

**Phenomenological Qualitative Program Evaluation of Goat Yoga for Cultivating Joy and  
Positively Shifting Perspective**

by

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A Thesis Presented in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Social Work

University of Texas at Arlington

School of Social Work

May 2023

## **Abstract**

There is increasing evidence that animal-assisted interventions are helpful for mental wellbeing in reducing anxiety and depression. There is also a large body of research supporting the benefits of yoga for symptoms of trauma. However, there can be resistance to participating in yoga interventions because of insecurity or personal aversions to the practice. Also, yoga alone may not provide sufficient positive affect attributes to promote the needed change. The combined yoga and animal-assisted intervention of “Goat Yoga” has been popular for several years as a fun and uplifting activity but has not been studied for its influence on mental wellbeing. This study provides findings from an interpretative phenomenological analysis using interviews and surveys with nine participants to determine the personal experience of the phenomenon of “Goat Yoga” for its influence on participants’ joy and shift in perspective. The findings suggest a positive impact on affect regulation. Four core themes captured participants’ experience of the combined yoga and animal-assisted intervention: (1) Fun, (2) Inducing Calm, (3) Shifting Focus, and (4) Removing Barriers. The findings suggest that “Goat Yoga” is beneficial as a complementary therapy for depression and anxiety, especially for treatment-resistant conditions, but further research is needed to determine relevance across various populations.

## **Keywords**

Goat Yoga, Yoga for Mental Well-being, Yoga for Stress Relief, Animal-Assisted Therapies, Animal-Assisted Interventions

### **Acknowledgements**

I would like to express my deepest gratitude to Dr. Regina Praetorius, the chair for my committee, for patiently guiding me through this process with understanding and expertise. I could not have navigated the uncertainty and obstacles without her encouragement. I am also deeply grateful for my defense committee. I am indebted to Dr. Donna Schuman for leading me to this idea and to Dr. Christine Spadola for her wise guidance. My committee has made this experience truly fulfilling.

I would also like to extend my gratitude to Rachel and Josh Terry, the owners of The Hope Place in Mansfield, Texas. I am especially grateful for Rachel's excitement over this research and her constant support. Her generosity in allowing me to do this research at her facility with her goat family has been invaluable. I am also grateful to the therapists at The Hope Place for their support, interest, and help throughout this process. Their dedication to supporting the well-being of the Mansfield area and greater DFW community is unparalleled. Lastly, I am so thankful for all the goats and their fearless leader, Finnegan, for their fervent interest in our yoga students and for making the class so helpful for so many.

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## Introduction

Mental health has become a priority in recent years, especially in the wake of the worldwide Covid-19 pandemic. In 2021, the World Health Organization (WHO) estimated that depression affected 280 million people around the world and was a leading cause of disability (WHO, 2021). During the Covid-19 pandemic, the WHO also noted the occurrence of anxiety and depression increased by 25% due to social isolation, loneliness, financial stressors, and exhaustion especially among healthcare workers (WHO, 2022). Although life has improved considerably, effects from the significant collective trauma experienced worldwide will likely endure for some time. According to an online cross-sectional survey of Tunisian residents studying the prevalence of posttraumatic stress disorder (PTSD) brought on by circumstances related to the Covid-19 pandemic, 199 of the 603 participants reported posttraumatic stress symptoms that many believed to be exacerbated by amplified media coverage (Fekih-Romdhane et al, 2020). As the population strives to manage the lingering mental health issues from the pandemic and other societal and personal stressors, scholars should explore various coping techniques and healing modalities for managing trauma and stress.

Yoga, breathing techniques, and mindfulness are proven modalities in alleviating symptoms of PTSD and complex trauma. These are becoming more commonly recommended by physical and mental health professionals as complementary therapies for stress, anxiety, and depression. Yet, despite effectiveness, many people encounter barriers to participating in these practices that prevent them from experiencing the therapeutic benefits (Atkinson & Permuth-Levine, 2009).

Another increasingly popular complementary therapy is animal-assisted psychotherapy. For clients with difficulties benefitting from traditional talk therapy, animals can provide stress

reduction (Haggerty & Mueller, 2017) and higher retention rates in therapy (Jones et al., 2019). Work with farm animals has also been associated with decreased heart rate, blood pressure, and stress hormones contributing to decreased depressive symptoms (Pederson et al., 2012).

Though both animal and yoga therapies have proven benefits and limitations, to the best of our knowledge there are no published studies that investigate the combination of these two therapies on mental health, the differences associated with the addition of animals in yoga, or the possibility of increasing accessibility to the proven benefits of yoga through incorporating the assistance of animals. To improve access to the therapeutic benefits of yoga and improve overall mental wellbeing, this study explored the effects of combining the two complementary therapies of yoga and animal-assisted interventions in “Goat Yoga.”

Because positive emotions, such as joy, can lead to disruption of depressive disorders (Silton et al., 2020) and the anecdotal stories associated with “Goat Yoga” express the common reaction of joy (Original Goat Yoga, n.d.), joy was determined to be an important factor to explore in the study. Also, based on the potential for animals to shift the focus away from anxiety associated with the therapy process (Jones et al., 2019), the level of perspective change possible with this combined intervention was of noted importance. Therefore, the primary purpose of this study was to determine how a combined yoga intervention with an animal-assisted intervention in “Goat Yoga” affected participants’ levels of joy and positive shifts in perspective attributing to mental wellbeing. This study intended to begin the conversation on this combined intervention through gathering a phenomenological interpretation of personal experiences and to identify the areas of need for further research on this topic.

## **Literature Review**

This review focuses on the therapeutic benefits of yoga and animal-assisted therapies individually and the specific mental health benefits addressed by each, including relevant neuroscience. It covers new findings in relation to joy and positive emotions in the treatment of depression and then looks at the origins of “Goat Yoga” and the observations of its founder on its effects on class participants.

## **Yoga**

Yoga has a well-documented positive impact on mental health. Psychiatrist and leading traumatologist, Bessel van der Kolk, has done extensive research on the effects of yoga on trauma, showing a significant reduction in symptoms of PTSD in women with chronic, treatment-resistant PTSD (van der Kolk et al., 2014). In this study of 64 women with chronic, treatment-resistant PTSD, half were assigned to a yoga intervention and the other half received supportive health education. Though both groups showed improvement in PTSD symptoms for the first half of the study based on the Clinician-Administered PTSD Scale (CAPS), the yoga group experienced more significant improvement that was sustained over the length of the study. As measured by the Davidson Trauma scale, the supportive health education group’s improvement diminished after the first half of the study. In a qualitative study of community-dwelling yoga practitioners, participants reported that the most significant changes brought about from their yoga practice were intrapersonal, resulting in a sense of calm, mindfulness, and self-compassion (Kishida et al., 2018).

