



## **Fluidity in Women's Sexuality**

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## **ABSTRACT**

Sexual fluidity has been proposed as a key component of women's sexuality. However, not all women acknowledge or experience fluidity in their sexual attractions and behaviors. Because this is the case, what proportion of women are experiencing sexual fluidity? Research has concluded that a "sizeable minority" of women are experiencing sexual fluidity, with the highest levels found among those that identify as a sexual minority. Furthermore, certain individual differences have been found to be associated with a heightened (or weakened) likelihood of experiencing or embracing sexual fluidity. Through extensive literature reviews on women's sexuality and sexual fluidity, it has been concluded that sexual orientation identity status, as well as psychological, biological, and social factors, all play roles in the expression or degree of sexual fluidity experienced. This means that certain personal and environmental factors have the ability to both hinder and/or nurture fluidity in a woman's sexual attractions, behaviors, and experiences. Accepting that women's sexuality is fluid and teaching about the variability sometimes observed in women's sexuality allows us to not only see that experiencing same-sex attractions, desires, or experiences is not necessarily abnormal, but also that it may be more common than originally assumed, which has the potential to reduce societal stigma associated with homosexuality.

*To my family and the Panera staff in Durham, North Carolina—  
thank you for supporting me through the writing process of my  
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## INTRODUCTION

Although sexual orientation is more likely to remain stable than to change over time, people have been found to switch orientations, and these changes or fluctuations in sexual orientation are no longer considered abnormal (Savin-Williams et al., 2012; Mock & Eibach, 2011; Dickson et al., 2013). Because of these observed changes and fluctuations in sexual behavior, researchers have argued that sexuality is not fixed but fluid, and have proposed that sexuality is better represented as a spectrum rather than as a categorical paradigm (Kinsey 1948; Kinsey 1953; Epstein et al. 2012). Defining sexuality in this way allows for all sexual orientations to be included in sexuality's paradigm (including both heterosexuals and homosexuals, as well as other sexual minorities including those identifying as "mostly straight," bisexual, "mostly gay," and "unlabeled") as well as for deviations and inconsistencies between individuals' sexual orientations and behaviors to occur. Past research has also indicated gender differences in relation to men and women's sexuality and has done so through the comparison of how each gender responds physiologically and subjectively to sexual stimuli (Hamann et al., 2004; Chivers et al., 2004; Chivers & Bailey 2004; Chivers et al., 2007; Diamond, 2008). For these and other reasons, women's sexuality has been deemed more fluid and situation-dependent than men's, although this does not mean that men's sexuality is not also fluid (Diamond, 2008).

Women's sexuality has been theorized to possess this ever-present capacity for fluidity, meaning that any woman can experience changes or fluctuations in her sexual attractions, desires, and behaviors at any time (Diamond, 2008). Because this is the case, or if we embrace this idea that sexual fluidity is a key component of women's sexuality and can be generalized to all women, why are not all women reporting or being observed to experience this fluidity? In this paper, it is my intent to approach this question in four parts: (1) provide background relating to

changes in how sexuality has been interpreted over time; (2) investigate what proportion of women are actually experiencing sexual fluidity; (3) investigate what types of factors may influence the likelihood that women embrace or experience sexual fluidity; (4) and finally, I provide a discussion regarding my research's three main findings: that sexual fluidity is a component of women's sexuality, that numerous women are experiencing sexual fluidity regardless of how they self-identify, and that biological (genetics), psychological (stage of life, personality), and social factors (affiliations, relationships, societal influences, etc.) all play roles in whether women experience or admit to experiencing sexual fluidity. My goal is to provide the reader with a better understanding of the fluidity in women's sexuality.

## CHAPTER I: BACKGROUND

Conceptualizing human sexuality reveals a history full of binaries. For example, human sexuality has been assumed reducible to a binary choice in relation to sexual orientation, which is typically thought of in terms of the opposing elements: one is either heterosexual or homosexual. Human sexuality has also been assumed a binary system when considering biological sex, with the opposing elements men's and women's sexuality. For these reasons, sexuality has typically been perceived categorically, determined by placing individuals into two of these four groups, with the majority occupying the heterosexual, sex- and gender-aligned group.

However, over time it began to be acknowledged and accepted that individuals are diverse, because not all individuals fit perfectly into these presumed, socially-contrived boxes. Below, I briefly describe some of the challenges made to these binaries in order to give some historical context for how our modern Western perceptions of sexuality and sexual variability have changed over the past century and how they have come to be what they are today. Although I do not provide a complete history of how the West has perceived sexuality from the past to the present, the pieces of history I do include are pieces I deem important for understanding how sexuality was able to transition from being thought of as a fixed system of binaries to a much more fluid system with complex, interconnected elements.

### *Assumptions Regarding Sexuality*

The system of binary sexualities was theorized to have first emerged in England between 1650 and the beginning of the eighteenth century (Andreadis, 2001). This "old" model of sexuality viewed sexual orientation as a bipolar construct, composed of two opposing concepts: heterosexuality (other-sex attractions) and homosexuality (same-sex attractions). This model



based one's sexual orientation solely on one's sexual activity (Garnets & Kimmel, 2003), which essentially implied that any same-sex attraction or behavior made one homosexual. Furthermore, this old model argued that sexual orientation developed at an early age and that it was fixed, staying consistent and unchanging throughout the lifespan (Garnets & Kimmel, 2003).

Sigmund Freud and his colleagues were among some of the first in recent Western social and psychological history to alter this model by adding an additional element: bisexuality (Garnets & Kimmel, 2003). In the early twentieth century, Freud interpreted bisexuality as a result of humans evolving from a "once primitive hermaphroditic state" (p. 87), and used this connection to account for why homosexuality existed within human nature. He alleged that "all individuals have some homosexual feelings" (p. 87), with the belief that all individuals were born bisexual in their predisposition but then repressed their bisexual tendencies throughout the developmental process. Freud divided homosexuals into three types: Absolute inverts (same-sex attractions only), Amphigenic inverts (psychosexual hermaphrodites equally attracted to both sexes), and Contingent inverts (other-sex attractions with a capacity for same-sex attractions). Being a Contingent invert meant that the individual experienced other-sex or heterosexual attractions but that under the right circumstances, also experienced a capacity for same-sex attractions or desire. This state I will refer to as sexual fluidity.

Later in the twentieth century, Alfred Kinsey, in *Sexual Behavior in the Human Male* (1948), and later *Sexual Behavior in the Human Female* (1953; commonly referred to as the Kinsey Reports), also challenged binary assumptions about human sexuality. These reports were among the first documents to challenge the original binary paradigm of sexuality—and even Freud's tertiary paradigm—arguing that human sexuality is better represented as a spectrum than as restrictive categories (Kinsey, 1948). These reports declared that there were more dimensions

to human sexuality beyond the common categories of straight, bisexual, and gay, reestablishing sexuality as a spectrum with six different levels. Known as the Kinsey ratings, the spectrum's range begins with a rating of 0, which indicates that the person experiences exclusively other-sex attractions, and extends to 6, which indicates that the person experiences exclusively same-sex attractions (as cited by Diamond, 2003). The in-betweens, including the ratings 2 through 5, account for what we may now consider sexual fluidity. For example, if an individual scored a 1, it meant that he or she was "mostly heterosexual," which probably meant that the person also fit into Freud's "Contingent invert" category. In addition, Kinsey argued that although there are people whose sexual orientation is fully heterosexual or fully homosexual, these people make up only a small proportion of the population, and the majority fall somewhere in the middle (Kinsey, 1948).

Although Kinsey's research was new and progressively challenged the research on sexuality, many did not acknowledge or accept it. Why? I believe an important component to take into account when studying human sexual behavior includes the stigma associated with homosexuality. Yes, people may have opposed Kinsey's research solely because he studied sex, which at the time was conceived of as more of a private matter and may have even been thought of as inappropriate to study or discuss aloud. However, I believe other reasons can be found in the negative connotations and even phobia that have been associated with homosexuality. Heteronormative views have been said to dominate the public's perceptions of sexuality for decades (Peplau & Garnets, 2000), in which heterosexuality was considered to be "typical" and homosexuality to be "atypical." Indeed, homosexuality was for a large portion of the twentieth century thought of as a pathological condition, and this idea influenced public perceptions of homosexuality until the late twentieth century. Termed the "Illness Model," this model viewed

homosexuals as abnormal, ill, and “impaired in their psychological functioning” (p. 330) compared to heterosexuals. These perceptions of sexuality can be thought of as another assumed binary of sexuality, with “sane, normal, and typical” tied to heterosexuality at the one end and “mentally ill, abnormal, and atypical” tied to homosexuality at the other.

However, these assumptions began to change around 1973 when the American Psychological Association (APA) took homosexuality out of the Diagnostic Statistic Manual (Peplau & Garnets, 2000). The APA argued that “homosexuality was not pathological nor associated with poor psychological functioning or mental illness” (p. 330). Also, people began to realize that the Inversion Model (a model which tightly tied sexual orientation with gender and produced stereotypes) did not work well for the entire sexual minority community, because for example, “not all lesbians appeared butch,” and no link was ever discovered that firmly connected femininity and heterosexuality or masculinity with homosexuality (p. 330-331). These changes in the perceptions of homosexuality helped express the need for a new model of human sexuality.

