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CHARACTERISTICS OF INDIVIDUALS WHO PARTICIPATE IN AUTOEROTIC  
ASPHYXIATION PRACTICES: AN EXPLORATORY STUDY

by

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A Dissertation

Submitted to the Graduate Faculty

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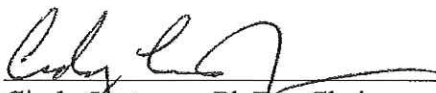
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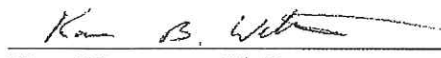
Grand Forks, North Dakota


August  
2018


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This dissertation, submitted by Lauren Elise Chapple in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

  
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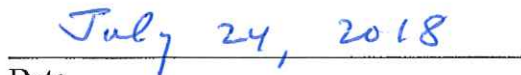
  
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Lauren Elise Chapple  
August 2018

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“I gotta new sensation,  
In perfect moments,  
Well, so impossible to refuse”  
(Fariss & Hutchence, 1988)

## ABSTRACT

The set of behaviors known as Autoerotic Asphyxiation (AeA) have been studied, by contemporary scientific standards, for the better part of sixty years. Within that time, an inadequate amount of research has been completed on a far too narrow sample of the population, namely those who have died from the practice. AeA as a practice has been understudied to this point despite statistics that would note the potential for an unknown number of individuals to currently be practicing these behaviors. There is a paucity of both quantitative and qualitative data about living AeA practitioners. The present study uses Sex Positivity to acknowledge and approach the Kink community from a position of social justice, wellness, and resilience within the community (Burnes, Singh, & Witherspoon, 2017). Sex Positivity, as utilized in the present study, assumes validity and wellness in the varying forms of pleasure-seeking behaviors noted above that include concepts of consent, mutual respect, and communication between partners (Queen & Schimel, 1997; Richards & Barker, 2013). Due to the aforementioned general lack of extant data on oxygen restriction enthusiasts, the present study focuses primarily upon identifying similarities and differences between living AeA and Airplay with a Partner (APP) enthusiasts. The study attempted to identify demographics, methods, preparations, and practices of AeA and APP. The study identified several demographic information pieces, which stand in contrast to extant literature.

## **CHAPTER I**

### **INTRODUCTION**

The set of behaviors known as Autoerotic Asphyxiation (AeA) have been studied, by contemporary scientific standards, for the better part of sixty years. Within that time, an inadequate amount of research has been completed on a far too narrow sample of the population, namely those who have died from the practice. For example, data collected in 2002 from the Centers for Disease Control and Prevention (CDC) indicated that 120 males (10 – 14 years), 453 males (15 – 19 years), and 637 males (20 – 24 years) (total: 1,210 males, 10 – 24 years of age) died in the United States as a result of hanging, strangulation, and/or suffocation. According to Sheehan et al. (1988), up to 31 % of all adolescent hanging deaths may be caused by autoerotic activity (Sheleg & Ehrlich, 2006). The unknown number of deaths attributed to AeA, coupled with Sheleg and Ehrlich's (2006) estimates that "up to 375 young males probably have taken their lives through the practice of autoerotic asphyxiation in the United States in 2002" would indicate that, although a small number relative to some fetishistic behaviors, AeA may be a significant minority and worthy of future research (p. 8).

Although there certainly are differences between accidental Autoerotic Asphyxiation (AeA) deaths and intentional suicide, this staggering statistic is one that appears to be rarely discussed in either contemporary suicide or sexuality literature. A cumulative review of past literature on the subject offered extremely limited prevalence

rates for AeA participants, their practices, or their characteristics. As with suicide related deaths, these numbers can be greatly reduced through interventions based on a better understanding of the behavior. An update and expansion of the literature is a main focus of this proposed study.

### **Background of the Problem**

AeA as a practice has been understudied to this point despite statistics that would note the potential for an unknown number of individuals to currently be practicing these behaviors. The death scene quantifications rates may be a major indicator to support the hypothesis that AeA participants are a significant minority of hanging, smothering, and suffocation deaths and deaths ruled as suicides. But these death scene studies and accompanying statistics do little to help us understand the prevalence of AeA practices, the characteristics of adults who practice AeA, or the self-described motivations and considerations of adults who practice AeA. The current study is an initial step in addressing these three broad areas in order to better understand the characteristics of adults who engage in autoerotic asphyxiation practices.

In 1983, investigators connected with the Federal Bureau of Investigation published Autoerotic Fatalities. This study comprised 150 cases of decedents suspected of having engaged in AeA practices immediately prior to their deaths and data collected from their respective crime scenes (Hazelwood, Dietz, & Burgess, 1983). Since this groundbreaking investigative work, inconsistent and insufficient research has been done on this set of behaviors.

To date, the most inclusive literature and case review was completed by Sauvageau and Racette (2006); they collected all available literature on AeA from 1954 to 2006. Sauvageau and Racette (2006) included a notably significant sample size of 418 cases of deceased individuals thought to have participated in lethal autoerotic activities that resulted in their death. A concern with the extant research is that neither their study, nor any other known study, has collected data from living participants and therefore their conclusions cannot be assumed to be representative of a large sample of individuals who currently practice AeA.

Sauvageau and Racette (2006) identified limited prevalence rates and other quantitative data within the U.S. for methods of death, location of death, gender, race, and cause of death. Though this is considered a hallmark study, other researchers have developed their own work on the practice. Here again however, case studies have been done on subjects found deceased (Sauvageau & Racette, 2006; Singer & Jones, 2006; Schellenberg, Racette, & Sauvageau, 2007; Koops, Janssen, Anders, & Puschel, 2005; Schellenberg, Racette, & Sauvageau, 2007). These independent studies, all similarly reviewing quantitative data collected from AeA decedents further argue the existence of a clear deficit in the research on living participants. Specifically, there are no known studies that have sought to understand the characteristics of AeA practitioners while they are alive.

Similarly, there is a paucity of qualitative data about AeA practitioners. Limited research has been completed in Europe to address this question through an examination of prevalence rates. One study, which collected information on suspected AeA deaths



across a nearly twenty-year timespan, estimated the prevalence of AeA deaths at 0.49 cases per million inhabitants in the Hannover, Germany region each year (Breitmeier, et al., 2003). Though the study established an estimate on prevalence rates in Europe, it failed to address shared characteristics amongst the decedents that may be applicable to living individuals who choose to engage in similar behaviors.

### **Assumptions of the Present Study**

An assumption underlying the research questions of this study is that there is a presence of low yet significant rates of AeA participation among communities of individuals that endorse fetishistic practices. Although few studies have specifically linked AeA as a subgroup of the sexual sadism cultures (Hucker, 2011, and Modelli, Rodrigues, Castro, Correa, 2013) the proposed study hypothesizes that AeA individuals may fall on the fetishistic, rather than Bondage, Discipline/Domination, Sadism, and Masochism (BDSM) side of a linear spectrum. This study hypothesizes that AeA participants are more interested in engaging in the visual and physically pleasurable stimuli of the act. Several authors (Sheleg & Ehrlich, 2006; Koops, Jansen, Anders, & Pushel, 2005; Sauvageau & Racette, 2006; Janssen, Koops, Kuhn, & Pushel, 2005) have noted deceased AeA participants in a state of viewing themselves during the commission of the act. The researcher postulates that the highly visual components of many of the documented AeA cases may indicate a specific visual stimulation component that may be necessary or preferred by participants. In the current study, particular interest was paid to the visually stimulating components of participant's practices.

The present study also assumed that the infliction of pain would not be one of the primary goals in AeA. This is consistent with the general lack of specific pain inducing implements in the AeA literature. One of the few cases noted by the proposed study involved a complicated genital piercing. Grassi and De-Giorgio (2014) discussed a 70-year old man with ritualized and purposefully cumbersome piercings likely meant to induce a painful response: “At autopsy, the external examination of the genitals revealed that the two corpora cavernosa were separated at the base of the penis (Fig. 1) and surrounded by two golden rings that enclosed the testicles (Fig. 2). Another golden ring was placed around the external urethral meatus and the right hemigland (Fig. 3). The urethra was interrupted (Fig. 4) and its lumen was encircled by scar tissue, while the penile urethra was patent (Fig. 5)” (p. 275). The proposed study poses the question of the depth of the connection between the desire for pain and the arousal pattern of an individual engaging in AeA.

The general presumption, likely due to lack of living participants, that AeA participants are eroticizing the infliction of pain component has not been proven. Nor has this concept been argued in much of the research (Roma et. Al (2013); Hucker, & Blanchard, (1992)). In fact, Roma et. Al (2013) and Hucker & Blanchard (1992) note cases of individuals who have placed cloth and other softening or comfort related agents in their accoutrements presumably to lessen the pain element or lessen the visible signs of the activity (rope burns, etc.). Quite the contrary, the mere display or presence of paraphernalia that may imply bondage restriction, or pain to an objective onlooker does not necessarily indicate the participant’s arousal pattern being grounded in their own

experience of pain (Faccio, Casini, & Cipolletta, 2014). This current study would pay specific attention to participant's endorsement of pain infliction as a means of added arousal and hypothesizes that the majority of participants do not seek pain infliction as a means of arousal during AeA.

A final assumption of this study is that adults who practice AeA are doing so as a natural expression of sexuality. The present study uses Sex Positivity to acknowledge and approach the Kink community from a position of social justice, wellness, and resilience within the community (Burnes, Singh, & Witherspoon, 2017). This study proposes a continuance of the growing effort to approach sexual expression in a non-pathologizing manner, as has been done in the majority of extant mental health literature on the subject of Kink communities (Taormino, 2012). Sex Positivity, as utilized in the present study, assumes validity and wellness in the varying forms of pleasure-seeking behaviors noted above that include concepts of consent, mutual respect, and communication between partners (Queen & Schimel, 1997; Richards & Barker, 2013).

In following the tenets of sexual positivity, the proposed study plans to address this subject matter and its participants with respect and non-pathologizing language and attitudes. This was essential in order to recruit participants to the study. The hesitancy of scene and AeA communities to engage with researchers may be due to the lack of multicultural understanding afforded them historically. An individual is not likely to engage in a study that is negatively valenced or implies some psychological deficit inherent within the set of behaviors the individual is asked to endorse or describe.

## **Definitions of Relevance to this Study**

For the purposes of this study, several colloquial terms have been utilized, partially for ease of discussion and partially to incorporate language more commonly used in the Kink community. BDSM and Kink communities are referenced throughout the present study. BDSM, as defined by Stockwell, Walker, & Eshleman (2010) may be “indicative of a group of behaviors and lifestyle practices that include a variety of fetishes, role-playing, and other nonmainstream activities.” The term breathplay is used as an overarching umbrella term to describe the varying practices of oxygen restriction, either with or without a partner. The term Autoerotic Asphyxiation (AeA), as referenced in this study, will be used to define behaviors that constitute solo-breathplay practices. Individuals who endorse AeA practices reported engaging in oxygen restriction methods by themselves. Airplay with a Partner or Partners (APP) is referenced in the present study to identify a group of participants who reported engaging in oxygen restriction practices with partners, rather than alone.

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter presents the definitions and strategies for engaging in autoerotic asphyxiation, including key factors that tend to differentiate AeA deaths from suicide and other deaths from asphyxia. The context of the larger set of behaviors known as breathplay is then described, as is its connection to sexual fetish and sexual bondage practices. Finally, the principles of positive sexuality are presented, in order to frame this study in a non-pathologizing context and provide additional guidance for the research findings.

#### **Autoerotic Asphyxiation (AeA): Defining the Construct**

Authors Hazelwood, Dietz, and Burgess (1983) define Autoerotic Asphyxiation (AeA) as “the practice of inducing cerebral anoxia, usually by means of self-applied ligatures or suffocating devices, while the individual masturbates to orgasm.” Autoerotic Asphyxiation is sometimes also noted as Asphyxiophilia, Autoerotic Asphyxia, and Hypoxyphilia. The use of suffocation, smothering, drowning, or strangulation to achieve a more intense orgasm places a participant engaging in this practice in a higher risk level of accidental death. The goal of asphyxiation is likely the primary element that differentiates AeA from more typical forms of masturbation. It is also the element that increases an individual’s risk level of death.

The AeA death is typically determined by a crime scene investigator and, once the intent has been established using “typical” indicators of such a scene, a decedents final moments are profiled to attempt to gain insight into how they died (Hucker & Blanchard, 1992). Hucker and Blanchard (1992) summarized the accidental nature of AeA deaths found in previous literature: “autoerotic fatalities are generally interpreted by coroners and forensic pathologists as accidental in the sense that death was not the intended outcome” (p.510). It should also be noted that the proposed study is differentiating AeA deaths, believed to be accidental, from suicidal asphyxiation-related deaths. In short, those whose primary focus is to end their life will not be the focus of this particular study.

#### **Differentiating AeA from Other Similar Asphyxiation-Related or Suicide Deaths**

Both Jenkins (2000) and Hazelwood et al. (1983) postulate that this general lack of literature on the AeA deaths is likely due to family members altering the death scene due to the highly emotional circumstances of finding their loved ones in such a state (p. 209). Such an altered scene may be especially difficult to identify by a crime scene or EMS worker. Jenkins (2000) further reported that an unknown rate of these presumably accidental deaths may be reported as suicides. Given the unknown number of altered and miss labeled death scenes, it is especially difficult to establish accurate estimates of extant AeA prevalence rates. With no known estimate of the amount of scenes being inaccurately labeled as suicides, or worse murders, AeA remains a largely unknown quantity. Although a more accurate prevalence rate of accidental AeA deaths would not more accurately estimate living participant rates, more complete data in this field will undoubtedly add to the overall mosaic.

The fruits of a ten-year project conducted by the FBI's National Center for the Analysis of Violent Crime (NCAVC), The Crime Classification Manual (1992) offers a suggested standard system for crime scene investigators to use when assessing crime scenes (Douglas, Burgess, Burgess, & Ressler, 1992). Upon arrival at a death scene, an investigator may be met with limited information in the form of interviews; crime scene analysis is a needed technique to assess offender behavior. Per the NCAVC's study, "the three manifestations at a crime scene [are] modus operandi (MO), personification (the signature), and staging" (Douglas, Burgess, Burgess, & Ressler, 1992). Of the three, staging is of particular note for potential AeA-related death scenes.

Defined as the process of altering or adjusting the perception of a crime scene prior to the arrival of authorities, staging may not necessarily be done with malicious intent (Douglas, Burgess, Burgess, & Ressler, 1992). Two potential rationales for crime scene staging are to either redirect the criminal investigation away from a particular suspect or to protect the victim from some type of stigma. Of note, the later of the two reasons for staging are most often found in sexualized murder and AeA scenes (Douglas, Burgess, Burgess, & Ressler, 1992). Potential reasoning for staging behaviors may certainly be speculated. An individual, walking into a scene of a known party or loved one hanging from an apparatus in a sexualized pose is likely to be traumatized. The decision to stage that death cannot be easy. The NCAVC manual suggests that a "protective staging behavior... is prevalent in autoerotic fatalities" (Douglas, Burgess, Burgess, & Ressler, 1992).