Neuroscience findings show that the physical impact of yoga is similar to the benefits of exercise in producing changes in the serotonergic and noradrenergic systems that result in reduced pain and heightened mood. It also activates changes in the hypothalamic-pituitary-adrenal axis leading to adjustments in cortisol and adrenocorticotropic hormones (Cramer et al.,



2018). Yoga also increases thalamic GABA (γ-aminobutyric acid) reducing anxiety and induces relaxation by activating the parasympathetic nervous system via vagal nerve stimulation. Studies also show that the amygdala, part of the threat center in the brain, reduces in size after practicing yoga and meditation because of a reduction in neural activity (Gotink et al., 2018). Regular yoga and meditation practice shows a rewiring of the neural pathways, reducing negative responses to stress.

Despite the positive results associated with yoga, many people experience barriers that prevent them from accessing these therapeutic benefits. Many of these barriers consist of negative preconceptions about it (Atkinson & Permuth-Levine, 2009). Some feel their inexperience with yoga is reason to avoid starting a new activity, or they are intimidated by others that are more experienced, while others feel uncomfortable around those that practice yoga, believing they have alternative beliefs and lifestyles in conflict with their own (Atkinson & Permuth-Levine, 2009). Some believe that yoga goes against their faith because of directions from Christian religious leaders that claim that it is based in demonic roots and is a form of worshipping other gods (Chery, 2023).

### **Animal-Assisted Therapies**

Many animal-assisted therapy studies show a positive impact on mental wellbeing, especially with anxiety and depression. Animal-assisted therapies have been associated with a reduction in symptoms of PTSD, as well as high rates of engagement and retention in therapy with adolescents (Jones et al., 2019). Interventions with farm animals have been shown to reduce anxiety and symptoms of depression. In an intervention with farm animals that only included direct contact work with the animals, such as feeding, brushing, milking, saddling, and riding, the physical contact with the animals factored highly in improved mood (Berget et al., 2011).

Another farm animal intervention for people with clinical depression showed that the closeness and connection with the animals were directly associated with decreased heart rate, blood pressure, and stress hormones, which contributed to decreased symptoms of depression (Pederson et al., 2012). The presence of animals has also been associated with a reduction in cortisol levels and an increase in oxytocin, reducing stress-related illnesses (Polheber & Matchok, 2013).

### **Joy**

Another emerging treatment for emotional disorders, anxiety, and depression is the regulation of positive emotions, such as joy, love, and contentment (Carl et al., 2013). Improving positive emotional functioning has been associated with long-term recovery and building resilience. One way that activities that create positive emotions influence these disorders is through savoring-based strategies that prolong and intensify positive experiences and, as a result, mitigate symptoms of depression (Silton et al., 2020). Positive emotions are also associated with the production of serotonin, noradrenaline, dopamine, and oxytocin, the neurotransmitters involved in feelings of reward, pleasure, and care (Richardson et al., 2016).

### **“Goat Yoga”**

The combined intervention of yoga with the assistance of goats has come to be known as “Goat Yoga.” The idea of goat yoga began on a farm in Monroe, Oregon in 2016, when Lainey Morse began spending time with her goats as a distraction from stressful life events. A local yoga instructor, Heather Davis, soon began teaching classes with the goats, and the two found that happiness and stress relief were common experiences among students (Original Goat Yoga, n.d.). The practice became a fast phenomenon after sending pictures to Modern Farmer Magazine, and it is now enjoyed all over the country. Lainey’s personal search for joy became a

life calling in what she terms “farming happiness.” Others have also praised the positive experience from this combined intervention as a means of emotional self-care and a fun, restorative exercise (Keating, 2019). In an article in University Wire, Hannah Keating (2019, para. 7) emphasized “it’s not about pushing the hardest. Instead, it’s about letting the playful nature of baby goats spark something joyous in you.”

Although numerous anecdotal stories validate the previous observations about “Goat Yoga,” to the best of our knowledge, there are no published studies that investigate the combination of these two therapies on mental health, the differences associated with the addition of animals in yoga, or the possibility of increasing accessibility to the proven benefits of yoga through incorporating the assistance of animals. This study serves as a catalyst for further research on this combined intervention.

### **Method**

This study adopted Interpretative Phenomenological Analysis (IPA) to explore participants’ experiences, emotional responses, and perceptions from interacting with goats in a yoga class. This approach allowed participants to convey “their stories without any distortions and/or prosecutions” (Alase, 2017, p. 11). As Creswell (2013, p. 76) observed, “phenomenological study describes the common meaning for several individuals of their lived experiences of a concept or phenomenon.” He also noted that the researcher is then tasked with making an interpretation of those experiences. Through this form of examination and interpretation, the experiences of the participants were clearly described and more accurately understood.

## **Protection of Human Subjects**

The study received approval from the University of Texas at Arlington Institutional Review Board, Protocol 2023-0112.2 (see Appendix A), and posed only minimal risks to participants, including those present in a beginner's yoga class, risks due to exposure to the weather, and any risks associated with the presence of small goats. To avoid injuries to participants, the instructor provided modifications for yoga poses and instructions were provided prior to class to dress accordingly for the weather and to bring water and sunscreen. Exclusion criteria included people under the age of 18 and anyone with physical conditions prohibiting participation in a beginner yoga class or restrictions mandated by their doctor. These conditions included hypertension, cardiovascular disease, glaucoma, recent surgeries or injuries, pregnancy, and serious back problems. Exclusionary criteria conditions were self-reported.

## **Setting and Data Collection**

Participants in the study were recruited from a "Goat Yoga" class offered at a local mental health practice based in a rural setting that offers various types of psychotherapy, including equine and small animal-assisted therapy. Once a month, this practice holds a "Charity Goat Yoga" class with the resident goats to help fund therapy for veterans, first responders, and their families. Once potential goat yoga participants registered and paid for the class, they were invited to participate in the study via email and were offered their next goat yoga class free in return. Past class participants were also invited to participate based on their previous experience with the class.

Data collection occurred through a structured virtual interview that was recorded and transcribed. If participants were unable to participate in the virtual interview, they were offered an option to complete the interview questions in the form of an open-ended survey (see

Appendix B). The interview lasted approximately 20 to 30 minutes and the survey took five to 10 minutes to complete. New participants were also offered an option to take a somatization scale prior to class and two weeks following class from a link provided in an email; however, this scale was not included in the results of this study since only two participants chose to complete the scale.

### **Delivered Sample**

Of the participants that chose to participate in the study, four chose to complete the semi-structured interview and five chose to complete the online QuestionPro survey. Eight participants identified as White and one Multiracial. All participants identified as women. The level of formal education of the participants included one with a Ph.D. and M.D., one with a Ph.D., two were in the process of attaining their Ph.D., two with master's degrees, one was near the end of her master's education, one had a B.S., and one was a high school graduate. All but one participant had a connection with the military, including through a parent or spouse. Three were veterans, and one was a retired police officer.