I have provided this information in order to shed light on why some may have had difficulty defining human sexuality in a new way. Heteronormativity and homophobia have been, and still are, hurdles that sometimes prevent people from thinking both critically and objectively about sexuality and homosexuality. But we must look at sexuality without these restrictions in order to fully understand human sexual behavior. More recent research on sexuality has pushed past these constraints and produced new models that redefine human sexuality. Some examples include The Affirmative Model and The Minority Stress Model (Garnets & Kimmel, 2003). Both of these models vary from strictly heteronormative views in proposing that homosexuality is not abnormal as it has sometimes been defined. For example,

The Affirmative Model not only assumes that homosexuality is not a pathological condition, but also acknowledges all sexual minorities, including gay, bisexual, sexually fluid, and transgendered individuals. In addition, The Minority Stress Model acknowledges that sexual minority individuals are at a greater risk for stress and persecution because of their sexual identity, and tries to help teach individuals how to live within a heterosexually-dominated society. Essentially, both models focus specifically on the well-being of sexual minority individuals, while at the same time try to alter negative connotations of same-sex attraction and behavior by incorporating sexual minority topics and issues into current psychological literature, personality theories, and therapeutic practice (Garnets & Kimmel, 2003).

### ***Gender Differences***

Historian Thomas Laqueur has proposed that there are two ways in which Westerners have often viewed gender, and they include a “one-sex” and a “two-sex” theories of gender (Laqueur, 1990). His “one-sex” view of gender presumes that people used to conceive of human identity and experience only in terms of one sex. In this model, gender is represented by a single continuum, and female genital organs are considered just to be internalized male organs. Laqueur asserts that this was the most common interpretation of gender in Europe up until the 19<sup>th</sup> century, until the dominant view shifted to a “two-sex” view. By contrast, his “two-sex” view of gender conceives of human identity and experience in terms of two separate sexes that are completely opposite from one another (Laqueur, 1990). In more current literature, the scholarly debate surrounding gender and sexuality has similarly fluctuated, with some at one extreme advocating that women and men’s sexuality are completely different and others arguing that they are exactly the same.

For example, there have been time periods in which men were considered more sexual than women or women were considered not sexual at all, or in which “lesbianism was [considered] less common, less well developed, and less visible than male homosexuality” (Garnets & Kimmel, 2003, p. 415). Furthermore, many of the older theories of sexuality seem to be based on the experiences and practices of men. Nonetheless, when women’s sexuality did receive a focus, most scholars concluded that it mirrored men’s, or that the same theories that applied to men’s sexuality and practices also applied to women’s. It was not until the 1980’s that feminists and others began to argue that women’s sexuality “should be studied apart from men’s” (p. 419). Subsequent research into women’s sexuality revealed that there were actually many differences between men’s and women’s sexuality.

In more recent literature, men and women’s sexuality has been found to differ on multiple levels, including biologically, cognitively, and neurologically. For example, there have been some biological differences discovered through genital arousal studies. The procedure of this particular type of study includes connection of devices (for example, penile plethysmography for men and vaginal photoplethysmography for women; Chivers et al., 2004) to both men and women’s genitals to monitor arousal (blood flow), combined with the visual exposure to different types of sexual stimuli (including films involving same-sex and other-sex interactions). These studies have found that men’s genital responses fall in line with their self-described sexual orientation (Chivers & Bailey, 2005). This meant that for the heterosexual men in these studies, they were more aroused by female than male sexual stimuli, while the homosexual men experienced the opposite pattern (Chivers et al., 2004). Additionally, even if the men felt that their preferences for sexual encounters were bisexual, their bodies responded as if they were either gay or heterosexual (Weinberg et al., 1994; as cited by Diamond, 2008).

On the other hand, women were found to become aroused by both same-sex interactions and other-sex interactions, and that even if they subjectively preferred one sex over the other, their bodies responded to both (as cited by Diamond, 2008; Chivers et al. 2004; Sushinsky et al., 2009). This meant that women's subjective and genital responses were "only modestly related to their preferred category" (p. 741), with both heterosexual women and lesbian women experiencing genital and subjective arousal to both male-male and female-female stimuli (Chivers et al., 2004; Chivers & Bailey, 2004). Through the comparison of men and women's genital arousal results, it has been suggested that women are not category specific in their genital arousal and are more likely to respond to "a variety of sexual acts," while men are highly category specific (Radtke, 2013, p. 338). Research focusing on genital arousal patterns has concluded that "sexual arousal patterns play fundamentally different roles in male and female sexuality" (Chivers et al., 2005, p. 736).

Some genital arousal studies have included an experimental stimuli component in addition to showing human sexual stimuli. For example, experimenters have had participants watch non-human sexual stimuli, specifically bonobos mating, to see if men and women respond differently to the experimental stimuli. Chivers & Bailey (2004) found that for the women, although there were no subjective arousal responses to the films, there were significant vaginal responses to the experimental stimuli, while the men were found to not respond either subjectively or genitally (as cited by Chivers et al., 2007). These results have further concluded that women can experience nonspecific sexual arousal to both preferred and non-preferred sexual stimuli (Chivers et al., 2004; Chivers & Bailey, 2004; as cited by Chivers et al., 2007). However, before assuming these conclusions as fact, it is important to keep in mind one of the major limitations of genital arousal studies: that the sample may not be representative of the general

population. For example, the conclusion of non-specificity in vaginal responses may be limited to those heterosexual women that volunteered for sexual psychophysiology research, because individuals who volunteer for sexual psychophysiology research have been found to differ from the general population in relation to factors including, but not limited to: number of sexual partners, amount of masturbation, more liberal sexual attitudes, more experience of sexually explicit materials, etc. (Chivers et al., 2007).

Other researchers proclaimed the same conclusion—that women show greater non-specificity of sexual arousal than men—except they reached that conclusion through different means. For example, Lykins et al. (2008) tracked the eye movements of participants who were presented both erotic and non-erotic images of heterosexual couples. Within an equal sample of men and women deemed comparable in sociodemographic variables (including in ethnic and religious distributions), the researchers observed that the men looked at opposite-sex figures significantly longer than the women, and the women looked at same-sex figures significantly longer than the men. In addition, within-sex analyses revealed that the men had a stronger visual attention preference for figures of the opposite-sex while the women dispersed their attention evenly between both same-sex and opposite-sex figures. These findings, however, were found to be the same regardless of whether the images shown were erotic or non-erotic. These findings—along with the idea that multiple cognitive factors determine individual attention—support the notion that men and women differ when attending to the same stimuli, or in this case, the same sexual stimuli (Duchowski, 2002; Josephson & Holmes, 2002; as cited by Rupp & Wallen, 2007). Again, it is important to note the limitations of eye-tracking studies, with one example including the potential affect that culture may play on how long or where one looks when

observing the stimuli. Performing this type of study within different cultural settings may produce results that would challenge the generalizability behind these findings.

Neurological studies have also documented brain activation differences when exposing participants to visual sexual stimuli. For example, Hamann et al. (2004) had their participants passively view both sexual and control stimuli, in combination with the monitoring of the men and women's brain activation (measured by blood flow) through Functional Magnetic Resonance Imaging (fMRI). Although both sexes experienced similar brain activation across multiple brain regions when viewing the stimuli, including the ventral striatal regions and brain regions associated with reward, the researchers also found that the sexes differed in the amounts of activation in their amygdalae and hypothalamuses. These regions of the brain were found to be more strongly activated in the men over the women when viewing identical sexual stimuli. In addition, this was found true even when the women reported greater subjective arousal from the exposed stimuli.

Men and women's sexuality has also been said to vary subjectively. An example includes the idea that American men are more likely to have a recreational orientation toward sex, which means that they consider most women potential sex partners and that there does not necessarily need to be an emotional component to the relationship before sex occurs (Peplau & Garnets, 2000). American women, on the other hand, have been found to have a more relational orientation, in which they prefer this emotional component as a prerequisite for sex. Extending this idea even further, men are said to more likely have sexual fantasies that involve strangers or anonymous partners, as well as multiple partners, and are more likely to focus on the female's body, particular organs, and specific sex acts, while women are more likely to be close with their partner. Subjective differences of this nature imply that men and women have different



cognitions regarding sexuality and that these differences in cognition may influence their intentions and behavior.

Through the comparison of men and women in sexuality studies, it has been revealed that—at least within the populations studied—women’s sexuality has the following characteristics: it is nonspecific in relation to sexual arousal; it is less category specific in genital arousal responses; it incorporates more erotic plasticity than men’s; and it varies subjectively in relation to cognitions, intentions, and preferences (Chivers et al., 2004; Hamann et al., 2004; Chivers & Bailey, 2004; Chivers et al., 2007; Sushinsky et al., 2009; Peplau & Garnets, 2000). Because of these and other discovered differences, it has been proposed that women’s sexuality is more fluid than men’s (Ross et al., 2012). This is not to say that men’s sexuality is not fluid. It is a matter of degree, not of absolute limitations. For example, Katz-Wise & Hyde (2015) used an online questionnaire to assess sexual fluidity in attractions and in sexual orientation identity in both males and females. Through statistical analyses of their data, 63% of the women and 50% of men in their sample reported fluidity in their sexual attractions, with 48% of the women and 34% of the men reporting sexual fluidity in their sexual orientation identity. However, the majority of research I have accessed indicates that fluidity is more commonly observed in women’s sexuality than men’s.