Supporting the protective staging behavior theory, Hazelwood, Dietz, and Burgess (1983) found in their study of 150 autoerotic death scenes that nearly one-third of the scenes involved an individual that was found nude and that in another third of the cases the individual who was found in some type of costume or state of specifically erotic dress. Hazelwood, Dietz, and Burgess go further in their 1983 study to imply that the significant presence of a staging process may be easily intuited by the empathic investigator: an individual who finds their loved one in a state of undress may be quite likely to want to cover their body, protect their reputation, or mitigate potential social backlash of their untimely death. Sauvageau and Racette (2006) indicated that nearly half of the decedents found indoors (187) suspected of engaging and dying from AeA were found in the home (93). This may increase the likelihood that a non-stranger would find them. The discovery of a body by a family member, loved one or acquaintance may increase the chance of a staging event prior to the arrival of authorities. The very well documented societal tendency to ostracize, make fun of, and spectate the passing of celebrities whom have been suspected of AeA practices may well be an indicator of this. Anecdotally, this trend may be seen in how actor David Carradine's suspected accidental death in 2009 was reported via multiple news outlet (ABC, NBC). Across multiple articles, the reader is exposed to descriptive words such as kinky and deviant, but little information on the act itself. Equally problematic, the lack of information on safety measures of AeA or airplay between sexual partners may affect the casual reader.

Typical indications of the presence of staging per Douglas, Burgess, Burgess, and Ressler (1992) include: fabricating a suicide note, re-dressing or altering the dress of the



decedent, or physically adjusting the decedent or items at the scene to imply a suicide or homicide has occurred. Even with the presence of standardized forms of crime scene analysis and staging detection, The Crime Classification Manual (1992) notes that following the prescribed methods of detection “probably will reveal the true circumstances surrounding [the] death. Evidence of previous autoerotic activity included: bondage literature, adult “toys,” eye bolts in the ceiling, worn spots from rope on beams, and other physical indicators in the victim’s home. In short, contextual cues, interviews from individuals who knew the decedent, and crime scene analysis are the most effective methods to determine if a death is accidental, a suicide, or a homicide (sexual or other).

Hucker and Blanchard (1992) summarized the accidental nature of AeA deaths found in previous literature: “autoerotic fatalities are generally interpreted by coroners and forensic pathologists as accidental in the sense that death was not the intended outcome” (p.510). It should also be reiterated that the proposed study is differentiating AeA deaths, believed to be accidental, from suicidal asphyxiation-related deaths. In short, those whose primary focus is to end their life will not be the focus of this particular study.

### **Traumatic Asphyxia**

The primary behavior differentiating AeA from other forms of masturbation or autoerotic activity is the purposeful instigation of an asphyxiation process. In this way, it is presumed that the individual practicing the behavior is attempting to combine the conduct required from both activities to accomplish autoerotic asphyxiation. In short, the medical process occurring during a purposeful asphyxiation practice is traumatic asphyxia. Richards and Wallis (2005) explain the process as the internally resulting

injury to the body as the result of abdominal compression. Evidence of such an air-loss related death may also be seen in the form of petechial hemorrhages (small clustered bleeding) located in the face, neck, and eyes. Much of the damage caused to the body is caused in the upper torso and internal cavities supporting airflow. Richards and Wallis (2005) also note that similar injuries may be seen by medical staff attending to individuals who have completed an unsuccessful suicide by hanging.

### **Asphyxia in Solo and Partnered Sexual Activities.**

There is a current lack of empirical literature that either defines or correlates the use of asphyxiation practices amongst consenting partners versus solo erotic activities. Myers, et al (2008) link the use of purposeful asphyxiation to the goal of a heightened orgasm experience. This present study hypothesized that the desired outcome of the asphyxiation practices an individual engages in, regardless of number of participants in the behavior, are similar for both individuals who engage in autoerotic and partnered sexual activities. In short, both an individual who is engaging in “airplay” (or purposeful asphyxiation practices with their partner) and an individual who is engaging in AeA are utilizing asphyxiation techniques to achieve the same heightened orgasm experience.

### **Airplay, BDSM, Kink, and AeA: Definitions and Intersectionality**

Masters, Johnson, and Kolodny (1995) estimated that 10% of the U.S. population self-reported that they identify within the category of Bondage, Discipline/Domination, Sadism, and Masochism (BDSM). Contemporary community members also identify themselves as part of the Kink scene or lifestyle, implying an umbrella term used to describe what may be termed non-normative sexual and romantic ideals and behaviors by

external communities. Contemporary authors have defined the term Kink to include “unconventional sensual, erotic, and sexual behaviors” (Rehor, 2015). Wiseman (1996) defines sexual sadism as the enjoyment of causing a level of pain or humiliation on a partner, and sexual masochism as the enjoyment of pain or humiliation being administered to your person. Also known as The Lifestyle or Scene culture, this category of sexual interest is defined as being “indicative of a group of behaviors and lifestyle practices that include a variety of fetishes, role-playing, and other nonmainstream activities” (Stockwell, Walker, & Eshleman, 2010).

Weinberg, William, and Moser (1984) defined five major categories of “social features” found within this culture. The first, Dominance and Submission, established set roles between participants (i.e. one submissive partner and one dominate partner. One or more partners can switch as well and fluctuate roles within the relationship. The second, Role-Playing, requires the use of fantasy-related play to raise the arousal levels of the individuals. The third, Consentuality, established that the relationship was not about abuse or over-powering a partner, but about mutual respect and consent from all parties. The fourth, a sexual context, required that the relationship be, in some way, sexually (either implicitly or explicitly) arousing to one or all parties. The fifth feature requires that all parties have a Mutual Definition of the BDSM nature of the relationship: as a non-traditional relationship (Weinberg, William, & Moser, 1984). Effectively, the couple has to agree that they are in a BDSM, and therefore non-traditional, relationship. The authors note that focusing on a “sociological model of the phenomena...avoids the limitations of more traditional conceptions (Weinberg, William, & Moser, 1984)”.

Through approaching the definition of a BDSM relationship with sociological indicators, rather than identified behaviors, researchers may better understand the nature of the desired relationship. This may also lessen the tendency to pathologize individuals based on their behaviors.

BDSM focuses largely upon the relational dynamics between partners and may allow for the exchange of power within the relationship. Fetishism, conversely, may be interpreted as a more visual and individually stimulating attraction that engages the individual in a different manner. Stockwell, Walker, and Eshleman (2010) define a fetish as “an object, body part, or behavior that triggers sexual responsiveness in an individual” (p. 309). As the subject of arousal may be an inanimate object, the breadth of objects individuals have identified as being arousing is nearly limitless. An individual might fetishize women’s high heeled shoes, for example.

The multitude of definitions and categories for human sexuality is vast and will not in and of itself be the focus of this study. However, the intersectionality of AeA participants and individuals who participate in the other arousal pattern categories noted above is noteworthy. Learning how the individuals who choose to participate in this study overlap with individuals in Lifestyle or fetishistic communities may better equip educators with knowledge for increasing safety measures in all categories.

### **Methodology: Typical AeA Method Prevalence Definitions, Descriptions, and Rates**

In their landmark study which collected data from all published case studies of AeA from 1954 to 2004, Savageau and Racette (2006) compiled several statistics on suspected AeA prevalence rates for both the types of methods used and the rates at which

they were used. These varying methods of asphyxia attempts, presumably meant to achieve a state of AeA, were categorized and documented. Sauvageau and Racette estimated that in 89.7% of the cases studied, the technique used fell into five major categories: suffocation, smothering, hanging/strangulation, and water/liquid/drowning. Other scholars suggested evidence has also shown that other interrelating variables have been exposed at death scenes including the use of more than one form of asphyxiation and the use of binding not related to the restriction of airflow (i.e. binding of the ankles or thighs) (Hucker and Blanchard, 1992).

### **Suffocation, smothering, hanging, and strangulation practices.**

Noted in the Sauvageau and Racette (2006) study as the most prevalently used form of asphyxiation in AeA cases, the use of asphyxiation in the form of suffocation, smothering, hanging, or strangulation is seen in much of the literature. There is certainly variance within this larger domain of chosen behavior. For example, a national magazine reported a story of two individuals who were crushed to death under the hydraulic pumps of tractors they had adjusted to restrict their air flow and chest exhalations (Harper's Magazine, 1993). More commonly found are death scenes depicting an individual in some state of undress with the apparatus meant to restrict airflow still engaged (i.e. a noose for hanging, or a suit which compresses the individual's chest) after having been faulty in some way. The presumption often made by investigators is that the individual's apparatus did not disengage when the individual thought it would or that the individual passed out before activating the safety switch to the apparatus and expired in a state of asphyxiating.

### **Water, liquid, and drowning practices.**

The use of water or other liquid to produce the desired asphyxiation effect is not as well studied as other methods. The seemingly intuitive nature of the use of liquid to asphyxiate oneself without leaving permanent or visible scars/abrasions and the autonomy given an individual (the ability to sit up if one were located in a shallow pool of liquid such as a bathtub) may be attractive to some participants. In more intricate cases, the term Aqua-Eroticum has been noted. Aqua-Eroticum, as defined by Sivaloganathan in 1984, is the use of submerision in either water or some other form of liquid with the purpose of asphyxiation. Sauvageau and Racette (2006) report an example of a 25-year-old male who was found deceased in a home-made body suit. The man was found in a state of overdress, heavily restrained in a complex system of bondage, and tied underwater to a boat. It is believed that the man's air supply malfunctioned and caused his death.

### **Chemically induced asphyxiation practices.**

Defined as the use of chemicals to induce asphyxia or a state of lessened breath, this practice may not be utilized in rates as high as the above-mentioned practices. In one such study, Singer and Jones (2006) discuss an AeA accidental death of a male that utilized chloroform in addition to the more typical hanging methodology. Per Singer and Jones (2006), the man's death is believed to be due to the accidental self-inflicted poisoning from a combination of chloroform, diphenhydramine (anti-histamine), and below therapeutic levels of benzodiazepine.

### **Other Significant AeA Methods: Prevalence, Definitions, and Descriptions**

Sauvageau and Racette (2006) noted that while nearly 90% of cases of asphyxia were caused by hanging, ligature, plastic bags, chemical substances, or some combination of the above, the remaining 10.3% of cases found in the extant literature included other methods. The less common methods of AeA found in the literature include five categories: electrocution, overdressing or body wrapping, foreign body insertion, atypical asphyxia, and miscellaneous.

*Electrocution practices* were identified as the most represented of the “atypical methods of autoerotic activity.” Autoerotic electrocution deaths will not be the focus of this study. Due to the lack of literature, such deaths have extremely limited inclusion in some of the existing data on autoerotic related deaths. Sauvageau and Racette (2006) define autoerotic electrocution death cases as cases that involve the use of electrocution based apparatuses, often affixed to the individual’s body, for presumed sexual pleasure. They also gave an example, of a 36 year-old male who was found with wires to his scrotum and anus. The wires, still connected after his death, had been hook into a television. The man died as the result of a current that surged through one of the wires which had broken out of the back of the television. The authors give additional examples of a man who affixed cords to a light fixture and died as the result of a power surge and an additional man who was electrocuted after affixing a metal chain around his penis. Sauvageau and Racette (2006) imply that the later case was the result of a death due to masturbating with an electronic appliance.

The data provided by these authors leads to speculation that the nature of the stimuli (electrocution rather than asphyxiation) is a discriminatory factor for individuals participating in autoerotic practices. More specifically, the intentional infliction of pain factor may be a necessary component of the practice for some individuals, but be repellant to others.

Schellenberg, Raccette, and Sauvageau (2007) estimate that 1.5% of the extant cases studied have the use of *overdressing or body wrapping* in them. The authors define such a category as a purposeful and presumably accidental death involving an individual who utilized plastic to wrap their body until the point that they smothered. They offer further anecdotal explanation in the form of case studies. Two featured individuals who were found deceased after having been wrapped from head to toe in plastic. A second included a 34-year-old male found nude and wrapped in plastic. The man was suspected to have died due to asphyxia when the snorkel apparatus he attached to his mouth dislodged. A third featured a 64-year-old man found wrapped in blankets with his genitals in a plastic bag.

Defined as “death secondary to a foreign body insertion (rectum, penis, or mouth),” autoerotic death due to *foreign body insertion* accounted for 1.2 % (5 cases) of Sauvageau and Racette’s case review (p. 143). The authors further note examples of such deaths: a man who died as a secondary result of having forced a plastic tube inside of his bladder, a woman who died of an air embolism after inserting a carrot into her vagina, a man who anally inserted a shoe horn, a 40 year-old man who died due to peritonitis as a result of inserting a lead pencil into his bladder, and a 29 year-old man who died due to



suffocation after having placed a series of rubber bands around his penis and a zucchini in his throat.

Sauvageau and Racette (2006) note the atypical asphyxia method with a 2.9% prevalence amongst their study sample. The authors further categorize this methods in the 12 cases noted (of a 418 case sample) into: chest compression (1.2%), inverted suspension/abdominal ligature (1.0%), immersion/drowning (0.5%), and smothering (0.2%).

Sauvageau and Racette (2006) note *miscellaneous forms of AeA* are far less prevalent, with a rate of only 1%. This category includes incidents that do not fit into the aforementioned categories. Sauvageau and Racette (2006) gave examples of such cases in their study: a 57 year-old man died due to a heart strain related injury resulting from masturbating with a vacuum cleaner on his dining room table, and a 25 year-old man who was electrocuted after having presumably using the heat from an electric lamp between his thighs during masturbation sessions. Due to the lack of statistically significant prevalence rates of these types of AeA, this study does not focus upon the atypical forms of AeA. The presence of such methods are not anticipated in this study.

### **Extant Prevalence Rates of AeA**

A review of the past literature also offered extremely limited prevalence rates and nearly none from living, actively engaging, individuals. In their significant meta-analysis, Sauvageau and Racette (2006) collected all known literature on AeA from 1954 to 2006. This included a sample size of 418 cases of deceased individuals though to have participated in some type of lethal autoerotic activity that resulted in their death. The

study also included deaths that were the time-delayed result of autoerotic practices. Again, of note, the study failed to collect data from living participants and may not be assumed to be representative of a large sample of living individuals who practice AeA.

Sauvageau and Racette (2006) found a strong male majority in these incidents, with 390 of the 418 cases being male victims. The male to female ratio, estimated in the above study to be at 21:7) is of note for the anticipated male-dominated results in this study. They noted an age range from 9 to 77 years old. Nearly 82% of the individuals identified in the study were Caucasian implying a predominance of one race in this population. The remaining racial demographic figures (Black, Asian, Native, or Multiracial) were all less than two percent. Of note, in nearly sixty cases, no race was noted. This study aims to expand on living participant demographic prevalence rates, but anticipates similar results.