### **Data Analysis**

The data analysis followed the guidelines for Interpretative Phenomenological Analysis which proceeded through a set of steps recommended by Moustakas and Creswell as described by Alase (2017). Data analysis began with the researcher bracketing away their own experience with goat yoga, a process of suspending personal preconceptions allowing the participants' claims to stand on their own without bias. The participants' information was then organized as follows: (1) Significant statements were identified and grouped into themes, (2) "Textural descriptions" were made from participants' experiences, including verbatim examples noting how the experience happened (Creswell, 2013), (3) "Structural descriptions" were made to note

the setting and context of the phenomenon (Creswell, 2013), and (4) A composite description of both textural and structural descriptions was made to convey the overall essence of the experience.

## **Results**

The textural and structural descriptions were merged and condensed into four primary themes that expressed the essence of the phenomenon of “Goat Yoga” as related to joy and a positive shift in perspective. These four main themes were identified as: (1) Fun, (2) Shifting Focus, (3) Inducing Calm, and (4) Removing Barriers. Participants’ quotations are presented to support themes and participants are identified by their study number in brackets.

The overall impression of the class as expressed by all participants was that it was a positive, unique intervention and that it was fun and left them feeling lighter and happier. Most participants had no hesitation in practicing yoga with the goats, but others were somewhat anxious from not knowing goat behavior or what to expect from them. All participants who were anxious noted that any hesitation was alleviated in the first few minutes of interacting with the goats. A majority of the participants in the study attended classes that included baby goats, but some were past participants who attended class with only adult goats before the goat babies were born. There was a noticeable difference between classes with the goat babies and the ones with just adult goats in the level of interaction instigated by the goats and the overall experience. The adult goats interacted but on a much more subdued level than the goat babies. The experience with the goat babies was much more playful and dynamic. As one participant described, “they were on fire that day!” (2) Another stated, “The baby goats are the best!” (9) There was also a noted difference in responses from participants in classes with only the adult goats as compared to those with the babies.

Another difference in the participants' experiences came from one class that was held inside a large room with the doors open for the goats to enter because the outside temperature was too hot to be without air conditioning and protection from the sun. Only a few goats entered the room during class and the one past participant that attended this class noticed the limited goat interaction. Class members had the opportunity to mingle outside with the goats following class, though, which added to their experience.

Participants' primary reactions experienced by to the "Goat Yoga" class are reflected in the first two themes drawn from the descriptions. First and foremost, the participants expressed fun, joy, and laughter from the intervention, which is described by the first theme of *Fun*. From multiple perspectives, the second theme of *Shifting Focus* was observed as a prominent effect brought on from the assistance of the goats in class. Closely relating to the first two themes yet describing different dimensions of the experience, *Inducing Calm* and *Removing Barriers* were important themes to complete the essence of the intervention. As one participant described the overall experience of the class:

I think there's a lot of anxiety in the world right now, and I think there are a lot of people that are really stressed out and ... trying to find ways to get past that. And, you know, for those that are into yoga or not even into yoga, just to get out and... laugh and relax for an hour would do a lot of people a lot of good. (2)

## **Fun**

The most common words used to describe the experience of the class were, "fun," "laughter," "smiling," and "hilarious" (see Appendix D). As one participant expressed, "It was fun and hilarious!" (5) Another said it helped her "look for the chance to laugh and smile." (8) The quirky behavior of the baby goats, and even some adult goats, was noted as the catalyst for

all the positive experiences and results from the class. One participant described the goats as “whimsical.” (8) Whether it was baby goats nibbling participants’ toes; little jumps and runs around the yard; baby head butts on participants’ thighs, backsides, or other goats; or an adult lazing casually in the middle of a participant’s yoga mat, the behaviors captured the attention of all participants and induced good feelings. The meanings associated with this fun fell into three subthemes: (1) Experience of Happiness, (2) Receiving, and (3) Social Connections with Others.

### *Experience of Happiness*

Multiple participants described the class somatically as feeling “lighter.” This lightness resulted from a lifting of spirits, a lift out of something hard, or a general airy, light atmosphere. It caused them to laugh and to pay attention for the next thing to laugh at with the goats. One participant described her interaction with the baby goat nibbling her toes as “the best belly laugh [she thinks she has] had in so long.” (2) All participants appeared to savor the moment of the experience and gain positive benefits from their goat-assisted yoga, not surprising since a systematic review on savoring strategies associated with wellbeing for those with depression shows that “enriching any of the three temporal domains of savoring (reminiscing, savoring the moment, or anticipating) is associated with increased frequency and intensity of positive affect and decreased negative affect” (Silton et al., 2020, p. 95).

In describing the lifting of spirits, one participant demonstrated the enjoyment of the moment well, “I just think that being around the goats, especially the baby ones, is just like a blast of good feelings” (1). Another described her family’s enjoyment of the goats, “We are animal lovers, so it was so fun to be up close and personal with the goats.” (9) Other participants described more about the overall fun of the experience. One expressed what she believed was the essence of the class, “I felt like...the essence of the whole class was just adorable and fun and



cute” (2). A mom who attended with her kids said, “It was adorable. I did it so my kids could play with the goats, but it ended up being the best experience. The little kid [goat] that headbutted everyone was the best. It made my kids squeal” (7). Another described the goats, “I think they’re cute and cuddly and you just watch them do their little jumps and how they come in for love” (3).

Two participants explained more about the goats showing them to pay attention, watching for the next things to make them laugh. One described her perspective, “It seems like a lot of people are struggling, specifically me. But, you know, it was a good reminder to just laugh” (2). Another expressed the possibilities, “If I would be more present, I could find more pieces of joy in life” (4). Others talked more about the sensation of lightness. One described the overall feeling, “I guess I kind of felt lighter in the sense that the goats do bring that extra added benefit of joy” (1). Another compared to the heaviness experienced in traditional yoga, “I just felt lighter. In regular yoga...sometimes the poses are just overwhelming...and you feel heavy, and they feel hard” (2). One described it as “lightness in the chest” (7).

### ***Receiving***

Another aspect of fun in the experience was in receiving positive benefits from the goats. Interaction with animals can serve as a beneficial social interaction that is healing. In a study to determine the mental health benefits of animal interaction, Jasmin and Hodgson (2018) found that the animals provided a form of social support and provided comfort. Besides social support, the action of the animals in choosing to interact with the participants gave them a feeling of connection. According to a study by Pederson and colleagues (2012), physical contact, closeness, and warmth can relieve depressive symptoms. One participant described the quality of this connection through one of her interactions with a goat:

I thought that was a really fun experience because these animals...have their own life—they're living and they're interacting with us as much as we're interacting with them. So, that was kind of cool to have that little odd connection. (1)

Another participant expressed how receiving their interaction helped her with her yoga experience, "It's like receiving joy and love while you're doing something that's hard" (3).

