Aydinler, 2015; DiScipio, 2016; Kirshbaum, Stead, & Bartys, 2016; Orsak, Stevens, Brufsky, Kajumba, & Dougall, 2015; Rosenbaum & Velde, 2016; Siegel et al., 2016). Two studies were in mental health settings examining the mental health professional population (Novoa & Cain, 2014; Rosada, Rubik, Mainguy, Plummer, & Mehl-Madrona, 2015). Palliative care, patients with HIV, cesarean delivery, college students, and general populations were explored (Bremner, Blake, Wagner, & Pearcey, 2016; Bukowski & Berardi, 2014; Kurebayashi et al., 2016; Midilli & Eser, 2015; Thrane, Maurer, Ren, Danford, & Cohen, 2017). Sample sizes ranged from 2 to 213.

## Anxiety

Central to the mental health wellness of patients who face surgical procedures is management of anxiety and stress that normally presents and may have a negative influence on post-surgical outcomes and lengths of hospital stays (Institute for

Quality and Efficiency in Health Care [IQWiG], 2006; 2014; Shoar et al., 2016; Wilson, et al., 2016). In two studies involving post-surgical patients, Healing Touch significantly reduced anxiety and reflected decreases in pain, which often present together (Anderson et al., 2015; Foley et al., 2016). During their 3-day hospital stay, patients who underwent bariatric surgery experienced significantly decreased anxiety post-operatively on days 1, 2, and 3, along with significant reductions in pain all three days and nausea on days 1 and 2 (Anderson et al., 2015). In 81 patients who underwent various surgical procedures, anxiety significantly diminished along with a trend towards a decrease in the use of narcotics and pain following surgery; however, pain reduction was no different than what was seen with the usual nursing care control group (Foley et al., 2016). For women who underwent breast biopsy, their state level of anxiety significantly decreased following a Healing Touch intervention (Goldberg et al., 2016). In 90 women who were provided Reiki treatment after their cesarean delivery, the results demonstrated a statistically significant reduction in anxiety along with pain intensity and respiratory rate, though blood pressure and heart rate remained unaffected (Midilli & Eser, 2015). From the health professional perspective, nurses who actively use Healing Touch for self-care and patient care reported its benefit as a self-coping skill for stress management and an effective tool at the bedside

that helped to diminish patients' anxiety and stress (Anderson et al., 2016). For patients undergoing chemotherapy treatment, administration of Reiki resulted in a significant decrease in stress, as well as pain and fatigue (Demir et al., 2015).

Within an HIV clinic setting, significant decreases in state anxiety and stress were reported by participants (Bremner et al., 2016). There were several additional populations who experienced decreases in stress after receiving Reiki, such as children in palliative care (Thrane et al., 2017), women post-cancer treatment (Kirshbaum et al., 2016), ambulatory care volunteers and military personnel (Kurebayashi et al., 2016).

Outside of the clinical use of either Reiki or Healing Touch, university students' perceptions of stress were significantly reduced after receiving Healing Touch (Running & Hildreth, 2016), as well as other students who participated in a Reiki self-care study (Bukowski, 2015). In three studies, Reiki was shown to be effective in lowering anxiety and increasing feelings of calm in various adult populations (Bukowski, 2015; Kirshbaum, 2016; Thrane & Cohen, 2014).

Two Reiki studies focused on the wellbeing of mental health providers and their anxiety and stress in the context of secondary traumatic stress (STS) and burnout (Novoa & Cain, 2014; Rosada et al., 2015). In a randomized controlled trial of 67 mental health professionals that examined the effect of Reiki on the risk level for secondary traumatic stress (STS), as well as the constellation of associated symptoms, biofield therapy was not found to be effective (Novoa & Cain, 2014). However, a randomly assigned crossover study that observed the effect of Reiki on 45 mental health clinicians at a community agency revealed a statistically significant reduction in burnout (Rosada et al., 2015).

## Mood

Mood is a central part of the human experience of mental and emotional health. Mood or depressed mood can be experienced before, during, or after various medical procedures. In several Healing Touch studies, cancer-related depression and fatigue have been shown to decrease significantly (Jain et al., 2015) however, in one study, fatigue did not improve in breast cancer patients who received radiation therapy (FitzHenry et al., 2014). In two Reiki studies, mood or depression and QoL were examined (Kirshbaum et al., 2016; Orsak et al., 2015). One Reiki study reported that, after cancer treatment, women experienced reduced levels of depression along with an increase in energy levels, improved sleep, and feelings of hope, peace, and self-confidence (Kirshbaum et al., 2016). Adults with breast cancer undergoing chemotherapy experienced improved mood and QoL along with an increase in relaxation (Orsak et al., 2015). Stem cell transplant patients reported improvements in both mood and function as aspects of their psycho-emotional health following a Healing Touch intervention (Lu et al., 2016).

