Yoga as a Psychological Intervention: Conceptualizations and Practice Integration of Professional Psychologist-Yoga Teachers

A Dissertation
SUBMITTED TO THE FACULTY OF
UNIVERSITY OF MINNESOTA
BY

Anna Laurie Roth

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Advisor Thomas Skovholt, PhD, LP

September 2014

Acknowledgements

This research has come to life through the efforts of many people whose well-timed encouragement, support, and belief in me made its completion possible. First, to the participants of this study who with great heart, passion, and excitement volunteered their time and shared their experiences to make this research both possible and deeply meaningful. To my High School guidance counselor, Jim Lipsea, for insisting all of those years ago that I had something important to offer the world. To my University of Wisconsin La Crosse English Professors, Dr. Haixia Lan and Dr. William Barillas, who not only taught me to write well but also inspired a love of language and the written word. To my CSPP professors at the University of Minnesota and former clinical supervisors who provided outstanding modeling of what it looks like to artfully blend the science and practice of professional psychology with rigor, ethics, integrity, and heart. To my advisor Tom Skovholt, I hands-down could not have completed this journey without you as a trusted sage, guide, and mentor. From the bottom of my heart, thank you for your patience, encouragement, and support. To my research team, Michaela McLaughlin and Drew Benson—thank you for your passionate and thoughtful contributions to this study. To my classmates who have walked this path with me, particularly Monica Froman-Reid and Erin West, thank you both for the many validating, encouraging, and supporting phone conversations over the years. To Drs. Miriam Cameron and Henry Emmons, who have mentored, inspired, and reinforced my life's work and passion in holistic and integrative approaches to healing. To the Men-Tsee-Khang Tibetan Medicine doctors in Dharamsala, India, who provided a powerful experience of being

seen, treated, and cared for in a truly holistic way. Because of you, I know a full integration of mind, body, and spirit is possible in treatment of suffering. To my friends, brother, and loved ones for their continual support and encouragement over the years. To my grandparents, both of whom passed away this past year, I would not be who I am today without your consistently voiced positive regard. To my partner Matt, thank you for coaching me through the hard days, the periods of writer's block, and the self-doubt, and celebrating each very small victory with me in this process. It's been a long road, but we made it!

Dedication

This thesis is dedicated to the aim of bridging mind, body, and spirit in treatment of suffering.

Abstract

Yoga is being increasingly utilized as a mental health intervention in the United States (Kinser, Goehler, & Taylor, 2012; Bennett, Weintraub, & Khalsa, 2008; Khalsa, 2004). However, little research has been done examining yoga through a psychological lens and no prior research has attempted to articulate an initial psychological conceptualization of yoga. In the present study, 14 individuals dually trained as Psychologists (PhD or PsyD) and Registered Yoga Teachers participated in semi-structured telephone interviews to aid in the examination of two primary research questions: (1) How do individuals dually trained as psychologists and yoga teachers conceptualize yoga as a mental health intervention? (2) In what ways do psychologists trained as yoga teachers integrate their dual training into their current professional psychology practice? Interviews were analyzed by a research team of three researchers and two study auditors who employed a modified version of the Consensual Qualitative Research methodology (CQR; Hill et al., 1997; 2005; 2012). Five domains and 15 categories were revealed from the data to address the research questions. The derived domains were Provider Context, Conceptualization Content, Conceptualization Process, Clinical Implications, and Practice Integration. The study found four explicit yoga components to be essential for psychological benefit (in order of prevalence): breath, mindfulness/meditation, relationship with self, and connection with body. Further, three implicit essential components were classified as increased distress tolerance, openness to yoga, and using "mat as metaphor" for life. Disorders identified as benefiting most from a yoga intervention included anxiety-based disorders (including trauma), and eating, substance

abuse, and mood disorders. Cautions were expressed related to Axis II and psychosis. The study also found that participants incorporate yoga in some combination of the following: individual therapy breath work, mindfulness and yoga philosophy, group therapy with a yoga component, and workshops. The ideal integration of yoga in traditional mental health was identified as a combination of yoga with traditional therapeutic modalities, a systemic shift toward a more holistic healing paradigm generally, and opportunities to practice in a holistic community of integrative multidisciplinary providers in one community setting. Major study findings, study strengths and limitations, and implications are discussed.

Keywords: Yoga, Psychological Conceptualization, Yoga and Psychology, Yoga and Mental Health

Table of Contents

List of Figures

Chapter 1: Introduction

As cost and dissatisfaction with health care rise in America, so does the popularity of complementary and alternative therapies for the treatment of illness and disease (McCall, 2007). According to the National Institute of Health, complementary health approaches are defined as a group of diverse medical and health care interventions, practices, products, or disciplines that are not generally considered part of conventional medicine ("NIH Introduction to CAM," 2011). They range from practitioner-based approaches, such as chiropractic manipulation and massage therapy, to predominantly self-care approaches, such as non-vitamin/non-mineral dietary supplements, meditation, and yoga. According to the 2007 National Health Interview Survey (NHIS, 2007), nearly 40% of Americans utilize complementary and alternative medicine (CAM) methods for overall wellbeing and specific conditions. This survey found that the most predominant approaches were as follows (in order of prevalence): use of nonvitamin/non-mineral natural products, deep breathing exercises, meditation, chiropractic manipulation and massage, and yoga. Present utilization of CAM overall may likely be higher now. A more recent NHIS survey on CAM was conducted in 2012 but is not yet available for public use. Reseachers have begun to interpret and publish results from the 2012 survey data, however, the results of which suggest an overall increase in CAM consumption trends.

One of the most popular CAM modalities today is yoga, an ancient Indian spiritual practice comprised of breathing exercises, meditation, and physical postures used to achieve a state of relaxation and balance of mind, body, and spirit (NHIS, 2014). Zhang (2014) analyzed the NHIS 2012 data (n = 34,525) pertaining to American adult yoga

practice and reported that 13.2% (30.9 million) US adults had practiced yoga in their lifetime and 8.9% (20.95 million) had practiced in the past 12 months, a 50 % increase in a 5-year span (compared to 6.1% in the 2007 NHIS survey). In fact, 13.2% (9.16 million) of adult CAM users ranked yoga as the *most impactful* of all available CAM therapies. Survey respondents reported using yoga for general wellness and disease prevention (39.7%), reducing stress (15.4%), and improving overall health (14.6%) or for specific health problems (15.3%). Other studies have confirmed that most adults primarily seek out yoga for general wellness and stress reduction (e.g., Quilty, Saper, Goldstein, & Khalsa, 2013).

This popular rise in utilization has inspired the incorporation of yoga into conventional medical and mental healthcare settings as it is an intervention with relatively low risk. Yoga is a reasonably safe and well-tolerated intervention with very few side effects when practiced appropriately (Meyer et al., 2012). Consequently, it is perhaps not surprising that at least 14 million Americans say they initiated the practice because a doctor or therapist recommended yoga for their health condition (Macy, 2008). Marotta and Valente (2011) elaborated on this point: "With various mental health benefits for personal growth, reduction of stress, and the treatment of psychological conditions, yoga can be an effective, cost-efficient complement to almost any psychotherapy treatment" (p. 256). Further evidence of yoga's increasing popularity is the establishment of a credentialing organization for yoga therapists (International Association of Yoga Therapy), yoga-specific scientific journals (e.g., International Journal of Yoga Therapy,

International Scientific Yoga Journal, International Journal of Yoga) and an abundant jump in yoga-related empirical inquiry over the past decade (Shorter, 2013).

As an illustration of the exponential growth in the yoga research literature, a digital literature search conducted in November 2013 using the University of Minnesota MCAT library database with the search terms "yoga" and "psychology" returned 1,255 articles for the 1986-2000 timeframe, and jumped to 6,919 articles from the year 2000 to present, a 551% increase. Noted yoga expert and physician Timothy McCall (2013) has pointed out, "as yoga becomes more mainstream, and as research dollars for alternative and complementary health systems continue to grow, studies of yoga are getting not only better, but also more numerous in both India and the United States."

As a result, we now have more empirical evidence about yoga than ever before. Specifically, yoga appears to be helpful for a variety of medical conditions such as cancer, back pain, and heart disease, and has also been shown to boost immune function, reduce stress, and decrease inflammation (NIH, 2012). Yoga also appears to hold promise in alleviating mental health conditions such as anxiety, depression, and PTSD (e.g., Kinser et al., 2012; Bennett et al., 2008; Khalsa, 2004), although this research is far less established. Currently, the best yoga evidence relevant to mental health is made via biomedical studies examining psychologically relevant biomarkers such as cortisol (Carlson et al., 2004), heart rate variability (Telles et al., 2010), and neurotransmitters including serotonin (Uebelacker et al., 2010), dopamine (Kjaer et al., 2002), and gamma-aminobutyric acid (Streeter et al., 2007), amongst others. Studies examining psychological outcomes such as depression (Shapiro et al., 2007), anxiety (Li &

Goldsmith, 2012); post-traumatic stress disorder (Staples, Hamilton, & Uddo, 2013), and eating disorders (Carei et al., 2010) are increasing yet remain the minority in health-related yoga research.

A clear and distinct gap in the research is the examination of yoga through a psychological lens, using psychlogical constructs and theory. This examination is relevant for multiple reasons. At a foundational level, theoretical framework guides the research process. It shapes problem and purpose, and it determines which questions are asked and which are omitted (Merriam, 2009). A lack of studies rooted in a psychology framework suggests an absence of literature relevant and directly applicable to the field and practice of professional psychology. This is problematic given that yoga is commonly being employed as an adjunctive mental health treatment in current practice (Simpkins & Simpkins, 2011) and recommended by providers despite the lack of solid theoretical or empirical backing in the current research literature. Hence, research conducted from a psychological theoretical framework is needed if yoga is to be continually recommended and integrated as an adjunctive psychological treatment.

The present study sought to articulate a preliminary psychological conceptualization of yoga as a mental health intervention and to better understand how yoga is currently being integrated into professional psychology practice by interviewing psychologists that have been dually and extensively trained in both disciplines of professional psychology and yoga teaching. Through integrating both their knowledge and their experiential bases, these individuals are in a unique position to help translate the

impact of yoga in psychological terms and convey current yoga intergration practices in the context of mental health.

After examining the research and theoretical literatures, it appears that no studies have attempted to articulate a psychological conceptaulization for yoga or to document current practice integration. As a result, this research sought to answer the following questions: How do psychologists dually trained as yoga teachers psychologically conceptualize the impact of yoga on mental health? Secondly, in what ways do they integrate this dual training into their current professional psychology practice?

Statement of the Problem

In the present study, research questions were as follows: How do psychologists dually trained as yoga teachers psychologically conceptualize the impact of yoga on mental health, and in what ways do they integrate this dual training into their current professional psychology practice? Psychologists who have earned both a doctoral degree in professional psychology (PhD or PsyD) as well as certification as a Yoga Alliance Registered Yoga Teacher (RYT) with 200 hours or more of yoga training were recruited in Spring 2014 to take part in this qualitative study. Semi-structured interviews were utilized to collect data. Data were analyzed using a modified version of the qualitative CQR method (Hill et. al, 2012).

Significance of the Problem

The present study qualitatively explored how psychologist-yoga teachers conceptualize yoga from a psychological perspective and how they integrate their dual training into their professional psychology practice. At present, no research exists examining how psychologist-yoga teachers psychologically conceptualize the impact of yoga for mental health. Further, little is known regarding current practices integrating yoga into mental health care. The majority of existing yoga studies pertaining to mental health have been conducted by researchers with biomedical leanings in areas such as nursing, nutrition, and medicine. Very few studies have been guided by a psychological theoretical frame and, to this researcher's knowledge, no studies exist that tap into the expertise of providers with comprehensive training in both yoga and psychology. As Merriam (2009) stated, "a theoretical framework is the underlying structure, the scaffolding frame of a study… it is the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs the research" (p. 33). Given that a coherent theoretical foundation is needed prior to further research development, a qualitative research approach is appropriate to build toward theory and generate hypotheses for later research. In sum, the significance of this study is three-fold. The present study will contribute to an underdeveloped area of research using qualitative methodology from which future hypotheses may be generated, improve our theoretical understanding of yoga interventions in mental health from a psychological perspective, and increase our understanding of current yoga integration in professional psychology practice.

Chapter 2: Literature Review

The following chapter will present the most recent literature pertaining to a psychological conceptualization of yoga for mental health. Articles of best quality and greatest significance were selected in each of the most common yoga study types including review, review/theoretical, original research, qualitative, and conceptual studies. Given this is a young and disjointed body of literature, a fluid story-telling approach to the review of literature was not possible. Instead, a modular approach was employed to present the most meaningful studies in a way that is reflective of the literature as a whole. Furthermore, salient limitations, trends, and considerations for yoga research at large are woven throughout the critiques. Review of the literature took place in Fall 2013 and began with a general MCAT search of the University of Minnesota library database using the search terms "yoga" and "psychology." Results were narrowed to only include studies from peer-reviewed journals conducted in the past 10 years. These results were reviewed to first identify the most common study types. Subsequently, the most pertinent studies were selected for full review. To ensure that relevant studies were not missed, additional searches were made in the University of Minnesota MCAT database using the terms "yoga" and "mental health" as well as in Google Scholar using both sets of search terms to ensure significant studies were not overlooked.

Review Articles

After a thorough review of the most recent yoga literature, it became clear that the most common type of yoga research publications are review articles summarizing

previous findings to portray the current state of the research. Interestingly, as of November 2013, there were more review studies in the literature than there were original research studies used to comprise them, resulting in a redundancy in the literature as the same relatively small collection of studies are evaluated over and over again and used to summarize the current state of yoga research. Although there may be many explanations for this trend, a likely explanation is that it is much easier to summarize others' findings than it is to approach the inherent complexity of yoga study design and conduct original research oneself. McCall (2009) spoke to this complexity below in an interview with the editor of the *International Association of Yoga Therapy*:

> The complexity of yoga makes it a challenge to investigate using the usual tools of randomized controlled studies. Yoga isn't designed to affect single variables or single disease states the ways drugs are, but to change those who practice it physically, mentally, emotionally and spiritually, in ways yoga believes are deeply interconnected. Yoga involves hundreds of different tools that can be combined, modified, and taught in an essentially infinite number of ways and the patterns of practices may change over time. Yoga therapy has more variables than reductionist science can ever sort out. It's a combinatoric explosion that quickly exceed the ability of one-at-a-time science to measure. Reductionist science can either ignore the complexity or measure some greatly reduced version of it. (McGonigal, 2009, p. 146)

Given these challenges, perhaps the review/experimental article imbalance is not surprising. Regardless of the redundancy apparent to those well-aquainted with yoga research, review articles do make an important contribution. They allow for a fairly quick and comprehensive evaluation of yoga research, highlighting potential benefits, drawbacks, and future research needed in a concise and accessible way. Several quality yoga research reviews were considered for inclusion in this literature review including: McCall et al. (2013) "Overview of Systematic Reviews"; Park (2013) "Mind-Body CAM Interventions: Current Status and Considerations for Integration into Clinical Health

Psychology"; and Field (2011) "Yoga Clinical Research Review." Given this researcher's aim of articulating a psychological conceptualization of the impact of yoga on mental health, the review by McCall (2013) entitled " How Might Yoga Work? An Overview of Potential Underlying Mechanisms" emerged as the most relevant to review for the present study. Relevance paired with redundancy in review content across articles informed the researcher's choice to only review this review article in more depth and present a more detailed report of findings pertinent to a psychological conceptualization of yoga.

McCall (2013)

McCall (2013) conducted one of the most rigorous reviews of yoga research available to date, entitled " How Might Yoga Work? An Overview of Potential Underlying Mechanisms." In the review, the current scientific evidence for underlying mechanisms of yoga interventions in a health-related context was synthesized. Only peer-reviewed articles published online within public medical research databases (after January 1, 2006) in which yoga was the primary research focus were included for review. Because a standardized definition of yoga in research is unavailable, the author included any type of yoga intervention as long as the following characteristics were present: breathing techniques, physical postures, meditation, and verbal yoga teachings. The following online search terms were used: "yoga" and "mechanism" OR "pathway" OR "effect" and "clinic" OR "review." This search yielded 454 potential articles. Using the inclusion criteria mentioned above, 110 abstracts were screened, 24 full-text articles were assessed for eligibility, and 18 original articles were included for full review. Six articles

were excluded after initial screening because of insufficient empirical evidence to support theories and inclusion of interventions other than yoga in the study. Final review study composition included one randomized control trial, three controlled trials, and 14 review articles; this composition highlights the review/empirical article imbalance mentioned previously.

Upon review of the selected articles, the author organized the evidence categorically from strongest (in both quality and quantity) to least robust as follows: endocrine system, nervous system, metabolism, circulatory system, behavioral/social, antioxidant, inflammation, and psychology/cognition. As inferred above, the author found the strongest evidence for the beneficial effects of yoga in relation to the **endocrine system**—particularly in lowering cortisol levels. Lowering cortisol has been associated with decreased perceived stress and anxiety and increased feelings of wellbeing. Enhanced serotonin production, oxytocin release, and increased melatonin were noted as other potential effects of yoga on the endocrine system. The second strongest area of evidence was found in relation to the impact of yoga on the **nervous system** via direct influence on the sympathetic and parasympathetic activity of the autonomic nervous system. Reviewed studies found a reduction in sympathetic activation, increases in levels of GABA, and improved regulation of the HPA axis to improve outcomes in mood disorders, anxiety, stress, and wellbeing. In the **behavioral/social** area, reduced food consumption, decreased social isolation, and healthier responses to stress were noted. Yoga has also been found to increase total **antioxidant** status, which suggests potential benefits for cancer, arthritis, and diabetes,

amongst other conditions. Yoga interventions have been reported in several studies to decrease markers of **inflammation,** suggesting benefits for blood pressure, pain, depression, and immunity. Lastly, McCall noted that studies relevant to **psychology and cognition** are a more recent addition to the literature. In two articles reviewed by McCall, increased feelings of satisfaction, self-confidence, and self-control were linked to decreased perceived stress and increased wellbeing following yoga practice.

Various strengths and limitations of McCall's review are apparent. Regarding strengths, McCall's article is the only publication this researcher could find that explores yoga's underlying mechanism of action and asks not only "what happens?" but also "how does it work?" This focus broadens the potential applicability of the research by allowing the reader to look at the main areas of potential impact and infer benefit for any individual or condition in which the areas reviewed are implicated. Given the inextricable nature of mind and body in health, one could argue that any research suggesting yoga's positive effect physiologically will invariably have favorable implications for psychological health as well. Another study strength is the detailed description of review methods and application of rigorous inclusion/exclusion criteria absent in many other published reviews. This provides a sense of credible, clear context from which summarizing statements are made. It also illuminates trends, gaps, and strengths in present yoga studies that future researchers can learn from and build upon.