### ***Social Connections with Others***

Participants expressed their experience of fun, happiness, and joy in relation to the enjoyment of others' laughter and playful interactions with the goats. Observation of the goats' behavior with other class participants created an atmosphere of community fun that contributed to the positive, uplifting experience. A study on laughter interventions with adults with depression and anxiety showed that laughter and humorous situations not only lead to better mood and reduced rumination, but also allow participants to feel safe and have more peaceful interactions with others (Zhao et al., 2019). Two participants described their experience of enjoyment with others' experiences. One explained:

I remember the one [goat] plopped down on some other chick's mat and that just brought joy. She really seemed like she was having a great time. Even though I did not have a goat on my mat...there was that enjoyment of hearing other people laugh and enjoy the experience. (3)

Another described the influence of others' laughter, "When the goats got in the way of one of the participants, she laughed, then we all laughed. I've never laughed in a yoga class before" (6).

### **Shifting Focus**

Participants unanimously agreed that the presence of goats in the yoga class had the ability to shift their focus in some way. Everyone experienced a shift in focus during or by the

end of class and some felt a shift in the way they looked at other things in life in a larger way.

Two categories constitute the subthemes within Shifting Focus: (1) Shifting Focus in the Moment, and (2) Shifting Perspective in Life.

### *Shifting Focus in the Moment*

Many participants described being self-conscious or even intimidated in traditional yoga classes. They expressed discouragement in comparing their abilities with others who knew more or were more advanced in their yoga practice. Others described how it shifted their focus on personal issues they brought with them to class. Whether they were anxious because of comparison with others or life events that were worrisome, the class left them in a better frame of mind. One described her hesitation with her inexperience with yoga, “I was a little bit unsure about the yoga. It was a good reinforcement for me to not be concerned with thinking my pose is off or funky because [the others] have been doing this and I haven’t” (1). One let go of outside concerns, “I could let what was bothering me go for a little bit and enjoy the fresh air, poses, and goats” (6). Another said, “I left in a better mood (5). One described how it changed her ability to manage difficult circumstances, “When I first sat on the mat, I had all these things on my mind but in the first 15 minutes, I was able to let all that go. Later, I was a lot stronger and calmer. I felt like I was thinking a little more clearly” (2).

Others noted their inability to stop their racing thoughts either about their impatience with the slow pace of yoga or of conflicting beliefs with the ideas expressed in traditional yoga classes. All expressed the ability of the goats to shift their focus away from negative thoughts to a positive, fun experience. One described her change in racing thoughts:

I’m not into the slow pace of yoga, like my brain just keeps going and I get frustrated and want to rush through the poses. So, it was nice to have them in the class. The goats are

like an added element to yoga. They help you to slow down and not just focus on what's going on inside your head. (4)

Another shared how her internal conflict with yoga was eased:

Sometimes, yoga can feel a little too New Age or hippie and my own spirituality conflicts sometimes, but I think the goats might have replaced some of that concentration [I] would put on it. I've never been a huge yoga person because I don't connect with it because of my faith. When I hear some of the phrases, I turn [them] into a Christian perspective, so it's like mental work on top of the body work because [I'm] finding how it relates to [my] beliefs. (3)

### *Shifting Perspective in Life*

Some participants believed the experience in the class converted to their perspective on other things in life. They felt that the goats presented a new way of viewing how they faced their day or how they faced challenging situations. One stated that it helped her “look for the chance to laugh and smile.” (8) Another noted that “it teaches you to be calm and realize that your problems are only temporary.” (9) One described the change in her anxiousness over a new experience, “I can see how something I was initially nervous about ended up being amazing” (7). One described how it changed her outlook for her day, “I was in a better mood, so it changed my perspective on things the rest of the day” (5). One learned ways to be more present, “I learned that if I want to be more present, there are these little pieces of joy to find in life” (4). Another described the lasting impact, “If I keep reflecting how it impacted me with Finnegan standing next to me and really being grounded and staying in the moment, it creates more space for me” (1).

Some in the class did not feel that it had the potential to change their perspective on other

aspects of life or they felt it was more like mindfulness practices in its benefit. One described it as, “I think I would equate it to doing any other type of technique or tool that helps calm you when you’re feeling anxious, like deep breathing. I think the use of the goats and yoga just brings that relief and kind of deescalates thoughts” (3).

### **Inducing Calm**

Another main theme extracted from the descriptions was Inducing Calm. This theme was similar in ways to the theme of joy but had elements that differentiated it in important ways. These elements were described as more grounding in relation to connection with nature or more soothing from the relief of anxiety about yoga or other life circumstances. This difference resulted in two subthemes: (1) Grounding, and (2) Soothing.

#### ***Grounding***

It is becoming more apparent to researchers that spending time in nature has a calming effect. In a meta-analysis on mental wellbeing gained from nature, “the vast majority of results show that natural environments promote greater parasympathetic nerve activity (contentment) and lower sympathetic nerve activity (drive) than urban environments” (Richardson et al., 2016, p. 313). Another study on mental health and nature showed that natural environments may effectively mitigate the negative effects of cognitive load associated with urban environments, resulting in a calming response (Mantler & Logan, 2015). It also showed that “nature connectedness” is closely associated with positive affect and life satisfaction. Participants in the class shared their thoughts on the difference between a regular yoga class and the goat yoga class. One stated, “The outside environment was less intimidating than a studio. Hearing nature sounds was grounding” (6). One noted the calming effect, “I could hear them eating. Very

calming.” (8) Another said, “It was one of those experiences that put you one step closer to nature. It helped you feel more grounded and in the moment with the goats there” (1).

This participant also described the benefits of being outside, “Being outside in nature was just more positive than doing it in my dark apartment. I felt like I was more receptive to really enjoying the yoga” (1). Another talked about closeness with nature, “It was a great way to get in touch with nature and animals. It felt good to be in the sun.” (9)

### *Soothing*

Participants described the class as alleviating stressors or frustrations, leaving them calmer. In Gilbert’s three circle model (Gilbert, 2014), contentment is the capacity for an experience to sooth and create a feeling of safety and wellbeing. Participants in the study felt soothed by the natural environment and the behaviors of the goats. They also responded to the cuteness of the goats. Kama muta is a social-relational emotion meaning heartwarming and being touched or moved. The cuteness of animals is known to evoke this emotion not only from their cute attributes, but also from their affectionate interaction (Steinnes et al., 2019). Kama muta is intensified with a communal sharing of an experience. Several participants experienced the intensification of kama muta with the goats which relieved stress and soothed them.