One other reason that has been proposed for why men’s sexuality is not as fluid as women’s includes the influence of sociocultural factors. Diamond (2008) has suggested that women’s sexuality is more situation-dependent than men’s (Baumeister, 2000; as cited by Diamond, 2008). This implies that women’s sexuality is affected more strongly by their surrounding environment, relationships, and interactions than men’s. In addition, other factors including education, religion, acculturation, and political affiliation have been found to more

heavily influence a women's sexual behavior and identity than men's (Peplau & Garnets, 2000; Baumeister, 2000). Again, this is not to say that women's sexuality is automatically influenced by outside forces. We may be able to elaborate on observed patterns or trends among sexuality's components, but we will never be able to completely generalize to the entire population due to individual differences and diversity.

I have provided this small literature review in order to disclose some of the empirical data that supports the idea that men and women's sexuality vary from one another. Still, this is not to say that women and men's sexuality do not share similar elements. I believe that this just means that women and men's sexuality are unique and should be studied both in comparison to each other as well as independently. For these reasons, I have decided to focus the rest of my paper on the fluidity in women's sexuality.

### ***Defining Sexual Fluidity***

Because my research focuses on the construct of sexual fluidity, I believe it is necessary to fully define it. Diamond (2008) specifically defines sexual fluidity as a flexibility in sexual responsiveness that can be situation-dependent, allowing individuals to have sexual attractions for any or both sexes regardless of their sexual orientation. To fully understand sexual fluidity, one must first understand the relationship between sexual orientation and sexual identity. Sexual orientation is thought of as the biological predisposition one is "born" with that predisposes individuals with sexual attractions for persons of the same sex, the other sex, or both sexes (Diamond, 2003). Sexual identity, on the other hand, is considered to be socially-contrived (Dworkin, 2001), as well as self-identified, meaning that it is a label one (or society) gives oneself (heterosexual, homosexual, gay, lesbian, bisexual, etc.) that may or may not be congruent

with one's sexual orientation (Diamond, 2003). This implies that sexual orientation is an objective component of sexuality while sexual behavior and identity are more subjective and personal. However, it is important to note that just because someone has a particular sexual orientation and that can be seen as an objective quality does not mean that the person will always behave or identify in alignment with that overall orientation.

Sexual fluidity allows for one's sexual attractions, feelings, and desires to deviate from what otherwise seems to be one's innate sexual orientation. As with all complex processes in behavior, one's actions are not solely based on one's biological underpinnings, and environmental factors are also important when it comes to one's sexuality. Essentially, sexual fluidity establishes that one's sexuality is created and affected by an interplay between biological and environmental influences that creates and affects one's sexuality.

Sexual fluidity can be represented through a spectrum, such as that theorized in the Kinsey Reports (1948), and incorporates all individuals, including those who fall within the categorical paradigm of human sexuality and those who fall "in-between" the categories. For example, there are women who have reported that they like other women about 75% of the time and men only 15% of the time (i.e. Kinsey 4s; Diamond, 2008). Women who feel this way do not always wish to be placed in the bisexual category, because they feel a 50% preference gives one sex or the other too much weight, and that they do not have equal preference for both sexes (Diamond, 2008). Thus, sexual fluidity accounts for all possible percentages or variations in individuals' attraction preferences, and can be used to represent all kinds of sexual orientations and identities.

Another key component of sexual fluidity is that it allows for inconsistencies to occur. These inconsistencies include people who change identities, as well as people who behave

alternatively to their original orientation. For example, this means that a lesbian woman could become sexually intimate with, and end up marrying, a man. Although this type of behavior does not fit well into older sexuality models, sexual fluidity embraces this inconsistency. Central to this notion is the idea that sexuality has the ability to change or fluctuate over time. Additionally, this can occur with or without one having to change one's overall orientation or re-identify with a different categorical label.

Sexual fluidity not only embraces inconsistencies but also involves a level of uncertainty. Diamond (2008) concisely described this element, stating that "Acknowledging sexual fluidity means that no matter how certain you feel about your sexuality at the moment, you might have an experience tomorrow or ten years from now that will place you squarely in sexual-minority territory" (p. 254). This uncertainty applies to both heterosexuals and sexual minority individuals. It implies that no heterosexual woman can rightly assert that she will never desire same-sex contact, and no lesbian woman can rightly assert that she will never desire other-sex contact (Diamond & Savin-Williams, 2000). Sexual fluidity, however, does not imply that all people are bisexual or that all people will deviate from their original sexual orientation. Rather, it implies that everyone has a capacity for same-sex attractions or desire. Having a capacity for fluidity means that there is an ever-existent "sensitivity" to situations and relationships that may facilitate erotic feelings, and this applies to both same-sex and other-sex attractions (Diamond, 2008). Furthermore, according to Diamond (2008), this does not mean that the degree of fluidity in one's sexuality is equal for every person. There are people who experience no fluidity whatsoever, in that their sexual attractions are exclusively heterosexual or exclusively homosexual. These variations in degree of fluidity occur because of individual diversity.

Although sexual fluidity may seem to imply an element of choice when it comes to how

one experiences one's own sexuality, *choice* is a misleading word, because emotional bonds or sexual attractions and desire influenced by the environment can trigger feelings without a person being in conscious control them (Diamond, 2008). Yes, technically a person can make the choice whether or not to act on his or her feelings of desire—for example choosing to ignore feelings of attractions for a same-sex friend—but it has been argued that the individual does not get to choose to feel or not feel those feelings, in the sense that feelings can accumulate and be present even if the person does not want them (Diamond, 2008).

## **CHAPTER II: WHAT PROPORTION OF WOMEN EXPERIENCE SEXUAL FLUIDITY?**

Heteronormativity assumes that sweeping generalizations can be made regarding human sexuality, including the assumption that the majority of individuals consider themselves either heterosexual or straight, with only an estimated 3% of the population claiming a sexual minority identity (Richters et al., 2014). Yet it has been found that some women's sexual thoughts and behaviors deviate from their self-identified sexual orientation. These deviations from one's sexual orientation, considered sexual fluidity, have been found to occur among both heterosexual and sexual minority identities (Richters et al., 2014; Diamond, 2008; Katz-Wise & Hyde, 2015). It is difficult to determine what proportion of all women experience sexual fluidity. Nevertheless, many empirical studies have surveyed both mixed orientation samples (heterosexuals and sexual minorities) and independent orientation samples (studies focusing solely on heterosexual or sexual minorities) in order to understand the prevalence of sexual fluidity. Although there is no single estimate available that has been scientifically validated, studies have found percentages within their samples that have helped better gauge how common sexual fluidity is in women's sexual attractions, behaviors, and experiences.

### **SEXUAL ORIENTATION AND STABILITY**

Some researchers have examined sexual fluidity in women by focusing on the stability of sexual orientation over time. For example, Savin-Williams et al. (2012) analyzed data from the National Longitudinal Survey of Adolescent Health (Add Health) to examine different sexual orientation identities and compare their differences over time. The researchers collected data through four different waves (time periods) of interviews administered approximately six years

apart. Interviews in Wave 1 and 2 assessed self-reported romantic attractions and sexual behavior, while Waves 3 and 4 assessed sexual orientation identity. The primary sample of 12,105 participants was nationally representative while an oversample of 8,640 specifically included participants from “target” groups (including “siblings, disabled individuals, highly educated blacks, Chinese, Puerto Ricans, and Cubans;” p. 104). Researchers found that the majority of the young adults identified as 100% heterosexual, that the second largest group was “mostly” heterosexual, and that this second group was larger than all of the other sexual minority identities combined. In addition, they found that sexual orientation primarily remained stable among the overall sample participants. However, the proportion of heterosexual individuals did decrease between waves, meaning that there were some heterosexuals who shifted orientations. The researchers also found that those within the bisexual category that changed sexual identity categories tended to move towards heterosexuality rather than towards a sexual minority. While Savin-Williams et al. (2012) found that a stable sexual orientation identity was more prevalent than change during the six-year period, they also found a small number of participants whose orientation did shift over time.

Mock & Eibach (2011) also examined the stability of sexuality in the U.S. but included 2,560 participants (54% women) over a 10-year period, with 97.42% initially reporting a heterosexual identity. The sample was nationally representative, including a large majority of English speakers while also oversampling adults in five different urban areas. The researchers surveyed participants via mail and interviewed them over the phone at two different waves. It was found that heterosexuality was the most stable sexual orientation, and that sexual minority orientations (both homosexual and bisexual) were all equally unstable and significantly less stable than heterosexuality. Nonetheless, 2.15% of the total sample reported a different sexual

orientation identity by Wave 2. A more detailed breakdown of the women's orientation stability revealed that 1.36% of the heterosexual women and a little over 60% of both the homosexual and bisexual women changed identities by Wave 2. These results lead researchers to suggest that fluidity in sexual orientation may be a pattern that better describes sexual minority women rather than heterosexual women.

Dickson et al. (2013) also focused on the capacity for change in sexual orientation through a 15-year-long study. The study consisted of a baseline sample of 1,037 individuals within a New Zealand birth cohort (representing slightly higher levels of educational achievement and fewer people of Maori ethnicity when compared to the rest of the community). The participants were interviewed every two years using a computer-based questionnaire. In agreement with previous studies, the researchers found that changes in the dimensions of sexual attraction, sexual experiences, and sexual identity were most common or likely among those with mixed attractions and experiences (bisexuals) rather than exclusive attractions and experiences (heterosexuals and homosexuals). However, the researchers of this study concluded that, although change was found to be less common than a stable sexual orientation, there was evidence that sexuality can change and fluctuate throughout the life course, and that these fluctuations are not abnormal.