From this researcher's view, a key limitation was McCall's sole use of a public medical research database to provide evidence of underlying mechanisms of yoga intervention within a "health-related context." A more complete picture of evidence

regarding underlying mechanisms could have been achieved through utilization of several health-related databases that include not only medical support but psychological evidence support as well. Secondly, although McCall acknowledges the absence of a definition for yoga and describes the characteristics he considers to comprise a yoga intervention (breathing techniques, physical postures, meditation, and verbal yoga teachings), no detail is given regarding the nature of the yoga interventions found to have an effect across the various categories described. Just as individual psychotherapy can comprise an endless assortment of interventions depending upon the orientation of the provider, there are countless orientations to the practice of yoga that vary across a multitude of dimensions from rate and intensity of movement to sequencing of postures and the extent of emphasis on breath, alignment, or mindfulness. Even though the author did not detail methodology, if the sample of reviewed publications accurately represents the entire body of yoga literature, it is likely that many studies reviewed by McCall utilized different yoga interventions, and perhaps even vastly different interventions within the same study when repeated measure designs were used. McCall's omission of this methodological detail decreased both internal and external validity and made it difficult to know what explained the measured changes beyond some potential combination of breathing techniques, physical postures, meditation, and verbal yoga teachings. McCall acknowledges the limitations of the articles summarized: "the quality of the evidence is generally low... significant heterogeneity and variability in reporting interventions by type of yoga, settings, and population characteristic limit the generalizability of results" (p. 1). This quote highlights both the need for caution when evaluating and interpreting yoga research

generally and in particular when examining review articles that draw general conclusions from studies utilizing many different "yoga" interventions across them.

Review/Theoretical Articles

Other common publications in the yoga literature are studies proposing a theory to explain the benefit of yoga for a given condition using summaries of previous research to back the proposed theory. This approach has been used to recommend yoga as complementary treatment for anxiety and depression (Forfylow, 2011), addiction (Khanna & Greeson, 2013), and depression (Kinser et al., 2013), amongst others.

Streeter et al. (2012)

One such theory-driven article is Streeter et al. (2012), which used supporting neurophysiological and clinical evidence to propose a theory explaining the benefits of yoga for depression and other conditions exacerbated by stress. Through their review of various outcome studies, Streeter and colleagues make a logical inference attributing the benefit of yoga to the reduction of allostatic load (the physiological consequences of chronic stress) seen in frequently comorbid conditions such as depression and post-traumatic stress disorder (PTSD). As stated earlier, although an article review can be a useful approach when a new area of research is forming, one must also critically evaluate the validity of the studies used to build the foundation for effectiveness. For example, this leap from questionable science to evidence for effectiveness can be seen in one of the articles Streeter et al. (2012) utilized in their review: Brown and Gerbarg (2009), a study

that used previous empirical findings to justify the use of Sudarshan Kriya yogic breathing in the treatment of stress, anxiety, PTSD and depression. Upon closer review, it is evident that Brown and Gerbarg's generalizations are unreasonable due to limited data sets and methodological issues in the studies that they cite. For instance, Carter and Byrne (2004) is a study often referenced to support the use of yogic breath for individuals with PTSD, but upon closer review, it is clear that this study has significant methodological constraints. Study participants were recruited from Carter and Byrne's individual therapy practices, and yoga interventions were administered by the authors themselves, suggesting researcher bias may have contributed to the outcome. In addition, use of a non-random sample is a notable flaw as well. Research outcomes certainly could have been influenced by study participants taking a yoga class from someone they work with therapeutically. However, yoga teacher effects were not considered or accounted for in the study design. Secondly, there are no details provided to confirm the yoga school or training credentials of the individuals who provided the intervention. Not accounting for differences in teacher effects introduces an uncontrolled source of error. Carter and Byrne (2004) also provide no documentation of attempts to standardize or randomize the ordering of poses within each yoga intervention, intervention setting, or time of day. The authors note that some participants "did the poses at home or took private lessons, and the other participants remained in the group," a difference that introduced substantial variability into the yoga intervention as some settings or times of day may have been more comfortable or convenient, which would have an effect on outcome. Furthermore, small sample size (n = 8), loose inclusion criteria (PTSD with or without major

depressive disorder), and variations in intervention (some did or did not also have additional Qi Gong treatment) make referencing results of this study problematic to support utility of yoga for depression. This highlights the problem of using a small number of methodologically compromised studies to build a larger argument for effectiveness, as is the case with Streeter et al. (2012) utilizing Brown and Gerbarg (2009), which, in turn, utilized Carter and Bryne (2004). Given the infancy of yoga research and the relatively small number of methodologically rigorous studies documented, articles generalizing effects must be interpreted with caution and attentiveness.

Original Research

The third most prevalent type of yoga research articles are the original research studies that are often summarized for review and theoretical articles. As noted, these studies are largely rooted in biomedcine and utilize an experimental design to study the effect of yoga on a wide range of variables.

Streeter et al. (2007)

A good example of an original yoga research study was conducted by Streeter et al. (2007), which offered support for the claim that yoga is effective by increasing the activity of key neurotransmitters in the brain. The study looked at the impact an isolated yoga session had on gamma-aminobutyric acid (GABA) levels in comparison to a single reading session, utilizing a parallel groups design. Participants were comprised of 8 yoga

practitioners who completed a 60-minute yoga session and 11 comparison participants who completed a 60-minute reading session. Pre-post magnetic resonance spectroscopic imaging assessed changes in GABA levels. Data were examined for distribution normality and homogeneity of variance between groups. In bivariate analyses, categorical data were analyzed using Fisher's exact tests. Continuous and ordinal data were analyzed using student (two-sample) t-tests. Analysis of covariance (ANCOVA) controlled for covariates of a priori theoretical interest (i.e., baseline GABA level, gender, and menstrual stage). Study results indicated a 27% increase in GABA levels in the practitioner group compared to no change in comparison group GABA levels after the reading session. These findings led the authors to conclude that brain GABA levels increase in experienced yoga practitioners after a session of yoga. They recommended that yoga be explored as a treatment for disorders with low GABA levels such as anxiety, depression, and PTSD.

Limitations in the Streeter et al. (2007) study lie with yoga teaching experience confounding results and limiting generalizability. To state that "Yoga Asana Sessions Increase Brain GABA Levels" as the title claims may not be true for a non-yogic population or even yoga practitioners that are not also yoga instructors. It could be inferred that individuals who practice and teach yoga share a set of similar characteristics such as personality characteristics of extroversion and openness to experience that limit generalizability to the general population. Further, Ross et al. (2013) completed a national survey of yoga practitioners (n =18,160) and found that 24.8% reported experiencing depression, which supports the general finding that yoga practitioners may

experience greater mental health concerns. If this is the case, greater changes in GABA levels may have been captured in the study than would be seen in the general population; in other words, this complication introduces an alternative explanation for the GABA level changes outside of yoga asana. Further, a lack of detail is given describing characteristics of the comparison group making potential yoga effect even less clear.

Secondly, the homogeneity of variances assumption was affected by the nonequivalent numbers of participants in the two groups. Third, the authors describe the tools used to evaluate the participants, but do not discuss how these tools contribute to the study. For example, the authors state that all participants were evaluated using the Structured Clinical Interview for DSM-IV Axis I Disorders: Patient Edition (SCID) and the Addiction Severity Index. By examining the text, it is clear that the authors performed these assessments to ensure inclusion of a carefully screened population free of psychiatric and neurologic illness and psychoactive medications. Unfortunately, the study did not describe the sampling process beyond these exclusion criteria, but the likelihood that yoga practitioners came primarily from one setting and readers likely came from many other settings may have introduced differences that could not be completely accounted for by the analyses. Lastly, as was previously alluded to above, it is probable that considerable variability existed in each yoga intervention. Although Streeter et al. (2007) claimed to "ensure a consistent yoga experience across subjects" (p. 240), no yoga poses or verbal cues were scripted in order to be standardized. The authors simply state that there were "set" periods of quiet time at the beginning and end of the 60-minute sessions, and the other 55 minutes included "very similar" asanas (yoga

poses). This leads one to believe that each yoga intervention could have been quite variable.

Telles et al. (2010)

Another example of a study focusing on the impact of yoga on psychologically relevant biological markers is Telles et al. (2010). This study examined heart rate variability (HRV) and post-traumatic stress disorder in Bihar flood survivors. The effect of one week of daily yoga practice was assessed on 22 male volunteers (group mean age ± S.D, 31.5 ± 7.5 years) who were randomly assigned to two groups: a yoga intervention and a non-yoga wait-list control group. Study participants were males impacted by the flood and met the following inclusion criteria: normal health, not on medication, readiness for all assessments, openness to being assigned to either group, and no prior knowledge of yoga. Of the 544 males, 65 participants met this criteria. However, because individuals were frequently transferred to other camps, 43 were unable to participate. The remaining 22 did not need to relocate to another camp during the one-week duration of the study. These 22 participants were randomized by a volunteer, who had no role otherwise in the study, into two groups using a standard random number table. The yoga group practiced Sudarshan Kriya yoga for one hour daily for one week, while the waitlist control group continued with the routine followed at the camp. The yoga group was instructed not to practice yoga at any other times during the day. Both groups' heart rate variability, breath rate, and four symptoms of emotional distress using visual analog scales were assessed on the first and eighth day of the program at precisely the same time

for both groups. A repeated measures analysis of variance found no significant differences between groups, calling into question the true effects of a yoga intervention when confounding variables were decreased. Results did, however, indicate a significant decrease in sadness in the yoga group ($p < 0.05$, paired t-test) and an increase in anxiety in the control group ($p < 0.05$, paired t-test), leading the authors to conclude that a week of yoga can reduce feelings of sadness and possibly prevent an increase in anxiety in flood survivors a month after such a natural calamity.

Several strengths characterized this study. Blind data collection was used, as were culturally sensitive outcome measures using visual analog scales rather than validated questionnaires normed for English-speaking individuals. The authors also took care to operationalize the yoga intervention by sticking to a set time of day, as well as a set sequence (10 minutes loosening exercise, 20 minutes physical postures, 20 minutes breathing techniques, and 10 minutes of guided relation), thereby making study replication and generalization more feasible. Further, the possibility of time effects decreased as the intervention took place one month after the flooding (vs. 8 months after the authors' 2010 study that focused on tsunami survivors).

In addition to small sample size, a primary limitation was the potential effect of study participants not having to relocate. Unlike other refugees, the 22 study members were guaranteed stable placement for one week. This may have provided considerable relief in a chaotic and unpredictable environment and given a sense of special treatment and daily support not provided to other refugees. This variable makes it more difficult to

infer that changes seen in dependent variables are solely due to the independent yoga variable.

Shapiro et al. (2007)

Shapiro et al. (2007) also explored the biological and psychological impacts of yoga in their evaluation of yoga as a complementary treatment of depression. Twenty-seven women and 10 men were enrolled in the study; 17 completed the intervention and pre- and post-intervention assessments. The intervention consisted of 20 classes, led by senior Iyengar yoga teachers, in three courses of 20 yoga classes each. All participants were diagnosed with unipolar major depression in partial remission. Psychological and biological characteristics were assessed pre- and post-intervention, and participants rated their mood states before and after each class. Data were analyzed using within-and between-group t-tests and general linear models. Random regression models were used to analyze the longitudinal mood ratings obtained over the course of the yoga sessions. These models considered both within- and between-subject variability and allowed for random and fixed effects (mixed modeling) as well as a variable number of observations per subject and missing data, such as missed sessions. Significant reductions for depression, anger, anxiety, neurotic symptoms, and low heart rate variability were found in the 17 completers. Eleven of these completers achieved remission levels post-intervention. The most obvious limitation of this study occurred in the way in which the certified Iyengar yoga teachers "rotated over the sessions." It is not clearly stated how and when they rotated, and whether these changes were random a result of instructors'

personal schedules. It is probable in this study (as well as all others discussed) that extra variation was left in the error term by not isolating the additional factor of yoga instructor in the analyses. An inflated error term can reduce the power of a study to the point that actual effects become unobservable, calling into question the conclusions made by these authors.

Multiple Interventions

Use of multiple interventions has also been observed in yoga research and is important to consider in study interpretation. A study by Agte and Chplonkar (2008) is a good example here. The study involved 37 "apparently healthy" adult volunteers who were given a 6-day course of training in rhythmic breathing, meditation, yogic postures, interactive discussions for attitude training, and adherence to a vegetarian diet, followed with 7 weeks of short 30-minute daily sessions of practice of Sudarhshan Kriya Yoga (SKY) and a once-weekly 75-minute session of SKY. From a research perspective, one can see how this many factors could elicit many difference effects, making it difficult to decipher any specific yoga effect.

Butler et al. (2008) also examined multiple interventions in their exploration of the effects of yoga in comparison to other forms of depression treatment. In a randomized pilot study, the authors investigated the effects of meditation with yoga (and psychoeducation) versus group therapy with hypnosis (and psychoeducation) versus psychoeducation alone on diagnostic status and symptom levels among 46 individuals with long-term depressive disorders. Potential participants were recruited through press

releases, newspaper and Internet advertisements, posted flyers, and mailings sent to local San Francisco Bay Area physicians and mental health professionals. Volunteers were randomly assigned by the project director to one of the three study groups via a computer-generated random sequence. Chi-square tests were used to examine whether the three groups differed in the proportion who received outside treatment and who had remitted or developed a moderate depressive episode over the course of the study. Point-biserial correlations and Cramer's V coefficients were used to examine the relationship of each outcome to receiving outside treatment. The results indicated that yoga group participants were more likely to experience a remission than did controls at a 9-month follow-up.

A key limitation in this study relates to a general limitation of most yoga research, and that is the presence of multiple interventions (breath, movement, temperature, etc.) being considered as one. Because yoga utilizes breathing, physical postures, visualization, relaxation exercises, and a multitude of other techniques in combination, it is likely to elicit a variety of effects with complexities that are still not fully understood. For example, this study compares meditation with yoga to psychoeducation. However, one could make the argument that mindfulness training, as well as the verbal direction given in yoga is in itself psychoeducation, which leaves the key difference being only physical movement. Complexities such as this emerge when comparing interventions that overlap.

Qualitative Methodology

Kinser et al. (2013)

Kinser et al. (2013) conducted a qualitative study exploring the experiences of depressed women who participated in a 8-week yoga intervention. Twelve participants were recruited from a community-based sample of adult women with moderate to severe depression as defined by a score of 10 or higher on the Patient Health Questionnaire (PHQ9). Individuals were excluded if they were actively suicidal, had current psychosis or mania, had been hospitalized in the last month, had physical conditions making yoga difficult, had recent medication changes, or if they had a regular yoga or meditation practice longer than one month over the past 5 years. Data were collected via semi-structured interviews lasting approximately 20-45 minutes at the completion of the 8-week yoga intervention. Participants were asked open-ended questions about their impressions of the impact of yoga on their mood, aspects of yoga they liked and disliked, and usefulness of the practice for depression management. Interview data were analyzed through a descriptive and interpretive phenomenological lens in order to discover how participants interpreted their own lived experiences with yoga. Responses were grouped into categories based upon similarities; these categories were then organized into themes to create a coherent picture of participants' lived experiences of depression and their participation in yoga.

Results showed that women's experience of depression involved stress, ruminations, and isolation. In addition, their experiences of yoga served as a "self-care technique" for the stress and ruminative aspects of depression, and as a "relational

technique" facilitating connectedness and shared experiences in a safe environment. To elaborate, participants suggested yoga was a self-care technique because the practice interrupted ruminations and allowed them to take the focus off their persistent negative thoughts. However, it is important to note that for a few of the women, the practice increased negative self-talk and feelings of disconnection. Another theme related to self-care was participant empowerment and a sense of competence as a result of the yoga practice. Participants described generally feeling more "capable," "accomplished," and "in control of life" with increasing yoga experience. Lastly, yoga was experienced as a self-care technique due to increased feelings of self-acceptance resulting from the practice of assessing and meeting one's needs in the moment as well as continual reminders from the yoga teacher to avoid self-judgment and do one's best.

Yoga also served as a "relational technique" for participants as it allowed them to (a) get out of the house, (b) gain a sense of connectedness and shared experience with others, and (c) have positive experiences in a safe space with others. Results from this study indicate yoga interventions hold promise for adult women with moderate to severe depression and also suggest mental health benefits via impacts on self-care and relational life.

Several study strengths and limitations were notable. Two key strengths were the use of qualitative methodology to build theory as well as the authors' theoretical explanation of the data. This is one of the few studies to qualitatively explore the experience of yoga with a clinical population, giving greater insight regarding the potentially most salient aspects of a yoga intervention from the participant perspective.

These results can be further studied and explored. Further, the authors (both PhD's in nursing) articulated their theoretical understanding of the results, thus contributing to a theoretical frame for yoga's effect. For example, they posited yoga's specific impact on reducing cognitive rumination is due to the enhancement of mindfulness, practice of non-judgment, physical movement, stress reduction, and sequencing of the yoga practice. Increased in self-confidence and competence were theorized to be due to an increased sense of accomplishment, positive reinforcement of improved affective states, and the practice of "embodied self-reflexivity" defined as a connected inward focus on self. Lastly, they theorized by fostering positive group interactions, the yoga intervention may have enhanced individuals' sense of belonging in the world, a factor shown to increase motivation for self-care (Fredrickson, 2008). Although the authors come from a nursing background, they conceptualized yoga's effects using terminology well-known and understood by psychologists, thus furthering our conceptual hypotheses and understanding about the underlying psychological mechanisms of action in yoga.

Study limitations include a lack of disclosure regarding the following: participant demographic data (i.e., age, race, severity of depressive symptoms); specific data analysis procedures; description of the yoga intervention protocol (duration, sequencing, verbal prompts, etc.); and potential implications of couching a qualitative study within a larger randomized control trial study. For example, participants may have been asked to complete assessment measures before or after class, which could have impacted their experience of the yoga interventions. If the randomized control study utilized repeated measures on a given variable, perhaps participants noticed improvement in symptoms;

this awareness could have also impacted their impressions and experiences of the yoga intervention either positively or negatively. Lastly, the authors did not address or theorize what factors could explain why the yoga intervention was not helpful for several participants, important information for providers recommending yoga in clinical settings.

Valente and Marotta (2005)

Valente and Marotta (2005) have published some of the most relevant work related to the present study as they explored the impact of yoga on the professional and personal life of the psychotherapist. These authors sought answers to the following research questions: what are the perceptions of psychotherapists who engage in a regular practice of yoga regarding the impact yoga has made in their personal and professional lives? Can the effects of yoga facilitate professional growth in one's career in psychotherapy? Can the effects of yoga assist in addressing the unique self-care needs of psychotherapists?

Participants were selected on the basis of the number of years in psychotherapy practice and the frequency with which they personally practiced yoga. Professional experience ranged from 8-34 years and personal yoga practices averaged 2-7 days per week for a duration of 3.5-30 years. The sample group consisted of six practicing psychotherapists (three licensed marriage and family therapists, two licensed social workers, and one psychiatrist) who routinely included yoga in their daily lives. Participant ages ranged from 35-58 years old, 5 of the participants were female (one was male), and all were Caucasian. Semi-structured interviews lasting for 45-60 minutes

were completed. The authors did not specify any details regarding data analysis procedures or approach.