One participant described her experience, “I felt much more relaxed in the goat yoga class. The animals are just a really great distraction, so I didn’t take it so seriously” (2). One described the soothing cuteness, “They’re cute and cuddly and...come in for love” (3). Another described how the goats eased her anxiety, “I get frustrated with yoga. My mind wants to move on to the next thing, so the goats limited my frustration” (4). Another expressed the comfort of the class and the moment, “There was just no pressure to get it right. It was just kind of being in

the moment and enjoying that” (1). One described that it gave her “a sense of easy calm with laughter.” (8)

Breathwork is usually one of the most calming aspects of a yoga class. Some participants found the breathing exercises helpful, while others felt the goats presented enough distraction to fully realize the benefits of the techniques. One commented, “[The breathwork] was useful at the time. I would say doing it a couple times would be more beneficial because then I could recall more of the breathing exercise itself” (1). Another described about the breathwork, “It reminded me to use my breath to calm.” (8) One relied on previous knowledge to benefit from the breathing, “Because the breathing techniques in the goat yoga class were familiar, I could easily participate without a deep focus on technique” (6). When one participant was asked if they learned any new breathing exercises, they responded, “Probably, I just don’t remember” (3). However, another replied, “Yes! I love box breathing!” (9)

### **Removing Barriers**

The last main theme was that goat-assisted yoga removed barriers that would prohibit participants from taking a regular yoga class or slowing down enough to find presence and calm if they did. The descriptions in this theme also apply to the *Shifting Focus* theme, but the consequence is greater if the frustration, intimidation, or conflict keep them from finding beneficial interventions that would alleviate distress. The barriers identified within this theme make up three subthemes: (1) Internal Conflict, (2) Performance, and (3) Seriousness. Many of the descriptions are echoed in the *Shifting Focus* theme but were salient to being restrictive barriers and so are included here.

### ***Internal Conflict***

Two participants shared their personal conflict with practicing yoga. One dislikes the slower pace of yoga and finds it frustrating. The other experiences theoretical differences with the ideas expressed in traditional yoga classes. She perceives that these ideas conflict with her personal faith, so yoga presents a challenge for her. Both, however, found that the presence of the goats in the class helped provide a different focus and allowed them to gain benefits from the class. Both would not normally participate in yoga because of these reasons. One noted:

I would get so frustrated, like I could do the rest of these poses in two minutes and get out of here and do the next thing on my to-do list, but if I was able to put my attention on the goats, it limited my frustration. (4)

The other described how the goats softened the barrier to her enjoying the class:

I think the goats might have replaced some of that concentration [I] would put on it. I've never been a huge yoga person because I just don't connect with it because of my faith.

In traditional yoga, the way they talk, maybe the spirituality part of it conflicts sometimes. I think yoga has a lot of great benefits; it's just getting beyond the old way of thinking. (3)

### ***Performance***

Unfortunately, many people are intimidated by traditional yoga classes and will not attend because of their inexperience or inability compared to others in the class (Atkinson & Permuth-Levine, 2009). They miss the benefits because of the comparison with others or perceived expectations of the instructor. However, with goats in the class, the pressure and expectations were removed. One explained this:



I was a little bit unsure about the yoga. I think that I was just reminding myself that we're all doing this for our own benefit. I was just not worrying about the other people in the class and what they were doing, [I was] just focusing on me or focusing on the goats. (1)

One described her shift in focus: "My focus was more on the goats and less on the yoga" (5).

Another noted how the goats relieved the overwhelm of a yoga class, "In regular yoga, when you're doing these poses, sometimes the poses are just overwhelming in [themselves] and you feel heavy and they feel hard, but I didn't really feel that in goat yoga" (2).

### *Seriousness*

Some people are uncomfortable with the seriousness of yoga. One participant even described traditional yoga classes as solemn. Although this seriousness could be attributed to inward focus, for those unfamiliar with the practice, it could be a barrier for participating. It could also feel isolating for some if they need more interaction. The study on nature's effect on mental health noted that "physical activity conducted in natural environments is reported to be more enjoyable and less taxing" (Mantler & Logan, 2015, p. 9). The goats and the rural outdoor environment made the yoga more enjoyable. Participants in the study expressed their relief from the seriousness in their descriptions. One described this phenomenon as:

I think, actually, the animals are a really great distraction. I like regular yoga, as well, but I think the difference is that you don't take it as seriously or, at least personally, I don't take it as seriously with goat yoga. (2)

One described the fun, "It took the seriousness out of the yoga and brought more fun to it" (7).

Another also noted the fun, "It was a lot more fun and a little less serious, which I love." (9) One described the break from solemnness, "Normally, yoga seems so serious, but the goats counteracted the seriousness/solemnness of the time" (6).

## Other Results

The interviews and surveys contained two scale questions relating to the level of relaxation following class and the rating of “Goat Yoga” they would give to a friend. The relaxation question was rated on a Likert Scale from one to five, with 1 = very tense, 2 = tense, 3 = neither tense nor relaxed, 4 = relaxed, and 5 = serene and very relaxed. Four participants expressed that they were serene and very relaxed, four were relaxed, and one was neither tense nor relaxed following the class. The one that was neither tense nor relaxed attributed her score to her desire to rush through the poses instead of the slower pace of the class. The class rating was also on a Likert Scale, with 1 = did not like at all, 2 = disliked more than liked, 3 = neither liked nor disliked, 4 = liked, and 5 = loved them in class, made my yoga a more enjoyable experience. The participants unanimously loved having the goats in class and felt they made it a more enjoyable experience.

## Discussion

The purpose of this study was to determine participants’ experience of a “Goat Yoga” intervention on their level of joy and their shifts in perspective. The findings of the study suggest an increase in participants’ joy as described in two main themes in the experience of *Fun* and in *Inducing Calm*. Participants also reported experiencing positive perspective change in two other main themes of *Shifting Focus* and *Removing Barriers*. The unanimous perception of the intervention was that it was fun. Described as “hilarious” and “adorable,” the goats, especially the babies, brought a light and happy atmosphere to the yoga practice, making it accessible to even the most conflicted participants. Intimidation and comparison were alleviated as barriers as well as personal differences with the practice. Participants left feeling calmer and clearer, with some having a new perspective on life circumstances.

There was a notable difference in the experience of the class with the goat babies as compared to classes with only adult goats, yet the intervention was still positive and yielded similar results in joy and perspective change. There was also a difference in the experience when the weather was too hot to be outside. With the intervention held in a large room with the doors open for the goats to enter, there was not the calming effect brought from the natural environment outdoors. The goats were not as engaged with the participants and only a few ventured into the room for a brief time. There were also personal situations that limited the experience. One participant was there with her child who, unknown to her at the time, was in the process of getting sick. She was preoccupied by her daughter's lack of interest, but still gained some positive benefits from the class.