## **SEXUAL ORIENTATION AND FLUIDITY IN ATTRACTIONS AND BEHAVIOR**

The studies reviewed in this chapter take us a step further in understanding what proportion of women are experiencing sexual fluidity because, in them, researchers investigate women's sexual attractions, desires, and behaviors that may be driving changes in self-identification. This means that these studies incorporate both fluctuations in women's thoughts



and behaviors and changes in their sexual identities rather than focusing solely on the stability of sexual orientation over time.

### ***Percentages of sexual fluidity among mixed orientation samples***

Epstein et al. (2012) wanted to confirm Kinsey's hypothesis that sexual orientation lies on a spectrum. A sample of 17,785 participants completed both self-report measures (assessing sexual orientation, attraction, behavior, and fantasies) in order to see where they fell on Kinsey's spectrum. The sample consisted of mainly white (91.4%) Americans with varying educational backgrounds. Through the researchers' calculations of the data, only 6.2% of the entire sample produced a perfect heterosexual score and only 1.2% produced a perfect homosexual score. Thus, 92.6% of the sample fell somewhere in the middle of the continuum, strongly challenging the heteronormative assumption that more than 90% of the population is straight.

Besides confirming Kinsey's hypothesis, Epstein et al. (2012) also measured the degree of sexual fluidity each participant reported. The study combined each participant's other-sex test scores with the reverse-scored calculations of the same-sex test scores to produce a Sexual Orientation Range score (SOR). They found SOR scores much higher for bisexuals ( $M = 7.0$ ; SD not provided) than for heterosexuals and homosexuals combined ( $M = 3.3$ ), indicating more non-exclusivity and sexual fluidity among bisexual individuals. The researchers commented that the higher one's SOR score, the more likely that one, "in one sense or another" will have changed one's orientation (p. 1363). Although SOR scores in this study fell on the lower end of the scale, the majority of people in their sample still indicated fluidity in their sexual attractions, desires, behaviors, and experiences.

Richters et al. (2014) asked 20,094 Australian men and women between the ages of 16 and 69 to discuss information regarding their sexual identity and sexual behavior. Among their sample, 10,037 were women with 96.3% claiming a heterosexual identity. Demographic data also were weighted in order to make the sample representative of the Australian population. While considering responses from all of the women in the sample, the researchers found that 11.9% had attractions they defined “predominantly” for men, and 1.4% reported that their attractions were for both men and women. Regarding the women’s sexual experiences, 12.4% claimed their sexual experiences were with men and women.

The women in the sample were then further divided into three groups identifying as either heterosexual, homosexual, or bisexual (Richters et al., 2014). Within each of the groups, women’s sexual attraction preferences and sexual experiences were recorded. Of the 9,669 women who claimed a heterosexual identity, 11.9% said that they had experienced attractions for both men and women, with almost as many having sexual experiences with both. Of the 122 women who claimed a homosexual identity, more than half said that they had experienced attractions for both genders, and surprisingly some stated that their sexual attraction preferences were only for men. In addition, over 70% said their sexual experiences included both genders, and some again said that their sexual experiences were only with males despite identifying as lesbian. Lastly, among the 224 women who claimed a bisexual identity, almost all said that their attractions and experiences were for both genders, and surprisingly not one said that their attractions were solely for women. Their results imply that both heterosexual and sexual minority identities experience fluidity in their sexual attractions and desires but to different degrees.

Another example comes from McCabe et al. (2011), who examined same-sex tendencies in attractions and activity among a cohort of American teenagers and young adults. The sample

was representative of “the U.S. household population” (p. 144). Through the 2002 National Survey of Family Growth (2,688 young people from 15 to 21 years old), the researchers concluded that a significant proportion heterosexual-identifying youth had engaged in same-sex activity. When focusing on the 1,345 women in the sample (64.4% white, with 86.6% identifying as heterosexual), 5% of the heterosexuals claimed to have had same-sex sex. Among the homosexual and bisexual women, 82.5% claimed to have had other-sex sex. After interpreting their results, the researchers claimed that their calculations were in line with a previous estimate that suggested that “more than 520,000 young men and almost 1.5 million young women aged 15-21 have engaged in consensual same-sex activity, and that the majority of them do not categorizes themselves as homosexual or bisexual” (U.S. Census Bureau, U. S. population clock, 2007; as cited by McCabe et al., 2011, p. 149).

### ***Percentages of sexual fluidity among exclusive orientation samples***

Many of the studies on sexual fluidity have focused specifically on sexual minority groups (which includes those that identify as bisexual, gay, or any other label besides heterosexual). This may occur because sexual minority groups have been found to experience more fluidity in their sexual attractions and behaviors than heterosexuals (Diamond, 2008; Mock & Eibach, 2011; Nigel et al., 2013). Diamond (2008) suggests that a confounding factor for why empirical studies have found sexual minority identities to be more fluid in their sexuality includes the idea that sexual minority individuals may be more willing to embrace fluctuations and/or report them to interviewers (Diamond, 2008). Nonetheless, many studies have also specifically focused on sexual minorities because sexual minorities have been found to be

underrepresented and even misrepresented (through oversampling) in samples when they are not studied independently (Diamond, 2008).

One study that focuses on sexual fluidity among sexual minority-identified women includes Diamond (2008). The 10-year study consisted of 79 North American women (85% white; 43% lesbian, 30% bisexual, and 27% unlabeled) between the ages 18 and 25. The first round of interviews included questions regarding the women's sexuality, early memories of their same-sex feelings and experiences, current attraction preferences, friendship and romantic relationship information, and their interpretations of the extent to which their sexuality might change in the future. Furthermore, to accumulate concrete data, Diamond (2008) also asked the women to rate and record how many attractions were directed towards men and women on a daily basis, as well as to keep track of how many men and women they came into sexual contact with (with sexual contact defined as "more than kissing"; p. 60).

Through numerous interviews, Diamond (2008) found fluctuations in sexual orientation identification. In the first two years, two thirds of the women changed sexual identities, with most changes occurring among the unlabeled group, from which participants transitioned to either bisexual or lesbian. However, 10 of the lesbians relinquished their identities, with 5 taking up an unlabeled identity and 5 taking up a heterosexual identity by the second interview. Between the second and third interviews, another 25% changed identities, and the changes again were in all directions. Between the third and fourth and fourth and fifth rounds of interviews, again one third of the participants changed identities. By the conclusion of Diamond's study, over two thirds of the sample had changed their identities at least once, with the smallest and most atypical group comprising those who stayed completely consistent and unchanging in their sexualities. Additionally, two thirds of the women considered themselves (at one time or

another) as having an unlabeled identity throughout the study, meaning that the unlabeled category was the single most popular identity label within the study. Overall, Diamond reported that 67% of her entire sample changed sexual orientation labels at least once (most commonly to the bisexual or unlabeled label; as cited by Morgan. 2012).

Katz-Wise & Hyde (2015) reports more recent results similar to those of Diamond (2008). Their sample included undergraduate students who completed a survey in their psychology course from a large, Midwestern university in the U.S. and who also claimed a same-gender orientation. Within a group of 188 young adults ages 18-26 years old with same-gender orientations, Katz-Wise & Hyde conveyed that 63% of the women reported sexual fluidity in their sexual attractions. However, only 48% of those women said that their fluctuations in attraction resorted in a change of sexual orientation identity. Additionally, of the women who changed identities, 21% changed their identity more than once, with a mean number of changes 2.58.

Although fewer in number, studies have also examined sexual fluidity in heterosexual samples. One such study is Vrangalova & Savin-Williams, 2010; as cited by Morgan 2012) which found that among 243 ethnically-diverse, heterosexual-identified college women, 84% indicated fluidity in their attractions, fantasies, and behavior to members of their same sex. Seventy-nine percent of the women reported at least a small amount of same-sex attraction and 53% reported at least some fantasies involving same-sex members. Additionally, of the women who said they had any sexual experience, 14% stated they had had a same-sex partner. Hoberg et al. (2004) also found similar results in their 528 heterosexually-identified sample of college students, with 16% of the women in their sample reporting same-sex fantasies and 7% reporting same-sex behavior (Vrangalova & Savin-Williams, 2010).

### *Percentages of sexual fluidity among specific orientation samples*

Researchers have also suggested that the fluidity observed in sexual attractions and behavior may be the result of missing identity categories (Savin-Williams & Vrangalova, 2013). For example, although Katz-Wise & Hyde (2015) found their participants to experience fluctuations in their sexual attractions and identities, the researchers suggested that this may be the result of a missing “mostly heterosexual” identity label. The researchers argued that this category may be its own distinct sexual identity subtype and that previous labels are too elusive and unrepresentative of all types of individuals’ sexual orientations.

Numerous other researchers have suggested that a “mostly heterosexual” identity label may be its own distinct sexual identity. For example, Savin-Williams & Vrangalova (2012) recruited 1,784 individuals (with a broad geographical distribution across the U.S. in which 79% of the sample were white, and 73% reported having experienced some college) through Facebook to fill out a survey that assessed sexual orientation and sexual behavior. The study included 803 women that reported either an exclusive or mixed (mostly straight, bisexual, mostly gay) sexual identity (73% identifying as exclusive to one sex, 27% as mixed). The researchers calculated correlations between the data for sexual orientation, sexual attractions, and number of sexual partners. The researchers found that the mostly heterosexual and mostly homosexual individuals (although lower in frequency) both differed in relation to bisexuals and heterosexuals/homosexuals in both attractions and number of partners. The researchers also found that of all of the women in the sample, only 41% of the total were exclusive on all measures. Savin-Williams & Vrangalova (2012) concluded that “sexual orientation is a continuously distributed characteristic” (p. 96), and that if it were to be categorized, may be composed of a lot of different units or subgroups. The researchers of the study also stressed the

point that experience of same-sex sexuality did not make subjects necessarily experience less other-sex sexuality.