## Anxiety and depression

Studies that specifically explored clinical anxiety and/or depression were minimal and included two Reiki studies but no Healing Touch studies (Charkhandeh, Talib & Hunt, 2016; Joyce &

Herbison, 2015). In a systematic review of randomized controlled trials, even though the inclusion criteria encompassed a diagnosis by either the DSM-III, DSM-IV, ICD-9, ICD-10 or the use of symptom scales, the 3 studies reviewed had only screened participants using symptoms scales therefore anxiety and/or depression stated in those studies was not confirmed as a clinical diagnosis (Joyce & Herbison, 2015). Further, in examining the effect on anxiety, depression or both, the quality of evidence was found to be moderate and results were inconclusive (Joyce & Herbison, 2015). In another study comparing Reiki with cognitive behavioral therapy (CBT), symptoms of clinical depression decreased over a 12-week period using either Reiki or CBT, though the effect of CBT was stronger (Charkhandeh et al., 2016). Additionally, the study recommended that individuals with serious mental health conditions consult with a physician for clinically effective treatment for depression rather than using Reiki exclusively (Charkhandeh et al., 2016).

Intrusive thoughts are frequently a symptom of anxiety and mood disorders. In the study where participants choose between Restorative Yoga and Reiki or just Restorative Yoga, anxious or depressive intrusive thoughts arose in the Restorative Yoga group during the relaxation phase, yet the Restorative Yoga and Reiki group experienced a greater subjective perception of relaxation (DiScipio, 2016). This study had a small sample size (26) which is not generalizable and the authors report that screening and possible treatment is warranted for individuals before referring them to Restorative Yoga or other therapies which are contemplative and relaxing (DiScipio, 2016).

## Mental health providers

Cultural sensitivity is central to the therapeutic interaction between nurse and patient. Healing Touch studies that explored themes within ethnically diverse and bereaved populations revealed additional information (Berger et al., 2016; Ghiasuddin et al., 2015). In a study examining views on health and reactions to Healing Touch within an ethnically diverse population comprised of Asian American, Hispanic, Micronesian (Marshallese), Native Hawaiian, Pacific Islander (other), and Samoan individuals, a connection between the body and mind as well as the importance of family were themes that emerged along with a favorable response to Healing Touch (Ghiasuddin et al., 2015). The use of Healing Touch within a counseling session was the focus of a theory development study for a bereaved population (Berger et al., 2016). The resulting themes pointed to Healing Touch and counseling together are of benefit for those suffering from grief and loss (Berger et al., 2016). Both studies had small sample sizes and although the results were positive they were also specific to the populations examined within the study. Consequently, the results are not generalizable to other populations outside of the study. For example, while Healing Touch and counseling together worked well for the bereaved patients, they may not serve other mental health populations (Berger et al., 2016). Also, while deeper insight into cultural meaning is valuable to the clinician-patient therapeutic relationship, results from this study of an ethnically diverse population are too small to assume that it applies to all people who live in Hawai'i where the study took place or those individuals whose heritage is of the same lineage as described in the study (Ghiasuddin et al., 2015).

Mental health clinicians run the risk of experiencing burnout and STS. In two studies that focused on the mental health provider, Reiki was not found to be effective in reducing risk for STS; however, it was effective for burnout (Novoa & Cain, 2014; Rosada et al., 2015). Specifically, in a randomized study involving 67 mental health professionals that focused on the effect of Reiki on the risk level for STS, and associated symptoms such as anxiety and stress, the biofield therapy was not effective for risk (Novoa & Cain, 2014). However, a study observing the effect of Reiki on 45 mental health clinicians at a community agency revealed a statistically significant reduction in burnout (Rosada et al., 2015). Emotional exhaustion, depersonalization and a diminished ability in personal accomplishment were the three aspects of burnout explored. For all participants, emotional exhaustion decreased (Rosada et al., 2015). Only among those who identified as single was depersonalization significantly reduced, along with a reduction in their primary symptom (Rosada et al., 2015). Participants who were White had more of an increase in personal accomplishment than participants of color (Rosada et al., 2015).