Because of the framework of the study as an IPA with a very small sample size and the way the study was conducted, there were notable limitations. The principal investigator led the intervention as the yoga instructor, which could have resulted in social desirability or courtesy bias. Views provided by the two past participants could have been influenced by recall bias since the intervention was several months before the interview. The principal investigator was a student intern at the facility at the time the classes were held, so participants were only recruited from those who independently chose to participate in the Charity Goat Yoga class to avoid any conflict of interest. This resulted in only participants who were financially able to pay the \$45 class fee to attend, excluding many in lower socioeconomic living situations who already experience barriers to yoga from lack of access, environmental limitations, and work schedule limitations (Spadola et al., 2017). The differences in experiences with the financially able population in this study compared to others is unknown.

An important reference for this study is the meta-analysis by Richardson et al. (2016) on how Gilbert's (2014) three circle model of affect regulation (see Appendix C), as described in his work on the origins of compassion focused therapy, informs the influence of positive emotions in nature. This model describes the basis for affect regulation in a tripartite form, with the three aspects comprised of drive, contentment, and threat. Drive is resource-seeking, wanting, pursuing, and achieving and is associated with joy, excitement, and pleasure. The dopaminergic systems act to signal from this aspect. Contentment is comprised of connection, safety, and affiliative behaviors and is related to feelings of calm and being soothed. The oxytocin and opiate systems work to tone down anxiety and stress responses and restore energy. Threat is protection-seeking, anxiety, and inhibition and is related to feelings of sadness, anger, and disgust. Adrenaline, cortisol, and noradrenaline work as alerts, defense, and protection. Drive and threat are activating components experienced as *doing* and signal the need for action. Contentment is a soothing component experienced as *being* which produces calm and wellbeing.

The results of this study demonstrate the predominance of the drive and contentment aspects of the intervention. There was evidence of the anxiety component prior to the intervention because of the unknown behavior of the goats, but this anxiety was promptly alleviated within minutes of beginning the class because of the intensity of the other two components. This intervention seemed particularly helpful for those with internal conflicts. Contentment or drive aspects on their own would not have been enough to challenge the strong aversion to the practice of yoga, but the combination of excitement and joy of the goat behavior with the calming, soothing qualities of nature allowed a positive change in perspective. As noted in the meta-analysis from Richardson et al. (2016), the psycho-evolutionary stress reduction theory (SRT) from Ulrich et al. (1991) shows the need for the increased positive affect available

from the combination of both contentment and drive in the three circle model to recover from stressful events. Further study would be required to know whether the increased positive affect of this intervention would influence change in internal conflicts of other origins.

Because of this study's small sample size and limitations, the results cannot be generalized for all populations. Further research is warranted to explore the impact of "Goat Yoga" on other populations, such as those in lower socioeconomic groups, lower levels of education, and those under the age of 18. It would also be necessary to compare populations with less affinity for nature to determine the true capacity of the intervention for change. Studying this intervention with those diagnosed with specific disorders, such as depression, anxiety, and trauma would also be beneficial.

Another interesting area of study for this intervention would be in measuring heart rate variability (HRV) to determine the balance between the sympathetic (SNS) and parasympathetic (PNS) nervous systems. From the three circle model, contentment produces an increase in parasympathetic nervous activity, where drive is associated with increased sympathetic nervous activity. Usually, increased PNS activity is related to a toning down of stress, yet this intervention found that the drive aspects of joy and excitement also contributed to decreased stress. According to a study on equine-assisted therapy on participants' HRV, equine-assisted therapy resulted in an increase in PNS activity and a decrease in SNS activity that led to a favorable influence on participants (Garcia-Gomez et al., 2020). However, beneficial effects of increased SNS activity from the joy and excitement of goat babies in therapy has not been measured, to our knowledge, so measuring this response through HRV might show important results for continued investigation into stress reduction and wellbeing.

Despite the limitations of the study and the need for further research to determine the clinical application of the intervention of “Goat Yoga,” one participant summed up the overall experience and benefit of “Goat Yoga” that should be considered in further discussions:

I think there’s a lot of anxiety in the world right now, and I think there are a lot of people that are really stressed out and ... trying to find ways to get past that. And, you know, for those that are into yoga or not even into yoga, just to get out and...laugh and relax for an hour would do a lot of people a lot of good. (2)

### **Conclusion**

The purpose of this study was to determine how a combined yoga intervention with an animal-assisted intervention in “Goat Yoga” affected participants’ levels of joy and positive shifts in perspective attributing to mental wellbeing. The results suggest that the intervention is associated with joy in participants, especially with the inclusion of baby goats. Positive shifts in perspective also seemed directly related to the intervention and somewhat related in an expanded capacity over other life events. Because of limitations, the extent to which “Goat Yoga” can positively influence mental wellbeing requires further study to assess impact and determine generalizability across populations and clinical relevancy.

## References

- Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education & Literacy Studies*, 5(2), 9-19. <https://doi.org/10.7575/aiac.ijels.v.5n.2p.9>
- Atkinson, N. L., & Permuth-Levine, R. (2009). Benefits, barriers, and cues to action of yoga practice: A focus group approach. *American Journal of Health Behavior*, 33(1), 3-14. <https://doi.org/10.5993/AJHB.33.1.1>
- Berget, B., Ekeberg, O., Pederson, I., & Braastad, B.O. (2011). Animal-assisted therapy with farm animals for persons with psychiatric disorders. *Occupational Therapy in Mental Health*, 27(2011), 50-64. <https://doi.org/10.1080/016>
- Carl, J.R., Soskin, D.P., Kerns, C., & Barlow, D.H. (2013). Positive emotion regulation in emotional disorders: A theoretical review. *Clinical Psychology Review*, 33(2013), 343-360. <https://doi.org/10.1016/j.cpr.2013.01.003>
- Cramer, H., Lauche, R., Anheyer, D., Pilkington, K., Manincor, M., Dobos, G., & Ward, L. (2018). Yoga for anxiety: A systematic review and meta-analysis of randomized controlled trials. *Depression and Anxiety*, 35(9), 830-843. <https://doi-org.ezproxy.uta.edu/10.1002/da.22762/>
- Chery, F. (2023, February 15). *Can Christians do yoga?* Bible Reasons. <https://biblereasons.com/can-christians-do-yoga/>
- Creswell, J.W. (2013). *Qualitative inquiry and research design choosing among approaches* (3<sup>rd</sup> ed.). Sage Publications.
- Fekih-Romdhane, F., Ghrissi, F., Abbassi, B., Cherif, W., & Cheour, M. (2020). Prevalence and predictors of PTSD during the COVID-19 pandemic: Findings from a