Four major themes were identified from content analysis of interview data: Internal/Self-Awareness, Balance, Acceptance of Self/Other, and Yoga as a Way of Life. The Internal/Self-Awareness theme was drawn from participants' common experiences of noticing how their yoga practice enhanced their ability to bring into awareness bodily sensations, thoughts, emotions, and patterns of cognition, "fostering a type of focus that allowed them better control of their thoughts and abilities to direct their minds." The theme of Balance referred to the ability to regulate the stimulation and demands of their environments to achieve harmony in their lives and prevent burnout. Further, participants felt their yoga practice helped them to calm their central nervous system, reduce anxiety, reduce mental stress and fatigue, helped them relax, and gave them overall feelings of being more "centered and grounded." Acceptance of Self and Others referred to the ability to accept their own limitations and emotions and those of their clients without judgment and attachment to outcome. Lastly, the "Yoga as a Way of Life" theme was drawn as a result of participants continually indicating their yoga regimen has extended beyond the practice to embody the way that they approach life more generally.

Strengths of the study included the pioneering nature of work bringing together the practice of yoga and the life of the psychotherapist, and suggesting implications for yoga in the areas of psychotherapist burnout prevention and professional/personal development. Further, the themes derived by this study provide some direction for future research such as studies exploring the impact of yoga on therapist burnout and

competency. Despite these strengths, study limitations were significant. Given the small sample size (n = 6), generalizing the results to a general psychotherapist population is problematic. Further, absence of any documentation detailing methodological approach or procedure around data analysis leaves the reader questioning how themes were obtained, who analyzed the data, and how biases were accounted for; these factors further decrease internal and external validity. In addition, there was considerable variance across provider training, years of professional experience, years of yoga practice and background given that social workers, marriage and family therapists, and a psychiatrist comprised the sample. These differences in background in training may have significantly shaped their understanding of how yoga could be helpful for psychotherapists and thus again cannot be generalized. Lastly, sample homogeneity was a limitation as incorporation of a more diverse sample may have brought to light relevant multicultural considerations and perspectives.

Conceptual

As described in the significance and purpose of the proposed research, few have attempted to formulate a conceptualization of yoga in psychological terms. After a thorough search, only two publications were found to fit this scope. The first was an article by Douglass (2010) titled "Thinking Through the Body: The Conceptualization of Yoga as Therapy for Individuals with Eating Disorders" in which the author pulls from the disciplines of sociology, neuroscience, and the "spiritual texts" of yoga to formulate her conceptualization. The second was Valente and Marotta (2011), a study titled

"Prescribing Yoga to Supplement and Support Psychotherapy," which put forth the most comprehensive conceptual rational for yoga. Per this researcher's knowledge, this study is one of the only published documents detailing a broad conceptualization of yoga in psychological terms and, given the applicability to the present research, the study will be reviewed in detail.

Valente and Marotta (2011)

Valente and Marotta (2011) explored various methods for incorporating yoga into a psychotherapy treatment regimen, highlighted the philosophical underpinnings of yoga as they relate to the therapeutic process, and reviewed current research on the psychological effects of yoga. These authors also proposed guidelines for using yoga classes in conjunction with therapy, as well as an outline for introducing yoga to therapy clients. The authors detail several techniques psychotherapists can learn to use during and in between therapy sessions. Lastly, the authors speak to the utility of yoga for psychotherapists seeking professional development and burnout prevention.

Essentially, the authors conceptualize and condense the benefits of yoga for mental health down to several key factors: strengthening the nervous system (increasing one's ability to handle stress), improving quality of breath (helpful for emotion regulation and stability), and practicing mindfulness and detachment from thought (increasing self-awareness and attunement). As the authors stated, "overall, yoga can provide clients with a method to develop the tools needed to help manage the stressors of daily living and cultivate nonreactive self-analysis, which they can draw from to grow in psychotherapy."

(Valente & Marotta, 2011, p. 252). The authors also posited that a client's yoga practice can serve as a metaphor for life. For example, a client practicing yoga quickly learns that fighting against the discomfort of a pose only creates more tension. With guidance, the yoga student learns how to breathe into discomfort and let go—an experience that can be readily transferred to experiences of emotional, interpersonal, and existential distress. Clients can be encouraged to perceive each moment in life as a yoga posture by softening and breathing into it, while not resisting or judging their experience. The authors also offered some guidance around introducing yoga as an intervention in a clinical context by describing a basic explanation of the method, diversity considerations, and the recommendation that all clients get assessed by a physician prior to engaging in yoga.

Further, a basic understanding of the various styles of yoga was encouraged as was familiarity with local yoga studios and teachers so that a therapist can make a informed referral. Once the client has agreed to participate in yoga classes, the authors suggest that a psychotherapist can draw on these experiences and insights for therapeutic use in their sessions. For instance, a psychotherapist can assist on an increase in client self-awareness by asking clients to write their reflections after a yoga class and bring them to the next psychotherapy session. The authors also encourage the use of yoga to develop the self of the therapist and prevent burnout. The authors conclude that yoga can be incorporated in various ways and degrees depending on the capacity and inclination of the therapist because, when practiced, it can have a wide array of benefits for client and therapist alike. This conceptual model begins to establish the possible mechanisms of yoga in mental health terms, a foundation that the present study built upon.

In summary, the literature on the psychological effects of yoga varies greatly in scope, rigor, and utility. There is both promise and disappointment from a researcher's lens. The aim of the present study was to contribute to the study of various psychological factors in yoga as an intervention for improved mental health.

Chapter 3: Method

Introduction

The present study utilized qualitative methodology for several foundational reasons. First, as previously stated, yoga research is in the early stages and many studies employ a "bottom up" approach by beginning with very specific variables of interest and measures and extrapolating more general conclusions from these very specific findings. Continuing to solely approach yoga research this way in the absence of any foundational theory or conceptualization of relevant variables seems illogical and unproductive. Therefore, the inductive ability of a qualitative approach was used to build toward theory, to describe psychologically salient components of yoga interventions, and to inform future research studies that can test these salient components deductively via hypothesis testing. Qualitative methods make these tasks possible by allowing researchers to describe complicated phenomena, to explore new areas, and to build toward theory (Hill et al., 2012). Further, qualitative methodology allows for rich and complex data to emerge that is not achievable via quantitative methods (Corbin & Strauss, 2008). It also allows for depth of understanding and a valuable way to explore the subjective and lived

experience of the individual (Hill et al., 2012), all relevant goals for yoga research in its current state.

Consensual Qualitative Research (CQR) (Hill et al., 1997; 2005; 2012) is particularly well suited for the present study given its usefulness for studying complicated phenomena such as internal events. Given that psychological conceptualization is a complex inner experience, interviews can probe in depth to understand both the process and content in participants' conceptualization of yoga. CQR highlights the use of multiple researchers, the process of reaching consensus, and a systematic way of examining the representativeness of results across cases. A modified version of CQR was employed as this method allowed categories to emerge and evolve directly from the data.

Choosing and Structuring the Research Team

Doctoral students in Counseling Psychology were chosen to comprise the primary research team, which Hill (2012) deems a real advantage as "they generally have good interpersonal skills, welcome feedback about how they come across to other people, and are motivated to work on interpersonal relationships" (p. 528). Given that the primary investigator is a doctoral student in Counseling Psychology as well as a registered yoga teacher (RYT-500 Hour), the original intention was to have research team members who were not familiar with yoga to reduce inherent investigator bias. However, as Hill noted, team members need to feel committed and involved in the process. Therefore, the two doctoral students willing to volunteer their time and energy to assist in the present study

also held yoga as a passion and interest area as both are Registered Yoga Teachers (RYT-200 hour) themselves.

The fact that all primary team research members are Registered Yoga Teachers both produced insights into the research topic and introduced undeniable bias. Team members remained consistently vigilant about potential bias throughout the coding process to ensure that interpretations were reflective of the data. The primary investigator deemed this common training background as more of a advantage than disadvantage. First, all team members were passionate and committed to the study. Secondly, they were able to understand and translate the dual language of the participants in ways someone unfamiliar with professional psychology and yoga would not be able to do. To help offset potential bias, the academic advisor supervising the present thesis (who is unfamiliar with yoga) served as data auditor to monitor and provide quality control. In addition, a secondary auditor (also unfamiliar with yoga) was utilized for further feedback and quality control to help offset this inherent bias.

Sample Selection

Per Hill (2012), "obtaining a cooperative sample of participants who are intimately familiar with the topic is critical" (p. 530). Because CQR research relies on participants to describe their experiences, it is crucial to recruit participants with depth of experience with the phenomenon who can also articulately describe their experiences. Given this, individuals intimately familiar with yoga and psychological conceptualization and practice were desired. In this researcher's view, individuals best positioned to

articulate this conceptualization are psychologists who have been dually and extensively trained in both the discipline of professional psychology and yoga teaching. Given this, participant selection criteria were clearly defined as individuals who have earned both a doctoral degree in professional psychology (PhD or PsyD) as well as a Yoga Alliance Registered Yoga Teacher Certification (200 training hours or more). Given the fairly narrow constraints of these inclusion criteria, a national search was used to obtain the desired sample. Further, phone interviews were required to access this sample that was scattered across the United States. Regarding sample size, the high end (n = 15) of Hill's 8-15 participant recommendation was implemented to produce a large enough sample to determine whether findings can be generalized to the group vs. just one or two individuals. Further, it was hypothesized that participant conceptualization of yoga in mental health would be diverse and varied and thus a higher number of interviews would be of value.

Developing the Protocol

A thorough review and familiarity with the literature presupposed formation of the interview protocol and aided in the creation of good questions. An extensive list of 15 open-ended interview questions was developed. The protocol began with several warm-up questions focused on rapport building by inquiring about experiences, training, and background. The second (and largest) portion of questions were related to theory and conceptualization, and the last portion focused on application of theory to current or ideal practice integration. Throughout the process of protocol development, the primary

investigator sent the question protocol to the core research team members and study auditors for feedback. The primary investigator typically asked each question in order, although the protocol was semi-structured, which resulted in some variability to meet the flow of the interview.

Recording Expectations and Biases

Due to similarity in training and background between participants and the primary research team, extra care was taken at the beginning of the research process to record biases and expectations. In the first research meeting, team members recorded their biases and expectations via independently answering each of the protocol questions in written form prior to data analysis. The primary investigator and the two primary research team members then verbally shared expectations and answers to the questions collectively to increase awareness of individual and group biases to aid in the aspiration of setting them aside during the coding process. It seems that the obvious potential for bias (given coders were PhD students in Counseling Psychology and Registered Yoga Teachers) actually increased care and vigilance about bias throughout the coding process. The goal was to ensure that interpretations were accurately reflective of the data.

Participant Recruitment

Purposive sampling methods were utilized for recruitment. Potential participants were identified via Google searches, individual referrals, the International Association of Yoga Therapy website member directory, and the Yoga for Depression website provider

directory. University of Minnesota IRB study approval was granted on April 8, 2014 (IRB Code: 1403P49105). On April 11, 2014, the primary investigator sent a recruitment letter via email (see Appendix A) to personal and professional contacts in the yoga and psychology community, inviting participation in the study and providing a brief explanation of the study's purpose, identifying information about the primary investigator, and noting confidentiality considerations. Three participants were acquired as a result of reaching out to personal contacts. On April 21, 2014, the primary investigator again sent the recruitment letter (Appendix A) via email to 30 providers listed as both a Registered Yoga Teacher and a Psychologist in the International Association of Yoga Therapy website directory. In less than one week, 13 individuals responded with written confirmation of interest and willingness to participate in the study, bringing the total initial sample recruitment to n = 16. This high response rate is notable. In response to the invitation for participation, enthusiastic responses were received such as: "Wow, what an awesome dissertation topic! I'd be happy to participate in your study;" "I was so excited when I got your email, yes, I will totally give an hour or more of my time;" and "Because I totally believe in what you are doing, and I am big on the integration of yoga and psychology, I would love to help you out with your dissertation."

In response to these replies, the primary investigator responded via email with the informed consent (Appendix B), the interview protocol (Appendix C), and provided several interview time options. Potential participants were asked to reply both with consent and preferred phone interview time and date. Hill et al. (2012) "wholeheartedly

recommend that researchers send out the interview protocol prior to the interview" (p. 96) to allow participants to confirm or disconfirm their appropriateness for taking part in the study, to enable fully-informed consent, and to allow participants to reflect on their thoughts and beliefs prior to the interview itself. Participants replied with signed consent as well as a confirmation of an interview time that worked for them.

Data Collection

The primary investigator completed all interviews to ensure consistency across interviews. Proper recording equipment was obtained prior to data collection and working order was confirmed upon successful recoding of the first two interviews. However, as Hill et al. (1997) warned, "there is nothing more disheartening than completing an interview and discovering that the tape recorder did not work." This was indeed the experience of this researcher, as seven participant interviews were lost due to recording error. The primary investigator consulted with her academic advisor to devise next steps as a result of this equipment error. The primary investigator contacted each of these participants individually expressing regret and apology for losing the data and inquired about willingness to be interviewed again. Two of the seven participants agreed to be interviewed again, bringing the total sample to n = 13. Given the positive initial response rate, 18 interviews had been conducted prior to the realization of data loss, 11 of which were recorded successfully. In addition, upon consultation with the research team, it was deemed another participant interview had to be discarded because this individual held a PhD in Experimental Psychology and was the only participant who did not have

any experience as a clinician in practice. Given the degree of outlier and the importance of insight regarding integration of theory into clinical practice, it was decided this interview was best removed, bringing the sample size to n = 12. In an attempt to reach n = 15, the primary investigator sent out an additional recruitment email (Appendix A) on June 4, 2014 to providers meeting the inclusion criteria who were listed on the Yoga for Depression website provider directory and acquired two additional participants, bringing the total sample to n = 14. As mentioned earlier, all interviews were completed by phone and lasted anywhere from 38-96 minutes in duration.

A HIPAA-compliant transcription service was utilized to facilitate timely and confidential interview transcription. Interviews were transcribed verbatim and the primary investigator cross-checked the transcribed interview data against the taped interview to ensure accuracy. Identifying information was removed right away to protect participant confidentiality and each participant was given a case letter (A, B, C, etc.) as an identifier. One master document linking case letter to participant was created and kept in a password-protected document on the primary investigator's laptop computer.

Preliminary Data Analysis

After independently documenting expectations and biases and discussing them collectively, the three-person research team reviewed the purpose and scope of the study as well as the CQR method. From there, the first step in analyzing the data involved developing a domain list or a "list of meaningful and unique topic areas examined in the interview" (Hill, 2012, p. 104). The goal of developing a domain list and assigning the

raw data into domains was to provide an overall structure for understanding and describing each individual participant's experience. After interviews were transcribed, an inductive approach to developing an initial domain list was utilized to cluster and manage a large amount of data. Each team member independently reviewed several case transcripts to see what topic areas naturally arose from the data to create an initial domain list. This approach allowed researchers to stay close to the data and see what emerged. Team members, meeting together in-person, then shared their initial domain lists and came to consensus. Eight initial domains were identified as follows: Identity, Theory, Practice, Clinical Implications, Essential Components, Unique Experiences of the Dual Provider, and Needs. This domain list and revisions were also sent to both study auditors throughout the research process for feedback, additional perspectives, and to maintain a rigorous, scientific process.

After the primary team assigned domains for the first several transcripts, domains for the remaining transcripts were coded by just the primary investigator in close consultation with the primary research team. This was the primary modification made to the CQR method. Once all transcription data was coded into at least one domain, the primary team met once again to come to consensus about domain content through review of a consensus-version, which included domain titles and all of the raw data for each domain. Original transcriptions numbered by line were kept and reviewed for reference and context as needed. Data were de-identified and participants were identified only by case letter. The link to identifying information was only known to the primary

investigator and kept in a password-protected document on the primary investigator's laptop computer.

The primary research team went through the raw data one domain at a time to clarify and revise the domain list to ensure representativeness of the data. Large discrepancies in domain sizes suggested need for domain revision. To illustrate, each domain had a certain number of pages of transcripted data coded into it: Identity (5); Theory (31); Practice (15); Clinical Implications (20); Essential Components (9); Barriers (5); Unique Experiences of the Dual Provider (18); and Needs (8). As a result, the research team discussed, debated, and analyzed what the most fitting domain list could be to best encompass the data. The team came to consensus on the following finalized domain list: Domain 1: Provider Context, Domain 2: Conceptualization Content, Domain 3: Conceptualization Process, Domain 4: Clinical Implications, and Domain 5: Practice Integration.

Core Idea Construction

In the third research team meeting, the team reviewed each domain and constructed core ideas by independently reading all of the raw data in a domain and then summarizing the data into a core idea. A core idea aims to capture the "essence" of what an interviewee has said with more clarity and conciseness. Research team members took care to stick close to the explicit meaning of interview data. Team members also kept the whole case context in mind when developing core ideas and were able to reference the entire case transcription if desired. From here, research team members came together as

a team to discuss core ideas until consensus was reached. More detailed explanation of domain and core idea construction can be found in the results section in the next chapter. Once the team came to consensus about the domains and core ideas, they were sent to the primary auditor (the dissertation advisor, a faculty member with years of qualitative and CQR experience) as well as the secondary auditor (a individual with a PhD in Counseling Psychology and several years of qualitative research experience) for review.

Chapter 4: Results

Overview of Results

This chapter presents the domains, categories, and themes generated by the consensual data analysis process. Results were placed in 5 overarching Domains, 15 Categories, and 54 Themes. Considering the breadth and depth of the results, an orientation to the structure of this results section will be presented to facilitate comprehension and ease of review. In addition, see Figure 1 for a visual representation of the Domain and Category structure. Domains 1-3 address the first research question: how do psychologists dually trained as yoga teachers psychologically conceptualize the impact of yoga on mental health? The presentation of these domains is strategic in that the first domain "Provider Context" attempts to provide a contextual foundation from which to understand participants' subsequent psychological conceptualizations of yoga. To support this aim, the first 5 categories of Professional Background, Theoretical Orientation, Yoga Style, Orientation Parallels, and Role Identification will be described as will the 11 themes nested underneath them.

The second domain, "Conceptualization Content," shifts from contextual foundation to the content of participants' conceptualization of yoga as psychological intervention via the Essential Component category, which was comprised of 7 themes. The third and final domain applicable to the first reseach question, "Conceptualization Process," focuses on process components of participant conceptualization through categories of Brief Psychological Conceptualization Strategy with 7 themes and Conceptualizing Experience (3 themes).

The last 2 domains "Clinical Implications" and "Practice Integration" and their respective categories and themes address the second research question: in what ways do psychologists dually trained as yoga teachers integrate their dual training into their current professional psychology practice? The Clinical Implications domain is comprised of the Benefits and Potential Contraindication categories with 7 themes and suggests clinical populations for which yoga may be either beneficial or contraindicated. The final domain, "Practice Integration," explores the ways participants are currently integrating their dual training in practice and encompasses the following categories: Actual Integration, External Reactions, Ideal Integration, Barriers, and Needs. To reduce redundancy and protect participant confidentiality, quotes used to illustrate domains, themes, and categories are not labled by participant name and were edited for clarity. Please note that each individual quote/paragraph represents one unique participant voice.

Domain I: Provider Context

The first domain, "Provider Context," attempts to provide a contextual foundation from which to understand participants subsequent pscyhological conceptualizations of yoga.

Category A. Professional Background

Theme: Psychologist First

In response to the question: Tell me a little bit about your professional background. What was your path to becoming a psychologist and yoga teacher? The vast majority (n = 13) of participants indicated they became a psychologist before they became a yoga teacher. Several reasons for this emerged. First was a matter of timing; the majority of participants indicated they were introduced to psychology in an academic setting and yoga later via happenstance.