Sauvageau and Racette (2006) further found that among the 418 cases they compiled, many had similar methods of death: The research presented 92 cases that described methods of death. Among these nearly one third were hanging related deaths. The remaining methods include those noted above, but at far fewer incidents than either hanging or ligature.

Causes of death for AeA cases has also had limited prevalence documentation. Again, Sauvageau and Racette's 2006 comprehensive literature study provided the most information on the matter. Of the 92 cases noted, the cause of deaths include: asphyxia (74), chemical asphyxia (17), rebreathing with a plastic bag or body wrapping (13), positional asphyxia (2), choking (1), and drowning (1). Additional causes of death

included at far fewer rates by Sauvageau and Racette include: hyperthermia (1), hemorrhage (1), heart disease (3), head-down position (1), fatal air embolism (1), and intracranial injury from gunshot wound (1).

Finally, locations of AeA deaths has been a category that has had limited prevalence study. Sauvageau and Racette's 2006 comprehensive literature study once again provided the highest sample size. They note that the vast majority of death scenes were found indoors (187) when compared to the 17 cases of decedents found outdoors in another location (wooded area or playground). Also of note, in the minority of cases in which the death, though resulting from an injury sustained from AeA practices, was delayed, the decedent was found at an external location (i.e. hospital) likely due to them attempting to receive medical assistance. They also identified sublocations within the category of indoor death scenes. The following cases were found within bedrooms (53), bathrooms (19), basements (13), at work sites (4), living rooms (3), motor vehicles (3), garages (3), kitchens (2), and other locations including a cellar, jail cell, and hotel room. It is anticipated that this study will find many individuals engage in this behavior indoors.

### **Asphyxiation Practices, Behaviors, and Crimes Excluded from the Present Study**

It should also be noted that not all erotic-asphyxiation practices are included in the focus of this study. Cases including sexualized murders involving asphyxiation, staged true-suicides and multiple partner erotic asphyxiation practices will not be included. Roma et. al (2013) discuss a case study (n = 1) of two women who participated in Shibari (consensual sexualized double hanging practices). The case became a legal matter and known to the public when one of the women died as a result of her asphyxia

practices. This case study also provides an example of the motivation for practice of AeA likely being linked to arousal and not the intention of suicide.

### **The Use of Sexual Positivity in Research**

In recent years, the use of scene-based (Kink scene, BDSM, or Lifestyle) imagery has been used in mainstream movies, books, and television shows. Authors and lecturers have published works on Lifestyle practices, techniques, and safety measures (Wiseman, 1996). Many of these works have been met with certain level of success. Additionally, the increasing popularity of the internet may have also played a role in the increased availability on materials relating to both AeA and Lifestyle practices. An individual may now search for an online community to discuss their sexual practices in a way that would have been nearly impossible years ago. As a result, more information, accurate or not, is likely being spread at faster rates than before. This has led to a larger social recognition that Kink and related sexual practices exist, which has the potential to contribute either to increased acceptance or increased marginalization of practitioners. In order to ensure that this study results in a deeper understanding of AeA that is congruent with the experience of those who practice AeA, the approach and questions for this study were anchored in sex positivity (Donaghue, 2015; Reich, 1945).

The concept of sexual positivity has been used in research to further the knowledge gained in sexual education (Fine & McClelland, 2006) across multiple categories. Through expanding the general understanding of a set of behaviors, researchers and educators have assisted in building less pathologized descriptions of individuals who engage in them. For example, our community's understanding of the

behaviors of masturbation in adolescents, arguably pathologized in the 20<sup>th</sup> century, has expanded greatly as researchers began to broaden the definition and establish constructs surrounding the behavior.

### **The Use of Sex Positivity in Research**

Sex Positivity, as a theoretical orientation to clinical work and research, has been used to acknowledge and approach the Kink community from a position of social justice, wellness, and resilience within the community (Burnes, Singh, & Witherspoon, 2017b). While the use of this approach in clinical research is a relatively new phenomenon (Queen & Schimel, 1997), discussion of elements of healthy sexual expression is far from contemporary.

In the hallmark text, *Defining Sexual Health*, The World Health Organization (WHO) defined parameters of sexual and reproductive health as follows:

*“Sexual and reproductive health and well-being are essential if people are to have responsible, safe, and satisfying sexual lives. Sexual health requires a positive approach to human sexuality and an understanding of the complex factors that shape human sexual behavior. These factors affect whether the expression of sexuality leads to sexual health and well-being or to sexual behaviors that put people at risk or make them vulnerable to sexual and reproductive ill-health. (World Health Organization [WHO], 2006, p. 1)”*

The acknowledgement of the complexity of sexual health was instrumental in the current trend to validate inclusive sexual health. Historically, far less comprehensive models of human sexuality have been identified as largely heteronormative,

“monogamous, procreation-focused sexual behaviors” (Barker, 2005; Rich, 1980). Sex was viewed as a necessary element of the furtherance of marriage-based procreation. Sexuality theories, and exploration of sexual behaviors, have been exclusive to experiences, voices, and identity factors of individuals outside of the “normal” or partisan experiences of heterosexual, monogamous, cisgender-normative voices (Burnes, Singh, & Witherspoon, 2017a).

Alfred Kinsey’s well-documented (Kinsey, 1953; Kinsey, Pomeroy, & Martin, 1948) discussion of sexual behaviors and sexual orientation (as explored in the Kinsey Scale) addressed the fluid nature of attraction and expression of attraction. Progressing in waves, Sex Positivity in clinical research was a stark contrast to the First Wave appraisals of sexual expression. McLaren (1999) addresses the historical categorizations of “perverts” and “sexual deviants” to include groups of individuals who identified as queer, homosexual, gender non-conforming, fetishistic, trans, or other forms of sexual or gender expression not believed to be normative. Communities who are oft marginalized, to include queer folks (Mosher, 2017), people of color (Huang et al., 2010), and individuals with disabilities (Tepper, 2000) were often left without voice and further invalidated by external assumptions that their identities or behaviors were deviant.

As organizations began to advocate for marginalized groups of sexual minorities, research began to shift its paradigms. In recent years, Counseling Psychology has been influential in the establishment of new inclusive normative in the field of sexual health clinical research: ones that have lent voice to often marginalized communities (Mosher, 2017). New generations of graduate Counseling students are being trained in the

dynamic and sociocultural paradigms of sexual positivity (Burnes, Singh, & Witherspoon, 2017a). Previously risky or “non-normative” behaviors, as well as the voices of marginalized groups that practice them, have begun to receive the validation they have long deserved.

### **Sex and Sexuality as Dynamic Paradigms.**

Mosher (2017) argues,

*“Specifically, sex and sexuality involve complex and dynamic interpersonal and intrapersonal behaviors within dynamic sociopolitical environments. Sex positivity acknowledges such complexities as positive forces in human interactions and experiences, rather than as risk factors, deviance, and pathology. Current theories within counseling psychology, however, perpetuate sex-negative perspectives of sex and sexuality, further marginalizing people of color, lesbian, gay, bisexual, transgender, queer, and intersex individuals, and people with disabilities.”*

A recent content analysis of extant sexuality research (Hargons, Mosley, & Stevens-Watkins, 2017) supported this assertion, finding of nearly 190 articles addressing themes of sexual orientation, sexual identity, and sexual minority populations, barely 5% addressed these themes utilizing a sex positive orientation approach. These levels of variance span more than just sexual orientation and may also include expressions of racial identification such as in Black communities (Hargons et al., 2018). Though Mosher (2017) argues the Counseling field has far to go to incorporate the complexities of a sex positivity approach, this study has made specific steps to meet these standards.

Mosher's (2017) discussion of sex-negative paradigms, language, and approaches were anecdotally expressed by several participants in the study. The concept of hesitance to discuss their sexual practices for a research study, may be interpreted as a reflection of Cruz, Greenwald, and Sandil's (2017) assertion that "clients may hesitate to initiate such conversations due to their discomfort or fears about therapists' attitudes or judgments."

I approached the present study by utilizing the Pederson Triad Model (2000) to build the study on a foundation of awareness of the sex positive approach to clinical research. The Model requires that a researcher first "explore personal attitudes and belief about sexuality...[develop] sex-positive knowledge and comfort about sexuality... [and integrate] multiculturalism and social justice into sex-positive practice (Cruz, Greenwald, and Sandil, 2017). This approach allowed the researcher to not assume their own beliefs about sexual practice were inherently healthier than any other individual. In this manner, the basic premise of a sex positive approach, that all sex of good sex as long as it is consensual sex, was reflected through the study's approach to its participants.

The present study approaches sexual expression in a non-pathologizing manner, assumes validity and wellness in the varying forms of pleasure-seeking behaviors noted above that include concepts of consent, mutual respect, and communication between partners (Queen & Schimel, 1997; Richards & Barker, 2013, Taormino, 2012). This approach is mainly seen in the purposeful use of non-pathologizing language and attitudes to offer inclusive perspectives to the study. This researcher acknowledges and hopes to validate the understandable hesitancy of Scene and Kink communities to engage



with researchers due to the historical lack of multicultural understanding afforded them historically.

### **Summary**

A major weakness for the literature in understanding AeA practice is the historical use of small case sample sizes, limited study of the subject, and largely anecdotal accounting of cases involving people who have died from the practice.

Although a number of case studies have been presented on individuals found deceased after engaging in AeA (Savageau & Racette, 2006; Singer & Jones, 2006; Schellenberg, Racette, & Sauvageau, 2007; Koops, Janssen, Anders, & Puschel, 2005; Schellenberg, Racette, & Sauvageau, 2007), there is a clear deficit in the research on living participants who engage in AeA. The significant gap in the research appears to include three major areas: prevalence rates, quantitative data on living participants, and qualitative data from living participants.

Similarly, quantitative data on participants is largely limited to what may be ascertained after the time of death, including information such as sex, age, race, method of autoerotic activity, cause of death, and location where the body was found (indoors/outdoors, emplacement\ (Sauvageau & Racette, 2006). Further, these authors found that most of the published articles between 1954 and 2006 focused on young male subjects who died indoors and utilized strangulation by hanging or ligature, chemical asphyxia, rebreathing asphyxia, or some combination of these strategies. An even smaller amount of information is known about female AeA practitioners due to the low estimates of participation. One estimated male to female ratio of published AeA deaths was 21:7

(Sauvageau and Racette, 2006, p. 140). There appears to be a deficit in the research on estimates of other quantitative data surrounding AeA participants.

Qualitative data from living participants is the least seen method of data collection from the extant published research. Given the extremely limited amount of data gathered and distributed on living participants in this area, the gap in this knowledge base is substantial. Interviews and dialogues with AeA participants may assist prevention/ harm-reduction efforts in this area.

Due to the particularly high potential to pathologize an individual who endorses AeA activities, the current study has integrated a sex positivity approach to data collection and discussion with participants. Specifically, I approached the Kink community with an assumption of wellness, consent, and open and honest communication between partners rather than a presumption of mental illness, trauma history, or abusive dynamics between partners.

## **Purpose**

In response to significant gaps in knowledge of AeA and related practices, the current study presents more data to the research field of AeA in three areas: prevalence rates, quantitative data, and qualitative data utilizing a mixed methods approach. Due to the limitations in quantitative data and the generally limited range of demographics known on AeA populations, the present study gathered data of a quantitative nature. Estimates of the types of items used in AeA, relationship statuses of participants, race/ethnicity, age, use of alcohol or drugs during a session, use of pornography specific to this practice, sex, use of a suicide

note in case of death, outside knowledge of the subject's participation in AeA, frequency, initial use of this practice, and a participant's use of a support community was gathered. In addition, qualitative narratives were sought to provide greater context and understanding for the participant responses.

Due to the aforementioned general lack of extant data on oxygen restriction enthusiasts, the present study focuses primarily upon identifying similarities and differences between living AeA and Airplay with a Partner (APP) enthusiasts. The study attempted to identify demographics, methods, preparations, and practices of AeA and APP. Next, the study aimed to identify differences between AeA and APP groups, especially those that have participated few times versus many times in their lifetime. The study sought to identify the types of preventative or safety measures participants utilized, as well as their motivations for doing so. Finally, the study sought to explore the connection between AeA and APP preferences in pornography, as this will address the question of the preference for visual and physical stimulation versus pain or self-injury during the act of oxygen restriction.

In order to address the gaps identified in the literature, the overarching goals of this study is to identify the characteristics among living AeA participants, including demographics, methods, preparations, and practices.

Research Question 1: What are some of the characteristics among living AeA participants including demographics, methods, preparations, and practices?

Research Question 2: Are there differences in the population demographics between individuals who have tried AeA practices one or more times, as compared to those who have engaged in only airplay with a partner (APP)?

*H2: The population demographics are different between individuals who have tried AeA practices one or more times and those who have only engaged in APP.*

Research Question 3: Are individuals who practice AeA more likely to employ preventative measures to ensure a safer sexual practice than not?

*H3: Individuals who practice AeA are more likely than not to employ preventative measures to ensure a safer sexual practice.*

Research Question 4: Do individuals who practice AeA engage in some form of a community to discuss AeA practices?

*H4: Individuals who practice AeA engage in some form of a community to discuss AeA practices.*

Research Question 5: Are individuals who practice AeA seeking visual and physical stimulation, or than pain and self-injury from the act?

*H5: Individuals who practice AeA are more likely to seek visual and physical stimulation from the act than pain or self-injury from the act.*

## **CHAPTER III**

### **METHODS**

#### **Participants**

The population of interest for this study is individuals interested in sexual activities related to the restriction of oxygen. Of particular interest within this population are those who engage in such activities in isolation (AeA). The study is seeking approximately one hundred adult (age 18 or above) participants. Participants will be admitted to the study regardless of ethnicity, sexual orientation, or gender identity. Those participants must, however, self-identify as individuals who have engaged in oxygen restriction practices, either AeA or APP at least once in their lifetime.

As aforementioned, this researcher approached data collection within the Kink community with a Sex Positive lens. Attention was paid to the use of inclusive language, especially as it relates to the demographics section. The researcher made certain to include more than the standard gender binary to offer more validating and accurate choices for all participants. While the researcher does not assume that the choices in demographics reflect 100% of the participants, the Sex Positive voice utilized was an expression of respect for the community. Similarly, in reaching out to website and social media administrators, this Sex Positive voice was utilized as a purposeful lack of assumption about the community. This appeared to be well-received as one administrator

reported the bare minimum for acceptance of surveys in their space was that the survey include more than two genders under the demographics section.