### **Mental health wellness**

Patients' experiences of various aspects of wellbeing were improved in both Healing Touch and Reiki studies. Well-being is individually and personally experienced physically, emotionally, mentally, spiritually, socially, occupationally, and environmentally (Roscoe, 2009; WHO, 2012). Anxiety, mood, pain, spirituality, overall health, and QoL were some wellbeing aspects examined (Alarcao & Fonseca, 2016; Bremner et al., 2016; Fleisher et al., 2014; Lu et al., 2016; Rosenbaum & Velde, 2016). In people living with HIV, stress, anxiety, and depression were seen to decrease (Bremner et al., 2016). For individuals diagnosed with cancer, stress, anxiety, pain, and fatigue decreased (Fleisher et al., 2014), while relaxation, spiritual well-being, overall health, and QoL increased (Alarcao & Fonseca, 2016; Rosenbaum & Velde, 2016) and psychosocial domains improved (Lu et al., 2016). Over 50% of patients with cancer receiving chemotherapy reported simply "feeling better" (Siegel et al., 2016, p. 174). Registered nurses, too, spoke to wellbeing, which emerged from a study of the perceptions of nurses regarding the training and application of Healing Touch in the acute care setting (Anderson et al., 2016). Specifically, Healing Touch was seen to enhance usual nursing care delivery, benefit patients, and offer a means for nurse self-care (Anderson et al., 2016).

## **Discussion**

### **Main findings**

Most studies in this review addressed anxiety and/or stress, concluding that biofield therapies may help to reduce these symptoms. Studies addressing mood and burnout also positively pointed to improvement, although risk for STS was not affected. In studies that looked at markers for wellbeing and QoL, biofield therapies were found to be beneficial in improving and increasing various subjective dimensions of what it means to be well.

Safety was demonstrated given that no studies reported side-effects or negative consequences. Cancer and post-surgical procedures populations were well represented, as were maternal, mental health care, college/university student stress, and those experiencing bereavement. Under-represented were studies that addressed the mental health field from clinical disorders to well-being and resiliency. In summary, the results of this review point to Healing Touch and Reiki both show promise in benefiting mood, anxiety, and wellness, which correspond with findings in studies prior to 2014. Biofield therapies, specifically Healing Touch and Reiki, demonstrate potential support for mental health wellness.

### **Clinical implications**

Safety of methods, patient satisfaction, and patient care are standards of practice inherent in the art of compassionate nursing care. Nurses see a variety of patients who arrive with pre-existing conditions, some of which may be related to mental health and may or may not be obvious or reported by the patient. There continues to be a lack of mental health services available and barriers to treatments for those in need within the current health care climate. Providing information about additional tools that are evidence-based, efficacious, and can be folded into nursing care delivery or used as an adjunct to potentially mitigate mood and anxiety related to mental health disorders is useful. Research continues to inform the understanding of what place biofield therapies have in the professional practice of nursing and mental health wellness.

Relaxation and Energy Psychology are two related areas that offer additional information that can help to inform an understanding of biofield therapies and the effects on anxiety, mood, and wellness. Relaxation is a key factor in understanding the deeper processes that underlie anxiety-stress diminishing and mood improving with the integrative use of biofield therapies. Studies have emerged that provide insight into relaxation and the relaxation response (Coakley & Duffy, 2010; Kemper et al., 2009; Lutgendorf et al., 2010; Mackay et al., 2004; Maville et al., 2008; Post-White et al., 2003; Taylor et al., 2010; Wilkinson et al., 2002). The salient features of these studies point to biofield therapies influencing the nervous system, specifically supporting a shift from the orthosympathetic to the parasympathetic branch, which has a direct influence on the stress response (Mackay et al., 2004; Maville et al., 2008). Further, the impact on the stress response via the immune system and its psychoneuroimmunological structure sheds light on the underlying biological processes by which Healing Touch and Reiki may result in symptom reduction (Coakley & Duffy, 2010; Kemper et al., 2009; Lutgendorf et al., 2010; Post-White et al., 2003; Taylor et al., 2010; Wilkinson et al., 2002).

Energy Psychology (EP) is another mind-body approach and evidenced-based practice that lends further information in support of biofield therapies and mental health wellness. EP is collection of techniques that work to improve overall health and wellbeing by addressing emotional and psychological pain via the meridian system, an aspect of the biofield (Sebastian & Nelms, 2017). Related to the psychotherapeutic methods of exposure therapy and cognitive therapy, EP has been shown to produce efficient and effective relief of anxiety (Church &



Nelms, 2016; Church, Sparks, & Clond, 2016; Church, Yount, & Brooks, 2012; Sebastian & Nelms, 2017), depression (Church, 2014; Church et al., 2012; Sebastian & Nelms, 2017), distress (Church & Nelms, 2016; Church et al., 2013; Church et al., 2012), pain, phobias (Church & Nelms, 2016), subclinical PTSD (Church et al., 2016), and PTSD (Church & Palmer-Hoffman, 2014; Church et al., 2013; Sebastian & Nelms, 2017), as well as demonstrable changes in stress biochemically (Church et al., 2012; Varvogli & Darviri, 2011) and in promoting resiliency (Church et al., 2016). EP is used by a variety of licensed mental health providers and continuing professional education by an approved sponsor of the American Psychological Association (APA, n.d.) is afforded to clinicians who receive EP training.