- Tunisian community sample. *Psychiatry Res.*, 2090(2020), 113131.  
<https://doi.org/10.1016/j.psychres.2020.113131>
- García-Gómez, A., Guerrero-Barona, E., García-Peña, I., Rodríguez-Jiménez, M., & Moreno-Manso, J.M. (2020). Equine-assisted therapeutic activities and their influence on the heart rate variability: A systematic review. *Complementary Therapies in Clinical Practice*, 39(2020), p. 101167. <https://doi.org/10.1016/j.ctcp.2020.101167>
- Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, 53(2014), 6-41. <https://doi.org/10.1111/bjc.12043>
- Gotink, R.A., Vernooij, M.W., Ikram, M.A., Niessen, W.J., Krestin, G.P., Hofman, A., Henning Tiemeier, H., & Hunink, M.G.M. (2018). Meditation and yoga practice are associated with smaller right amygdala volume: The Rotterdam study. *Brain Imaging and Behavior*, 2018(12) 1631–1639. <https://doi.org/10.1007/s11682-018-9826-z>
- Haggerty, J. M., & Mueller, M. K. (2017). Animal-assisted Stress Reduction Programs in Higher Education. *Innovative Higher Education*, 42(5-6), 379-389.  
<https://doi.org/10.1007/s10755-017-9392-0>
- Jasmin, J., & Hodgson, D. (2018). How interaction with animals can benefit mental health: A phenomenological study. *Social Work in Mental Health*, 16(1), 20-33. <https://doi.org/10.1080/15332985.2017.1302037>
- Jones, M.G., Rice, S.M., & Cotton, S.M. (2019). Incorporating animal-assisted therapy in mental health treatments for adolescents: A systematic review of canine assisted psychotherapy. *PLoS One*, 14(1), e0210761. <https://doi.org/10.1371/journal.pone.0210761>
- Keating, H. (2019, October 3). Go for Goat Yoga? Behind the Trends in Exercise and Stress Relief. *University Wire*.



<https://login.ezproxy.uta.edu/login?url=https://www.proquest.com/wire-feeds/go-goat-yoga-behind-trends-exercise-stress-relief/docview/2300326816/se-2>

Kishida, M., Scherezade, M.K., Larkey, L.K., & Elavsky, S. (2018). “Yoga resets my inner peace barometer”: A qualitative study illuminating the pathways of how yoga impacts one’s relationship to oneself and to others. *Complementary Therapies in Medicine*, 40(2018), 215-221. <https://doi.org/10.1016/j.ctim.2017.10.002>

Mantler, A., & Logan, A.C. (2015). Natural environments and mental health. *Advances in Integrative Medicine*, 2(2015), 5-12. <https://doi.org/10.1016/j.aimed.2015.03.002>

Original Goat Yoga. (n.d.) *About us*. Retrieved on January 24, 2023, from <https://goatyoga.net/about/>

Pederson, I., Ihlebaek, C., & Kirkevold, M. (2012). Important elements in farm animal-assisted interventions for persons with clinical depression: a qualitative interview study. *Disability & Rehabilitation*, 34(18-19), 1526-1534. <https://doi.org/10.3109/09638288.2011.650309>

Polheber, J.P., & Matchock, R.L. (2013). The presence of a dog attenuates cortisol and heart rate in the Trier Social Stress test compared to human friends. *Journal of Behavioral Medicine*, 37(2014), 860-867. [https://doi-org.ezproxy.uta.edu/10.1007/s10865-013-9546-](https://doi-org.ezproxy.uta.edu/10.1007/s10865-013-9546-1)

[1](#)

Richardson, M., McEwan, K., Maratos, F., & Sheffield, D. (2016). Joy and calm: How an evolutionary functional model of affect regulation informs positive emotions in nature. *Evolutionary Psychological Science*, 2(2016), 308-320. <https://doi.org/10.1007/s40806-016-0065-5>

Silton, R.L., Kahrilas, I.J., Skymba, H.V., Smith, J., Bryant, F.B., & Heller, W. (2020).

Regulating positive emotions: Implications for promoting well-being in individuals with depression. *American Psychological Association*, 20(1), 93-97.

<http://dx.doi.org/10.1037/emo0000675>

Spadola, C.E., Rottapel, R., Khandpur, N., Kontos, E., Bertisch, S.M., Johnson, D.A., Quante, M., Khalsa, S.B.S., Saper, R.B., & Redline, S. (2017). Enhancing yoga participation: A qualitative investigation of barriers and facilitators to yoga among predominantly racial/ethnic minority, low-income adults. *Complementary Therapies in Clinical Practice*, 29(2017), p. 97-104. <https://doi.org/10.1016/j.ctcp.2017.09.001>

Steinnes, K.K., Blomster, J.K., Seibt, B., Zickfeld, J.H., & Fiske, A.P. (2019). Too cute for words: Cuteness evokes the heartwarming emotion of kama muta. *Frontiers in Psychology*, 10(387), p. 1-17. <https://doi.org/10.3389/fpsyg.2019.00387>

Ulrich, R.S., Simons, R.F., Losito, E., Miles, M.A., & Zelson, M. (1991). Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology*, 11(3), 201-230. [https://doi.org/10.1016/S0272-4944\(05\)80184-7](https://doi.org/10.1016/S0272-4944(05)80184-7)

Van der Kolk, B., Stone, L., West, J., Rhodes, A., Emerson, D., Suvak, M., & Spinazzola, J. (2014). Yoga as an adjunctive treatment for posttraumatic stress disorder: A randomized controlled trial. *The Journal of Clinical Psychiatry*, 75(6), 559-565. <https://doi.org/10.4088/JCP.13m08561>

World Health Organization. (2022, March 2). *Covid-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide*. <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>

World Health Organization. (2021, September 13). *Depression*. <https://www.who.int/news-room/fact-sheets/detail/depression>

Zhao, J., Yin, H., Zhang, G., Li, G., Shang, B., Wang, C., & Chen, L. (2019). A meta-analysis of randomized controlled trials of laughter and humour interventions on depression, anxiety and sleep quality in adults. *JAN Leading Global Nursing Research*, 75(11), 2435-2448. <https://doi.org/10.1111/jan.14000>

## Appendix A

### IRB Approval



2/2/2023

#### IRB Approval of Minimal Risk (MR) Modification

**PI:** Teri Berbel

**Faculty Advisor:** Regina Praetorius

**Department:** Social Work

**IRB Protocol #:** 2023-0112.2

**Study Title:** *Phenomenological Qualitative Program Evaluation of Goat Yoga for Cultivating Joy*

**Effective Approval:** 2/1/2023

#### Protocol Details

- Original Protocol Approval Date: 1/10/2023

The IRB has approved the above referenced submission in accordance with applicable regulations and/or UTA's IRB Standard Operating Procedures. The IRB team reviewed and approved the modification request for this non-federally funded, non-FDA regulated protocol in accordance with the UTA IRB Internal Operating Procedures. The modifications are minimal risk and do not change the study risk level. The approved modifications are limited to:

- Update questions in interview and survey

#### Principal Investigator and Faculty Advisor Responsibilities

All personnel conducting human subject research must comply with UTA's [IRB Standard Operating Procedures](#) and [RA-PO4, Statement of Principles and Policies Regarding Human Subjects in Research](#). Important items for PIs and Faculty Advisors are as follows:

- \*\*Notify [Regulatory Services](#) of proposed, new, or changing funding source\*\*
- Fulfill research oversight responsibilities, [IV.F and IV.G](#).
- Obtain approval prior to initiating changes in research or personnel, [IX.B](#).
- Report Serious Adverse Events (SAEs) and Unanticipated Problems (UPs), [IX.C](#).
- Fulfill Continuing Review requirements, if applicable, [IX.A](#).
- Protect human subject data ([XV.](#)) and maintain records ([XXI.C.](#)).
- Maintain [HSP](#) (3 years), [GCP](#) (3 years), and [RCR](#) (4 years) training as applicable.