This researcher would also like to offer a brief statement of self-reflection on lessons learned from their attempt to engage the Kink community more personally. From the start of this project, the researcher established a goal to serve the Kink community. In discussions with community members, often after allowing this researcher into their safe spaces, this researcher addressed valid concerns from community members on their belief that some past researchers have attempted to enter their space, gain information, then leave again, only to benefit from the information gathered. Additional concern was also expressed by community members on the viewpoint of the researcher on the behaviors. This researcher offered transparency, a non-expert approach, and empathic listening to community members. Only through a non-judgemental, open, and honest approach was this data gathered. This researcher was allowed to enter spaces, and listen to experiences. Without the consent of the community and the researcher's willingness to engage individuals on a personal level, this project would not be possible.

A total of 137 adults participated in this study. More than half of the participants (54.5%) reported they were age 30 or younger, with ages ranged from 18 to 71 ( $M = 32.72$ ,  $SD = 11.580$ ). Of note to the reader, the researcher utilized the terms cismale and cisfemale. These terms signify that the individual identifies with the biological sex they were born with. The majority of participants identified as either Cismale (39.7%,  $n=40$ ) or Cisfemale (44.1%,  $n=51$ ). The remaining participants identified their gender as: Non-Binary (2.9%,  $n=4$ ), Gender-Fluid (5.1%,  $n=7$ ), Trans-Woman (1.5%,  $n=2$ ), and other

not noted above (6.6%,  $n=7$ ). The majority of participants identified their sexual orientation as Heterosexual (44.5%), with the rest of participants stating they identified as Gay (1.5%), Lesbian (0.7%), Bisexual (21.9%), Queer (6.6%), Pansexual (13.9%), Demisexual (3.6%), Ace/Asexual (2.9%), or other not noted above (4.4%). The vast majority of participants identified their ethnicity as Caucasian (86.7%), with the remaining participants identifying themselves as Hispanic (1.5%), Asian/Pacific Islander (3.0%), African-American (2.2%), Bi-Racial (1.5%), and other not noted (5.2%). In terms of relationship status, the largest group of participants were single (44.8%). The remaining participants identified their marital status to be living with their romantic partner (18.7%), married (24.6%), separated (1.5%), widowed (0.7%), and divorced (9.7%).

The current study collected data from the population of individuals who endorse a more general “air play” (the use of asphyxiation in sexual encounters either solo or with a partner). Individuals from this population were asked to take a limited survey. The study then asked those individuals who endorse AeA specific criteria to continue to answer additional questions in a sub-survey section.

This method of participant gathering had two purposes. First, in anticipation of the community’s hesitancy to engage in research efforts, the project aimed to collect enough data to ensure that the present study will contribute substantial data for the field. Second, this approach offered an opportunity to identify potential correlations between groups (non-AeA/Air Play endorsing participants and AeA endorsing participants). Due

to the anticipated limitations in engaging the desired population, this study will likely represent a limited view of the total population who endorses these behaviors.

Participants who endorse this behavior were allowed to participate in the study regardless of most demographic information. The restrictions were that the individual is over the age of 18, that they positively endorse AeA specific practices, and that each individual take the survey only once.

### **Sampling Procedures**

Websites which endorse Bondage, Discipline/Domination & Submission/ Sadism & Masochism (BDSM) or Lifestyle practices (FetLife.com, etc) were contacted to determine if they would partner in the recruitment of participants. A request was made to a site administrator to offer a link to their patrons to have the opportunity to participate in the survey. The link has an introductory paragraph that discusses the nature and purpose of the study. The survey was accessible via the online Qualtrics program. This program hosts a number of statistical programs and security procedures which will assist in protecting the individual's identity. The opportunity for the program to record an individual's name, IP address, or geographical information was disabled. Individuals were advised of these security measures in an informed consent form prior to starting the survey. A written waiver of consent was used, after approval by the Institutional Review Board, as the signature on the informed consent form would be an identifier of a participant.



## **Research Instruments**

**Demographic and AeA engagement information.** Participants were asked to complete a short prevalence survey which asked about a range of demographic information. Specifically, this study included the following topics: methods of AeA activity participation, location of AeA activity participation, gender, ethnicity, marital status, romantic relationship status, mental health disorder diagnosis history, mental health services history, self-identification as a member of the BDSM/Kink scene, type of area the participants live in, age, and race. The demographic information mirrors that which was collected in the Sauvageau and Racette (2006) study, but was expanded to include other data points. Additionally, the survey included open-ended questions on places of engagement, frequency of engagement in the practice (once over my lifetime, less than one time per year, one time per year, one time every 3-6 months, once per month, once every two weeks, once per week, more than once per week), sexual orientation (heterosexual, gay/lesbian, bisexual, other sexual preference), current romantic partner (yes, no, open relationship), preference of self-inflicted pain related elements in the practice (yes, no, undecided), and participant's level of identification with BDSM cultures.

Items related to whether the participant had ever considered using AeA, level of enjoyment, age of first practice, support services or communities sought out, or motivation to engage in oxygen restriction practices was also offered to the participants, to include endorsements of psychological or emotional arousal, increase of either their or their partner's pleasure, or other motivations not noted in the survey. Of note, several of these

questions, which allowed a participant to identify more than one option, included a final item option marked “other not noted.” This option was added to allow for the participant to offer qualitative answers to include new, novel, or otherwise not previously included answers to items. This was done to offer an opportunity for participants to refer to their practices using their own, presumably meaningful, terms rather than being asked to endorse terms solely offered by this researcher.

**Patient Health Questionnaire.** A nine-question instrument already established as both reliable and valid for the assessment of depression was used: The Patient Health Questionnaire-9 (Kroenke, Spitzer, & Willimas, 2001). The PHQ-9 was first developed in 1999 as a self-report measure that assessed nine DSM-IV diagnostic criterion for the following disorders: sleep disturbances, anhedonia, changes in appetite, fatigue, feelings of guilt or worthlessness, depressed mood, concentration difficulty, restlessness, and suicidal thoughts (Furukawa, 2010). Furukawa (2010) found the measure has been shown to have a strong internal reliability (Cronbach’s Alpha of 0.89) and has also been noted as having an excellent test-retest reliability (ICC of 0.92, administered twice in a seven-day period). The validity of the measure has been shown to be equally acceptable. The Gilbody et al. study recognized 14 studies with 5062 participants to have a 0.80 sensitivity when compared to a pool of individuals with a DSM-IV depression diagnosis, with a Cronbach’s Alpha of .89 (Furukawa, 2010). In the current sample, the Cronbach’s  $\alpha = .92$ .

**Open-ended qualitative data.** The use of open-ended questions was purposeful here to allow the participant to disclose their information in a manner that is more

accurate, in the sense that it is more consistent with their own experience. Specifically, relating to motivators of engaging in APP or AeA, this study sought non-primed information from the participant. The participant had an opportunity to describe their safety measures, barrier, and motivators relating to AeA practices. The qualitative nature of the open-ended questions was also used to help limit the researcher's bias toward expected results, as well as elicit responses not noted in the provided multiple choice responses.

### **Statistical Analyses, Goals, and Domains Addressed**

This study gathered information on a broader category of the population: individuals who self-report engaging in any kind of breath play during sexual activities. The study collected data on the incidence, duration, and prevalence of behaviors exhibited by breath play participants as a broad category. The data was then analyzed for correlations and differences among the non-AeA breath play participants and the AeA participants. Participants who chose to take the survey were asked to answer questions relating to their use of non-AeA asphyxiation-based sexual activities. If they also endorse AeA practices, they were asked to complete an additional section of the survey that individuals who do not endorse AeA practices will not be given access to.

The study compared the data collected from non-AeA breath play participants and AeA participants to better estimate the comparative frequency and proportion of AeA participants within the more comprehensive category of individuals who engage in asphyxiation-based behaviors as an arousal pattern domain of sexual activities.

This researcher was purposeful in the use of qualitative data analyses. A peer debriefing and subsequent auditing process was utilized to ensure valid results. Transparency was also sought to ensure the auditing process, completed by this researcher's academic advisor, was likely to include summarized results that accurately reflect the data collected. As addressed by Whittemore, et al. (2001), design consideration in the form of giving voice to the marginalized communities being addressed. Additionally, Whittemore, et al. (2001) identified the use of data generating analyses that offered a more analytic approach to evaluating the data collected. These practices were also followed.

## CHAPTER IV

### RESULTS

The researcher, for ease of interpretation, chose to clearly delineate the following participant results into two major categories: Autoerotic Asphyxiation enthusiasts (AeA), and participants who engage in airplay with a partner (APP), but not in solo-breathplay or AeA behaviors. Individuals were asked to identify the behaviors they have engaged in over their lifetime. From these results, which are discussed more fully below, participants were divided into the two groups mentioned above. Breathplay, airplay and oxygen restriction are terms used to describe all behaviors relating to the use of oxygen restriction practices.

#### **Engagement in the Target Behaviors**

Seventy-three percent ( $n = 101$ ) of participants positively endorsed the item questioning if they considered themselves to be a part of the BDSM/Kink scene. The remaining 26% ( $n = 36$ ) of participants reported “no” to the same question. Regarding engagement in breathplay, noted as the restriction of oxygen during sexual activity, most participants (93.4%,  $n = 128$ ) positively endorsed this item, with the remaining individuals (6.6%,  $n = 9$ ) negatively endorsing the same item. These 9 (6.6%) cases were not included in the results described below.

Slightly more than half (50.9%,  $n = 57$ ) of participants reported they had never engaged in AeA/Solo-Airplay practices. Among the 55 (49.1%) who reported practicing AeA, a few had done so once (3.6%,  $n = 4$ ), nearly one fifth had practiced between 2-10 times (17.9%,  $n = 20$ ), a smaller number had practiced AeA 11-25 times (4.5%,  $n = 5$ ), and nearly one quarter (23%,  $n = 26$ ) endorsed having done so frequently (26 or more times). One-fifth (19.1%,  $n=21$ ) of participants who engaged in AeA did so on a less than monthly basis, while 5.5% ( $n = 6$ ) did so monthly. Nearly one-fifth of participants engaged in AeA frequently, either weekly (7.3%,  $n = 8$ ) or more than once a week (10.9%,  $n = 12$ ). Interestingly, when further divided into categories of practices, there was a near even split between participants who have engaged in APP, but never AeA (50%) and those who have engaged in both AeA and APP (49%). When assessed as one of two categories, half (49.5%,  $n = 53$ ) of participants engage in oxygen restriction practices only with partners and never alone (referred to as APP). Forty percent (39.3%,  $n = 42$ ) of participants engage in oxygen restriction practices both with partners and by themselves, and 10.3% ( $n = 11$ ) participants engage exclusively in AeA practices and never in other forms of breathplay. These last two groups were collapsed into the AeA group for the comparisons between AeA and APP that follow. Together, these findings suggest that among the population of adults who engage in breathplay sexual activity, only a small minority restrict that activity to autoerotic practices. However, a substantial number engage in both AeA and APP.

## **Main Analyses and Hypothesis Testing**

### **Frequencies and Prevalence Findings.**

Research Question One asked sought to find characteristics among living AeA participants including demographics, methods, preparations, and practices; this was addressed with the findings below. Of the participants who shared the age they began engaging in breathplay practices, the majority began in adulthood (61.6%,  $n = 69$ ), specifically after they turned 18. The remaining 31.4% ( $n = 43$ ) endorsed beginning breathplay practices prior to age 18. Of the individuals who have never engaged in AeA, 87.5% ( $n = 49$ ) began engaging in Breathplay after age 18. Conversely, 64.8% ( $n = 35$ ) of individuals who have engaged in AeA began doing so before the age of 18. Additionally, nearly half (47.3%,  $n = 26$ ) of the participants who have engaged in AeA at least once in their lifetime do so frequently (26 times or more). An additional 36.4% ( $n = 20$ ) reported they have done so between 2-10 times and only 7.3% ( $n = 4$ ) having done so once.

Specific choking (manual breathplay methods) behaviors were also assessed. One-third (33.3%,  $n = 36$ ) of participants reported they had never choked their sexual partners, while the rest ( $n = 72$ ) noted they had done so once (8.3%,  $n = 9$ ), 2-10 times (20.4%,  $n = 22$ ), 11-25 times (10.2%,  $n = 11$ ), and 26 or more times (27.8%,  $n = 30$ ). Among participants who endorsed choking their sexual partners, they reported that they engaged in choking less than once a month (26.4%,  $n = 29$ ), monthly (12.7%,  $n = 14$ ), weekly (11.8%,  $n = 13$ ), and more than one time per week (8.2%,  $n = 9$ ).

The majority of participants reported they had been choked by a sexual partner (90 of 123 reporting), and that this occurred frequently (45%,  $n = 51$ ). Still more participants reported they had been choked by a partner once (5%,  $n =$  ), 2-10 times (15%,  $n = 17$ ), or 11-25 times (14%,  $n = 16$ ). The remaining participants reported they had never been choked by a sexual partner (23.4%,  $n = 26$ ). Among the majority of participants positively endorsed this item, they stated they did so less than once a month (25.2%,  $n = 28$ ), monthly (14.4%,  $n = 16$ ), weekly (21.6%,  $n = 24$ ), or more than once a week (15.3%,  $n = 17$ ).

The majority of participants who have never engaged in AeA do not use substances during their APP sessions, with 41.8% ( $n = 23$ ) saying they never do so and 30.9% ( $n = 17$ ) doing so rarely. Of that same group, 12.7% ( $n = 7$ ) and 14.5% ( $n = 8$ ) reported using substances sometimes and often respectively during breathplay sessions. The majority of individuals who have engaged in AeA do not use substances (53.7% ( $n = 29$ ), with another 22.2% ( $n = 12$ ) only doing so rarely. The remaining participants use substances sometimes (11.1%,  $n = 6$ ) and often (13.0%,  $n = 7$ ).

Additional questions on the survey addressed the frequency of participants' experiences with breathplay. The study specifically inquired about a limited number of oxygen restriction behaviors, to include: AeA, choking a partner, or being choked by a partner. Half (52%) of participants stated they never attempted to engage in oxygen restriction practices that were not mentioned above. The remainder endorsed never having engaged in other methods of breathplay mentioned or identified in the survey,



other participants endorsed this item once (1%), 2-10 times (14%), 11-25 times (6%), and 26 or more times (24%).

As described in the table below, a frequency was conducted to examine differences between identified behavior groups. Participants who engaged in APP were less likely (67.3%,  $n = 37$ ) to have individuals in their lives that knew they practiced breathplay, while individuals who only engaged in AeA were more likely (72.7%,  $n = 40$ ).

Table 1: External Knowledge of Oxygen Restriction Practices.

	Frequency	
	N	%
Participants who have engaged in AeA	N = 40	
Yes	40	72.7%
No	8	14.5%
Uncertain	7	12.7%
Participants who have never engaged in AeA	N = 77	
Yes	37	67.3%
No	9	16.4%
Uncertain	9	16.4%

As described in the table below, a frequency was conducted to examine differences between identified behavior groups. Participants who engaged in APP were less likely (67.3%,  $n = 37$ ) to have individuals in their lives that knew they practiced breathplay, while individuals who only engaged in AeA were more likely (72.7%,  $n = 40$ ).