The integration of mind-body approaches into conventional health care is driven from both inside and outside the current health care system, as shown in hospitals which train nurses in biofield therapies (King 2005; Swengros et al., 2014), and patients' interest in and knowledge and application of these techniques (Black et al., 2015; Clarke et al., 2015; Varvogli & Darviri, 2011). Patients may directly ask for these biofield therapies by name in the diverse settings where nurses work. Being aware of the evidence that supports the safe use of biofield therapies such as Healing Touch and Reiki broadens a nurse's knowledge and can provide data to make more informed choices for patient care. Expanding a direct understanding of biofield therapy through professional development in Healing Touch and Reiki increases the nurse's repertoire of professional skills available. Mind-body approaches are a part of health care (Black et al., 2015; Clarke et al., 2015). Nurses face human suffering every day. Awareness of the application of Healing Touch and Reiki as biofield therapies can inform and support the compassionate care that nurses deliver daily and may influence nurse well-care.

### **Limitations, strengths and directions for future research**

There are limitations to this integrative review that are worth addressing. Across treatment groups, 9 studies had sample sizes fewer than 30 and an additional 6 studies reported small sample sizes even though those studies ranged between 36 and 67 participants thus diminishing statistical power and limiting generalizability. Seven studies had unclear methodologies which reflected either a concurrent use of Healing Touch or Reiki with another treatment or influences upon the sample population. Providing clear descriptions about the specific interventions used, as well as training and qualifications of the Healing Touch or Reiki providers were found to be inconsistently addressed with a few reporting the researcher was also the Reiki provider. Hawthorne effect, placebo effect, lack of comparison and/or control groups and/or blinding, influences by environment and others as well as incomplete data sets were all cited as limitations within some studies included in this review.

Using search terms for additional biofield therapies such as Therapeutic Touch, Qi Gong, and Polarity Therapy may have yielded more facts to strengthen this review. This review was restricted to literature published between 2014 and 2016. Broadening the integrative review to include publications prior to 2014 may result in more material related specifically to mental health wellness. Similarly, only articles available in English were used,

which excluded some published studies on these topics. Finally, as with all reviews, the sample included in the review might be limited because of publication bias (Anderson & Taylor, 2011). Although limitations were disclosed, most but not all studies reported some benefit, clinical significance or statistical significance.

The strengths of this integrative review add value to nursing, mental health and wellness. Reviewing recent empirical literature on the use of Healing Touch and Reiki to decrease anxiety, improve mood and overall wellness contributes to current knowledge on both the safety and the efficacy of biofield therapies. The focus of this review on mental health wellness brings to light the need for more studies to examine and address the continuum of mental health from disorders to wellness and resiliency in a variety of sample populations on both sides of the therapeutic relationship.

This integrative synthesis also provides direction and recommendations to inform future research. Overall, there is a need for studies on the effects of biofield therapy on specific mental health populations such as those with clinical anxiety disorders, clinical mood disorders, trauma-stressor related disorders, and substance induced disorders with the aim(s) of symptom reduction and improving dimensions of wellbeing, QoL, and resiliency. In the current review, the impact of biofield therapies on wellness is seen through the observed effects on various specific markers of wellbeing and QoL. Taking another step and covering all dimensional aspects of wellbeing within the patient populations cited here and/or other patient populations would be revealing. Exploring mental health resiliency and disorders in community mental health clinics, comprehensive addiction treatment units or other clinical settings in relation to symptom reduction, the dimensions of wellbeing, QoL, and resiliency would be informative.

Looking at the other side of the therapeutic relationship, there are a variety of aims that can be considered for research examination when the population studied is the nurse, nurse practitioner, advanced practice nurse, or other mental health providers such as social workers, counselors, psychologists, and psychiatrists, as well as biofield therapists. Serving the caregivers who are the health care providers and seeing the impact of biofield therapies in their patient care, workplace and professional well-care would be enriching. Lastly, replicating some of these studies would offer further insight. These suggestions for future research would add evidence to this field of work and help grow this body of knowledge.

### **Conclusion**

The main purpose of this integrative review was to synthesize the state of knowledge of biofield therapies, particularly Healing Touch and Reiki, and the effects on anxiety, mood, and wellness in the context of mental health. The overall results of the 30 studies reviewed indicate that biofield therapies may be useful to help decrease anxiety and stress safely while increasing mood and mental health wellness. There is a need for further studies that have clearly defined methodologies, larger sample sizes and are specifically designed for different populations that look at the mental health continuum from disorders to wellness and resiliency.



## Conflicts of interest

The authors declare that they have no competing interests.

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## Authors' contributions

In this inter-professional endeavor, LM was responsible for the research and drafting of the manuscript, JA was responsible for the idea, and LM, DS, and JA each made critical revisions to and approved the final document.

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