## Appendix B

### Interview & Survey Questions

- 1) What is your race/ethnicity?
- 2) What gender do you identify as?
- 3) What is your level of formal education?
- 4) Are you connected to someone in the military or a first responder? If yes, how?
- 5) Have you participated in yoga classes before? Y or N.
  - 1) If yes, describe the difference in your experience of goat yoga compared to a regular yoga class.
  - 2) If no, how did you feel about doing yoga for the first time?
- 6) How did you feel about doing yoga with goats?
- 7) Were you nervous about it?
  - If yes, how did your perspective change in the class?
- 8) Describe your experience of goat yoga.
- 9) Would you recommend goat yoga? Y or N.
  - If yes, tell me more about that.
  - If no, tell me more about that.
- 10) Would you say that goat yoga has the potential to bring you joy? Y or N.
  - If yes, please describe how and how you experienced that joy in your body?
- 11) Would you say that goat yoga has the potential to change your perspective on other life experiences? Y or N
  - If yes, please explain.
- 12) Did you learn any new breathing exercises? Y or N.

**Appendix B (cont.)****Interview & Survey Questions**

If yes, were they useful? Y or N.

If yes, in what way?

13) When you began class, did you have something on your mind? Y or N

- If yes, how did it change?

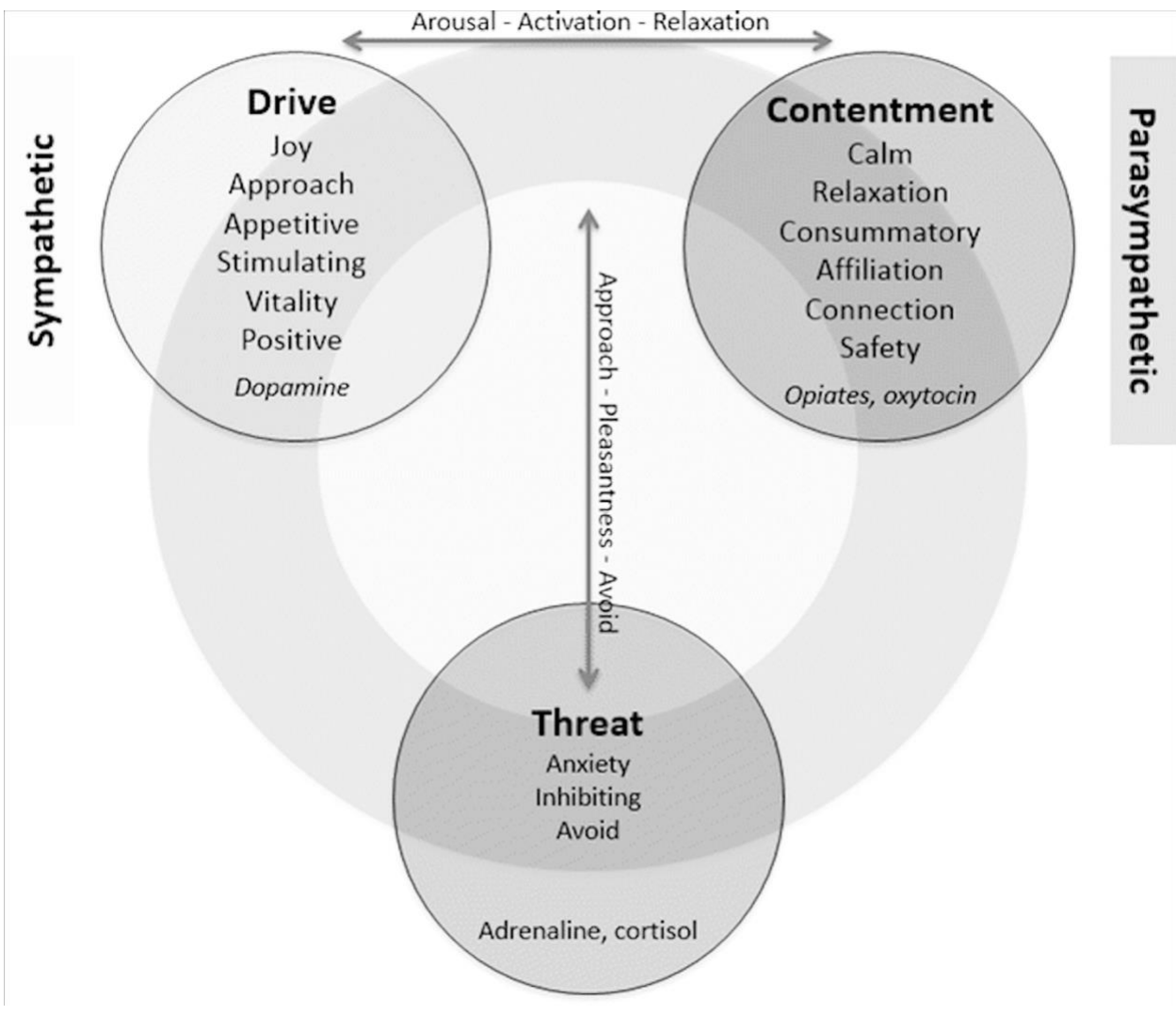
14) On a scale from 1 to 5, How relaxed were you following goat yoga? 1 = very tense, 2 = tense, 3 = neither tense nor relaxed, 4 = relaxed, 5 = serene & very relaxed

15) On a scale from 1 to 5, How would you rate goat yoga to a friend? 1 = did not like at all, 2 = disliked more than liked, 3 = neither liked nor disliked, 4 = liked, 5 = loved them in class, made my yoga a more enjoyable experience!

16) Are you a veteran? Y or N.

### Appendix C

### Three Circle Model of Affect Regulation



## Appendix D

### Common Words from Participants' Experiences

Enjoyment  
Good-feelings  
Relief Cuddly Lightness  
Whimsical Laughter Nature  
Little-jumps Hilarious calm Light  
Joy Easy  
Happiness Smile Fun Cute Grounding  
Calm Nibbling-toes  
Clear Calming Smiling Adorable  
Fresh-air Laughing Blast Love  
Happy Belly-laugh  
Connection