### **Between-Group Differences on Mental Health Symptom Endorsement.**

Over half of participants, whether they had (54.5%,  $n = 30$ ) or had not (53.6%,  $n = 30$ ) engaged in AeA had never been diagnosed with a mental illness. Of those who engage in AeA, 32.7% ( $n = 18$ ) had been diagnosed with a mental illness, while slightly more (41.1%,  $n = 23$ ) of participants who had never practiced AeA had also been diagnosed with a mental illness. A one-way between subjects ANOVA was conducted to examine differences in the presence of mental health symptoms between age of participants. No significant differences were found in any symptoms measured by the PHQ-9, including: sleep disturbances [ $(F(1, 107) = 1.122, p=.05)$ ]; ( $p = .29$ ), anhedonia [ $(F(1, 107) = 0.006, p=.05)$ ]; ( $p = .94$ ), changes in appetite [ $(F(1, 107) = 0.92, p=.05)$ ]; ( $p = .34$ ), fatigue ( $p = .19$ ), feelings of guilt or worthlessness [ $(F(1, 107) = 2.743, p=.05)$ ]; ( $p = .10$ ), depressed mood [ $(F(1, 107) = 0.184, p=.05)$ ]; ( $p = .67$ ), concentration difficulty [ $(F(1, 107) = 0.268, p=.05)$ ]; ( $p = .61$ ), suicidal ideation [ $(F(1, 107) = 1.430, p=.05)$ ]; ( $p = .23$ ), or restlessness symptoms [ $(F(1, 107) = .260, p=.05)$ ]; ( $p = .61$ ), as measured by the PHQ-9, were found. Overall, the PHQ-9 consisted of 9 items ( $\alpha = .92$ ).

An additional one-way ANOVA was conducted to compare the effect of individuals who have engaged in APP, but not AeA, and those who have engaged in both AeA and APP and age (either beginning breathplay practices before or after adulthood). There was not a significant effect of breathplay practices on the presence of depressive symptoms for either of the tested conditions.

Table 2. One-Way Analysis of Variance of Mental Health Symptoms between Age of Onset of Behaviors by Participants.

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Sleep Disturbances					
Between groups	1	1.069	1.069	1.122	.29
Within groups	107	101.958	.953		
Total	108	103.028			
Anhedonia					
Between groups	1	.004	.004	.006	.94
Within groups	107	69.244	.647		
Total	108	69.248			
Changes in Appetite					
Between groups	1	.687	.687	.915	.34
Within groups	107	80.377	.751		
Total	108	81.064			
Fatigue					
Between groups	1	1.687	1.687	1.750	.19
Within groups	106	102.165	.964		
Total	107	103.852			
Feelings of Guilt or Worthlessness					
Between groups	1	2.401	2.401	2.743	.10
Within groups	106	92.784	.875		
Total	107	95.185			

Table 2. cont.

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Depressed Mood					
Between groups	1	.129	.129	.184	.67
Within groups	107	75.009	.701		
Total	108	75.138			
Concentration Difficulty					
Between groups	1	.207	.207	.268	.61
Within groups	107	81.867	.772		
Total	108	82.074			
Suicidal Ideation					
Between groups	1	.595	.595	1.430	.23
Within groups	106	44.072	.416		
Total	107	44.667			
Restless Symptoms					
Between groups	1	.084	.084	.260	.61
Within groups	107	34.723	.325		
Total	108	34.807			

An additional one-way ANOVA was conducted to compare the effect of individuals who have engaged in APP, but not AeA, and those who have engaged in both AeA and APP and age (either beginning breathplay practices before or after adulthood). There was not a significant effect of breathplay practices on the presence of depressive symptoms for either of the tested conditions.

### The Absence of Largescale Suicidal Ideation.

Of the participants that endorsed never having engaged in AeA, 92.7% ( $n = 51$ ) reported they had not experienced suicidal ideation within the recent past. Among those who had engaged in AeA, 81.1% ( $n = 43$ ) denied suicidal ideation in the recent past.

Table 3. Suicidal Ideation Endorsement.

Denied suicidal ideation in the previous two weeks (Responded “Not at All”)	Frequency	
	N	%
all participants	95	87.2%
participants who have engaged in aea	43	81.1%
participants who have never engaged in aea	51	92.7%

Specific to the item examining suicidal ideation, a separate one-way between subjects ANOVA was conducted, with no significant results being found [ $F(1, 107) = 1.430, p=.05$ ]; ( $p = .234$ ). An additional frequency examination was conducted which identified that nearly all participants (87.2%) reported that they had not experienced suicidal ideation in the past two weeks. While the National Institute of Mental Health’s (2016) current prevalence rates estimate that adults, aged 18 or older, in the United States experience suicidal ideation at a rate of 4.0%, the present study also found qualitative data that explicitly indicates that individuals who participate in this set of behaviors tend to not wish to purposefully die.

### Chi-Square Tests of Independence.

Additional analyses were completed to determine if there were relationships between engaging in AeA practices and a variety of demographic and other variables.

Table 4. Chi-Square Tests of Independence.

Scale	$\chi^2$	<i>df</i>	<i>p</i>
Gender of Participants	6.004	6	.42
Age of Participant	33.859	31	.33
Sexual Orientation of Participants	10.650	8	.22
Ethnicity of Participants	10.707	4	.03
Marital Status of Participants	9.068	5	.11
Method of Breathplay Participants Tried	11.126	5	.05
Methods of Breathplay Participants Preferred.	15.346	6	.02
Motivations to Engage in AeA	7.603	4	.11
Why Participants Will Not Engage in AeA	6.210	4	.18
Why Participants Chose to Engage in AeA	4.947	3	.18
What Support Participants Sought for Their Breathplay Practices	7.073	4	.13
Pornography Preferences	25.538	4	.00

### Gender of Participants.

A Chi-square test of independence was utilized to calculate the frequency of AeA and breathplay practices across genders. A significant interaction was not found with a p-value of .42( $\chi^2 = 6.04$ ). A visual depiction of this may be found in Table 3.

Table 5. Crosstabulation Analyses on Gender.

	Cismale	Cisfemale	Non-Binary	Gender Fluid	Trans-Woman	Other
Denied AEA N = 56	11	36	4	2	0	3
Endorsed AeA N = 55	29	15	0	5	2	4
Total N = 111	40	51	4	7	2	7

#### **Age of Participants.**

Age and engagement in either AeA or APP was also examined in a Chi-square test. A significant interaction was found with a p-value of  $.33(x^2 = 33.859)$ .

#### **Sexual Orientation of Participants.**

A Chi-square test of independence was utilized to calculate the frequency of AeA and breathplay practices across sexual orientation. A significant interaction was not found with a p-value of  $.22(x^2 = 10.650)$ .

#### **Ethnicity of Participants.**

A Chi-square test of independence was utilized to calculate the frequency of AeA and breathplay practices across ethnicity. A significant interaction was found with a p-value of  $.03(x^2 = 10.707)$ .

### **Marital Status of Participants.**

A Chi-square test of independence was utilized to calculate the frequency of AeA and breathplay practices across genders. A significant interaction was not found with a p-value of .11 ( $\chi^2 = 9.07$ ).

### **Methods of Breathplay Participants Tried.**

Chi-square tests of independence were then conducted to determine differences across individuals who either engaged in AeA and APP or AeA alone and which methods of breathplay they have tried in the past. In this case, significant differences were found  $.049(\chi = 11.13)$ ,  $\eta^2 = .023$ . In this instance, the data suggests participants who have engaged in APP, but not AeA were more likely to both engage in breathplay practices utilizing other methods not noted in the items and manual methods. Conversely, participants who have engaged in both APP and AeA were more likely to have engaged in practices utilizing plastic bags.

### **Methods of Breathplay Participants Preferred.**

Chi-square tests of independence were then conducted to determine differences across individuals who either engaged in AeA and APP or AeA alone and which methods of breathplay they prefer. Significant differences were also discovered  $.018(\chi^2 = 15.35)$ ,  $\eta^2 = .04$ . suggesting participants who have engaged in APP, but not AeA were less likely to utilize a plastic bag in their practices than participants who have engaged in both APP and AeA, but more likely to have used manual methods. Participants who endorsed never having engaged in AeA were more likely to be in romantic relationships (78.9%,  $n = 45$ ). Though less so, participants who reported they have engaged in AeA at least once



in their lives were also more likely to be romantically partnered (63.6%, n = 35). Of the same samples, those participants who engage in APP 67.3% (n = 37) informed at least one person in their life. AeA practicing respondents also told individuals in their life of their airplay practices at a rate of 72.7% (n = 40).

### **Motivations to Engage in AeA.**

Chi-square tests of independence were also run to determine if there was a difference in the motivation for engaging in breathplay between those who participate in AeA and breathplay practices and those who participate only in AeA practices. A significant interaction was not found with a p-value of .107( $x^2 = 7.60$ ). This value suggests there are no known significant differences between what motivates participants in engaging in these behaviors.

Qualitative and open-ended items were examined for trends in that data as well. Motivation to engage in breathplay was examined and the participants' responses were coded into several significant data groups: Power Orientation and Exchange, Increased Connection and Trust with their Partner(s), Preoccupation with Thoughts of the Act, Acquiescing to Their Partner's Request to Engage in Oxygen Restriction, Interest and Curiosity in the Act, Increased Risk of the Act, Seeking a Heightened Sexual State, Specific Fetish or Preference for the Act, and Uncategorized. As described in the table below, there were a number of different types of motivation identified by participants.

Table 6. Motivations to Engage in AeA.

	Power Orientation and Exchange N =77
Participant Responses	1. The power and vulnerability involved with the play with a partner, the thrill/fear, the physical sensations – P9
17 responses (13.09%)	2. The feeling of giving over power to another person you trust. – P7
	3. Pegging him roughly while being dominant – P41
Increased connection and trust with their partner(s) 10 responses (7.7%)	1. The trust that is built between partners. The power exchange involved with breathplay. The sensation of having breath restricted. The intimacy. – P26
	2. Trust in my partner and believing I will be safe. – P27
	3. If my partner enjoys it, and the trust involved is arousing – P76
Preoccupation with thoughts of the act 2 responses (1.54%)	1. Excitement – P43
	2. Imagination and desire to do it again and again and again and again – P47
Acquiescing to their partner’s request to engage in oxygen restriction 9 responses (6.93%)	1. Requests from my bottom – P29
	2. Partner’s desire – P56
Interest and curiosity in the act of oxygen restriction 3 responses (2.31%)	1. Interest in trying it. – P35
	2. Curiosity, increased sexual urges – P87*
	3. new experience – P94

Table 6. cont.

Power Orientation and Exchange N =77	
<p>Increased Risk of the act of oxygen restriction</p> <p>4 responses (3.08%)</p>	<ol style="list-style-type: none"> <li>1. Going to the edge of freaking out and panicking is fun. – P37</li> <li>2. The fight to stay calm, to keep the beginning panic under control, if I would find suitable play partners I would like to reach the point of actually passing out – P38</li> <li>3. To see how far I can push myself, to learn to control panic response – P120</li> </ol>
<p>Seeking a heightened sexual state</p> <p>25 responses (19.25%)</p>	<ol style="list-style-type: none"> <li>1. Heightened pleasure during orgasm – P113</li> <li>2. Increased pleasure, control, partners submission – P10</li> <li>3. Intensity of the response – P14</li> </ol>
<p>Specific fetish or preference for the act</p> <p>3 responses (2.31%)</p>	<ol style="list-style-type: none"> <li>1. Fetish for plastic in general, bagging – P100</li> <li>2. It's been a kink of mine for as long as I can remember. Asking that is like asking what motivates me to eat. – P129</li> <li>3. Since I was very young, many of my idling thoughts drifted towards restriction, bondage, and power exchange with "the more matured teenage girls", and I had always been drawn to the look and tactile sensation of plastic wrap and bags (on wrapped pallets of product in Home Depot for instance) and wondered what it would feel like for a person to be restrained as tightly. Eventually I tried wrapping parts of my body in plastic wrap, and pressing it over my face and such and imagining being captured by a "villain"-type girl. These situations led to arousal, puberty, sexual awakening, etc. and these interests have endured to this day. I also searched the internet rather early on to see if others found those things to be sexually interesting as well, so having the internet was lucky in that it was reassuring about a confusing subject at a confusing time, and just finding a few pornographic pictures of girls wrapped in plastic were enough to satisfy my question of "am I alone?" – P18</li> </ol>
<p>Uncategorized</p> <p>4 responses (3.08%)</p>	<ol style="list-style-type: none"> <li>1. Many things – P96</li> <li>2. No specific thing, it's sort of a given for me – P128</li> <li>3. Hot women – P134</li> </ol>

Not all participants offered qualitative data, however qualitative responses were shared by 77 participants and examined by this researcher. Of the data group themes identified by participants who offered qualitative responses during qualitative analysis, Heightened Sexual State (19.25%) and Power Orientation and Exchange (13.09%) were the categories participants responded to most often.

The Power Orientation category offered participant responses that focused upon submission to their partner (i.e., “feelings of submissive and being dominated by my partner”). Another set of respondents in this category identified a sense of helplessness or loss of control (i.e., “sense of helplessness and surrender, connection with partner, enjoyment of fear play”) as a motivator for them. Within this theme, several responses focused upon the perceived loss of control as a motivator (i.e., I like to feel controlled, and having someone's hand on my throat (even without pressure) gives that sensation). One participant specifically noted a connection to a cognitive component of power exchange, stating, “Primarily the psychological aspect-- I enjoy feeling physically dominated by my partner. I also feel that choking often makes me feel more in the moment and slows down my thoughts. I am a very analytical person and constantly think in words-- one of my favorite parts of sex is that this slows down, and choking intensifies that.”

Table 7. Why Participants Chose to Engage in Breathplay.

	Never Practiced AeA		Practiced AeA	
	N =33		N =48	
	N	%	N	%
Emotional Arousal	2	6.1%	1	2.1%
Physical Arousal	7	21.2%	6	12.5%
Increased Pleasure	17	51.5%	36	75.0%
Other Not Noted	7	21.2%	5	10.4%

The largest data group, with nearly one-fifth of responses, identified some form of heightened sexual state or intensity as the motivation to engage in oxygen restriction practices. Several responses identified the participant’s realization that they received either a “stronger orgasm” or a euphoric/“floaty” sense when engaging in oxygen restriction. One such participant stated, “I know the dangers of it, but it is like a drug to me.” Another such participant reported, “I love how everything goes quiet the moment the hands are around my throat.” Participants also noted increased pleasure both with themselves and their partner, with one such response stating their motivation was “the pleasure it gives myself and whoever I play with.” Overwhelmingly, participants reported when considering AeA, they sought an increased pleasure experience (51.5% of participants who had never engaged in AeA and 75.0% of participants who had).