> I remember one of my peers in my cohort had told me about yoga. I started taking class with her and then found myself attending regularly. I found it as an incredible way to just balance my life and balance the stress of my studies and also just a personal growth piece. It just integrated so well with everything else I was doing.

Secondly, many participants indicated engaging in yoga teacher training during graduate school was not an option due to time and financial constraints:

> I wanted to become a yoga teacher, but graduate school was so intense. There's very little time to do anything else. So I never got licensed to teach but I was still practicing a lot.

Theme: Positive Personal Experience Led to Yoga Teaching

Additionally, all participants indicated their path to yoga teaching started with a positive and healing personal experience with yoga:

> During graduate school my second year I started to do yoga, I remember my first class. I felt these changes my body. It was like my religious experience once per week, I did that all throughout graduate school.
>
> I saw in a really concrete way through addiction how I could destroy myself, and I saw in a really concrete way with yoga how I could heal myself. From the body out. I did something to destroy my body, which destroyed my mind, which destroyed my soul. Then, with yoga, I could heal my body, and it healed my mind, and it healed my soul.

It seemed that positive personal experience with yoga in its support of participant self-care and stress management motivated a desire to both deepen personal practice and learn how to teach yoga for clinical applications.

Category B. Theoretical Orientation

In order to understand how these dual providers conceptualize yoga as a mental health intervention, it is important to understand their theoretical base or psychology practice orientation.

Theme: Integrative Orientations

Across participants, it can be generalized that all were integrative, utilized skills that bring in the body, and consistently reinforced their value in a holistic view of the client encompassing mind, body, and spirit. Several core groupings in the participant pool were noted however. Seven participants identified as being interpersonal, psychodynamic, and using skills; five participants endorsed utilizing Buddhist psychology and mindfulness-based CBT; and two listed other orientations.

Category C. Yoga Style

Participants were also asked about their primary "yoga style." Unlike psychotherapy where there are many distinct theoretical orientations and approaches,

yoga is united in one foundational philosophy and thus there is no such thing as a "yoga orientation." There are, however, various offshoots and adaptations to the asana (physical posture) aspect of the practice, and these offshoots and adaptations are understood to be a "style" of yoga. As such, participants were asked what their primary yoga style was. However, no predominant themes emerged as most participants indicated they teach and practice eclectically via various combinations of the hatha and vinyasa yoga styles.

Category D. Orientation Parallels

Participants were asked to reflect on parallels between their psychotherapy orientations and yoga styles. The most predominant common factors derived by participants are shared below.

Theme: Core Philosophy of Wholeness

A key common factor drawn between participant yoga style and therapy approach was the foundational belief that at their core individuals are whole and complete. Several examples below illustrate this tenant:

> The thing that moved me most in my yoga training and opened my mind up to integrating these two disciplines is when I learned a yoga philosophy that we are whole, at our core, one of beauty, balance, and wholeness. In yoga we aren't trying to change ourselves; we are trying to remove what allows us to be in our light. It's such a beautiful concept; it's very divergent from what we were taught. We take lots of classes on what are the symptoms, what's wrong, what's the problem. At your core you are very whole, you have everything that you need. Our work is to help you shed these things that prevent you from seeing this. You already are fine… this philosophy has been so healing. I'm already whole—I just have to get there, it's already there. That is such a huge one that is so essential to the therapeutic process.

> As opposed to having this orientation that's more pathological—like we are forever flawed human beings that will at best be neurotic. For me, I felt more that humanistic, existential pull, like the Rogerian approaching someone with unconditional, positive regard. I can see them as full, complete, whole, and perfect exactly as they are, and exactly as they aren't. There is nothing to change or fix; there are just obstacles in the way of their experiencing themselves as whole and complete, or liberated, or however you want to

put it.

> I believe there's a fundamental part of a person that's always seeking for expression and healing. And people what might go about pursuing that in very different ways; and perhaps different times call for different methods. And so a person might try yoga before they try therapy, or vice versa. Or maybe during stages of life yoga seems more healing to them than therapy might and vice versa. So, as far as my teaching goes, I kind of see that fundamental striving towards freedom, expression, healing, and authenticity, which are fundamental to everybody. In that, I see the yoga practice as an opportunity to work through one's own limits to that expression.

Theme: Intended Outcome of Embodied Awareness

Another common factor shared was the desired outcome of embodied awareness. These two participants spoke of this sense of awareness:

> It's all about awareness, embodied awareness on both sides, whether it's yoga or people's lives. To help them come more embodied and more grounded, to live in the truth of what is rather than the story.

> Both stress mindful awareness (awareness of present moment experience with acceptance) is the path out of suffering. Both use body and breath as an anchor to stay grounded in the reality of the present moment and focus on relaxing reactivity and making skillful choices.

Theme: There is No Difference

Another common response was that there are not major differences. Several participants explained:

> Philosophically there's no difference, frankly. Of course, it's different if you're on the yoga mat or you're sitting in a chair, but I try to integrate both of them, each into the other.

> Well, they're the same thing, really. Yoga is the physical expression of the mental work that I'm doing with my clients. It's also the moving meditation part.

> Both are eclectic. I don't have one single type for either that I work from, being a good yoga therapist and therapist are part art and part science, so you are dealing with whoever is in front of you in a way that makes sense in that moment. It's the opposite of manualized treatment.

Category E. Role Identification

One protocol question attempted to tease out participant role identification and the context from which they were interpreting the questions by asking, "Reflecting on the questions I have asked thus far, and your answers, which 'hat' (yoga teacher or psychologist) were you wearing when interpreting and answering the questions?"

Theme: Psychologist Primary

Five of the respondents indicated their psychologist hat was primary, such as the next three participants who described their role identification:

> I come at it from the psychology first and go into the body from the psychology... See, I feel like I'm a psychologist first, rather than a yoga teacher first.
>
> Psychologist. The reason for that is the way that I'm looking at it is how do we integrate yoga techniques into mental health treatment and interventions. I'm trying to figure out how to mix it in. Psychology is my base. I am a psychologist who integrates yoga techniques.
>
> I feel like, for me, one is primary professional identity and the yoga is more of a personal identity in a way. I feel like at work I am more comfortable wearing my psychologist's cap. I wouldn't want to be somebody that was only a yoga teacher. I think that would be boring for me. Psychology grabbed me more foundationally and then the fact that I'm able to incorporate yoga or mindfulness meditation ideas throughout the work that I do feels like a good integration, but it's that piece that's definitely secondary to my psychological approach background.

Theme: Both Hats

Four participants spoke directly to feeling they were wearing both 'hats' of psychologist and yoga teacher, such as the following two participants:

> That's kind of a hard question to answer because I really don't differentiate the two and I don't even differentiate either of those roles just from who I am as a person. I really feel I'm answering from what I truly believe and that's a melding and a union of both of those identities. I really don't feel like I can have one without the other. The things I've learned and my practice of yoga inform who I am as psychologist. The training and the research and all of the education and experience as a psychologist completely inform who I am as the yoga teacher. They're one in the same. I really feel lucky.
>
> You know, I no longer feel I can separate this. I spent a decade of my life studying the mind and the next decade studying the body. They are both so integrated I can't separate them out anymore. Psychology is the mind for me and the yoga is the body, and they are so integrated, I don't want to approach my clients in a way that separates them anymore.

Theme: Both, But If I Must Choose Then Psychologist

The third grouping of three participants answered both, but if they had to choose, then the psychologist 'hat' was more strongly identified with. These quotes capture this group:

> I think both, but I think I identify more with my psychology training, because I have more in-depth training in psychology than I do in yoga. In yoga we look at people as whole and I think it's very hard to separate out within myself which 'hat' I have on. It's not so much about which role I identify with. How can I say I'm part this and I'm part that? I'm a sum total of all of my experiences.

> I don't always define myself in the yoga community as a yoga teacher who is also a psychologist. I like to think I'm more than the sum of two trainings… I'm bringing all of my skills to the label. I'm not wearing a hat and playing a role—this is how I think. It's a culmination of all of my training and experience. We have to think holistically about ourselves if we are going to create a holistic model.

Theme: Yoga Teacher Primary

The final participants indicated they answered primarily from their yoga teacher 'hat,' such as one participant who stated:

> More my yoga teacher hat… because yoga is already integrating the mind but psychology isn't always integrating the body.

Domain II: Conceptualization Content

Now that additional context was presented by getting to know more about the unique experiences of the dual provider in Domain I, the second domain will focus on the content regarding conceptualization of yoga as a mental health intervention.

Category F. Essential Components

Given that yoga is comprised of multiple overlapping interventions in one, the present research aimed to identify which components of yoga are *essential* for psychological benefit. Though participants expressed finding it challenging to narrow this down, four dominant components emerged (in order of prevalence): breath, mindfulness/meditation, relationship with self, and connection to body.

Theme: "Openness is Essential"

It is worth mentioning that prior to relaying their beliefs on what is most essential about yoga for psychological benefit, many participants put forth a caveat that yoga will only be helpful if one is open to the practice. One participant spoke to this below:

> In order for there to be a psychological benefit, I feel like people have to buy in a little bit or even let themselves buy in. I feel like the component of yoga that's essential is whatever piece is going to help somebody maybe suspend judgment and dip their toe in a little bit more.
>
> I have found nothing that it does not help at least in some way, but I guess it probably is not going to work for people who aren't into it.
>
> I like having yoga as an option in group therapy... I never know what somebody is going to resonate with. It's not going to be yoga for everybody. Trying something else that they connect to. I think it's just nice in a psychological practice to have it offered as an add-on to the work that we do.

Theme: "Everything Starts with The Breath"

When asked what is essential about yoga for psychological benefit, a resounding answer was breath, or pranayama, which means "extension of the breath" in Sanskrit.

> Breathing. Absolutely. Anybody who's doing yoga, everything starts with the breath. You can go a couple of weeks without food, you can go a couple of days without water, but you can't go more than a couple minutes without breathing. So everything starts with the breath. From the moment you're born and the first breath you take, everything starts from there.
>
> Pranayama. It really has such a direct impact on the nervous system. It's also such an anchor—it's free and it's neutral. It's a starting point.

Participants indicated that yoga provides training in deep diaphragmatic breathing and a experiential opportunity to practice it. Consequently, individuals gain a free, neutral, and effective tool to aide in self-regulation and calming the nervous system.

> I would say starting with the breath is most essential. A lot of people have gotten locked up in their bodies and are not accessing their diaphragm anymore. If you can even get people to just stop and breathe properly and get them into their parasympathetic nervous systems, just that alone can be such a profound change because so many people—when they're anxious, for example—are shallow breathing or they stop breathing, so getting them back in touch with their breath is so important.

Participants also expressed the view that the calming effect of breath on the entire person facilitates the possibility for deeper awareness, insight, and change.

> Yoga teaches us how to rest. I believe all true healing happens when we are rested and calm, to actually teach someone how to be still. We don't do that in our culture. I think that is extremely healing for people. They are being given permission for rest; they are paying money to rest. I think that is huge.

Theme: Mindfulness/Meditation is Essential

The second component deemed essential by participants was engaging the observing self via the practice of mindfulness/meditation. This predominant theme is illustrated in the quotes below:

> Mindfulness/Observing Ego are essential. Looking at the space between the transitions, the pauses, just noticing reactions. Yoga is learning how to meet yourself where you are, to be with that inflexibility.

> It's the meditation. One is that it's something everybody can do—it can be done easily and in any situation. It can be done in the therapy room. I teach people how to breathe, how to manage their breath. So there are different types of meditation, and each can be effective depending on the person and the issue. It's easily accessible, applicable, and effective.

> Mindful awareness, learning how to stop being at war with one's experience and bring a kind, accepting attention to what's happening while it's happening… engaging the observing self.

Theme: Yoga Supports Distress Tolerance

Embedded within participants' views of mindfulness was the understanding that mindfulness practiced in yoga increases distress tolerance via the practice of being with discomfort. In other words, yoga provides real-time, literal, and experiential opportunities for people to be present with discomfort and practice non-reactivity. As result, the idea is that self-efficacy and confidence in one's ability to handle life's difficulties improves.

> I am trying to help people tolerate a sensation. But it could be a feeling. To tolerate a feeling in the body… to ride the wave of that sensation. That's really the basis of yoga—finding a pose, staying in a pose, and riding the sensations and going through the whole wave of experience. That's what I try to help people do, to stay in them, get to know them and not pull out of them. That's what yoga is.

> The other thing that I would say is essential is also literally creating situations in which you become uncomfortable and then practicing staying and being nonreactive to whatever comes up. Doing that on the mat so that you have the ability and confidence to do it off the mat.

> Being able to tolerate discomfort and being able to find ease, even when you're playing with either a physical edge or a psychological edge, actually boosts ego strength, because someone doesn't need to be a victim to it and collapse down around it, but it allows them to meet challenges and stay with challenges. To have an experience of being effective, even when pressed, even when challenged, also helps someone understand personal boundaries, identifying where their edge is, and when they have pushed too far.

Theme: Relationship with Self is Essential

The third most prevalent essential component of yoga for psychological benefit that emerged is the healing impact on one's relationship with self. More specifically, participants expressed feeling the dissemination of yoga philosophy as tremendously healing as it encourages greater self-acceptance, self-compassion, and relating to the self in gentler and more attentive ways.

> I think that yoga helps people connect in a more intimate way with themselves; it's self-study. When you are doing yoga, you are studying the sensations in your body and what comes up in your mind. One of the reasons it's so healing is because it's creating more connection with the self, it's really key that it connects people with themselves. I think you also develop through the practice ahimsa (non-violence). You develop more of a

> acceptance of yourself and you're practicing non-judgment. That starts to translate what's on the yoga mat into our lives.
>
> Self-acceptance: It's kind of like the process experience of psychotherapy. It's not like you go in immediately and get a benefit; it's the process of working with yourself. So both [yoga and psychotherapy] are processes of meeting yourself where you are.

Theme: Connection to the Body is Essential

The fourth component deemed essential for psychological benefit was connection to, greater awareness of, and improved relationship with one's body.

> What's most essential? The importance of the body. The body is so essential to pay attention to and to care for… Yoga would say unless your body is to a place you are more open and the energy is flowing, we can't do that much with the mind.
>
> Body self awareness allows you to stay present and out of your mind, so you can be in greater alignment with your true self. I see pathology more in relation to the degree to which you are separated from your true self.
>
> I think it's the opportunity to pay close attention to the body and bringing awareness to areas of the body. Yoga is always inviting opportunities to connect in deeper ways, and also to pay close attention to how different your body feels, especially on a different day. It's just an invitation for just deep awareness of the body.

Additionally, this body connection offers an additional modality and avenue for getting at psychological material and provides an alternative for individuals who benefit from a non-verbal form of processing.

> With some people you might not be able to talk about it, you'd need to guide them through the body. There are a lot of people who need asana and the physical to get to the spiritual. That was the case for me—I had to go through the body first.

Theme: Mat As Metaphor

A fifth dominant theme emerged that overlayed all others as participants expressed the essential and powerful value of using the yoga mat as a metaphor to mirror back to individuals the way in which they interact with themselves, their bodies, and their lives. Again and again, participants spoke of the ways in which yoga enables individuals

to learn skills and gain insights on the mat that can be translated off the mat and into their lives for increased psychological health and wellbeing.

> What happens physically on the yoga mat becomes a metaphor for what the person experiences cognitively, and psychologically, and then a yoga instructor can help articulate those links, so that the person can bring their experience on the mat and transfer those experiences to personal things that happen off the mat. It all becomes a metaphor, just like in a therapy session how the transference/counter-transference is a metaphor for all types relationships. What the person experiences on the therapy mat is a metaphor for what they experience in the rest of their life.

> You're getting them to just be aware of how they approach things in the world. We always say the yoga mat teaches you who you are. Who you are in the outside world tends to be who you bring to the yoga mat. If you are competitive, or judgmental, or push yourself a lot, you're probably going to do that on the yoga mat. If you're passive, you're probably going to be scared, not try things, or not push yourself as much. It's just another way for people to become mindful. Just like in therapy, you ask them to go and watch their thoughts, listen to what their automatic thoughts are, for example, or their behaviors.

> Yoga helps us become aware of our patterns of the mind. How do you treat yourself on the mat? Do you tell yourself you're stupid because you fell out of a balancing posture? What patterns show up for you? Do you give up easily? I think those patterns pretty directly translate off-mat.

Domain III: Conceptualization Process

This domain focuses on *process* components of participant conceptualization through categories of Brief Psychological Conceptualization Strategy and Conceptualizing Experience.

Category G. Brief Psychological Conceptualization Strategy

In addition to being asked what component of yoga is essential for psychological benefit, the following question was posed to participants: "Imagine you are in a room filled with psychologists who are unfamiliar with yoga and skeptical about recommending the practice to their clients. You are asked to provide a psychological conceptualization of yoga's impact on mental health. What do you say?" This question

was designed to assist in answering the first research question by challenging participants to integrate their two knowledge bases and translate yoga's effect to those who are unfamiliar with yoga using psychological terminology.

A common presentation strategy was revealed. Participants again reinforced mindfulness, self-awareness, and body connection, but most commonly indicated they would first focus on physiological effects, which did not come up when asked what was most essential about yoga for psychological benefit. Given the overlap of mindfulness, connection to body, and self-awareness in the previous "Essential Components" category, only content divergent from the last category will be expanded upon, as well as themes regarding strategy for translating yoga's psychological impact to psychologists unfamiliar with yoga.

Theme: Start with Physiology

The majority of participants expressed they would first present physiological evidence to support and explain yoga's psychological impact. Several participants (separated by paragraphs) explain this:

> Well, I think the first thing I'd start with is the autonomic nervous system, because we're looking at the sympathetic, which is the fight or flight, and the parasympathetic, which is the feed or breed. When you've got somebody who has lots of anxiety or depression, or anything that's affecting them mentally, you're usually kicking in the sympathetic. So you've got the fight or flight. When you've got that kicked in, it tends to shut down the frontal lobe, so people tend to not think logically when they're having this need to fight or flight or freeze. So when you're doing the yoga breathing, you're kicking in the parasympathetic. When you kick in the parasympathetic, you're allowing your body to relax, your mind is clearer, and you're better able to reason and work through your issues through reason rather than emotion.
>
> I would begin by addressing the neurobiological impact of a solid yoga practice, including the way that yogic breathing calms the sympathetic nervous system and activates the parasympathetic nervous system. I'd also talk about neuroplasticity. Then I'd try to

> humanize by sharing some of the wonderful examples (from my students) of yoga as an adjunct to therapy.
>
> I talk about the autonomic nervous system and its relationship to the limbic system. I go into the neurology and how the body, when the body is tense and contracted, actually affects our thinking and our mind. I talk about the vagus nerve and the reptilian brain and relaxation response and fight or flight. All of the neurology around anxiety. The importance of helping people come into a calmer place in their bodies will allow them to be more open to relationships, to self-inquiry, to such rigid thought patterns.

Theme: Ride on the Coattails of Mindfulness

The second theme and strategy that arose was that many participants indicated after first relaying physiological support for yoga, participants indicated they would essentially "ride on the coattails of mindfulness" to support their psychological conceptualization.