Lastly, Savin-Williams & Vrangalova also conducted a review of 60 studies (including both large and nationally or regionally representative samples as well as small, non-representative and college samples) published between 1994 and 2012, to assess the presence of this suggested additional category titled “mostly heterosexual” (Savin-Williams & Vrangalova, 2013). These “Kinsey 1s” were defined by the review as a group of heterosexuals that experienced a “touch of homosexuality,” but at the same time did not let their homosexuality affect their level of heterosexuality. Although the researchers comment that this additional group could just be a mix of both heterosexuals and bisexuals (i.e. an overlap, suggesting fluidity in heterosexual and bisexuals’ sexuality), the study concluded through analysis that individuals whose sexual identity might be best described as “mostly heterosexual” were a substantial prevalence in the population, and that their orientation was both relatively stable over time and was deemed subjectively meaningful to them.

### **CHAPTER III: WHAT FACTORS INFLUENCE WHETHER WOMEN ACT ON SEXUAL FLUIDITY?**

In the previous section, we saw how the data indicated approximately how many women have experienced sexual fluidity. But newer research has gone further beyond the simple question of “how many,” and has tried to pinpoint exactly “who” is embracing this fluidity. “Who” in this sense refers to individuals with diverse factors or individual differences, and researchers have tried to discover which of these factors or differences influence women’s expression of sexual fluidity. Whether a woman acts on her capacity for fluidity depends on a multitude of factors, both biological and environmental, internal and external, and I have investigated these factors in order to expose some of the ones that make women more or less likely to embrace fluidity.

There are many associations between sexual fluidity and individual demographics, although most of the research focuses specifically on the association between sexual fluidity and social or societal aspects (such as religious affiliation, acceptance by the community, perceptions of same-sex activity). I have organized the research into groups of studies focusing on some of the psychological, biological, and social influences on sexuality, in order to more clearly reveal the types of factors that have been found to potentially be associated with women’s expression of sexual fluidity. However, it is important to keep in mind that the factors I discuss are not causal, and have only been hypothesized to be associated with women’s experienced degree of sexual fluidity.



## **PSYCHOLOGICAL INFLUENCES**

Psychological factors play a role in the amount of sexual fluidity women experience. For example, certain personality traits are more likely associated with a higher degree of sexual fluidity. In addition, developmental aspects, including the age of the woman or the generation she was born in, also have been found to play a role in women's expression of sexual fluidity. Some of these studies are reviewed below.

### ***Personality***

Stief, Rieger, & Savin-Williams (2014) conducted a study to focus on the relationship between sexual orientation and personality. The study focused on bisexuals, hypothesizing that personality traits specific to bisexual individuals enabled them to experience sexual behavior outside of their sexual response systems. The study had two subparts. The first examined the relationship between sexual orientation, sexual sensation-seeking, and sexual excitability, and the second assessed sexual orientation, sexual curiosity, and Big Five personality characteristics (which includes five personality factors: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). The goal of both of the studies was to understand if personality plays a role in bisexuality.

Initially the sample included 828 participants (65% white between the ages of 18 and 39) who completed an online questionnaire that contained both sexual orientation and sexual sensation-seeking elements. Within Study 1's sample, 64% were women, with over half claiming exclusivity in their sexual behaviors or desires. After comparing responses from participants with exclusive sexual orientations to those with mixed, the researchers concluded that bisexuality was

associated with elevated levels of certain personality traits, specifically sexual sensation-seeking and sexual excitability.

Study 2 consisted of 655 participants (58% white between the ages of 18 and 50) who completed an online questionnaire that asked questions relating to sexual orientation and sexual curiosity, as well as incorporated the Big Five personality traits. Of the women of their sample, using a 7-point Kinsey Scale to measure sexual orientation, nearly 50% of the women self-identified as exclusively straight or exclusively gay. Through analyses of the data it was concluded that bisexuality was also associated with higher levels of sexual curiosity. In relation to the participants' Big Five personality traits (measured through the completion of the Ten Item Personality Measure), the researchers concluded that the relationship between sexual orientation and sexual curiosity was not generally affected when taking into account Big Five personality traits. However, Extraversion was found to be the sole significant covariate among the Big 5, with Conscientiousness "close" to significance (p. 196).

Among their total sample, Stief, Rieger, & Savin-Williams (2014) concluded that bisexuality was associated with elevated levels of personality traits in relation to sexual sensation-seeking, sexual excitability, and sexual curiosity, with the strongest levels among traits that motivated novel sexual behavior. Thus, bisexual participants in their study were found to have higher levels of both sexual sensation-seeking and sexual curiosity than the heterosexual and homosexual participants, but only bisexual women (and not bisexual men) were found to have higher levels of sexual excitability. Furthermore, separate male and female analyses revealed that all effects were larger in women, although no sex differences were found to be significant in relation to sexual curiosity. However, because their reported effect sizes ranged

between medium and small for all of their results, the researchers concluded that personality probably only plays a small role in bisexuality.

Guerim, Carvalho, & Lara (2015) is another study that investigated the role of personality, but focused specifically on the relationship between an individual's temperament and sexual orientation. Their study consisted of 16,751 subjects (69.1% white, with 79.9% having at least a high school degree) between the ages of 21 and 45. Of the women (69.4%), more than half indicated exclusivity in their sexual orientation. The researchers accumulated data through an online survey titled The Brazilian Internet Study on Temperament and Psychopathology (BRAINSTEP) and assessed affective temperaments through the affective section of the Brazilian Portuguese version of the Affective and Emotional Composite Temperament Scale (AFECTS). The AFECTS included twelve affective temperament profiles for the participants to choose from, as well as 60 items to assess emotional traits. These 60 items included questions across the following ten dimensions: "volition, desire, anger, fear, caution, sensitivity, coping, control, anxiety, and stability" (p. 380).

The researchers found that there were some differences regarding temperament and emotional traits when comparing sexual orientation groups. Regarding women's emotional traits, they concluded that "pure" heterosexuals showed significantly more volition, control, coping, stability, and caution, and less sensitivity and less desire than all other groups. Additionally, unstable (cyclothymic and volatile) and externalized (disinhibited and euphoric) women more often reported bisexuality and homosexual experiences or fantasies. The researchers also found that the most pronounced differences in temperament arose between bisexuals and exclusive heterosexuals. This further implied that exclusive heterosexuals were found to be more similar in temperament to exclusive homosexuals rather than bisexuals.

The “heterosexuals with homosexual experience,” or the group of individuals falling between bisexual and heterosexual in their sexual orientation (36.9% of the women’s sample), were observed to share similar temperaments similar to those of exclusive homosexuals, and both of their temperaments fell in-between bisexuals and “pure” heterosexuals. This means that heterosexuals with homosexual fantasies or experiences had temperaments more similar to non-heterosexuals (specifically those with an exclusive homosexual orientation) than “pure” heterosexuals. The temperaments of those labeled “heterosexuals with homosexual experiences” were also found more frequently to be cyclothymic, volatile, disinhibited, and euphoric, as well as less frequently stable and internalized. Overall, the researchers of the study concluded that “sexual orientation was associated with distinctive emotional trait patterns and affective temperaments” (p. 384).

### *Age*

Age is another aspect that has been examined in relation to one’s expression of sexual fluidity. Sexual fluidity has been observed to fluctuate over time, and this fluctuation occurs not only on an individual level, but also on a societal level as a whole across time periods and generations (Dickson et. al, 2013; Twenge, Sherman, & Wells, 2015). Sexual fluidity has also been hypothesized to be highest during late adolescence and early adulthood because of the numerous developmental processes (including identity development) that occur during that time, as well as the typical environment young adults find themselves in (for example, the college scene has been deemed an environment more “acceptable” for sexual experimentation; Morgan, 2012). Below, I discuss some empirical studies that have focused on particular components of sexuality and age in order to further expose the association between age and sexual fluidity.

Dickson et al. (2013) conducted a longitudinal study to examine the relationship between changes in sexual attraction, sexual experiences, sexual identity and age. The study included an original cohort of 1,037 participants born in Dunedin, New Zealand. The study attained data through questionnaires administered when the participants were 21, 26, 32 and 38 years old. The study had two dimensions for investigating age. The first dimension included the mere reporting of sexual attraction, sexual experiences, and sexual identity status at each of the four age intervals. The study's second dimension included the analysis of changes that occurred in sexual attraction, experiences, and identity between intervals.

Women in the sample reported the highest same-sex attractions when 26 years old, and the highest same-sex experiences (within the last 12 months) between the ages 21 and 26. Sexual identity was only assessed at ages 32 and 38, but the number of women claiming a same-sex identity remained the same (3.7% at both 32 and 38). In regards to changes in sexual attraction, the women of the sample reported the most changes in their attractions at ages 26 and 32. Changes in attractions were found to move in all directions, with the most common change by one level. However, it was noted that women reported movement towards same-sex attraction between the ages of 21 and 26, and moved slightly away from it between the later assessments. In regards to changes in sexual experiences, the women reported the most changes in their sexual experiences between the ages of 26 and 28 than 32 and 38. Although the total percentage of women claiming a same-sex identity remained the same, 2.6% of the women experienced a change in identity between ages 32 and 38, which means that changes in identity did occur despite the fact that the total number of those claiming a same-sex identity remained constant. Through the comparison of these percentages, Dickson et al. (2013) provided some insight exposing the fluid nature of sexuality and its association with age over time.