**Why Participants Will Not Engage in AeA.**

The reasons a participant decided against engaging in AeA was analyzed utilizing a Chi-square test as well. A significant interaction was not found with a p-value of .184( $\chi^2 = 6.21$ ). Here again, there does not appear to be known differences across participants for their reasons against engaging in AeA or breathplay practices.

### Why Participants Chose to Engage in AeA.

Similarly, utilizing the same methods, no significant differences across participants' expected experiences with AeA were found  $.176(x^2 = 4.95)$ .

### Motivations to Not Engage in AeA.

Participants were asked to identify concerns that motivated them to not engage in AeA. This study presumed that a significant number of individuals would not choose to engage in AeA. Of note, these findings represent groups of participants who all endorse engaging in breathplay practices, with only a small portion engaging in AeA. In an attempt to capture the themes that might dissuade an individual away from AeA practices, the table below is a summary of their compiled results.

Table 8. Motivations to Not Engage in AeA.

	Never Practiced AeA		Practiced AeA	
	N =54		N =7	
	N	%	N	%
I would not feel safe	6	11.1%	1	14.3%
Fear of Physical Safety	20	37.0%	3	42.9%
Emotional Discomfort	7	13.0%	3	42.9%
Feeling Judged or Not Accepted	1	1.9%	0	0.0%
Other Not Noted	20	37.0%	0	0.0%

Participants were given the opportunity to offer qualitative data to address this question in the survey as well. Across the sample, answers ranged, however clear themes were identified: most participants were concerned about losing their own lives.

Participants clearly identified the risk of death, and words such as “death,” “dying,” “danger,” and safety” were utilized throughout the responses. One participant offered insight into how they discussed the practice with partners: “It [Breathplay] is a R.A.C.K (Risk Aware Consensual Kink) rather than a S.S.C. (Safe, Sane, Consensual).” Of the participants who had never engaged in AeA, the majority of the responses were focused either on fear of physical safety or other reasons not initially noted as option in the survey. Similarly, of those who had engaged in AeA but still shared their concerns for engaging in the practice, respondents reported they were primarily concerned with both emotional discomfort and physical safety. Several participants also identified risk as being a primary concern for them, with one blatantly stating, “[the] risk of death [is]difficult to mitigate.” This study found sufficient qualitative data to suggest that the lack of protection from having a partner present during breathplay practices was a deterrent for some individuals. One such individual stated, “If something were to go wrong, the chances of me being able to save myself are low.” Participants also identified the potential loss their death may have on their loved ones, stating, “time, family, kids, life” were sufficient deterrents to the practice of AeA.

An additional subset of participants identified the lack of excitement in either being the submissive recipient (i.e., “bottoming to breathplay”) to oxygen practices or a general lack of interest in the practice (e.g., “it literally holds no appeal” and “it does not arouse me”). The data suggests that those who engage in AeA or breathplay practices do so out of specific intention, which tends to be coupled with a specific arousal to either the act, power dynamics with their partner, or the increased sensation of pleasure.

### Support Sought for Oxygen Restriction Practices.

Surprisingly, similar testing produced no significant differences between participants' methods of seeking support for their AeA and breathplay practices  $.132(x^2=7.07)$  [see Table 3]. These values suggest there are no known differences in what participants expect from breathplay practices or how they seek support for their practices, whether they engage in AeA or other kinds of breathplay.

Table 9. How Participants Sought Support for Oxygen Restriction Practices.

	Never Practiced AeA		Practiced AeA	
	N =56		N =55	
	N	%	N	%
Safety practices	4	7.1%	6	10.9%
social support	0	0.0%	5	9.1%
information on the practice	30	53.6%	23	41.8%
none	19	33.9%	16	29.1%
Other Not Noted	3	5.4%	5	9.1%

The participants endorsed seeking out support for their practices ranging from “cuddles” with their partners to “CPR [and] emergency precautions” on the practice. Several participants noted that they themselves were members of the community that offered information on the practices to new practitioners. One such participant stated, “I have taken lots of classes and now give workshops about breathplay and rope bondage.” The amount of support participants gathered was not significant across groups, implying that regardless of particular practice, breathplay enthusiasts sought out one another in an effort to socialize and exchange information they felt might benefit their community. A



number of participants endorsed AeA practices over a number of years, with one stating they have “done it for thirty years.” Across the myriad of identified motivations to engage in the practice, several themes became apparent: Here again participants noted they were cautious of the practice, but a number chose to engage in it nevertheless. Of the 49% of respondents who reported having engaged in AeA, 41.8% reported they sought information on the practice. A significant minority of participants who engaged in AeA (29.1%), however, reported they sought no support at all for their sexual practice.

### **Safety Measures Used During Autoerotic Asphyxiation Practices.**

The study suggested that the hypothesis that individuals who practice oxygen restriction, especially over a long period of time, tend to utilize safety practices at least fairly often. Nearly half (46.3%,  $n = 25$ ) of the participants who engage in AeA use safety measures always. A significant portion of participants who practice AeA do so with less regularity: often (9.3%,  $n = 5$ ), sometimes (3.7%,  $n = 2$ ), and rarely (5.6%,  $n = 3$ ). Surprisingly, nearly one in five participants who have practiced AeA at least once in their lifetime never utilize safety practices (18.5%,  $n = 10$ ). Despite the clear qualitative data that suggested the element of danger of the act made individuals more likely to engage in the practice, participants offered a number of previously unknown or understudied safety practices. The participants often suggested they have partners within the room or immediate area to ensure safety (i.e., “Someone to watch over me”). A significant number of the participants who discussed their safety measures reported they were trained in CPR and were also willing to call 911 if they believed it to be within their partner’s best interest. In this manner, the antiquated belief that individuals who typically

engage in oxygen restriction practices by themselves or in an attempt to harm their partners does not appear to be supported. By far, individuals reported they choose to “be aware of the other’s health.”

Participants who reported they engaged in couples breathplay reported they also utilized scissors or other cutting implements, visual checks of their partner, timed sessions, other’s outside of the play knowledge of that breathplay was taking place, verbal checks of their partner, and tactile communication with their partners to signify a halt to the play session (i.e., “tapping out” or holding a hand in the air until the recipient passes out and drops their hand). Additionally, the study identified participants who specifically studied and utilized particular chokes (e.g., air versus blood chokes) when engaging with their partners. While some recipients communicated their preferred method of being choked (“He doesn’t put pressure on the front of my throat”), others researched types of choking and call upon mixed martial arts experts to teach safer techniques.

Still other practitioners of breathplay with or without a couple identified the tools they used during play sessions were their form of safety measures: “well...knowing I can easily puncture or rip the plastic bag over my head, makes most any of the ‘bindings’ that I would use, only a psychological ‘bondage.’ I have tried to use thicker vinyl bags that can’t be torn or ripped by hand and have had plenty of success but I know my chances of dying increase dramatically with these types of bags, especially when filled with water.” This specific use of weaker plastic bags, medical tools (i.e., self-adhering medical foam), ligatures that are tied looser, or hands over their partner’s mouths rather than an apparatus

suggest a trend in participants seeking less-lethal methods to stimulate themselves or their partners. As much of the extant AeA research has suggested that participants who engage in oxygen restriction do so in extreme ways or with specific goals to increase danger, these findings suggest otherwise. One possible conclusion is that the skewed data from the extant studies, often taken from decedents, is more suggestive of methods individuals who do not survive are more likely to utilize.

Individuals who engaged in AeA also had specific safety measures they utilized, vastly utilizing pre-play preparations to ensure their safety. Many AeA practitioners specifically mentioned increased safety as a major motivator for their use of safety measures, despite any loss in spontaneity or perception of dangerousness. The prospect of serious injury or death appears to be a valid deterrent as well as a motivator to use safety measures. One participant identified their preparation methods: “Solo play involves prepping a way to undo any bindings quickly and an inspection of the set up before play begins.” While some participants chose to ensure their set up utilized a fail-safe, other allowed their own bodily reaction to be their fail-safe. One participant noted,

*“If hanging, I hold the end of the rope so as I pass out my hand releases the rope and I make sure there is nothing that the rope could snag on. Additionally, I tie the loop to a set size that does not constrict like a typical noose. Also, I place lots of pillows/padding for the fall and make sure there is nothing I could hit.”*

Other participants noted similarly themed safety measures to include: “breathing obstructions [that] falls away at loss of consciousness.” The specific use of plastic, hands, or other such implements of breathing obstruction appeared to be a common practice to

ensure safer cessation of AeA. One particularly significant method participants identified was the use of their own hand or holding their breath, rather than a specific apparatus, during masturbation sessions. These methods, previously undocumented in known extant literature, suggest a population who is more willing to seek the sensation, physical or psychological, that accompanies the act of AeA, rather than the visual stimulation of being attached or restricted to an apparatus. While this addresses only a portion of the proposed research question, the participants' responses to the preferred pornography question may shed additional light.

### **Preferences in Pornography across Breathplay Participants.**

Participants reported on their pornography use, and chose preferred viewing options. Those participants that denied a history of AeA reported seeking out: binding (12.3%,  $n = 7$ ), airplay (26.3%,  $n = 15$ ), AeA (0.0%,  $n = 0$ ), other types not noted above (28.1%,  $n = 16$ ), and denied pornography viewing at a rate of 33.3 % ( $n = 19$ ). Participants who endorsed a history of AeA at least one time reported seeking out the following types of pornography and visual stimulation: binding (7.4%,  $n = 4$ ), airplay (27.8%,  $n = 15$ ), AeA (27.8%,  $n = 15$ ), other types not noted above (29.6%,  $n = 16$ ), and denied pornography viewing at a rate of 7.4 % ( $n = 4$ ).

The amount of before-play preparation across both groups of individuals identified above suggest that breathplay, either AeA or as part of a couple, is not likely a random or sudden act. Though it may be sporadic in the repertoire of a couple or solo-activist, the act of oxygen restriction appears to be coupled with much preparation; largely to ensure safety of practice.

### Preferred Method of Oxygen Restriction Practices.

Here too, the study produced similar results across the participant samples. The respondents overwhelmingly stated they preferred manual methods of oxygen restriction (e.g., holding a hand over their own mouth, strangulation or choking of a partner, etc.). The remaining categories, so heavily represented in the Sauvageau and Racette (2006) study, were not found to be representative of the preferred methods for participants in this study. Quite the contrary, participants identified manual strangulation and other methods not noted as preferred practices. Earlier, the study hypothesized that the nature of the stimuli (electrocution rather than asphyxiation) will be a discriminatory factor for individuals participating in autoerotic practices. The researcher asserted the intentional infliction of pain factor may be a necessary component of the practice for some individuals, but be repellant to others. The data appears to closely reflect this hypothesis in that participants spoke more about their preference for engaging with one another and utilizing methods that provided the least amount of lethal potential (i.e. holding their breath or manual strangulation).

Table 9. Preferred Method of Oxygen Restriction Practices.

	Never Practiced AeA N =53		Practiced AeA N =55	
	N	%	N	%
Ligature	1	1.9%	0	0.0%
Plastic bag	0	0.0%	9	16.4%
Controlled breathing/holding breath	3	5.7%	2	3.6%
Gas/chemical substance	0	0.0%	2	3.6%
Water/Liquid immersion	0	0.0%	1	1.8%
Manual Strangulation	41	77.4%	30	54.5%
Other not noted	8	15.1%	11	20.0%

## **CHAPTER V**

### **DISCUSSION**

#### **Interpretation of Findings**

One benefit to the present study was its use of open-ended, qualitative questions to determine an individual's motivation to engage in AeA or breathplay practices. Additionally, the present data were analyzed in a manner to differentiate the participants into four major groups based on which types of behaviors they endorsed. Group AeA reported they only engaged in AeA behaviors, and never did so with a partner. Group APP endorsed engaging in oxygen restriction practices only with partners, and never alone. Group AeA and APP engages in oxygen restriction practices either alone (AeA) or with partners. For ease of discussion, these data groups will be referred throughout the discussion as groups, AeA, APP, and AeA and APP.

Sexual positivity was also a strong focus in the present study. The use of purposeful language and approach the researcher utilized while being allowed within the Kink community likely had a major impact on the number of participants willing to share their information. A larger sample size than originally expected was recruited. Therefore, the present study was able to offer frequencies that offered a broader piece of the mosaic of oxygen restriction participants. As aforementioned, the concept of sexual positivity has been used in research to further the knowledge gained in sexual education (Fine & McClelland, 2006). This study's approach in utilizing non-pathologizing

language and avoiding assumption about individuals who choose to engage in these behaviors has likely allowed a group of respondents an opportunity to voice their thoughts on practices that they otherwise may not have.

### **Research Questions and Hypotheses**

Research question one attempts to identify the characteristics among living AeA participants and the previously studied decedents. There appear to be drastic differences between population demographics between the previously studied AeA participants and the participants in the present study. In the present study, data were collected across demographics, methods, motivations, and practices. The number of participants in the present study is one of the larger sample sizes collected from extant research. Possessing data from nearly 140 participants offered this researcher the opportunity to more closely identify demographic information from living practitioners, rather than rely on decedents as much of the extant literature does. The higher presence of Cisfemale enthusiasts, in comparison to the majority to extant research reporting on men's AeA practices was unique. Though, again the extant literature was mirrored in the fact that the number of Cismales engaging in AeA was higher than females, the presence of females, filling one-quarter of the category of individuals who engage in AeA appears significant. Participants in this study also appear to possess a greater willingness to engage in safety measures than is recognized in the extant literature. The decedents in previously reported case studies may, however, be a reflection of the nearly one in five participants who reported they utilize no safety measure during AeA.

Research Question Two sought to find information on the presumed differences in the population demographics between individuals who have tried AeA practices one or more times, as compared to those who have engaged in only airplay with a partner (APP)? Individuals who engage in AeA more frequently and over a longer period of time appear to be more likely to have partners, tell other individuals in their life about their oxygen restriction practices, and engage in AeA frequently. In this way, it appears that individuals who practice AeA employ preventative measures to ensure a safer sexual practice over a longer period of time.

The frequency of AeA, once initiated, was also addressed. The study found that nearly half of the participants who have engaged in AeA at least once in their lifetime do so frequently (26 times or more). An additional 36.4% ( $n = 20$ ) reported they have done so between 2-10 times and only 7.3% ( $n = 4$ ) having done so once. When addressed cumulatively, 83.7% of AeA practitioners have chosen to engage in the behaviors in a regular to frequent basis. This frequency of utilization of the method implies that individuals who try the behavior tend to engage in it after their first encounter with AeA. This may speak to the study's hypothesis on desired outcomes of breathplay across AeA and APP groups. The resulting outcome of AeA practices seems to be significant enough for individuals, who across both groups report they are concerned about their safety, to choose to engage in AeA multiple times in their lifetime. The study hypothesized that the heightened orgasm outcome of engaging in AeA was likely the major factor in an individual's decision to engage in AeA. The nuances of the interpretation of this are discussed more fully below.