> I would say one of the first things that yoga can help people do is shift from that stress response, that fight or flight into their parasympathetic nervous systems. Yoga is also going to be another format by which to teach them mindfulness.
>
> Obviously, the deep breathing is going to stimulate the parasympathetic nervous system. Anything that does that is going to help anybody with anxiety and any of the other disorders that fall in that camp. I would also definitely talk about the mindfulness piece. The piece about the same benefits that you might get from meditation, you might get from yoga because of being able to slow the thoughts down or even just being mindful of your thoughts and being mindful of your movements. And obviously, there's tons of research for mindfulness and meditation now, and I think if you wanted to go in this direction you could easily piggyback on that research.

Theme: Yoga is Multifaceted

Even though physiology and mindfulness were highlighted, another theme is that participants presented yoga as a multifaceted intervention highlighting physiological impact, mindfulness, self-awareness, and connection to body.

> Basically, what I would say to psychologists is that yoga provides flexibility for people, so that they can have a full range of functioning, so they can experience their feelings, they can have feelings, but their feelings don't have them.
>
> I really would start by talking about regulating/balancing the nervous system, learning how to access the parasympathetic nervous system. I would especially if they were non-believers or skeptics—I would definitely start with neurophysiological. Then I would start

> to talk about mindfulness, yoga is a mindful practice, it's not about a fancy pose, it's about the relationship to yourself in the pose, accepting what your limitations are, observing your thoughts your feelings, thoughts, and sensations as you are going through life. It's a life skill… You could sub in yoga for psychotherapy.

> Yoga at it's most basic is a good form of exercise that has an intentional focus on mindfulness and acceptance. It's one of the only forms of exercise that actually teaches individuals to be more intuitive and listen to their bodies and what they need. For clients who often push themselves beyond their limits and don't have high levels of self-awareness, yoga can be an intentional and experiential teaching tool to begin that process. Because it's an experiential exercise, clients learn to check in with their bodies throughout the practice, with prompts from the teacher. Over time, that can translate to checking in with themselves off the mat, building awareness. Additionally, yoga has meditation and mindfulness practices built into the class, for which the evidence is extensive. Finally, yoga helps to activate the parasympathetic nervous system during active practice. Using the breath as a regulator and focusing on alignment (which communicates to the nervous system that fight or flight is not necessary) can help anxious clients learn how to self-soothe.

Theme: Yoga Can Be Conceptualized Through Many Psychological Theories

Several participants also highlighted that yoga can be conceptualized and described through many psychological theories.

> If I was in a room full of CBT therapists I would say yoga helps you appreciate that you are not your thoughts, you are not your feelings, you are not your passing body sensations. You learn to dis-identify with the physical and emotional pain, the emotional thoughts. You are creating space between that difficult thought and feelings.

> You could talk about it in terms of a DBT conceptualization in some ways since emotional regulation and distress tolerance are two big ones that I think about with the yoga practice. You could also say, from the self-psychology perspective, that it's a way to practice finding the self in a way, to try to clear away a lot of the clutter in the senses and get a little bit more aware of who you are at a really basic level. Also, not just noticing the self or becoming familiar with it, but also practicing relating to the self with kindness, with fairness, with curiosity about, "My body's doing this and here's how I'm going to respond to it." I think there's even a object relations component there too. It's building and relating to the self in a way that maybe someone has never been able to do. I think yoga can be described through pretty much any theory or approach.

Theme: "Make it Data-Driven"

Additionally, many of the participants discussed part of their strategy would be to make their conceptualization data-driven and legitimized with current research.

> I would want to talk about the research demonstrating how beneficial yoga is for all kinds of different ailments. From the physical illness, blood pressure, deep stress like

> deactivating the stress response into the body and starting to create more breath regulation—all the benefits that have to do with that. The research specifically on how yoga is beneficial for depression, anxiety, overcoming trauma, etc.
>
> I would make it very data-driven. I would also cover what yoga does for the physical body and what it does for mental health. It changes our genetic expression, changes our brain, how meditation changes our brain. I would try to show what yoga does from a scientific perspective.

Theme: "Here's Another Skill"

Participants also discussed that they would present yoga as "another skill" therapists can encourage clients to incorporate.

> I think it's a really important way to practice emotion regulation, distress tolerance... I probably wouldn't go into a detailed explanation of the role of the body and all of that. I'd do it if they were interested, but I would probably just keep it as, "Here's another skill," on that level to start the conversation.
>
> I feel like there's so much I can say, but I would start from the most basic thing of, "Hey, here is a coping skill that a client can use as opposed to a self-destructive behavior." This could potentially help somebody with emotional regulation and could help someone with severe anxiety develop some relaxation skills.

Theme: "Show Don't Tell"

Lastly, participants indicated they would incorporate an experiential piece in their presentation of yoga for a general psychologist audience:

> I would try to give them a body experience or else it's something that they will just criticize in their heads if they don't have the experience in their bodies. I try to stay away from explanation and give them an experience of dysregulation followed by regulation, and then weave in a whole example of what they can be doing with their clients that brings their body into the room, then they get to experience the power… and then I give a sample session so they get to see what it looks like clinically and see that in contrast to talk therapy.
>
> I would want to get them outside of their comfort zone and let the experience lead the way. Would do some breath work, using the breath as an example of energizing or calming the nervous system. I would speak to whole body health… I would speak about it in terms of somatic psychology.
>
> It's not what I would say to them, it would be what I do. I would use meditation and breathing in session. We know it has an effect on physical health and mental health and we don't exactly know why. Slowing down the breath and slowing down the system helps the nervous system.

Category H. Experience of Conceptualizing

Participants were asked to describe how it *felt* to attempt to briefly conceptualize the psychological effect of yoga for a hypothetical group of psychologists unfamiliar with yoga. Results were varied. However, six participants indicated it was challenging.

Theme: It was challenging

> Why is yoga helpful via the lens of psychology? It's hard to answer because yoga addresses the person on different levels, conjointly all of those things have a strong and profound effect on the person.
>
> I'm not sure. It's hard to qualify, because it's such integrative work, isolating one thing over another and prioritizing it. Seems counterintuitive. I'm not sure.
>
> That's a good question. It's something I think about all the time. I guess it's always about how do you just find the best way to articulate it. The challenge is always once you've embodied something so much and you just know it, then how do you explain it to other people who have no sense of some of those concepts?

Interestingly, several participants expressed finding it challenging due to no longer "speaking the language" of traditional psychology:

> I just don't use that language anymore, so I was looking up into my head... because I was trying to remember the old language. It was just a little bit awkward from that standpoint... it's just like an old, rusty language, like if I used to be fluent in Spanish and then I wanted to speak Spanish again to native speakers… it's like, okay, I know all these words and what they mean, but having to actually recall them wasn't easy.
>
> You know what? I don't use either one [psychology language or yoga language] and that's probably the truth. I don't use either one, and I just speak the way people talk. I just use regular English.

The remaining eight participants indicated positive reactions to conceptualization including that it felt exciting, natural, good, or easy:

> It feels really good because it feels like my truth to bring together these two disciplines, being a bridge between yoga and psychology. I don't fit in either world fully—it feels good to come up with a theory and I know people are hungry for this. They want to heal in this way.
>
> Well, it was very natural because is kind of who I am. It really... It always has fit. It always seems like seamless fit to me.

> Other than the initial nervousness of presenting anything in front of a skeptical crowd, my experience is one of excitement. I think it's exciting for psychologists to embrace the healing power of yoga.

Domain IV: Clinical Implications

The fourth domain begins to answer the second research question regarding participant integration of yoga into professional psychology practice by suggesting clinical implications of yoga practice.

Category I. Benefits

When asked which diagnosis, personalities, and symptomatology benefits most from yoga, several themes emerged.

Theme: Anyone Can Benefit If They Are Open

The majority of participants indicated feeling that anyone can benefit from yoga if they are open to it. Several participants speak to this below:

> For me, everyone would do yoga. There is a yoga practice for every body.

> As I said before, I think yoga is helpful to anyone. I wouldn't look to anyone and say, "Oh no, it's not going to help you." I think the only person it could be contraindicated would be someone who is doing it not because they want to give it a try but because they feel they have to.

> If it were up to me, every single one of my clients would have a daily yoga practice. Before I became a yoga instructor, I was telling people to exercise every day, but what yoga offers is a guideline for living. It offers a guideline for living from the philosophy that people can integrate on a body level. It also provides physical benefits, the side effects of which are pretty good—like sleep regulation and affect regulation, even weight loss.

Theme: Specific Diagnosis Perceived to Benefit Most

Several specific diagnostic populations emerged as benefitting most from yoga (in order of prevalence): anxiety-based disorders (including trauma), eating disorders, substance abuse disorders, and depression. One participant summarized in this way:

> I don't know if there's a type that can benefit most. I think that whatever the presenting complaint is, I think that yoga can find a way to address it. I teach a trauma-sensitive yoga class and so I believe people with trauma can benefit. Certainly anxiety and depression. I would tailor class a little differently if I was running a yoga group for anxiety than I would than if I knew the group was primarily depressed, for instance. I think it's terrific with eating disorders too. I just think you have to tailor it a little bit differently in order to get the benefit you're looking for. It can be used across a wide range of diagnosis.

Theme: Those Most Disconnected from their Bodies Benefit Most

In addition, a theme that emerged is that participants view yoga as helping to "heal the mind/body split." Thus, the disorders in which a disconnect from body are most prevalent are the ones that benefit most from yoga. Several participants spoke to this:

> It applies with the addict population… when you are actively abusing a substance you do not have a mind/body connection. If you did, it wouldn't be possible to treat your body that way. You have a mind/body connection in "I'm having withdrawal symptoms and I know what to do to alleviate them." But you don't have a respectful mind/body connection. What I've seen again and again is a rebirth. Yoga helps them recognize how good it feels to be present with your full self. To really know what it feels like to take a deep breath.

> Everybody benefits but those who are most disconnected from their bodies are those who benefit most. Those individuals make the biggest jump! People who are really stuck in their heads and self-critical… there you can see the biggest change and the biggest softening. People with eating disorders—people who are at war with their bodies and don't trust their bodies. People with trauma who stay far away from their bodies really benefit as well.

> No, I can't think of anyone who wouldn't benefit. Because I see that the degree to which someone is split from their body is the degree to which they are suffering from mental illness. In the extreme form, schizophrenia is a complete split from the body.

Theme: Non-Stigmatized Way to Convey Psychological Interventions/Principles

Another benefit described by participants was that yoga offers a non-stigmatized way to deliver psychological interventions. One participant articulated this well:

> The yoga is a non-stigmatized way to give the same product. I have the way I practice and no one knows I'm doing psychology. It's just about cultivating the self-awareness and self-love.

Category J. Potential Contraindications

Participants also shared their perspectives on diagnostic groups who benefit least from yoga. All participants spoke tentatively about contraindications due to either a lack of exposure to a given population or lack of knowledge about the impacts of yoga on these populations. Participants again reinforced the importance of client openness to integrating yoga and cautioned about incorporation of yoga without client buy-in. By far, the most common cautions and perceived potential contraindications were expressed in relation to psychosis and Axis II disorders. Participants spoke with more of a curiosity about how yoga would be helpful instead of a firm stance regarding contraindications.

Theme: Cautions Around Psychosis

As noted above, participants expressed concern about how yoga may impact psychosis.

> I'm not speaking scientifically, I'm speaking with a question mark… I don't really know what it would do for someone with paranoid schizophrenia. I don't really know what it would do for someone with autism. If someone was like, "Yeah, my sister has schizophrenia. I wouldn't be like, "Oh God... take her to yoga." But if my sister was a heroin addict, I'd be like, "Oh God, take her to yoga!"

> I don't know much about psychosis and the relationship with yoga with psychosis. I think you'd have to be really just cautious about how you use it. If you have a lot of difficulty staying present, staying grounded, certainly yoga can help with those things. It could also, because it

> has the opportunity to cut through the senses, it might be contraindicated for people who aren't pretty far along in being able to manage their psychosis would be my guess.

> Well, they say that people in psychotic states should not meditate. I don't know how much I agree with that. But, then again, I don't know what it's like for them. I don't know if that applies to yoga… If you're practicing yoga, you can simply tune into your physical experience and perhaps it could be grounding for such folks. I'm not sure. I would say caution with people with psychosis. But not necessarily exclude them.

Theme: Personality Disorders

In addition, when asked about potential contraindications participants expressed reservation about how helpful yoga would be for someone with a personality disorder.

> It might not be my first thought with Axis II personality disorders or psychosis. I just don't know. I haven't had experience with that.

> Really borderline people, I have found, will refuse my invitations to get out of their heads. They often leave on their own when I try to get them to connect with their bodies.

> Probably the personality disorders like narcissism and borderline. I think someone would have to be very specially trained in that.

Theme: Tolerance Level is Key

The last theme that emerged was the importance of tolerance for yoga. One participant conveyed these thoughts about tolerance:

> Always be aware of the tolerance level for these types of activities. Wouldn't do meditation with clients who are depressed. Want to be careful of that. Really severe-acute state anxiety, it's important not to jump into things. Shorter duration is a starting point. Clients maybe that have bipolar disorder or schizophrenia. While the asanas might be helpful, I don't know that I'd integrate it into my treatment. For severe and persistent mental illness, I would suggest hatha for the physical benefits, but not as a intervention. I would have some reservations about the meditation part of yoga with the personality-disordered client to predict how it might play out. I would have to learn more about it before I would start integrating that.

Also connected to tolerance were concerns expressed about severely depressed, dissociated, and suicidal clients, as well as clients in a lot of physical discomfort. Additionally, concern was mentioned for who may intentionally push past their limits to

intentionally self-harm, as well as those who are likely to become more hyperfocused in rumination and self-criticism during yoga.

> I think yoga can be contraindicated in a couple of ways. At the beginning of [yoga] groups, [I lead] I'll say, "If you find yourself in pain, physically or emotionally, back off. Discomfort is okay but pain is not." If some patients don't listen to that, that they could hurt themselves.
>
> [Yoga may not be helpful for those who] let themselves get caught up in their old destructive thought patterns and they don't make an effort to get out of them. They just stay in it, knowing it's not good for them.

Domain V: Practice Integration

The fifth and final domain relates to practice integration and encompasses the following categories: actual integration, external reactions, ideal integration, barriers and needs.

Category K. Actual Integration

Here, participants described how they are currently integrating their dual training in their professional psychology practice. The most commonly endorsed means of integration were individual therapy incorporating breath work, mindfulness, and yoga philosophy; group therapy with a yoga component; and workshops. Other means of integration mentioned were engaging in professional writing about the topic, referring clients to practice yoga, yoga retreats, and couples work with yoga integration. All participants indicated practicing and integrating several modalities in some combination. In addition, a dominant theme expressed by participants was that their integration of yoga

is tailored, intentional, and personalized to meet the clinical need of the group or individual.

> What I do in practice: I create a yoga sequence depending on what the issues are, if it's something they are interested in and if it's appropriate. I get to know the client first, figure out what they need and design a sequence related to that. I also teach breathing techniques and meditation techniques in session.

Theme: Individual Therapy

The majority of participants indicated incorporating their dual training in the context of individual therapy. Several noted their experience of yoga philosophy as being one of most easily integrated facets of their dual training.

> I incorporate my dual training in skill sets or breath work, mindfulness training, yoga poses, yoga philosophy. I think the yoga philosophy is just another nice way... You know how sometimes you may teach the same concept but you say it three or five different ways? Yoga philosophy just gives me another way to teach the same concept I would teach as a psychologist. It's always about finding the right words that will stick for that patient. Yeah, definitely lots of yoga philosophy.

A second most commonly integrated piece in addition to yoga philosophy was breath work and mindfulness training due to feeling this was the most "acceptable" incorporation into current models of individual therapy.

> In individual therapy, I integrate the philosophy and ideas of yoga psychology—less about the movement. Sometimes I use guided meditation, sometimes iRest [a technique also known as yoga nidra], and often breath work. I teach with more of a psychological perspective, even in the non-clinical settings. I've taught workshops that cross borders, such as yoga for emotional healing in adults.

> I do yoga-based psychotherapy. I don't incorporate it with everyone. Incorporate different aspects (theory, breath, asana, etc.) depending on the client. 60-75% of all of my clients are getting some kind of yoga, not every session but it's a tool and technique that we practice.

> I also incorporate it into Individual therapy—some people have done lots of talk therapy and really want a combination. In these cases, we start off with more talking to get a history of everything.

Theme: Group Therapy

The second most prevalent form of integration is yoga paired with group therapy. Many participants indicated they are currently teaching yoga classes in clinical settings such as rehab facilities, inpatient hospitals and in intensive outpatient programs for eating disorders. Here are some examples:

> Once a week, I teach an hour-long yoga movement group to our eating disorder IOP patients. The theme of the three-hour group is Body Acceptance and Self-Compassion. In one portion of the group, we talk about more cognitive and emotional forms of self-compassion. When we practice yoga, we're talking more about the physical or body acceptance form of self-compassion. I also teach an hour and a half group called Yoga and Mindfulness Group within our residential/PHP programs for women with eating disorders and substance abuse disorders. In that group, we start off with a grounding exercise of some sort and the move into some really, really gentle and easy movements. It's just about all they can tolerate at that level, and then we process the experience.

> In the past I ran a group called Transformational Yoga; it was a two-hour group. The first hour we did an asana-based practice, and the last half was more of a group therapy experience. The therapy was richer after the yoga practice. I'd like to pick it up again.

> I just designed and led a group for adolescent girls called GAB (Grounded and Balanced). It was a combination of yoga, meditation, and DBT skills. It was really well received. Parents and other therapist were like "oh my gosh, we really need something like this!"

Theme: Workshops

The third most commonly integrated modality indicated was workshops. Many of the participants indicated providing workshops on a wide range of topics.

> I do lots of workshops like "yoga for the mind," yoga for anxiety, depression, insomnia, yoga for health professionals.

Category L. External Reactions

Connected to participants' experiences of actual integration of their dual training were external reactions to this incorporation from the yoga and psychology communities, and also on the behalf of clients.

Theme: The Yoga Community Response

Interestingly, the large majority of participants (n = 12) indicated the yoga community has positively received their psychology training and background.

> Really positive. When I explain it to people, they seem to really get it. They're like, "Oh yeah, I can totally see how that works together." I've gotten some clients from my teaching yoga at the studio and I've also got some clients teaching yoga at the psych hospital. I now teach yoga to some of my clients. They fit together so well.

> Well, I've never had a negative comment about that. I always say my yoga training has made me a better psychologist and being a psychologist has helped me be a better yoga teacher.

> They love it and think it's great—they think it's awesome.

The remaining two participants expressed feeling that the yoga community doesn't care a whole lot either way:

> I don't get the sense anyone really cares either way. I don't... let me really think about that... I don't get the sense that anyone cares.

And one participant indicated feeling psychology is under-emphasized:

> It's funny. I feel like the yoga world sees it as… like western medicine or something. It almost feels like if you were, at least at the studio that I go to, like if you are distressed or upset or have something wrong with you, you should go to the acupuncturist or you should do some body or chakra work. I feel like there's an under-emphasis on psychology and certainly psychiatry as options. Not like a devaluing necessarily but just, I think, at least in my yoga community, it would be like, "Why don't you eat a raw diet, do yoga 5 days a week, and see how you feel."

Theme: Psychology Community Response

In contrast, the psychology community appears to be more ambivalent about yoga, as perspectives regarding receptiveness to participant yoga training and background was more varied. To summarize, four participants indicated essentially "they don't get it, they don't know enough to have an opinion either way."