Other studies have examined age-related changes in sexual orientation identity but did so while focusing on a specific cohort. For example, Ott et al. (2011) examined fluidity in sexual orientation specifically using a sample of adolescents and young adults. The study's cohort included 13,840 youth between the ages of 12 and 25, (baseline number of 9,039 girls) who were surveyed across four waves. In general, 20% of the girls at some point or another described themselves as a sexual minority, with 2% of them reporting an "unsure" identity. Analysis of the data revealed that girls' self-identified sexual orientation did change over the 10-year study, with the highest change occurring in girls claiming the "mostly" heterosexual title, which rose from 4.0 to 12.3%. However, the researchers concluded that they did not find age to predict changes in orientation identity, in that changes occurred at similar rates throughout all of the periods.

Avertt, Yoon, & Jenkins (2012) also examined the relationship between age and sexual orientation, except focused on an older sample of participants. The retrospective study surveyed 394 lesbians over the age of 50 (with an average age of 63.06) about their past romantic relationships, sexual relationships, and erotic fantasies. The researchers concluded that these older lesbians experienced fluidity in all three sexuality elements throughout their lives, despite strong current identification with being lesbian. In relation to sexual attractions, the average woman in the sample reported recognizing their same-sex attractions just over 18 years of age. However, 6.7% reported not recognizing the attractions until 41 years or older. In relation to sexual experiences, the majority of the women reported experiencing their first same-sex relationship before the age of 20. Nevertheless, 13.9% reported experiencing their first lesbian relationship after the age of 40. Although women were found to experience their first same-sex attractions and experiences whether young or old, the majority of the sample experienced them during young adulthood. Their results remained in line with the common hypothesis that sexual

fluidity and same-sex experiences occur more often during young adulthood, as a result of the developmental process (Morgan, 2012).

### ***Generation***

Another aspect that may influence the prevalence of sexual fluidity includes generation or era. Twenge, Sherman, & Wells (2015) developed a study that analyzed changes in American adults' reported same-sex sexual experiences over time. The study consisted of over 30,000 participants (age range: 18-96) interviewed between the years 1972 and 2014. It was observed that the number of people that had experienced at least one same-sex partner doubled between the 1990s and 2010s, specifically from 3.6 to 8.7% for women. There was also an observed dip in women's reported same-sex sexual experience between 1989 and 1991, but by 2014, same-sex sexual experience tripled, increasing to 10.2%. In relation to age, women were found to be most likely to have a same-sex partner between the ages 18 and 30, with declining occurrences thereafter. The researchers concluded that when separating age, period, and cohort, their results were primarily due to period. The results of this study showed that fluctuations did occur in number of same-sex partners over time and at certain ages.

## **BIOLOGICAL INFLUENCES**

### ***Genetics***

Researchers have also proposed genetics-based theories for why heterosexual women may deviate from their heterosexual orientation (Burri, Spector, & Rahman, 2015; Apostolou, 2016). For example, Burri, Spector, & Rahman (2015) analyzed genetics and their role in sexual atypicality and specifically female homosexuality. Within a sample of 498 female twin pairs,

data were collected through Kinsey scale ratings, analyzations of particular gene expressions and phenotypes, along with univariate and multivariate twin modeling analyses. The results revealed three main findings: that sex atypicality (measured through childhood gender nonconformity assessments) was associated with female homosexuality, that more masculine women were not only more likely to be nonheterosexual but were also more likely to have greater numbers of sexual partners throughout their lifetime, and that both of these relationships were “influenced by common genetic factors via a single shared latent phenotype, with a heritability of 40%” (p. 1009). The researchers concluded that their results were consistent with the idea that although female homosexuality is deemed a fitness-reducing trait (since two females cannot biologically produce offspring), the trait has the ability to be maintained over time. They imply that genetic factors may influence women’s sexual behavior, in both the type experienced (other-sex or same-sex sexual behavior) and amount of sexual partners throughout their lifespans.

Others have researched this connection between the maintenance of a particular trait or gene over time and variations in sexual orientation. For example, a review by Apostolou (2016) takes the Weak Selection Pressures Hypothesis theory and applies it to sexual orientation, stating that a mutation in an allele that influences sexual orientation could have arisen, and that because of weak selection pressures, could have remained in the population for many generations. Apostolou (2016) further states that over time, and assuming that the allele has a positive mutation rate, “it is expected that mutant alleles that predispose for various degrees of deviation from exclusive heterosexual orientation will accumulate in the population in relatively high frequencies, resulting in a distribution of female sexual orientation that exhibits a higher variance” (pg. 4). She believes that this theory can be used to understand how women have begun to experience fluidity in their sexual attractions and behavior, and that there is an



evolutionary or genetic component to the sexual fluidity observed in women. Toward the end of her review, Apostolou (2016) also comments on the idea that all people have genes that predispose them for attraction towards women, but that these genes are usually expressed when found in a body with the Y chromosome. However, Apostolou (2016) points out that a mutation in an allele can occur, which would encourage attraction to women irrespective of whether or not a Y chromosome was present. Essentially, Apostolou (2016) speculates that genetics can influence sexual attraction preferences, and that genetic influence (in combination with other factors) could be a potential reason for why some women experience varying degrees of sexual fluidity.

## **SOCIAL INFLUENCES**

Because environmental influences affect whether sexual fluidity is expressed, researchers have tried to investigate what social aspects more or less likely influence sexually fluid thoughts and behavior. For example, not only has research compared fluid individuals with fixed individuals in order to see how they are similar or different, but it has also examined the relationship between sexual fluidity and individual demographics. Again, although I do not provide a complete review of the literature, I have chosen to discuss some studies that have examined the relationship between social or societal influences and women's expression of sexual fluidity. Doing so allows us to see how interconnected external elements and women's sexuality are and how dependent sexual fluidity actually is on a woman's social or environmental circumstances.

### *Comparing fluid individuals to fixed individuals*

Ross, Daneback, & Mansson (2012) created a study to observe the specific differences in demographic characteristics that may be associated with sexual fluidity. The study separated 1,913 young men and women from Sweden into two groups (fixed and fluid) based on their web questionnaire responses regarding sexual attractions and experiences. The study referred to Ross & Paul (1992)'s definitions of fixed (exclusivity in attractions, including both exclusively heterosexual and exclusively homosexual individuals) and fluid (typically rendered the mostly straight, bisexual, and mostly gay identities) as a guide when separating the participants into the two groups.

Among the 1,250 women in the sample, fluidity trends were found in both fixed and fluid women's histories, and this fluidity also varied when considering demographic characteristics. For example, after the participants were asked about their sexual histories, it was calculated that the women of their sample (both fluid and fixed) experienced 12.5% fluidity in regards to the people they fell in love with, 15.3% fluidity in relation to who they had engaged in sex with, 35.1% fluidity in relation to who they had been attracted to, and 49.8% in relation to who they had sexually fantasized about. This meant that fluidity was experienced more within the women's sexual fantasies than on matters such as when falling in love with someone.

The researchers then separated the women and compared them by the two groups they were assigned to (fluid or fixed). The researchers reported group results based on where women were living. Fluid respondents were more likely to report that they lived in a major metropolis, while fixed respondents were more likely to report that they lived in a town with less than 10,000 people. When questioned about who the women were living with (alone, with parents, with a partner, or with a friend), fluid respondents were more likely to be living alone or with a friend,

while fixed respondents were more likely to be living with their parents. Finally, when taking into account religion, fixed respondents were more likely to be very religious or more religious in general than fluid respondents. From analyzing these statistics, the researchers concluded that women that were living in a place with a larger population, women that were less religious, and women between the ages of 25 and 35 experienced the highest levels of fluidity.

Knight & Hope (2012) is another study that focused on the association between specific demographics and sexual orientation. The study included 263 self-identified heterosexual college students, with the goal to look at variables in specific relation to a heterosexually-identified cohort, because the researchers felt that the majority of research around this topic typically used samples of solely sexual minority individuals. However, although the sample consisted of only self-identified heterosexuals, the sample was divided into two groups, those who had experienced fluidity in their sexuality and those who had not. Of the two groups, those that had endorsed same-sex attraction, fantasy, and/or behavior (82 individuals, 31% of the sample) were labeled the H+ group, and those who had not (181 individuals, 69%) were labeled the H group. The study specifically asked all of the participants questions in relation to their demographics (age, gender, etc.), sexual orientation, attitudes toward the LGBT community, religious measures (religious affiliation and scriptural literalism), political beliefs, and their emotional well-being (including sexuality related self-esteem and positive and negative affect questions), and then compared the two groups.

After comparing statistics, the H+ group and H group were found to not significantly differ on any general demographic measures (including age, race, ethnicity, and relationship status). Although 81% of the entire sample reported some religious affiliation, no difference was found between H+ and H on religious affiliation. However, H+ individuals were found to have

less literalistic beliefs of the scripture than H individuals. When asked about political beliefs, H+ individuals were more likely to favor policies that supported the LGBT community (including specifically the legalization of same-sex marriage). An implication of this result is that H+ individuals may be more politically liberal than H individuals. Furthermore, no differences were found on any of the emotional well-being measures between the H+ and H group. The researchers concluded that although there were slight differences between the two groups in relation to demographics, no significant demographic differences were found.