Notably, a majority of individuals (73%) who engage in these practices self-identify as members of the BDSM or Kink scene. This may be particularly useful when seeking out or addressing the availability of supportive and like-minded community members. Though the remaining individuals did not identify as members of one of the two aforementioned communities, the majority of the individuals identified that they believed they belonged within one of the groupings offered. Of those 93% of individuals who positively endorsed oxygen restriction practices, half reported they had never actually engaged in AeA. One surprising statistic offered light upon participants' consideration of the practice. AeA in particular has been discussed in extant literature as an infrequently practiced set of behaviors; one in which only a small number of individuals engage. This study's findings suggest that a more significant number of individuals, especially among those that otherwise engage in oxygen restriction practices with a partner, have considered engaging in AeA at some point in their life.

Research Question Five asserted that individuals who practice AeA seek visual and physical stimulation, rather than pain or self-injury from the act. This was supported in the data gathered. AeA-practicing participants also appear to seek out visual stimulation more often than participants who do not practice AeA. More than half of AeA practicing participants sought visual stimulation specific to oxygen restriction, while only one in four of non-AeA practitioners sought oxygen restriction specific pornography. Of note, no non-AeA practitioners sought AeA-specific pornography, implying a lack of interest in or sexual attraction to the visual or fetishistic component of AeA among those they do

not practice it. This gives support to the hypothesis that individuals who practice AeA seek visual and physical stimulation, rather than pain or self-injury from the act.

### **Autoerotic Asphyxiation Practitioner Characteristics.**

The study compiled information on practitioners of AeA-specific practices. The data produced from AeA endorsing participants accounted for only eleven participants from the total sample but offered characteristics of a vastly underserved population. Of note, the characteristics discussed within this section address only 8% of the total participants, and do not include individuals who endorsed engaging in oxygen restriction practices both with a partner and by themselves. Individuals who reportedly only engaged in AeA practices tended to group together across demographics. They ranged from young adults (age 18) to older adults (age 66), utilized safety measures during play, largely sought supportive services, and tended to tell people in their life about their practices. Approximately 70% of individuals who reported exclusively engaging in AeA practices endorsed the item about other individuals in their lives knowing about their oxygen restriction practices. Nearly 90% of individuals who have never engaged in AeA began utilizing oxygen restriction practices after they reached adulthood. Conversely, 64.8% of individuals who have engaged in AeA began doing so before the age of 18, implying it is more common for individuals who engage in AeA to begin doing so at some point in their childhood. This trend may be a result of the multi-generational breath-holding games that children engage in. These statistics tell a different story than the current literature on AeA practitioners.

## **Motivations to Engage in AeA.**

Of those that endorsed any form of AeA or breathplay with a partner, several identified a compulsive component to be practice, stating for example, “I do it; even though I know it’s dangerous.” This may be a significant finding, in that despite the risk of physical harm or death, some participants find the practice difficult to give up. The concept of danger appears to have significantly increased the likelihood that some participants may engage in the behavior. The potentially compulsive nature of the act, either through physical or psychological sensation increase may be a fruitful line of inquiry for a future qualitative study. The qualitative responses describe a possible desired outcome for participants, namely the euphoric or floaty experience during and after oxygen restriction practices. An argument may be made about the desired outcomes of AeA and APP to include themes of seeking a euphoric state, seeking heightened orgasms, seeking a fetishistic and visual depiction, and seeking partner relational dynamics.

Also of note were the similarities between AeA and APP enthusiasts. Both groups endorsed the desire to experience an increased amount of pleasure from the act of AeA. This may begin to address some of the data found by Sauvageau and Racette (2006) suggesting a strong connection between the act of AeA and individuals who were seeking a more intense and creative stimulation. Of note to the reader, participants indicate there appears to be a stark contrast between this transcendent/floaty experience and the association of this practice with risk-taking behaviors.

Intimacy was also noted across several different narrative responses. Historically, AeA has been identified as a largely autonomous act, and presumed to be purposefully so. These results imply a more meaningful link between the use of oxygen restriction, either partnered or solo, and the bond between partners. Participants reported they sought both eroticism and intimacy out of their sexual practices. This may help to curb the stigma of a lone AeA participant

### **Motivations to Not Engage in AeA.**

The participants who did not engage in AeA or did so only infrequently overwhelmingly reported they had concerns for their own safety and that those concerns either prevented them from engaging in AeA or likely limited their practice of the behavior. This is noteworthy because it allows researchers to identify primary factors individuals identify to be dissuading them away from the practice: the fear of safety or being emotionally harmed as a result of a negative outcome of the practice. While the goal of this research is not, to dissuade individuals from oxygen restriction practices, the participants' self-reported hesitations add pieces to the mosaic of oxygen restriction practice as a whole. This concept was also supported in the narrative responses of participants, specifically, some participants noted they personally knew individuals who had died as a result of the practice. Between the generally negative stigma surrounding discussion of the practice and personal anecdotal evidence of the lethal consequences of the practice, Kink community members appear to very directly avoid the practice due to physical consequences, and clearly recognize this can include death. This, coupled with the data that nearly half (49.0%) of the participants surveyed have engaged in AeA

practices at some point in their lives seems contradictory. Though they identify physical harm to themselves as a motivation to not engage in the practice, a large portion of participants continue to do so.

### **Support Sought for Oxygen Restriction Practices.**

Historically, AeA practitioners have been viewed and written about as lone-wolf enthusiasts who prefer to engage in practices that are both largely secretive and highly dangerous. Research Question Four asserted that individuals who practice AeA engage in some form of a community to discuss AeA practices. This hypothesis was also supported in the gathered data. Though not all practitioners of AeA seek out supportive services, this data implies practitioners seek out supportive services and experts within their own communities. Primarily, participants were seeking out information on the practice. This implies purposeful thought in achieving their desired goals with additional safety precautions. Indeed, the qualitative data appeared to support this quantitative data. Further, this community-specific language indicates that psychological research on breathplay practices is outdated and overlooking an important aspect of human sexuality.

This category of data offered a larger perspective on participants' perceptions of and access to information on their sexual practices. The present study identified the lack of information on living and active participants who either engage in AeA or oxygen restriction practices with a partner. The study also offered a contrary point to the previous presumption that AeA enthusiasts were engaging in the behavior as romantically single individuals. As more than 60% of the participants who engage in AeA were romantically partnered and more than 70% of the same sample chose to inform someone

in their life of their AeA practices, this lessens the argument for the lone AeA enthusiast who is entirely isolated from support.

The practice of seeking information on their sexual practices was another theme of support across the respondents. Significantly, however, nearly one-third of respondents who engaged in AeA reported they sought no support at all, either due to a desire not to or a presumed lack of available information on the subject matter. This is an alarming statistic, as nearly one in three practitioners of AeA seeking no support may lead to the rates of individuals suffering consequences up to and including loss of life.

### **The Absence of Largescale Suicidal Ideation.**

While this researcher is not attempting to make conclusive statements on participants psychopathology, or lack thereof, interesting patterns emerged from the data. Again, this researcher would like to remind the reader that, due to the desire to obtain confidentiality for the participants, a stated limitation to these findings may be that all suicidal ideation and mental health related data points were gathered on a self-reported survey, and have not been verified by external sources. One respondent's narrative response to this question best represents the trend in data in the present study: "Breathplay's main goal is to obtain pleasure, not to die." Three themes emerged from the present study regarding the presence of suicidality. Across participants, the PHQ-9 scores found on the study were low. Specifically, the question inquiring on the presence of suicidal ideation within the past two weeks were very low, with the vast majority of respondents denying suicidal ideation at any point within the recent past. Respondents also stated appreciation for life in many of the narrative responses. This theme was also

directly tied to the many of their reasons for not taking a risk by engaging in AeA practices. Finally, participants noted their preference for an increased in pleasure, rather than desire for death or pain, out of their oxygen restriction practices as being a major motivator. From these points, the present study may conclude that AeA is not consistent with suicidal ideation, or a desire for death. This stands in contrast to the aforementioned literature (Sheleg & Ehrlich, 2006) tying adolescent and young adult male suicide rates to AeA.

Additionally, the extant societal stigma that implies individuals who engage in either APP or AeA are more likely to struggle with mental illness was also addressed in the results of the study. Overwhelmingly, the results implied that this stigma is unfounded; the majority of participants did not endorse a history of mental illness.

#### **Safety Measures Used During Autoerotic Asphyxiation Practices.**

Hypothesis Three asserted that individuals who practice AeA are more likely to employ preventative measures to ensure a safer sexual practice than not. This was supported in the data gathered. The study found themes across participants' responses to the questions on their use of safety practices for oxygen restriction. Here again, use of creative stimulation techniques were found across the sample. Participants appear to be engaging in behaviors with a potential for more low-impact outcomes (i.e., placing soft objects in the path of their potential fall). Additionally, a clear focus upon lessening the likelihood of a potentially lethal accident was found in the present study. Participants went as far as to attend classes, either CPR or safety measure classes, to build skills to allow them to be more successful in helping their partner if the breathplay went too far.

Participants appear to prefer methods that either add safety to their practice (i.e., keeping cutting tools nearby) or allow for more individual control over the length of time the recipient, self or partner, is restricting their oxygen (i.e., utilizing manual methods rather than apparatuses).

### **Preferred Method of Oxygen Restriction Practices.**

As stated above, extant literature Sauvageau and Racette estimated that in 89.7% of the cases studied, the technique used fell into five major categories: suffocation, smothering, hanging, strangulation, and water/liquid/drowning. Huckler and Blanchard (1992) also offer evidence that other interrelating variables have been exposed at death scenes including the use of more than one form of asphyxiation and the use of binding not related to the restriction of airflow (i.e. binding of the ankles or thighs). The present study hypothesized that these methods would also be the primary methods utilized by participants, however the data disagreed

### **Limitations**

The limitations to the study primarily lie primarily in the sampling and in the amount of data collected. Though the participants represented a significant sample size in comparison to past studies, more extensive data collection, in particular additional frequencies and qualitative data groups must be collected in order to best represent this population.

One particular limitation this researcher found during the present study was establishing trust in the Kink community. Community members at times were hesitant to engage with a researcher outside of their own known circle, especially so when the



researcher was attempting to enter a space they considered safe. This is an entirely understandable phenomenon, as studies offer well-documented limitations in one's lack of cultural intelligence (Brislin, Worthley, and Macnab, 2006). As the process of soliciting venues to collect participants began, this researcher found challenges not previously noted: finding a culturally respectful manner to approach community members and establishing relationships within the community. One approach appeared more effective: to offer transparency, not only of the purpose of the research, but of the researcher herself. This researcher, when asking to join a community's space for the purpose of the present study found it more appropriate to answer questions community members rightfully had about the stranger in their space. A common theme at this point of the study was for community members to ask for verification that the study was being conducted through a university, rather than independently. Additionally, community members requested inAs this researcher was asked to share her thoughts and beliefs on over-pathologizing the community, how to best represent the community, and how to remain sensitive to the community, community members subjectively judged their own level of trust with the study. An intriguing phenomenon occurred, as the researcher began to develop and show more cultural intelligence with the Breathplay community, more community members began to participate in the survey.

This development may also be a potential limitation for future researchers in that replication of the study, and its sample, may be difficult to obtain for a researcher not willing to engage the community. Research of this type may be most successfully conducted by research teams who are willing to slowly establish themselves in a

community and develop meaningful relationships with participants who, in turn, may be more likely to share their practices. Approaching a community in an ethical and transparent manner may be a more successful, but limiting approach for future researchers.

The aforementioned limitations in quantitative data and the generally limited range of demographics known on AeA populations continues to be a limitation to research of this type. Though the present study gathered information from a substantial amount of participants, this may serve only to be a small cross-section of the total participants within the community. The study, for example, collected data from participants either who were attending a community event (a class that discussed safety practices for oxygen restriction behaviors) or in an online community setting. These data collection sites, though effective for this study, may not have been effective in collecting data to participants who choose not to engage with an online community or in-person community events. As such, it is likely that data was not collected from individuals who choose not to engage in either of those two supportive community practices.

### **Clinical Implications**

Participants identified several motivations to engage in AeA and oxygen restriction practices, none of which included the specific desire to increase the amount of pain they experienced during their sexual experience. As mentioned above, a few studies have specifically linked AeA as a subgroup of the sexual sadism cultures (Hucker, 2011; Modelli, Rodrigues, Castro, & Correa, 2013). This study hypothesized that AeA individuals may fall on the fetishistic, rather than BDSM side of a linear spectrum.

Though not suggesting that individuals who engage in these behaviors must choose between the two, the study may assist future clinicians in more easily identifying the desired effects that individuals seek when engaging in oxygen restriction practices, specifically AeA.

The lack of suicidality found in the study sample population also suggests an important distinction between previous clinical concerns (namely that individuals who engage in AeA are likely also experiencing suicidal ideations) and the present study. Here again, the present study uses Sex Positivity to acknowledge and approach the Kink community from a position of social justice, wellness, and resilience within the community (Burnes, Singh, & Witherspoon, 2017). This study proposes a continuance of the growing effort to approach sexual expression in a non-pathologizing manner. As such, the absence of suicidal ideation endorsement, coupled with narrative responses that suggest a desire to connect with their partners and engage in consensual power exchange hold significant clinical implications. Kink community, as with other under-researched or maligned communities, may benefit from a more wellness-based approach.

The similarities between AeA and oxygen restriction enthusiasts is noteworthy when considering clinical implications as well. The demographic, preference, and narratives were largely similar across these two groups, which suggests much more clinical overlap than previously assumed. Specifically, the establishment and discussion of risk profiles across the two groups implied a parallel process amongst a number of the participants. Additionally, there appears to be a need to better understand qualities of individuals who engage in breathplay but do consider themselves a part of the BDSM or

Kink scene. There may be a possibility of different motivations for these individuals or a combination of variant reasons to persist in their preferred behaviors. While limited research has been done on a researcher's perception of an individual's sexual risk profile, extant literature is extremely limited in its study of how an individual identifies, develops, and discusses their sexual risk profile with partners (O'Connell, et. Al, 2001).

### **Recommendations for Future Research**

Additional research is highly recommended for this field. Historically, research has focused upon pathological language to describe participants who choose to engage in oxygen restriction practices. This has severely limited the timber of the language used in the research as well as created a worsening rift between sexual minority and Kink communities as researchers. It is highly suggested that researchers who do choose to engage with the Kink community do so in an ethical and transparent manner, one without use of over-pathologizing and diminutive language. The use of respectful, and non-judgmental language is paramount in planning future studies. Like many cultural minority communities, the Kink community demands respect from researchers attempting to enter their space.