> Most of them don't know what it is. They just think it's a fad and it'll move on. There are a lot of people that are open to it, but I think in general the entire psychological community doesn't really get it.

> I don't think they really get it. If you don't really know what it is, then you can't really understand what it is that would be happening. It's kind of like someone who has a Masters degree can't really understand what someone with a Doctorate does, and how it's different. But it's distinctly different. They don't probably know enough to have an opinion about it either way.

The majority of participants reported their dual training has been received positively:

> In talks that I have done in the professional community, I've had nothing but positive interest in it and very little skepticism.

> In general, it's been received pretty well. I'm like "the yoga lady" in my state. The fact that I had established a reputation in the field as a good therapist first helped. Had I done something more in the holistic world [to start], I would have had less credibility. I'm glad I took the route to the PhD. It was a great foundation and gave me great credibility to go into other realms. In general it's been well received. It's not like I went off the deep end… I keep one foot in each world because not everything in the yoga world will be accessible [to the psychology field].

Several reported less positive reactions:

> I do feel like there's a stigma, a bit of devaluing to it, especially among people who are trained as psychologist, that come from a really scientific tradition. Even though I think yoga has a nice scientific base that's developing. I don't think it's maybe recognized as such yet. I feel like people that are trained as yoga teachers aren't maybe given that respect for their skills. I don't think there's a recognition for how sophisticated yoga is. I think it's seen sometimes as a popular relaxation technique or something.

> I've been careful not to present myself as a yoga teacher who incorporates psychology but rather a psychologist who integrates yoga techniques. I think that sometimes people who integrate non-traditional techniques can be perceived as people who aren't grounded or thorough in their interventions. I've kept that in mind.

Theme: Client Reactions

Also salient are client reactions, which participants indicated are either generally naïve or polarized. For example, several participants expressed that their practices have lengthy wait-lists due to clients' desire to incorporate the body, while others have misconceptions about yoga or are not open to it:

> Yoga is really polarizing. I'll hear they hate that group and they don't want to go back or it's their favorite group of the week.

> I lead the yoga group with our residential clients and only see them for an hour and a half a week… they don't know me at all. There was one week where they were just begging me for a process group. I told them I am trained as a therapist first and they said, "Thank God. We thought you were just like a yoga teacher."

Category M. Ideal Integration

Participants also spoke to an ideal integration of yoga in clinical practice today. While several indicated their current integration matches their ideal integration, the majority expressed ideals that they are not currently practicing but would like to see come to fruition in their own practice and in the field at large.

Theme: Combine Yoga with Traditional Therapeutic Modalities

Many participants indicated an ideal integration of yoga into traditional mental health treatment would be to add on yoga to traditional modalities.

> What I've always wanted to do or would like to test out and see how it works is to do more of a combination of either a group or individual therapy, but then also have a yoga space where clients were coming to take classes, either right after the group for a more therapeutic version of yoga that was geared towards depression, anxiety, or whatever. At one point, I actually looked for an office space where I could put a yoga studio... run a yoga studio where my office was, but that space never worked out.

> I would love to have some clients where we work twice a week, once doing yoga therapy and once doing talk therapy. Integrating both. I could also see having some clients where I split services, only offering the yoga therapy, while they work with others doing individual therapy. Finally, group yoga therapy with yoga and then processing would be helpful.

> I would love to have a therapy office that looks like a normal therapy office, perhaps with room to roll a mat out. But perhaps an adjoining room that's large enough for groups where I can do group psychotherapy but I can also lead yoga groups. I would love to do yoga group therapy geared toward specific groups of people.

Theme: Shift to a More Holistic View Generally

In addition, many participants indicated an ideal integration of yoga into traditional mental health treatment would be to shift the healing paradigm towards a more holistic view.

> The way I would like to see yoga incorporated in psychology is I'd like to see us having this much more holistic view in general of our health and wellness models, not just go to this doctor or go to that doctor. People need to raise their awareness of their physical self.

> I think that the psychological community needs to remember that mental illness is not just about the mind, that the body and the spirit are involved too. If you don't take care of all three, then you've done a disservice to your client. I think there just needs to be some more open mindedness that sometimes the traditional approach isn't always the best.

Theme: Practice in a Holistic Community

Participants described an ideal practice setting would be working in a team of integrative multidisciplinary providers under one roof in a holistic practice community.

> Well, the perfect one would be a good integration with the medical community, the psychological community, and the yoga community all working together. Because once again, we have body, mind, and spirit, but for the most part, everybody kinda works in their own little, tiny little world. And it would be really nice because that way you could integrate care. Because yoga is not the end all for everything and neither is counseling, but neither are pills. So if you could find a way to get everybody on the same page and working together with that in mind, I think in my ideal world, that's the way it would work.

> I think probably something that's a community center where people come in and they can do traditional talk therapy but there are also rooms in a group setting to learn meditation, do yoga, and work in a group to address certain types of issues. It would be one agency.

> I think it's ideal to work in a community of other providers. So you aren't alone with it, really need the network of other likeminded people doing something outside the box. A holistic community—the naturopaths, the massage therapists… the respected ones.

Theme: Initial Assessment is Vital

Participants advocated that an ideal integration would be that psychological assessment precedes yoga integration such that the yoga practice can be very individualized to the client and tailored to alleviate, not exacerbate, current symptoms.

> Approaching an individual therapy session, first, I'd want a lot more information. Is it an agitated depression or lethargic depression? Is the anxiety generalized or specific or based on an actual past trauma, etc… My treatment is personalized, collaborative, and non-formulaic. Some sessions are exclusively talk therapy (yet still addressing both mind and body) and others blend energy work, breathing exercises, guided meditation, ayurvedic medicine, and restorative yoga.

> How I approach it is really getting a bead on someone's psychology first, and getting a sense of where they are with their spiritual development. I think it would take one, two, or three sessions of meeting someone in talk therapy before really being able to fully, appropriately design a good [yoga] program for them from an asana standpoint. Because I would want to know how to speak to them on the mat.

Category N. Barriers

Participants also indicated there are several barriers they experience that influence incorporation of yoga in their current psychology practice.

Theme: Legal/Ethical/Financial

While a couple of participants said that they have no concerns, the majority of participants expressed feeling concern about legal and ethical implications of combining dual-training backgrounds in practice, which had direct implications on insurance reimbursement and billing. Several participants speak to this below:

> The clinical psychology boards can be intimidating and rigid. Can yoga be within the scope of practice? Is it ethical for them to be using it in psychotherapy practice and still bill it as psychotherapy? It is being taught so much more now. If you can get CEUs for learning how to integrate movement, then this is within the scope of practice. It's not crystal clear and I've just chosen to play it safe. I would want some kind of approval from the board.

> Yeah, right now for me, I feel cautious because... I mean, I have insurance in both. But I feel like because it's so fuzzy and so not well-established, it still feels very concerning liability-wise for me.

> In the group I ran, I used a yoga teacher colleague for the yoga portion of the group and parents would receive insurance reimbursement. I have malpractice insurance for my psychology practice, and I have yoga malpractice insurance. What would happen if I had both hats on at once? I didn't know how that would fit together. I decided to play it safe, and be the therapist in the room. The other person was defined as the yoga teacher.

Theme: Openness to Yoga and Logistics

Public perception of yoga and general lack of understanding were described by several participants as barriers. Tied to this were questions around logistics such as dress and demonstration.

> Not so much barriers, just individuals who aren't open to yoga. These types of individuals tend to not come see me; most people I see are pretty self-selecting. For those who are cynical, I tell them to simply attend classes. Let the visceral, experiential, subtle energy, and increased physical presence and vitality do the convincing.
>
> I think it's just more getting people open to the idea; open to the idea and/or coming to a therapy session in the right clothes. I have bolsters, for example, in my office and sometimes I want to put people in a restorative pose or something like that, but they might not be dressed for it when they come in to therapy.
>
> The only thing is having to demonstrate it, it's awkward. If the person isn't familiar at all I don't want to do them just for the sake of doing it. It's easier to learn it. Part of it is demonstrating the poses, and we are doing it together. I'm real cautious about hands-on. I give verbal cues—I don't adjust.

Theme: Incorporation of Touch

Several participants also introduced caution and delicacy in relation to the use of touch with clients as a barrier. In the world of yoga teaching, hands-on adjustments are commonplace, but in the psychotherapy world touch is very strongly discouraged.

> For my malpractice insurance I had to write a whole separate paragraph to say I wasn't touching people because I had yoga in my name.
>
> Yoga is just a technique—I bill as an LP. I see myself as a psychologist so that's how I bill. If it's straight yoga, then it's free, but it's a great way to feed my practice. If I'm touching anyone, I'm asking. If someone wants to have more contact and I think it's therapeutic, it's not that you can't touch at all. That's the fear too. It's just not true. So if someone wants a hug, I will not say "yes." I'll say, "let's explore that." If I think it's therapeutic, then we'll hug. It's not a central aspect of what happens.
>
> I think doing any kind of work with the body brings up a whole different kind of issue with transference and attraction… unlike in the therapy session... then you have to be really consciously aware of physical touch and adjustment and that kind of thing, because it introduces touch into a therapy session.

Category O. Needs

This category speaks to what participants feel is needed to personally and overall to integrate yoga into traditional mental health treatment today.

Theme: Connection

A dominant theme was a desire for increased connection to like-minded others, community, and formation of formal groups such as associations and professional conferences. This desire is reflected in the participant quotes below:

> I am the one person in my whole state doing this work. I am hungry to meet others doing this work.
>
> I would love to meet and talk to more people like you and I. I'm so curious to learn where other people are at in terms of integrating because I guess I'm still feeling very new at it. I'm hesitant and I don't want to be. I really, really want to integrate them in like a really intentional way. It would be helpful to meet other people and learn what they're doing… maybe I might feel more confident.
>
> I have one foot in each world. It feels lonely to me. This conversation is so refreshing because I want colleagues—I want a network.
>
> I feel like I exist in a vacuum and I'm the only person in the world doing what I do. While I know that I am doing something good... While I know that what I do is helpful and successful and I know that based on getting hired at jobs and getting feedback from people and stuff like that, but I never get feedback from people I feel who actually know what they're doing.

Theme: I Need a Guide

Intertwined with a desire for more connection was a desire for a guide to inform integration of yoga into psychology practice. This desire is reflected in the participant quotes below:

> This is not a real collective and strong group. A lot of us are pioneers—we're just kind of moving along without a lot of guidance.
>
> I feel like I operate a little bit in a vacuum here. I think what I'm doing is beneficial and I try to adhere a lot to what I've learned from Dave Emerson and the folks at Boston about trauma-sensitive yoga. Other than that, there's not a lot of instruction out there.
>
> I want a mentor and a teacher who has done this and articulated this and who can guide me. I am it. I have to figure this out myself and I have to be willing to pave the way and not take the path my cohort took.

Theme: Knowledge

In addition, participants expressed a desire for more knowledge via research and access to information about how other dual providers are integrating yoga into their

practices. One participant summed it up nicely by indicating a curiosity echoed by the majority of other participants to know, "What do you do? How do you do it? How can I do what I do better?"

> I just want to say, "Can you show me your sequencing? Can you tell me what you think about? Can you tell me what you try to make sure you have in every class? Is there anything you don't do in a class that you might do if you were teaching in the community? I want to pick other dual providers' brains about the applications and what it looks like because its such a solitary experience and you're just doing it by yourself and no one can see you. There's a lot of responsibility to have a really scientifically based class that's responsible.

> I would be most interested in the nitty gritty—how are you incorporating yoga into psychotherapy, what they do, how they bring it up, when they decide to use it, what is their office set-up like, do they use a mat, do they do actual poses or stay in the chair? I would want to know how they think about the insurance issues, do they worry about what would happen if someone gets injured, would it be covered, would it be covered by their yoga insurance or their therapy insurance? How much of the session is talking and how much is movement and what do they think, how do you define it as a therapy session? I sought legal advice from the board, could the group I was doing be considered psychotherapy? This wasn't professional opinion. Together we looked at the definition psychotherapy in my state and it fit. That was really important to me.

Theme: Embodied Providers Who Have Done Their Work

Another theme that arose was the need for more integrative and *embodied* providers who have done their own work and can advocate yoga. Several participants spoke to this:

> Most of the psychologists I have met are not embodied. We've learned to privilege our mind over our body, but you do your own bodywork and listen to your body's stories to be a good psychotherapist.

> When you can see the world through a couple of different sets of goggles it just makes you better able to approach things... because for a long time the model has been just study immunology, or just study radiology, or whatever it is, but we're much more complex beings than that. Any time you can see things in a more comprehensive way it's going to make you a better perceiver of the world and human behavior.

> We need people who are willing to take a stand on this. We are also just ahead of our time. Even with yoga, it's so much more acceptable now, but we need renegades like us. I am going to address this. Clients are coming to me in droves… patients want this stuff. I have a six-month waiting list. People are hungry to be addressed fully.

Theme: A Paradigm Shift

Lastly, a need that is expressed is for a larger paradigm shift in mental health treatment away from a pathologizing view and toward a more positive and holistic view of the individual.

> I think psychology doesn't work… I guess I'm going to be that bold. I think unless people address things from a spiritual standpoint, in a way that's a non-shaming and support the view that people are whole, I don't think people are going to get where they want to be. It's incomplete. It's not only incomplete; I think psychology has the potential to be harmful, if I'm being honest. Because it's just so shaming and pathologizing… reinforcing that there's something wrong with you.

> Psychologists have painted themselves into a corner. The body is the unconscious. Start to refer people to it and use it for yourself. For your own mind/body connection, I knew I was out on a limb. At this point in my career it's okay to be out on a limb—I've seen it work over and over with people. I'm okay with conceptions my colleagues have of me. Yoga brings the body in. We keep everyone stuck in their heads. I have seen that by bringing the yoga piece in, we could work with sensations, it was so much more powerful.

Theme: Sufficient Teacher Training

An additional need expressed was for sufficient teacher training. Many participants had concerns about yoga teachers working with clinical populations without any psychological training or background.

> I just worry that there are teachers out there that in some people a manic episode could be triggered, or anxiety, and they would have no idea. Teachers can get into trouble without a basic understanding of mental illness.

> What yoga teachers need an understanding of is the importance of good boundaries, understanding emotional/psychological reactions, and how to work with that. How to know when to give people space, how to refer. There is such a need to train teachers around the ethics. What do I do with this person? The yoga world could really benefit from our training.

Chapter 5: Discussion

In this chapter, I will provide a summary of the results of this research. I will interpret the current findings and put them in context of the past literature base of yoga as a psychological intervention. I will also provide implications for research and practice relevant to the current study's findings.

In the present study, 14 individuals dually trained as Psychologists and Registered Yoga Teachers participated in semi-structured telephone interviews to aid in the examination of two primary research questions: (1) How do individuals dually trained as psychologists and yoga teachers conceptualize yoga as a mental health intervention? (2) In what ways do psychologists dually trained as yoga teachers integrate their dual training into their current professional psychology practice? Interviews were analyzed by a research team of three researchers and two study auditors employing a modified version of Consensual Qualitative Research (CQR; Hill et al., 1997; 2005; 2012). Five Domains, 15 Categories, and 54 Themes were unearthed from the data to address these research questions.

Summary of Results: Research Question 1

The first research question was this: How do individuals dually trained as psychologists and yoga teachers conceptualize yoga as a mental health intervention? Responses to this question were coded under three domains. Domain I, Provider Context, encompasses aspects of participants' personal and professional identities that inform both their psychological conceptualizations and professional practice. In this domain,

participants described their professional path to becoming a dual provider, highlighted parallels between their psychology and yoga orientations, and explored their role identification given their bi-cultural training and backgrounds. Domain II, Conceptualization Content, contains the heart of participants' psychological conceptualization through identification of what components of yoga are most essential for psychological benefit. Domain III, Conceptualization Process, focuses on the proces of participants' psychological conceptualization, such as how it felt to attempt to conceptualize yoga in psychological terms.

Summary of Results: Research Question 2

The second research question was related to integration: In what ways do psychologists dually trained as yoga teachers integrate their dual training into their current professional psychology practice? Responses to this question were coded under two domains. Domain IV, Clinical Implications, comprises participants' views regarding clinical populations for which yoga may be beneficial or contraindicated. In Domain V, Practice Integration, participants share ways they are currently integrating their dual training in to practice, express what they feel an ideal integration would look like, and identifiy relevant needs personally and professionally that would facilitate a more ideal integration.

Major Findings by Research Question

Research Question 1: How do individuals dually trained as psychologists and yoga teachers conceptualize yoga as a mental health intervention?

Domain I: Provider Context

The first domain, Provider Context, presents not so much a key finding addressing the first research question, but rather providers' context from which to understand participants' subsequent psychological conceptualizations of yoga. Conceptualization involves creating an inferential explanation utilizing selected and core information, rather than using all the available information (Sim, Gwee & Bateman, 2005). This inferential explanation is informed by a unique intersection of individual, professional, and personal factors. This domain captures some of these unique factors and revealed several common themes across participants.

One theme is the trajectory of participant professional experience. Participants indicated their psychology training came first and that positive personal experiences with yoga paired with existing intellectual curiosity fueled a desire to pursue yoga teacher training. This mirrors many psychologists' path to clinical practice as many pursue the field as a result of personally relevant and meaningful experiences. Participants indicated that yoga helped them cope with the demands of graduate school in psychology. At the same time, these demands prohibited them from engaging in yoga teacher training in conjunction with graduate school. Participants also contrasted the extensive amount of time, energy, and commitment that was required to obtain their psychology doctorates with the relatively small amount required to obtain a Registered Yoga Teacher (200 hour)

certification. This likely informed and contributed to participants' reported role identification (Category E) as the majority of participants indicated they identify with both "hats" (psychologist and yoga teacher) but if required to chose one, then psychologist was primary. Participants also reported it was hard to separte their "yoga hat" from their "psychologist hat," highlighting both the inherent tension present when one embodies bi-cultural professional identities as well as the union of East and West for these dual providers. This is notable given that the term "yoga" is derived from the literal meaning of "yoking together" or "union." This concept of yoking or union was very present across Domain I as participants continuously articulated that their roles, orientations, and practice approaches are integrated and intertwined. Many participants asserted that there are no fundamental differences between their theoretical psychology orientation and yoga approach and that both are deeply rooted in a core philosophy of wholeness—that individuals at their core are whole, balanced, and complete. Participants conveyed that yoga philosophy inspired this viewpoint, but acknowledged this as a Rogerian assumption as well. Additional commonalities described were the desired treatment outcome of embodied awareness as well as the incorporation of skills to "bring in the body" such as breath work or directing attention to physical sensation.

Also relevant to participant context are the distinct groupings that emerged concerning participants' psychological theoretical orientations. Half of the participants identified as being interpersonal, psychodynamic, and using skills, and the second grouping endorsed utilizing Buddhist psychology and a mindfulness-based CBT approach. Regarding yoga approach or "orientation," unlike psychotherapy in which

there is an endless assortment of underlying theories and adaptations to therapy, yoga is united in one foundational philosophy. So in this case, orientation to the practice of yoga refers to adaptations and style of practice that has branched off from one foundational theory. No distinct yoga style emerged across providers.