### ***Geographical location***

Where a person lives has been found to be associated with whether that person embraces fluidity in his or her sexuality as well as a sexual minority identity (Swank, Fahs, & Frost, 2013). This idea implies that those who live in places that are more accepting of same-sex sexuality, or in more populated places, including large cities with more diversity, are more likely to embrace fluidity than those from smaller, less diverse geographical places. Swank, Fahs, & Frost (2013) created a study to focus on the association between sexual discrimination and geographical region. Their sample included 285 men and women identifying as either gay or bisexual who completed an online survey that assessed discriminatory experiences. The researchers also accumulated personal information from the participants including geographical location, gender, race, family income, and disclosure (whether they try to hide their sexuality or are highly public about their sexuality). Through descriptive statistics and a focus on spatial factors, the researchers concluded that geographic and locational factors were often related to amounts of experienced discrimination, with living in rural or small towns having the highest amounts of discrimination. Participants living in a Southern state were also more likely to experience higher

levels of discrimination (Swank, Frost, Fahs, 2012). However, these results were said to vary depending on the individuals' disclosure. Additionally, the researchers found that gay men and lesbians were found to not vary in the amount of discrimination they received, and that "affluent" sexual minorities as well as white sexual minorities experienced less discrimination (specifically in regards to employment opportunities and physical violence).

### *Community acceptance*

Another social factor that is often associated with geographical location's influence on same-sex sexuality includes the community's perceptions about same-sex sexuality (i.e. the community's amount of acceptance or discrimination). The public's stance on homosexuality has been hypothesized to affect the prevalence of same-sex attractions, desires, and behavior (Butler, 2005; as cited by Kuyper & Vanwesenbeeck, 2009). This implies that a more accepting or liberal social climate allows for more same-sex interactions to occur. Since the Dutch have been found to have a more positive stance on homosexuality, Kuyper & Vanwesenbeeck (2009) created a study involving 4,170 Dutch men and women (with a 28% survey response rate) between the ages of 19-69 in order to see if their specific sample had a higher prevalence of same-sex experience than other countries. The surveys administered assessed amounts of same-sex attraction, same-sex sex ever, same-sex sex recently, and same-sex self-identification. The responses from the surveys were compared to those from other countries, including the Netherlands (older responses from the years 1989, 1996, and 2002), Australia, the United States, Britain, France, and Canada. When comparing each country's percentages on the assessed measures, the Netherlands were found to score significantly higher on all measures than every other country, except when compared to the United States on the same-sex ever measure. These

results concluded that the Dutch were found to have higher prevalences of both same-sex attractions and behavior, which supports the idea that the accepting nature of a social climate as well as geographical location play roles in people's same-sex desires and experiences.

Another hypothesis for whether a person openly embraces or experiences fluidity is whether he or she "fears what others will think." Fear of rejection or discrimination from loved ones has been found to influence whether a person embraces or openly experiences fluidity or same-sex sexuality (Walker, 2014). To understand this fear, Walker (2014) developed a pilot study that focused on heterosexual women that seek out same-sex contact while trying to remain "undercover." Walker electronically interviewed 34 women in order to discover the reasons behind why these women do not openly pursue their same-sex attractions. Through extensive thematic analysis, three major themes emerged regarding why women said they were not open about this part of their lives, and they included: out of the desire to stay married, out of the belief that "girls don't count" as extramarital partners, and out of guilt or shame. Furthermore, Walker (2014) found the participants also did not want to be open about their fluidity in sexual attractions because they were both concerned about their public image as well as concerned that their loved ones would reject them if they were to ever find out. Walker (2014) is another example of a study that reveals how the community or social climate influences expression of sexual fluidity.

Although the community's attitudes towards sexual fluidity and same-sex sexuality influence women's sexual behavior, women's personal attitudes also play a role in whether or not they openly experience sexual fluidity. Preciado & Thompson (2012) assessed participants' self-identified sexual orientation and whether their sexual behavior reflected their self-identified orientation. The sample included 76 college-aged women who were all behaviorally bisexual but

identified as various orientations, including both exclusively straight and gay. The study defined behaviorally bisexual as experiencing any amount of same-sex and other-sex behavior, regardless of one's self-described sexual orientation. Through both the structured interviewing of participants and the completion of online questionnaires, the researchers found that individual differences in sexual identity exploration, uncertainty, commitment, and interaction affected the overall congruence in the relationship between sexual identity and sexual behavior.

More specifically, among the "mostly straight" identity category, the women who were more uncertain of their self-identification were more likely to identify as exclusively heterosexual. Furthermore, those in the "mostly straight" category that were highly exploratory of their self-identified orientation were also more likely to claim an exclusively heterosexual identity label. Their findings suggested that "mostly heterosexual" women with high levels of uncertainty and/or exploratory tendencies were comfortable maintaining a heterosexual identity even though they experienced behaviorally bisexual attractions and experiences.

Among the exclusively heterosexual identity category, identity uncertainty and disintegration were associated with a greater likelihood of identifying as exclusively straight (rather than gay), and this occurred in the women that also reported the greatest proportion of other-sex behavior. Among the "mostly gay" and "exclusively gay" categories, high identity certainty and high identity integration were both marginally associated with a greater likelihood of identifying as mostly/exclusively gay for women who had engaged in the greatest proportion of other-sex behavior (potentially implying that experiencing more of both made one more sure of one's sexual orientation). Although the study's findings do not prove the directionality of these effects, the researchers did conclude that individual differences (in relation to their own,

internal perceptions and insecurities) make a difference in how one chooses to self-identify, regardless of whether or not there is congruence between their label and their sexual behavior.

### ***Religion***

Religious affiliation is another factor that has been found to be associated with the amount of sexual fluidity an individual experiences. Because most religions are against same-sex sexuality (in that it is said to be a sin), researchers have examined religious status to see if more religious individuals are less likely to experience fluidity in their desires or same-sex attractions and experiences. Studies have examined not only religious affiliation (i.e. what religion the person identifies with), but have also broken down some of religion's components, including how literally a person interprets the Bible, and so on. For example, Wilkinson & Pearson (2013) examined whether growing up within a religious context influenced one's later amount of same-sex attractions and experiences. They specifically looked at the association between having a high school religious context and later sexual attraction, between a high school religious context and later sexual identity, and between high school religious attendance and same-sex sexuality later on in life. Data taken from three waves within the National Longitudinal Study of Adolescent Health (Add Health) were analyzed, and the researchers concluded three main findings within the women of their sample (between 5,517-5,545 total women): that women had a negative association between school religious context and reporting same-sex attraction, that women had a negative association between school religious context and reporting bisexual or flexible identities, and that school religious context was not a predictor for later homosexuality. However, the researchers did find a small positive association between school mean religious attendance and the likelihood of later reporting an exclusive homosexual identity. Essentially, the



researchers concluded that religiosity during adolescence does play a role in the individual's later same-sex attractions and experiences, as well as whether the individual embraces sexual fluidity.

### ***Participation in activities***

Because women's sexuality is more likely to be situation-dependent and is affected by societal factors (Diamond, 2008), Davis-Delano (2014a) created a study to examine what types of social activities allowed (or did not allow) for more same-sex relationships and attractions to occur. Through the extensive interviewing of 56 women and thematic analysis of their responses, eight characteristics of activities emerged that Davis-Delano separated into three categories: type of participants in the activity, social climate of the activity, and closeness of participants in the activity. Type of participants in the activity included the sex composition of the activity, which referred to both whether the participants were solely females, males, or mixed, as well as whether evident LGBT members were participating. Social climate of the activity included levels of homophobia or acceptance of the LGBT community, whether the climate emphasized heteronormativity, whether it contributed to greater appreciation of and comfort with women, and the gender reputation of the activity, including if it was perceived as a masculine, feminine, or neutral activity. Closeness of the participants included both the amount of time that the activity facilitated bonding with other women as well as whether the activity involved participants that were more similar than different in characteristics (thoughts, likes and dislikes, etc.). Davis-Delano (2014a) concluded that activities with these qualities were more likely to nurture same-sex attractions and relationships, and that participating in certain activities or being a part of various social groups did influence sexuality-based perceptions and behavior.

Davis-Delano (2014b) also conducted another study that focused on participation in sports and whether or not doing so influenced a woman's same-sex sexual attractions and/or relationships. Her sample included 56 women (84% white with 90% middle class) who had had at least one same-sex relationship, with ages ranging from 18 to 60's. Of her sample, half reported that they engaged in sports in a substantial matter with the other half reporting either engaging in sports to a minimal degree or not engaging in any sport. Through thematic analysis of the participants' interviews, Davis-Delano (2014b) concluded that sports both nurtured, and to a lesser degree hindered, same-sex attractions and relationships. Davis-Delano (2014b) found that the following factors all played a role in the nurturing of the women's same-sex desires and attractions: sex-segregation of the sport, lesbian and bisexual women being present on the team, acceptance of same-sex sexuality on the team, amount of time spent with the team (facilitating emotional bonds), being immersed with similar people (constantly spending time with people that like the same things that you do), the gender reputation of the sport (some sports are deemed more feminine or masculine than other sports), and an accepting coach. Davis-Delano (2014b) further concluded that whether the team was accepting of sexual diversity and had members on the team affiliated with a sexual minority, combined with excessive amounts of time spent together and emotional bonding instances with similar people, all played a role in the development of same-sex attractions and relationships. However, Davis-Delano (2014b) also found that participation in sports can hinder same-sex attractions and relationships mainly because of homophobia or the fear of appearing too masculine. Davis-Delano's results helped to establish how being involved in sports can both positively and negatively influence the development of same-sex sexuality or degree of sexual fluidity one embraces or experiences.