The present study assumed a significant amount of overlap across communities of individuals who engage in AeA and APP. Better identifying the differences between these groups may assist future researchers in more closely defining these two groups. Specifically, it is recommended that researchers continue to explore the connections between the use of supportive communities (online or in-person) most utilized by participants across behaviors. Of the participants studied in this project, many were

solicited in specific community spaces (i.e., FetLife). Attention must be paid to the presumed amount of variance within the support systems of individuals who choose to engage in these behaviors. This may be especially prudent given the, quite understandable, hesitance community members expressed during this study. Identifying and better quantifying the most utilized supportive spaces may better assist future research in promoting safer practices.

It is recommended that additional qualitative data gathered as well. Though significant in the present study, much qualitative data was left unexplored. Specific qualitative interviews, even in relatively small numbers, may offer more un-primed data; from the participants' mouths. This unassuming form of data collection would likely mitigate the use of terminology deemed antiquated, inaccurate, or otherwise harmful by the community members. Such a study may also help to identify how individuals identify, develop and discuss their risk-profiles with partners. Examining the compulsivity component mentioned above may also be a useful study to better identify the relationship between the increased psychological and physical sensation achieved from this practice. Future research on the contemporary types of oxygen restriction practices may offer more accurate data on the current practices of the community, and subsequently may offer additional hypotheses about the individuals who engage in these behaviors.

Finally, the field may benefit from additional research on the types of early practices individuals begin with, and how their practices and preferences shape as they continue to engage in oxygen restriction behaviors. This is particularly important in light

of the finding that AeA participants were more likely to begin practicing prior to adulthood. Additional studies of adolescent sexuality may be helpful to understand the unique role of AeA in developing sexual practice.

## **Conclusion**

The present study, though significant, has opened the door to future research to better serve and promote sexual positivity within the Kink community, particularly those who engage in oxygen restriction practices. A catalog of safety practices currently used in the community was provided. The study encouraged participants to speak on a practice many of them have engaged in for some time, with their own voices.

The study identified several demographic information pieces, which stand in contrast to extant literature. First, the presence of cisfemale participants, approximately one-quarter of the sample, who identified themselves to be AeA enthusiasts was unique. Participants who engage in AeA more frequently and over a longer period of time appear to also be more likely to have partners, tell other individuals in their life about their oxygen restriction practices, and engage in AeA frequently. In this way, it appears that individuals who practice AeA employ preventative measures to ensure a safer sexual practice over a longer period of time. The study also found that nearly half of the participants who have engaged in AeA at least once in their lifetime do so frequently. AeA and APP practitioners tend to not have histories of mental health diagnoses, nor do they tend to experience suicidal ideation. Cumulatively, 83.7% of AeA practitioners have chosen to engage in the behaviors in a regular to frequent basis. The desired outcome of a euphoric state of being immediately after oxygen restriction practices was

also a unique addition to the literature. Perhaps the most unique discovery was the prevalence of AeA across the participants, with half (49.1%) reporting they had engaged in AeA at least once in their lifetime. This statistic, even when taken amongst a population that identified having engaged in APP, is significant.

## **APPENDICES**



## **APPENDIX A**

### **LETTER TO PARTICIPANTS**

#### **The University of North Dakota Consent to Participate in Research**

**TITLE:** Characteristics of Individuals Who Participate in AeA Practices: An Exploratory Study

**PROJECT DIRECTOR:** L. E. Chapple, MA

**PHONE #** (701) 732-0179

**DEPARTMENT:** Counseling Psychology and Community Services

#### **STATEMENT OF RESEARCH**

A person who is to participate in the research must give his or her informed consent to such participation. This consent must be based on an understanding of the nature and risks of the research. This document provides information that is important for this understanding. Research projects include only subjects who choose to take part. Please take your time in making your decision as to whether to participate. If you have questions at any time, please ask.

#### **WHAT IS THE PURPOSE OF THIS STUDY?**

You are invited to be in a research study about individuals who participate in breathplay, either with or without a partner. To date, there has not been much research done on this practice. In response to the large gaps in the research, this study hopes to give more answers.

The purpose of this research study is to ask the community about their practices and look at the information they give through a lens of sexual positivity. Specifically, this study intends to use the information gathered to identify safety measures currently used by individuals.

### **HOW MANY PEOPLE WILL PARTICIPATE?**

Approximately 60 people who engage in breathplay will take part in this study either on-line or at conferences.

### **HOW LONG WILL I BE IN THIS STUDY?**

Your participation in the study will last approximately 10 to 15 minutes. You will only need to visit the survey's website one time.

### **WHAT WILL HAPPEN DURING THIS STUDY?**

This study asks that you use a computer or cellular phone to click a link to the survey and complete it. You are free to skip any questions that you would prefer not to answer.

### **WHAT ARE THE RISKS OF THE STUDY?**

There may be some risk of emotional discomfort from being in this study. You may experience frustration that is often experienced when completing surveys. Some questions may be of a sensitive nature, and you may therefore become upset as a result. However, such risks are not viewed as being in excess of "minimal risk."

Again, this study does not require you to engage in any behaviors. Nor does it seek to encourage you to engage in behaviors. If, however, you become upset by questions, you may stop at any time or choose not to answer a question. If you would like to talk to someone about your feelings about this study, you are encouraged to contact the National Suicide Prevention Lifeline (1-800-273-8255).

### **WHAT ARE THE BENEFITS OF THIS STUDY?**

You may not benefit personally from being in this study. However, we hope that, in the future, other people might benefit from this study as we will be able to gain safety measures currently used by people the people taking the study.

### **ALTERNATIVES TO PARTICIPATING IN THIS STUDY**

Participants are not required to complete this study. The alternatives to completing this study include not completing it.

### **WILL IT COST ME ANYTHING TO BE IN THIS STUDY?**

You will not have any costs for being in this research study.

## **WILL I BE PAID FOR PARTICIPATING?**

You will not be paid for being in this research study.

## **WHO IS FUNDING THE STUDY?**

The University of North Dakota and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

## **CONFIDENTIALITY**

The records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. Your study record may be reviewed by Government agencies, the UND Research Development and Compliance office, and the University of North Dakota Institutional Review Board.

This survey is an anonymous survey which will not ask for your identifying information. Confidentiality will be maintained by means of the researcher not collecting your identifying information (i.e. name, or IP location). Any information that is obtained in this study (i.e. if you mentioned your own name) and that can be identified with you will remain confidential. If we write a report or article about this study, we will describe the study results in a summarized manner so that you cannot be identified.

## **IS THIS STUDY VOLUNTARY?**

Your participation is voluntary. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. Your decision whether or not to participate will not affect your current or future relations with the University of North Dakota.

## **CONTACTS AND QUESTIONS?**

The researcher conducting this study is Lauren Chapple. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Lauren Chapple at (701) 732-0179. You may also contact Dr. Cindy Juntunen, the researcher's advisor, at 701-777-2729.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at **(701) 777-4279**.

You may also call this number about any problems, complaints, or concerns you have about this research study. You may also call this number if you cannot reach research staff, or you wish to talk with someone who is independent of the research team. General information about being a research subject can be found by clicking "Information for

Research Participants” on the web site: <http://und.edu/research/resources/human-subjects/research-participants.cfm>

**I give consent for my quotes to be used in the research; however I will not be identified.**

**Please indicate Yes or No below.**

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

**APPENDIX B**  
**STUDY QUESTIONNAIRE**

**Characteristics of Individuals Who Engage in Airplay**

Q1 to Q10: Demographics Information

Q11 Do you consider yourself part of the BDSM/kink scene?

- Yes (1)
- No (2)

Q12 Have you ever engaged in airplay/breathplay (restriction of oxygen during sexual activity) either by yourself or with others ?

- Yes (1)
- No (2)

Q13 Which of the following describes your motivation for engaging in breathplay?

Please check all that apply.

- Physiological Arousal (1)
- Emotional Arousal (2)
- Increase of Pleasure (3)
- Because my Partner(s) Enjoy the Activity (4)
- Other not noted (5) \_\_\_\_\_

Q33 What types of things motivate you to engage in breathplay?

Q14 Have you ever seriously considered Solo-Airplay/Autoerotic Asphyxiation?

- Yes (1)
- No (2)

Answer If Have you ever seriously considered Solo-Airplay/Autoerotic Asphyxiation?  
 No Is Selected

Q15 What were some of your reasons not to? Please check all that apply.

- I wouldn't feel safe. (1)
- Fear of physical safety. (2)
- Emotional discomfort. (3)
- Feeling judged/not accepted. (4)
- Other not noted. (5) \_\_\_\_\_

Q34 What types of things make you hesitant to engage in Solo-Airplay?

Q36 What are some of your thoughts about solo-airplay?

Q16 Which do you feel like you may experience from this? Please check all that apply.

- Emotional Arousal (1)
- Physical Arousal (2)
- Increased Pleasure (3)
- Other not noted. (4) \_\_\_\_\_

Q19 How many times in your life have you engaged in each of these, if at all?

	Never (1)	Once (2)	2 - 10 times (3)	11 - 25 times (4)	26 or more times (5)
Autoerotic Asphyxiation/Solo-Airplay (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choking my Partner (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being Choked by my Partner (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other not noted (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 How often do you engage in each of the following, if ever?

	Never (1)	Less than once a month (2)	Monthly (3)	Weekly (4)	More than once a week (5)
Autoerotic Asphyxiation/Solo-Airplay (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choking my Partner (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being Choked by my Partner (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other not noted (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 Which of the following do you seek out for these activities? Please check all that apply.

- Emotional Support (1)
- Safety Practices (2)
- Social Support from a Community (3)
- Information about the practice (4)
- None/ I seek out no support (5)
- Other not noted (6) \_\_\_\_\_

Q22 How often do you use alcohol or drugs either during or prior to one of your sessions?

- Never (1)
- Rarely (2)
- Sometimes (3)
- Often (4)
- Always (5)

Q23 How would you rate your enjoyment of airplay?

- Not at all (1)
- A little (2)
- Mostly (3)
- I really enjoyed it (4)

Q24 At what age did you begin participating in airplay?

- Prior to 18 (1)
- After I turned 18 (2)

Q25 What do you call Autoerotic Asphyxiation/Solo-Airplay?

Q26 Does anyone in your life know that you do airplay?

- Yes (1)
- No (2)
- Uncertain (3)

Q27 What method of airplay have you tried in the past? Please check all that apply.

- Hanging (1)
- Ligature (2)
- Plastic Bag (3)
- Controlled Breathing/Holding Your Breath (4)
- Gas/Chemical Substance (5)
- Immersion in Water/Liquid (6)
- Other not noted (7) \_\_\_\_\_
- Manually/With Your Hands or Body/With Your Partner's Hands or Body (8)

Q28 Which, if any, is your preferred method of airplay? Please check all that apply.

- Hanging (1)
- Ligature (2)
- Plastic Bag (3)
- Controlled Breathing/Holding Your Breath (4)
- Gas/Chemical Substance (5)
- Immersion in Water/Liquid (6)
- Manually/With Your Hands or Body/With Your Partner's Hands or Body (7)
- Other not noted (8) \_\_\_\_\_

Q29 Which of the following types of pornography interest you? Please check all that apply.

- Binding (1)
- Airplay (2)
- Solo-Airplay Activity (3)
- Other not noted (4) \_\_\_\_\_
- None (5)



Q31 Do you use some type of safety measure during airplay sessions?

	N/A or I do not do this (1)	Never (2)	Rarely (3)	Sometimes (4)	Often (5)	Always (6)
Solo-Airplay (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Couples Airplay (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Do you use some type of safety measure during airplay sessions? Solo-Airplay - N/A or I do not do this Is Selected And Do you use some type of safety measure during airplay sessions? Solo-Airplay - Never Is Selected And Do you use some type of safety measure during airplay sessions? Solo-Airplay - Rarely Is Selected And Do you use some type of safety measure during airplay sessions? Couples Airplay - N/A or I do not do this Is Selected And Do you use some type of safety measure during airplay sessions? Couples Airplay - Never Is Selected And Do you use some type of safety measure during airplay sessions? Couples Airplay - Rarely Is Selected

Q31 Which of the following describes your reason for not doing so?

- I don't feel this threatens my safety (4)
- I feel excitement without safety precautions (5)
- Other not noted (6) \_\_\_\_\_

Q32 Please describe the safety precautions you use, if any:

\_\_\_\_\_

Q37 Over the past 2 weeks, how often have you been bothered by any of the following problems?	Not at all (1)	Several days (2)	More than half the days (3)	Nearly every day (4)
1. Little interest or pleasure in doing things (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Feeling down, depressed or hopeless (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Trouble falling asleep, staying asleep, or sleeping too much? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Feeling tired or having little energy? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Poor appetite or overeating? (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Feeling bad about yourself - or that you're a failure or have let yourself or your family down (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Trouble concentrating on things, such as reading the newspaper or watching television (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Moving or speaking so slowly that other people could have noticed. Or, the opposite - being so fidgety or restless that you have been moving around a lot more than usual (8)

9. Thoughts that you would be better off dead or of hurting yourself in some way (9)

Q38 Do you feel comfortable participating in anonymous interview to discuss breathplay activities?

- No (1)
- Yes (please enter email or phone number) (2) \_\_\_\_\_

## APPENDIX C

### DEMOGRAPHICS QUESTIONNAIRE

#### Characteristics of Individuals Who Engage in Airplay

Q1 What is your age?

Q2 What is your gender?

- Cismale (1)
- Cisfemale (2)
- Non-Binary (3)
- Agender (4)
- Gender Fluid (5)
- Trans-Man (6)
- Trans-Woman (7)
- Other (8) \_\_\_\_\_

Q5 How would you describe your sexual orientation?

- Gay (1)
- Lesbian (2)
- Bisexual (3)
- Queer (4)
- Heterosexual/Straight (5)
- Pansexual (6)
- Demisexual (7)
- Ace/Asexual (8)
- Other (9) \_\_\_\_\_

Q3 What is your ethnicity? Please check all that apply.

- Hispanic/:Latino (1)
- Native American/Alaska Native (2)
- Asian/Pacific Islander (3)
- African- American/Black (4)
- Caucasian (5)
- Bi-Racial (6)
- Multi-Racial (7)
- Other not noted (8) \_\_\_\_\_

Q6 How would you describe your marital status?

- Single (1)
- Living with Partner (2)
- Married (3)
- Separated (4)
- Divorced (5)
- Widow/Widower (6)

Q7 Are you currently in a romantic relationship?

- Yes (1)
- No (2)

Q8 Have you ever been diagnosed with a mental health disorder?

- Yes (1)
- Uncertain (2)
- No (3)

Q9 Are you currently engaged in mental health services?

- Yes (1)
- No (2)

Q10 Would you describe the area you live in as...?

- Urban (1)
- Suburban (2)
- Rural (3)

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