Domain II: Conceptualization Content

The second domain, Conceptualization Content, most directly addresses the first research question as it contains the *content* of participants' conceptualization of yoga as a psychological intervention. More specifically, it highlights which components of yoga participants are deemed *essential* for psychological benefit. As previously stated, though participants expressed finding it challenging to narrow this down, four explicit themes emerged (in order of prevalence): breath, mindfulness/meditation, relationship with self, and connection with body. The most prevalent component reinforced was breath due to the positive physiological impacts of deep diaphragmatic breathing. These findings mirror the yoga literature in that the most solid evidence pertaining to yoga has been made in regard to physiological impacts. Participants took this a step further by articulating that physiological changes brought about by breath make psychological shifts possible through creating greater space for insight, awareness, self-regulation, and connection to the self. Lastly, participants highlighted the accessibility of breath as a neutral, free, and readily available tool.

Mindfulness and meditation were also deemed essential. Similar to breath, participants confidently avowed this component due to abundant research support. More

specifically, participants tied this practice to increased awareness of the "observing self," a concept increasingly highlighted by third wave therapeutic approaches such as Dialectical Behavioral Therapy and Acceptance and Commitment Therapy, amongst others. Participants expressed the view that mindfulness of one's reactions, thoughts, feelings, behaviors, and patterns are essential for change and the alleviation of suffering. In this researcher's view, these two components of breath and mindfulness focus on the most obvious, well known, and well researched constructs supported largely by the medical model.

The third and fourth most essential components are more novel and were as yet undocumented in the literature. The third component refers to the healing impact yoga can have on one's relationship with self. This is perhaps the most easily translatable psychological construct mentioned most often by participants. More specifically, participants expressed feeling that yoga offers a place to practice "meeting yourself where you are" and relating to the self in a more compassionate, accepting, and gentle way. The fourth component brings us back to the body as participants noted the view that connection to the body is also essential. What appears to make this finding relevant psychologically is that bodily connection is not just a noticing of body or sensation, it is a noticing with an intention of using the body's information for psychological awareness, emotion regulation, and attending to the self. Participants were united in the view that the body holds essential information for psychological wellbeing, and unless we connect to it, we are cut off from a rich and authentic source of self-knowing. In essence, that fostering of body connection via yoga allows one ***access*** to psychological material.

Participants also articulated noticing a direct correlation between the degree of mental illness and the degree of separation from one's body—highlighting substance abuse and eating disorders as examples. This is particularly helpful in our present culture where many individuals "live from the neck up" and are largely disconnected from their bodies.

Three implicit components also emerged as most essential. The first was the view that yoga fosters an increase in distress tolerance. In other words, yoga provides real-time, literal, and experiential opportunities for people to be present with discomfort and practice non-reactivity. In addition to distress tolerance improvement, openness to yoga was also deemed a necessary prerequisite for psychological benefit. This parallels the idea of "readiness for change" highlighted in psychotherapy outcomes.

The last essential component that continued to surface was the idea of "Mat as Metaphor." In other words, the way an individual engages with both their inner and outer worlds on the mat and in the context of a yoga class can serve as a mirror reflecting back to an individual how they relate to challenges, to physical pain, and to stillness, as well as strengths and areas for growth. This provides not only psychological feedback and insight but also a experiential means to practice new ways of being on the mat that can be translated off the mat and into their lives, impacting self-efficacy, self-esteem, and psychological health and wellbeing.

Domain III: Conceptualization Process

The third and last domain relevant to the first research question is the Conceptualization Process domain. This domain encompasses participants' brief

psychological conceptualization of yoga for a group of psychologists unfamiliar with yoga, as well as how it felt for them to articulate this. This question prompt challenged participants to integrate their two knowledge bases and translate the effects of yoga using psychological terminology—a key objective of this study. As a result, common content as well as a shared presentation strategy was revealed. While many participants presented yoga as a multifaceted intervention with multiple layers that can be conceptualized through the lens of countless psychological theories, the majority of participants privileged the research literature around the physiological evidence and mindfulness to support and explain the psychological impact of yoga. An undercurrent of caution and tentativeness was present and these two pieces appeared to be the "safe" choices made credible by existing research and familiarity/accessibility of the constructs. In addition to presenting the information clearly, participants had the additional task of legitimizing yoga and navigating unspoken stigma to avoid scaring people off or appearing as if they had "gone off the deep end." Several participants indicated they would "go around the head" altogether and into the body by providing an experience of yoga in the here-and-now to illustrate the benefits of practicing yoga.

When asked how it felt to attempt to articulate a brief conceptualization of yoga, responses were varied. Roughly half indicated it was challenging due to the integrative and multi-faceted nature of yoga as well as the chasm between Eastern healing practices such as yoga and Western healing modalities such as psychotherapy. A few participants mentioned it was hard due to no longer "speaking the language" of traditional

psychology. The remaining participants expressed positive sentiments about conceptualizing including that it felt exciting, natural, good, or easy.

Research Question 2: In what ways do psychologists dually trained as yoga teachers integrate their dual training into their current professional psychology practice?

Domain IV: Clinical Implications

The fourth domain is the first to address the second research question regarding participant integration of yoga into professional psychology practice. To summarize, participants ascertained that any individual can benefit from yoga *if* they are open to it. Additionally, participants suggested that yoga may be a non-stigmatized way to convey psychological principles. Several specific diagnostic populations emerged as benefitting most from yoga (in order of prevalence): anxiety-based disorders (including trauma), eating disorders, substance abuse disorders, and depression. A common view was the disorders in which disconnect from body is most prevalent are the ones that hypothetically could benefit most from yoga.

Participants also expressed cautions related to yoga with certain diagnostic groups. One participant stated that they "spoke with a question mark" about this due to lack of research, knowledge, or relevant experience. The most common cautions came up in relation to psychosis and Axis II disorders and the importance of assessing tolerance for yoga was underscored.

Domain V: Practice Integration

The fifth and final domain, Practice Integration, addresses the second research question and encompasses the following categories: actual integration, external reactions, ideal integration, barriers, and needs. Regarding actual integration, the most commonly endorsed means of integration were individual therapy incorporating breath work, mindfulness and yoga philosophy; group therapy with a yoga component; and workshops. All participants indicated practicing and integrating several modalities in some combination. In addition, a dominant theme expressed by participants is that their integration of yoga is tailored, intentional, and personalized to meet the clinical need of the group or individual.

Participants also shared the external reactions their dual training and integration of yoga has elicited from the yoga and psychology communities, and also on behalf of clients. The majority of participants indicated the yoga community has positively received their psychology training and background, while reactions from the psychology community were more mixed, ranging from indifference and positive responses to a sense of stigma and devaluing. Regarding clients, participants indicated clients are either generally naïve or their reaction is polarized (they either love or hate yoga).

Given yoga is relatively new in traditional psychology practice in the West, participants conveyed what their ideal integration of yoga would be in clinical practice today. While several indicated that their current integration matches their ideal integration, the majority expressed ideals that they are not currently practicing but would

like to see come to fruition in their own practice and in the field at large. Participants advocated combining yoga with traditional therapeutic modalities for a shift toward a more holistic healing paradigm generally, and to practice in a holistic community of integrative multidisciplinary providers in one community setting. Participants also promoted the idea that psychological assessment would precede yoga integration in order to individualize the intervention for greatest benefit.

Various barriers were identified relevant to practice integration. The majority of participants expressed concern about legal, ethical, and financial implications of combining dual training backgrounds in practice. Additionally, a general lack of understanding and misperceptions about what yoga is were noted as obstacles. Likewise, uncertainties about how to bring yoga into therapeutic spaces were mentioned, such as dress, modeling yoga postures, and cautions related to incorporation of touch.

Participants also identified needs that would support both a personal and general integration of yoga into traditional mental health treatment today. The first resounding theme was the need for increased connection to like-minded others. Many participants indicated they were the only person in their state doing this type of work—which expresses an astonishing level of professional isolation—and consequently expressed a desire for a guide or mentor to help inform their integration of yoga. As one participant highlighted, these individuals are pioneers charting unknown territory. In addition, participants expressed a desire for more knowledge via research, professional conferences, and access to other providers. Other needs mentioned were for more embodied mental health providers who have done their own work, a paradigm shift

toward wholeness, and sufficient yoga teacher training given the psychological impact of yoga.

Study Strengths

The present study had multiple strengths. First and foremost, this study provided an in-depth look at a topic that has not been studied and supports movement toward a more holistic treatment paradigm. The use of qualitative methodology allowed participants to be detailed in their descriptions, which is advantageous considering that yoga involves a multi-layered intervention intersecting with complex individual human factors. This methodological approach supports the aim of building toward theory and identifying key variables of interest that can be tested deductively. Additionally, this study increased awareness of the ways yoga is currently being integrated into mental health practice today. Use of a psychologist-yoga teacher sample is another strength of this study. It can be assumed these extensively and dually trained individuals provide quality conceptualization given their many composite years of training and high levels of experience and knowledge. Furthermore, their passion about the topic provided significant motivation to provide thoughtful and meaningful interview responses. Moreover, the research team too had passion for the topic, working knowledge in both fields, and the experience of operating in bi-cultural roles resulting in extensive effort and investment in the present study. The use of two auditors unfamiliar with yoga was another strength as they were able to uncover blind spots in language, constructs, and analysis.

Study Limitations

Several limitations were also present in this research. As with any qualitative study, the results of the current study may have been impacted by the biases of the research team. In particular, those involved in data analysis expressed strong interest in as well as formal training in yoga and psychology. Despite every effort being made to bracket bias in a manner consistent with best practices in the field (Hill et al., 1997), the core research team having a passion for yoga and psychology may have impacted the results. This passion for the topic on behalf of the participants is also salient. While participants' passion and immersion with the topic led to thoughtful responses, it could be argued also that this is a very biased group when it comes to evaluating yoga. There may also be shared characteristics in those who enthusiastically agreed to volunteer their time as well as in those who opt to study yoga and psychology extensively.

Additionally, the findings of this study are limited by the characteristics of the sample. Individuals interviewed may not be representative of the population overall. Further, the majority of participants were Caucasian women—a limited diversity of responders. Thematic differences may have been introduced depending on years of psychology experience and training, and this was not accounted for. Also, yoga credentialing is a fairly new practice, and RYT 200 hour training may look quite different across training sites despite adherence to basic Yoga Alliance standards (see Appendix D). Another potential limitation could be that participants were given interview questions in advance to allow for thoughtful responses. However, some may not have

reviewed the questions beforehand while others reviewed them thoroughly. Those who did may have lacked spontaneity in their responses. Additionally, the inclusion of two repeated interviews for some participants may have introduced variance into the data.

Research Implications

The present study utilized qualitative methodology to begin to identify potential variables of interest that can continue to be explored empirically. The key findings of this study suggested that breath, mindfulness, relationship with self, and body connection were the most essential components of yoga for psychological benefit and thus potentially the most fruitful to explore empirically. The physiological changes inspired by deep diaphragmatic breathing were identified as most essential, a determination informed by both participant experience and existing research support. As previously articulated, the most solid evidence for yoga exists in relation to physiological outcomes; participants' acknowledgement of this is aligned with what we know empirically. That being said, the quality of existing evidence is generally poor, inadequately reported, and plentiful with methodological limitations weakening the use of past studies to support current recommendations. Given these weaknesses, higher quality yoga studies are needed overall in connection to all outcomes—physiological or psychological—including the impact of the breath.

The second most essential component participants referenced was mindfulness, which many insisted is also well supported by research. It is unclear, however, whether the evidence used to support this recommendation was mindfulness in the context of a

yoga intervention or a mindfulness intervention alone. To this researcher's knowledge, no studies to date have explored mindfulness in the context of yoga. Future studies could explore this and examine whether the two together have a different effect than a mindfulness intervention alone. The third and fourth essential components, relationship with self and body connection, have considerable research potential because little has been documented to date about these aspects of the practice. The implicit essential components of distress tolerance, openness, and "mat as metaphor" are also worthy of empirical exploration. Identification of these essential components for psychological benefit may be used in similar fashion to the Common Factors Theory within psychotherapy research, which presupposes that ultimately the effectiveness of psychotherapy comes down to several key factors (Imel & Wampold, 2008). These components can assist yoga researchers in narrowing their fields of interest to the variables perceived to be most impactful psychologically.

In addition to these components, future research endeavors examining yoga as an adjunctive treatment to existing modalities (individual, group, workshops, etc.) are advised to understand the effects of these interventions and to further support continued integration. Lastly, additional research is needed around the clinical disorders identified to benefit most (anxiety, eating, substance abuse, and mood disorders) as well as those that elicited most caution (Axis II and psychosis) to determine if these initial recommendations and contraindications are rooted not only in anecdotal evidence but empirical evidence as well.

Practice Implications

The present study also presents implications for the practice of professional psychology. Results of this study suggest individuals who would benefit from calming the nervous system via breath, mindfulness, improved relationship with self, and increased body connection would benefit from the practice of yoga. Anxiety-based disorders (including trauma), eating disorders, substance abuse disorders, and depression were identified as diagnostic groups that may benefit most. In addition, openness to yoga was reinforced as paramount; thus, yoga should not be integrated if an individual or group is not comfortable with or open to the practice. Ideally, psychological assessment would precede yoga integration such that the practice can be tailored to be most beneficial.

Additional practice implications include the need for increased education to help improve understanding of yoga and its benefits and contraindications. Increased documentation regarding ethical, legal, and financial implications would also be helpful as would increased professional development opportunities for dually trained providers to strengthen community, knowledge, and begin to develop best practices in yoga integration. Other practice implications include sufficient yoga teacher training, given the potential impact of yoga, as well as psychologists who bring in the body and have done their own work such that they themselves are embodied and can live and experience the value of a mind/body/spirit connection.

Conclusions

In theory, an integrative treatment paradigm currently exists in the West—the biopsychosocial model—but while this model has been embraced, it is far from being consistently practiced. This study highlights the mind/body split in the treatment of suffering in America, evident in the navigation of professional roles, epistomology, and barriers to incorporation of holistic interventions such as yoga. This divide is long established and deeply rooted. However, consumer demand is mandating change. As more and more Americans are voting with their feet, money, and resources, providers and researchers are being prompted to take on the formidable challenge of bridging the divide and providing these alternatives in a way that is intentional, ethical, and empirically supported. This research was generated in response to this movement. Popularity paired with stigma around traditional mental health treatment further supports capitalizing on holistic interventions such as yoga, which can serve as a socially acceptable delivery of psychological interventions and principles.

Figure 1. Domain and Category Structure Chart

Research Question One: *How do individuals dually trained as psychologists and yoga teachers conceptualize yoga as a mental health intervention?*	**Research Question Two:** *In what ways do psychologists trained as yoga teachers integrate their dual training into their current professional psychology practice?*
Domain I: Provider Context Category A: Professional Background Category B: Theoretical Orientation Category C: Yoga Style Category D: Orientation Parallels Category E: Role Identification	**Domain IV: Clinical Implications** Category I: Benefits Category J: Potential Contraindications
Domain II: Conceptualization Content Category F: Essential Components	**Domain V: Practice Integration** Category K. Actual Integration Category L. External Reactions Category M. Ideal Integration Category N. Barriers Category O. Needs
Domain III: Conceptualization Process Category G: Brief Psychological Conceptualization Strategy Category H: Experience of Conceptualizing	

References

Agte, M., & Chiplonkar, S. (2008). Sudarshan kriya yoga for improving antioxidant status and reducing anxiety in adults. *Alternative and Complementary Therapies, 97*, 96-100.

American Psychatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Barnes, P. M., Bloom, B., Nahin, R. (2008). CDC national health statistics report. Complementary and alternative medicine use among adults and children: United States, 2007. Accessed at http://nccam.nih.gov/sites/nccam.nih.gov/files/news/nhsr12.pdf.

Bennett, S. M., Weintraub, A., & Khalsa, S. B. S. (2008). Initial evaluation of the LifeForce yoga program as a therapeutic intervention for depression. International *Journal of Yoga Therapy, 18*, 49-57.

Birdee, G. S., Phillips, R. S., Davis, R. B., & Gardiner, P. (2008). Characteristics of yoga users: Results of a national survey. *Journal of General Internal Medicine, 23*(10) 1653-1658.

Brown, R. P., & Gerbarg, P. L. (2009). Yoga breathing, meditation, and longevity. *Annals of the New York Academy of Sciences*, *1172*(1), 54-62.

Brown, R.P., & Gerbarg, P. (2005). Sudarshan kriya yogic breathing in the treatment of stress, anxiety, and depression: Part I—Neurophysiologic model. *The Journal of Alternative and Complementary Medicine, 11*(1), 189-201.

Brown, R. P., & Gerbarg, P. L. (2005). Sudarshan kriya yogic breathing in the treatment

of stress, anxiety, and depression. Part II—Clinical applications and guidelines. *Journal of Alternative and Complementary Medicine, 11*(4), 711−717.

Butler, L. D., Waelde, L. C., Hastings, T. A., Chen, X. H., Symons, B., Marshall, J., & Spiegel, D. (2008). Meditation with yoga, group therapy with hypnosis, and psychoeducation for long‐term depressed mood: A randomized pilot trial. *Journal of Clinical Psychology*, *64*(7), 806-820.

Carei, T., Fyfe-Johnson, A. L., Breuner, C. C., & Brown, M. A. (2010). Randomized controlled clinical trial of yoga in the treatment of eating disorders. *Journal of Adolescent Health*, *46*(4), 346-351.

Carlson, L. E., Speca, M., Patel, K. D., & Goodey, E. (2004). Mindfulness-based stress reduction in relation to quality of life, mood, symptoms of stress and levels of cortisol, dehydroepiandrosterone sulfate (DHEAS) and melatonin in breast and prostate cancer outpatients. *Psychoneuroendocrinology*, *29*(4), 448-474.

Carter, J., & Byrne, G. (2004). A two year study of the use of yoga in a series of pilot studies as an adjunct to ordinary psychiatric treatment in a group of Vietnam War veterans suffering from post traumatic stress disorder. Online document at www. Therapywithyoga.com. Accessed November 27, 2013.

Corbin, J., & Strauss, A. (Eds.). (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications.

Douglass, L. (2010). Thinking through the body: The conceptualization of yoga as therapy for individuals with eating disorders. *Eating Disorders*, *19*(1), 83-96.

Eells, T. D. (2013). The case formulation approach to psychotherapy research revisited. *PCSP: Pragmatic Case Studies in Psychotherapy*, *9*(4), 426-447.

Elliott, R. (1989). Comprehensive process analysis: Understanding the change process in significant therapy events. *Entering the circle: Hermeneutic investigations in psychology*, 165-184.

Field, T. (2011). Yoga clinical research review. *Complementary Therapies in Clinical Practice*, *17*(1), 1-8.

Forfylow, A. L. (2011). Integrating yoga with psychotherapy: A complementary treatment for anxiety and depression. *Canadian Journal of Counselling and Psychotherapy*, *45*(2), 132-150.

Fredrickson, B. L. (2008). Promoting positive affect. In M. Eid & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 449–468). New York, NY: Guilford.

Giorgi, A. P., & Giorgi, B. (2008). Phenomenological psychology. In *The Sage Handbook of Qualitative Research in Psychology*, (eds. Willig C., Staiton-Rogers W.), 165-178. London: Sage Publications.

Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A guide to conducting consensual qualitative research. T*he Counseling Psychologist, 25*, 517-572.

Hill, C. E., Knox, S., Thompson, B. J., Williams, E. N., Hess, S., & Ladany, N. (2005). Consensual Qualitative Research: An update. *Journal of Counseling Psychology, 52*, 196-205.

Hill, C. E. (Ed.) (2012). *Consensual qualitative research: A practical resource for*

investigating social science phenomena. Washington DC: American Psychological Association.

Imel, Z., & Wampold, B. (2008). The importance of treatment and the science of common factors in psychotherapy. In *Handbook of Counseling Psychology*, (4th ed.). (pp. 249-262): John Wiley & Sons Inc.

Janakiramaiah, N., Gangadhar B., Naga V., et al. (2000). Antidepressant efficacy of Sudarshan Kriya Yoga (SKY) in melancholia: A randomized comparison with electroconvulsive therapy (ECT) and imipramine. *Journal of Affective Disorders, 57*, 255-259.

Kjaer, T. W., Bertelsen, C., Piccini, P., Brooks, D., Alving, J., & Lou, H. C. (2002). Increased dopamine tone during meditation-induced change of consciousness. *Cognitive Brain Research*, *13*(2), 255-259.

Khalsa, S. B. S. (2004). Yoga as a therapeutic intervention: A bibliometric analysis of published research studies. *Indian Journal of Physiology and Pharmacology, 48*, 269-285.

Khalsa, S. B., Shorter, S. M., Cope, S., Wyshak, G., & Sklar, E. (2009). Yoga ameliorates performance anxiety and mood disturbance in young professional musicians. *Applied Psychophysiology and Biofeedback, 34*(4), 279-89.

Khanna, S., & Greeson, J. M. (2013). A narrative review of yoga and mindfulness as complementary therapies for addiction. *Complementary therapies in medicine*, *21*(3), 244-252.

Kinser, P. Bourguignon, C., Taylor, A., & Steeves, R. (2013). "A feeling of connectedness:" Perspectives on a gentle yoga intervention for women with major depression. *Issues in Mental Health Nursing, 34*, 402-411.

Kinser, P. A., Bourguignon, C., Whaley, D., Hauenstein, E., & Taylor, A. G. (2013). Feasibility, acceptability, and effects of gentle hatha yoga for women with major depression: Findings from a randomized controlled mixed-methods study. *Archives of Psychiatric Nursing*, *27*(3), 137-147.

Kinser, P. A., Goehler, L. E., & Taylor, A. G. (2012). How might yoga help depression? A neurobiological perspective. *Explore, 8*(2), 118-126.

Kirkwood, G., Rampes, H., Tuffrey, V., Richardson, J., & Pilkington, K. (2004). Yoga for depression: The research evidence. *Journal of Affective Disorders, 89*, 13-24.

Li, A. W., & Goldsmith, C. A. W. (2012). The effects of yoga on anxiety and stress. *Alternative Medicine Review*, *17*(1), 21-35.

Macy, D. (2008). Yoga in America. *Media Release. Yoga Journal.*

McCall, M. C. (2013) How might yoga work? An overview of potential underlying mechanisms. *Journal of Yoga and Physical Therapy, 3*, 130. doi:10.4172/2157-7595.1000130

McCall, M. C., Ward, A., Roberts, N. W., & Heneghan, C. (2013). Overview of systematic reviews: Yoga as a therapeutic intervention for adults with acute and chronic health conditions. *Evidence-Based Complementary and Alternative Medicine*, *2013*.

McCall, T. (2007). *Yoga as Medicine: The Yoga Prescription for Health and Healing.*

New York: Bantam.

McGonigal, K. (2009). A conversation with Timothy McCall, MD. *International Journal of Yoga Therapy, 19*, 143.

McIver, S., O'Halloran, P., & McGartland, M. (2009). Yoga as a treatment for binge eating disorder: A preliminary study. *Complementary Therapies in Medicine, 17*(4), 196-202.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco: John Wiley & Sons.

Meyer, H. B., Katsman, A., Sones, A. C., Auerbach, D. E., Ames, D., & Rubin, R. T. (2012). Yoga as an ancillary treatment for neurological and psychiatric disorders: A review. *The Journal of Neuropsychiatry and Clinical Neurosciences*, *24*(2), 152-164.

NHIS. (2007). National Health Interview Survey. Obtained August 9, 2014 from http://nccam.nih.gov/news/camstats/NHIS.htm.

NHIS. (2012). National Health Interview Survey. Obtained August 9, 2014 from http://nccam.nih.gov/news/camstats/NHIS.htm.

NIH. (2011). An Introduction to CAM. Retreived August 8, 2014, from http://nccam.nih.gov/about/plans/2011/introduction.htm

Park, C. (2013). Mind‐body CAM interventions: Current status and considerations for integration into clinical health psychology. *Journal of Clinical Psychology*, *69*(1), 45-63.

Quilty, M. T., Goldstein, R., Khalsa, S. B., & Saper, R. (2009). Yoga in the real world:

Motivations and patterns of use. *Explore: The Journal of Science and Healing, 5*(3), 154-155.

Ross, A., Friedmann, E., Bevans, M., & Thomas, S. (2013). National survey of yoga practitioners: Mental and physical health benefits. *Complementary Therapies in Medicine*, *21*(4), 313-323.

Sarang, P., & Telles, S. (2006). Effects of two yoga based relaxation techniques on heart rate variability. *International Journal of Stress Management, 13*(4) p. 60-75.

Shannahoff-Khalsa, D., Ray, D., Levine, S., Gallen, C., & Schwartz, B. (1999). Randomized controlled trial of yogic meditation techniques for patients with obsessive compulsive disorders. *CNS Spectrum, 4*, 34-46.

Shapiro, D., Cook, I. A., Davydov, D. M., Ottaviani, C., Leuchter, A. F., & Abrams, M. (2007). Yoga as a complementary treatment of depression: Effects of traits and moods on treatment outcome. *Evidence-Based Complementary and Alternative Medicine*, *4*(4), 493-502.

Shorter, S.M. (2013). Yoga at the intersection of research and service. Part 1: Experimental foundations. *Journal of Yoga Service, 1*(1), 15-22.

Sim, K., Gwee, K. & Bateman, A. (2005). Case formulation in psychotherapy: revitalizing its usefulness as a clinical tool. *Academic Psychiatry, 29*, 289-292.

Simpkins, A. M., & Simpkins, C. A. (2010). *Meditation and yoga in psychotherapy: Techniques for clinical practice*. San Francisco: John Wiley & Sons.

Staples, J. K., Hamilton, M. F., & Uddo, M. (2013). A yoga program for the symptoms of post-traumatic stress disorder in veterans. *Military Medicine*, *178*(8), 854-860.

Streeter, C. C., Jensen, J. E., Perlmutter, R. M., Cabral, H. J., Tian, H., Terhune, D. B., Ciraulo, D. A., & Renshaw, P. F. (2007). Yoga asana sessions increase brain GABA levels: A pilot study. *The Journal of Alternative and Complementary Medicine, 13*(4), 419-426.

Streeter, C. C., Whitfield, T. H., Owen, L., Rein, T., Karri, S. K., Yakhkind, A., Perlmutter, R., Prescot, A., Renshaw, P.F., Ciraulo, D.A., & Jensen, J.E. (2010). Effects of yoga versus walking on mood, anxiety, and brain GABA levels: A randomized controlled MRS study. *Journal of Alternative and Complementary Medicine, 16*(11), 45-52.

Taylor, M. (2012). What is yoga therapy? An IAYT definition. *Yoga Therapy in Practice. Dec*., 3.

Telles, S., Singh, N., Joshi, M., & Balkrishna, A. (2010). Post traumatic stress symptoms and heart rate variability in Bihar flood survivors following yoga: A randomized controlled study. *BMC Psychiatry*, *10*(1), 18.

Telles, S., Gaur, V., & Balkrishna, A. (2009). Effect of a yoga practice session and a yoga theory session on state anxiety. *Perceptory Motor Skills, 109*(3), 924-30.

Uebelacker, L. A., Tremont, G., Epstein-Lubow, G., Gaudiano, B. A., Gillette, T., Kalibatseva, Z., & Miller, I.W. (2010). Open trial of vinyasa yoga for persistently depressed individuals: Evidence of feasibility and acceptability. *Behavior Modification, 34*(3), 247-264.

Uebelacker, L. A., Epstein-Lubow, G., Gaudiano, B. A., Tremont, G., Battle, C. L., & Miller, I. W. (2010). Hatha yoga for depression: Critical review of the evidence

for efficacy, plausible mechanisms of action, and directions for future research. *Journal of Psychiatric Practice*, *16*(1), 22-33.

Valente, V., & Marotta, A. (2005). The impact of yoga on the professional and personal life of the psychotherapist. *Contemporary Family Therapy*, *27*(1), 65-80.

Valente, V. G., & Marotta, A. (2011). Prescribing yoga to supplement and support psychotherapy. In *Spiritually Oriented Interventions for Counseling and Psychotherapy,* pp. 251-276. Washington, DC: American Psychological Association.

Valente, V. G., Marotta, A. A., McMinn, J. D., Worthington, M. R., Everett, L., Jr. (2011). In *Spiritually Oriented Interventions for Counseling and Psychotherapy,* pp. 3688. Washington, DC: American Psychological Association.

Woolery, A., Myers, H., Sternlieb, B., & Zeltzer, L. (2004). A yoga intervention for young adults with elevated symptoms of depression. *Alternative Therapies in Health and Medicine, 10*(2), 60-63.

Zhang Yan. (2014). American Adult Yoga Practice: Preliminary Findings from NHIS 2012 Data. *The Journal of Alternative and Complementary Medicine*, *20*(5), 122-126.

Appendix A: Recruitment Email

Date

Dear _____,

My name is Anna Roth and I am a doctoral counseling psychology student at the University of Minnesota and Registered Yoga Teacher (RYT-500). I am writing to ask for your assistance with my doctoral dissertation, which will qualitatively explore how individuals such as yourself (dually trained as both a psychologist and yoga instructor) conceptualize the psychological effect of yoga and incorporate this dual knowledge into your professional psychology practice.

As you know, yoga is being increasingly utilized in mental health treatment and also is increasingly explored empirically. However, the majority of studies to date have investigated yoga from a biomedical framework. A noticeable gap in the literature is a coherent articulation conceptualizing yoga using a psychological theoretical frame. Further, limited information exists pertaining to how yoga is currently being incorporated into the practice of professional psychology, leaving many in the psychology field to wonder not only "what does yoga do?" but also "how is it working?"

Individuals such as yourself who have been dually and extensively trained in psychology and yoga are uniquely positioned to articulate a conceptualization of the impact of yoga on mental health and help the field understand yoga in psychological terms. I hope you will consider sharing your expertise and insights in this research study.

Your participation will require a 60-minute phone interview sometime within the next two months. This interview will be recorded, transcribed, and analyzed using qualitative methodology. All identifying information will be removed. In appreciation for your time, I will provide a final written draft and video presentation of the results emailed to you personally upon study completion.

If you are willing to be interviewed, would like to learn more, or have questions please reply to this email (roth0333@umn.edu) or contact me by phone at 651-925-6348. Once study interest is indicated in writing, I will reply to your e-mail with informed consent information as well as potential interview times. Thank you in advance for your time and consideration. I hope to have the opportunity to speak with you in the coming weeks.

Namaste,

Anna Roth
Roth0333@umn.edu
651-925-6348

Appendix B: Consent Form

Consent Form

You are invited to participate in a qualitative research study exploring the psychological conceptualization of yoga and integration of yoga into professional psychology practice from the perspective of providers dually trained as both a doctoral level psychologist and a registered yoga teacher.

This dissertation study is being conducted by Anna Roth, M.A., a doctoral student in the Counseling and Student Personnel Psychology program at the University of Minnesota, under the supervision of her faculty advisor, Thomas Skovholt, Ph.D., LP, ABPP. You were selected as a possible participant due to your dual credentials as a doctoral-level psychologist (PsyD or PhD) and credential as a Registered Yoga Teacher (minimum of 200 hour training completion). Please read the information below and ask any questions you may have prior to agreeing to the study.

Background Information

As you are likely aware, yoga is being increasingly utilized in mental health treatment and explored empirically. To date, the majority of studies investigated yoga from a biomedical framework and have suggested yoga to have a favorable impact on mental health via influence on relevant biomarkers such as neurotransmitters, hormones, and heart rate variability, amongst others. A noticeable gap in the research are studies that put

forth a psychological conceptualization of the influence of yoga on mental health or that are guided by a theoretical frame rooted in psychology. Further, limited information exists pertaining to how yoga is currently being incorporated into the practice of professional psychology, leaving many in the field of psychology to wonder not only "why does it work?" but also "what are providers doing with it in practice, and is it helpful?" In my view, individuals like yourself who are trained in both schools of thought (yoga and psychology) are in a unique and important position to help begin to articulate an initial psychological conceptualization of yoga interventions for mental health.

Procedure

If you agree to be in this study, you will be asked to participate in a one-time 60-minute phone interview phone sometime within the next month. You will be asked a series of semi-structured interview questions pertaining to your conceptualization of yoga from a psychological viewpoint and your current incorporation of yoga into your professional psychology practice, in addition to other relevant areas. In addition, periodic e-mail or phone communication will take place for interview scheduling purposes and in the event that clarification of one of your answers is needed in the coding process.

Risks and Benefits

This study has no apparent risk beyond the potential discomfort sharing certain aspects of ones professional experience. This risk will be mitigated by participant ability to opt not

to answer a given question posed or drop out of the study at any time. A potential study participation benefit is that it may be helpful for dually-trained providers to share their insights and perspectives regarding yoga in the context of mental health treatment, and that this process may be enjoyable and enlightening. Further, learning of the study results could be a validating experience.

Confidentiality

The records of this study will be kept confidential. All data will be de-identified using participant code numbers to protect your privacy. De-identified interview data will be submitted to a medical transcription service compliant with the Health Information Protection Portability Act (HIPPA) regulation and have agreed to confidentiality of the data, in verbal, written, and electronic form. After the interviews are transcribed, the de-identified data will be reviewed by the primary investigator and research team comprised of two Master's level counseling students interested in qualitative research experience as well as a study auditor.

Voluntary Nature of the Study

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to withdraw at any time. Should you decide to withdraw data collected about you, your data will not be used in the study. You are also free to skip any questions asked.

All questions and concerns can be directed to the primary investigator Anna Roth via phone (651) 925-6348 or email at roth0333@umn.edu. My advisor, Dr. Thomas Skovholt, can also be reached by email at skov001@umn.edu or telephone at 612-625-3573. You may also contact the University of MN Institutional Review Board at 612-626-5654 with any questions or concerns.

Statement of Consent:

I have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I am at least 18 years of age. Additionally, I consent to being interviewed and having that interview recorded via digital audio recording and understand my de-identified interview data will be transcribed by a medical transcription service and reviewed by the research team.

Participant Signature and Date

Appendix C

Interview Questions

1. Tell me a little bit about your professional background. What was your path to becoming a psychologist and a yoga teacher?

2. Describe your primary yoga orientation or style.

3. Describe your theoretical approach to counseling and therapy work.

4. What connections do you see between your therapy and yoga orientations?

5. Imagine you are in a room filled with psychologists who are unfamiliar with yoga and skeptical about recommending the practice to their clients. You are asked to provide a psychological conceptualization of yoga's impact on mental health. What do you say?

6. What was your experience like just now attempting to articulate a brief psychological conceptualization of the effect of yoga on mental health?

7. In your view, what component of yoga is essential about yoga for psychological benefit?

8. Tell me about a time you have seen yoga impact a client's mental health positively.

9. What types of clients (personality, symptomology, diagnosis, etc.) do you believe benefit most from yoga?

10. What types of clients (personality, symptomology, diagnosis, etc.) do you believe benefit least? Follow-up question: Are there certain mental health conditions or types of clients for whom you feel yoga interventions are contraindicated?

11. Reflecting on the questions I have asked thus far and your answers, which "hat" (yoga teacher or psychologist) were you wearing when interpreting and answering the

questions?

12. In what ways are you currently integrating your yoga training into your professional psychology practice? How do you feel this has been received by the psychology community? The yoga community?

13. Describe the ideal integration of yoga and psychological treatment in practice.

14. If you were interviewing a group of yoga teacher psychologists, what question would you ask them?

15. Anything else you would like to share about your experience of integrating your dual training for theory and/or practice?

Appendix D

RYT 200-Hour Standards

These standards describe Yoga Alliance's requirements for a Registered Yoga School that offers a 200-hour program. A school with a 200-hour program (RYS 200) must incorporate training hours in the following educational categories:

1. Techniques, Training, and Practice: 100 hours

Minimum contact hours: 75 hours Minimum contact hours w/ Lead Trainer(s): 50 hours

* Topics in this category could include, but would not be limited to: asanas, pranayamas, kriyas, chanting, mantra, meditation, and other traditional yoga techniques. These hours must be a mix between: 1) analytical training in how to teach and practice the techniques, and 2) guided practice of the techniques themselves. Both areas must receive substantial emphasis.

2. Teaching Methodology: 25 hours

Minimum contact hours: 15 hours Minimum contact hours w/ Lead Trainer(s): 10 hours

* Special Requirements: A maximum of five of the above hours can be counted on the subject of business aspects of teaching yoga. Topics in this category could include, but may not be limited to: How to address the specific needs of individuals and special

populations, to the degree possible in a group setting; Principles of demonstration, observation, assisting, and correcting; The student learning process.

3. Anatomy and Physiology: 20 hours

Minimum contact hours: 10 hours Minimum contact hours w/ Lead Trainer(s): 0 hours

* Special Requirements: A minimum of five of the above hours must be spent applying anatomy and physiology principles to yoga. Topics in this category could include, but would not be limited to: human physical anatomy and physiology (bodily systems, organs, etc.). Includes both the study of anatomy and physiology along with its application to yoga practice (benefits, contraindications, healthy movement patterns, etc.).

4. Yoga Philosophy, Lifestyle and Ethics for Yoga Teachers: 30 hours

Minimum contact hours: 20 hours Minimum contact hours w/ Lead Trainer(s): 0 hours

* Special Requirements: A minimum of two of the above contact hours must be spent on ethics for yoga teachers

Topics in this category could include, but would not be limited to: The study of yoga philosophies and traditional texts, such as the Yoga Sutras; Ethics for yoga teachers, such as those involving teacher-student relationships and community, etc.

5. Practicum: 10 hours

Minimum contact hours: 5 hours Minimum contact hours w/ Lead Trainer(s): 5 hours

* Special Requirements: Each trainee must spend a minimum of 5 contact hours of practice teaching as the lead instructor. Practice teaching does not include assisting, observing, or giving feedback.

Remaining Contact Hours and Elective Hours

The requirements detailed above ensure that all trainees of an RYS receive training and instruction in five educational categories for a minimum number of designated hours. The remaining contact hours (55 hours) and elective hours (15 hours, either contact or non-contact) are to be distributed among the five educational categories, but the hours may be allocated at the discretion of each RYS based on their program's focus.

TOTAL HOURS: 200 hours

Total minimum contact hours: 180 hours

Total minimum contact hours with Lead Trainer(s): 65 hours