### *Pressures to engage*

Popular culture (and what is considered “trendy”) is also an important element to consider when thinking about how social influences affect expression of sexual fluidity. For example, the media has been found to influence sexual socialization, and exposure to sexual material and themes influences one’s likelihood of engaging in those portrayed sexual events (Ward, 2003). Although same-sex interactions can occur without any exposure to same-sex sexual media, popular culture and current trends all play roles in the expression of women’s fluidity in their sexuality.

Yost & McCarthy (2012) investigated why some women engage in same-sex behavior even though they claim to be exclusively heterosexual. The study was two-fold, with Study 1 finding that, of 196 heterosexual women in their sample, over one quarter (26.7%) admitted to having kissed a girl in a social setting. Then in Study 2, Yost & McCarthy (2012) specifically singled out and assessed the participants who had kissed a girl at a college party. In Study 2’s sample, 77 women filled out online questionnaires, and thematic analysis was performed to uncover themes for why these participants engaged in same-sex behavior. Through qualitative analyses of the social context, five major themes were found, including that the women participated because they: felt pressured to do so (nearly all claimed this), were intoxicated (all stated alcohol was involved), felt it was normal (termed “heterosexism,” or the idea that kissing another girl at a party in college is “normal” behavior), felt it was just a funny thing to do (nearly half felt it would be humorous), and/or felt it was just something you did in college (“it’s just college,” and this kind of behavior or experimentation is only acceptable in college). In addition, when asked about the women’s specific motivations behind committing the act, over half said that they did so for a male’s attention, a majority said they did so “for fun” or “because I was

drunk,” and 23% stated they did so for sexual experimentation. Yost & McCarthy (2012) concluded that regardless of what the women’s motivations were behind their same-sex interactions, their study provided evidence for sexual fluidity because it showed that women’s same-sex behavior was ultimately influenced by their social situations.

In agreement with Yost & McCarthy (2012)’s conclusion that women kiss other women in public for men’s attention, researchers have also questioned whether women experience sexual fluidity on their own accord or if this is just the result of pleasuring men. The term “performative bisexuality” has been given to this hypothesis, and is defined as “engaging in homoerotic acts with other women, usually in front of men and most often in the context of social settings like fraternity parties, bars, clubs, and other crowded sexualized spaces” (Fahs, 2009, p. 432). Fahs (2009) focused on this concept of performative bisexuality within a sample of 40 women (56% heterosexual). Through self-reported responses, she found that of the heterosexual women, 69% reported some same-sex experiences or attractions, with only 31% saying that they never had. However, through thematic analysis and interpretations of her qualitative data from the individual interviews, Fahs (2009) concluded, similarly to Yost & McCarthy (2012), that the same-sex behavior these women experienced was often in front of men, for men’s approval, or for men’s sexual arousal.

## CHAPTER IV: DISCUSSION

The goal of this paper was to reveal three main findings: how many are experiencing sexual fluidity, who is experiencing sexual fluidity, and what factors more or less influence the likelihood of experiencing sexual fluidity. To answer these questions, I divided the literature into three sections, including:

1. a section focusing on the history or evolution of women's sexuality paradigm over time as well as a full definition of sexual fluidity and to whom it best applies,
2. a section covering what proportion of women have experienced it,
3. a section focusing on the biopsychosocial factors that have been hypothesized to influence the degree of experienced sexual fluidity.

Separating the literature into these parts clarifies the observed heterogeneity in women's sexuality (see Appendix, p. 68).

In order to understand what proportion of women are experiencing sexual fluidity, I first conducted a literature review of studies that specifically observed the stability of sexual orientation over time. Although a woman can experience sexual fluidity without changing her sexual identity label, I began with analyzing studies that reported how many people switched identities, because a change in orientation status automatically means that at least one event or instance of sexual fluidity took place.

In general, when observing stability of sexual orientation over time, research has found that sexual orientation is more likely to remain stable than change (Savin-Williams, 2012; Mock & Eibach, 2011; Dickson et al., 2013). Researchers of these studies have been able to generalize this finding due to their inclusion of large, longitudinal data from databases deemed nationally representative of the population. For example, Mock & Eibach (2011) calculated that only a little

over 2% of their total sample reported a change in sexual orientation by their second round of data collection. However, fluidity in sexuality may be more prevalent than the studies examining stability in sexual orientation describe, due to an incongruence between individuals' behaviors and their identities, because deviations from an individual's innate sexual orientation can occur regardless of whether the person re-identifies with a new sexual identity label (Diamond, 2008). Furthermore, change in sexual orientation is not the same as sexual fluidity.

Another observation of Mock & Eibach (2011) was that the majority of individuals that switched orientations in their sample identified as a sexual minority (1.36% identified as heterosexual, whereas 63.3% identified as homosexual and 64.71% bisexual). This implies that change in orientation may be more likely to occur among sexual minority individuals. Other studies have also found this discrepancy in sexual fluidity between sexual orientation groups, concluding that sexual minority individuals are more likely to experience a change (or changes) in their sexual orientation. More specifically, it has been proposed that those with mixed attractions and experiences (fluid or bisexual individuals) are most likely to experience changes in sexual orientation than those with exclusive attractions and experiences (heterosexuals or homosexuals; Dickson et al., 2013; Diamond, 2008; Mock & Eibach, 2011; Nigel et al., 2013). However, the fact that those in sexual minorities have been found more likely to report to researchers their fluidity or change in identity may be a confounding factor for this observed pattern (Diamond, 2008).

Because we cannot rely solely on the stability of sexual orientation over time as a measure of fluidity (because of the subjectivity of the matter; for example, people can be behaviorally bisexual but still identify as exclusively heterosexual), other studies have assessed sexual fluidity through different means. Most of these studies rely on self-report, collecting

subjective data through interviews or questionnaires about one's sexual desires, fantasies, preferences, attractions, behaviors, and/or experiences. These studies have focused on mixed orientation samples (Ritchers et. al, 2014; McCabe et al., 2011) as well as exclusive orientation samples (Diamond, 2008; Katz-Wise, 2015; Vrangalova & Savin-Williams, 2010; Hoburg et al, 2013).

Within the studies incorporating mixed orientation samples, fluidity in sexuality was experienced among all orientation groups that were studied, although this varied by degree. For example, in Ritchens et al. (2014)'s sample, 96.3% reported a heterosexual identity, but only approximately 85% reported having exclusive sexual attraction preferences for—and/or experiences with—men. This meant that deviations from participants' initially-reported sexual orientation occurred, but to a minimal degree. When the researchers looked more specifically at the deviations, they found that a little over 10% of the heterosexuals had reported having attractions for and/or had experienced sexual interactions with both men and women. This implied that even among those women that identified as heterosexual, same-sex attractions and behaviors were still occurring. Furthermore, among their exclusively homosexual group, fluidity was recorded in the group's attraction preferences and experiences except to a larger degree, with almost three quarters of their sample reporting attractions to both sexes, and surprisingly almost 4% to just males (although they identified as lesbian). We also saw similar results in McCabe et al. (2011), in that 5% of the heterosexuals in their sample indicated having same-sex sex and more than three quarters of homosexuals having other-sex sex. These incongruities in behavior and sexual identification help show that fluidity is occurring regardless of whether or not re-identification is taking place. It also shows that some heterosexuals are experiencing same-sex attractions and behaviors, and even though to a lesser degree, almost every study

examined here had at least some portion of heterosexuals claiming fluidity in their attractions, behaviors, and/or experiences. This aspect, however, makes it difficult for us to fully understand how many people are experiencing sexual fluidity, especially since the data from measuring sexual fluidity is based on subjective responses.

Studies incorporating exclusive orientation samples have found similar results to the studies with mixed orientation samples. For example, over 60% of Katz-Wise (2015) sample of sexual minority women reported experiencing fluidity in their sexual attractions and behaviors, although only 48% of them reported that they re-identified because of it. Samples involving exclusively heterosexual individuals also found similar incongruences in their reported sexual attractions and behaviors and their sexual identity. For example, 84% of Vrangalova & Savin-Willims (2010) sample reported experiencing sexual fluidity even though they identified as exclusively heterosexual. Hoburg et al. (2013) also found the same results, except to a lesser degree, in that 16% of the heterosexual women in their sample reported same-sex fantasies and 7% reporting same-sex behavior. The gap between these percentages should be noted as a potential limitation of the research in the field.

It has been hypothesized that this vast range of percentages in reported fluidity and these incongruences between sexual identity and behavior may be a result of sexuality being better represented as a spectrum (Kinsey 1946; Kinsey 1953). A more current study that investigated this includes Epstein et al. (2012), which collected data from self-reported sexual orientation as well as sexual attractions, desires, and behaviors. The researchers of the study found that only a little over 6% of their entire sample reported a perfectly heterosexual score, and only about 1% produced a perfectly homosexual score. This implied that the majority of participants fell somewhere in between (consistent with Kinsey's original hypotheses). Not only does this



specific statistics imply that sexuality is better represented by a spectrum, but also that more people are experiencing fluidity in their sexuality than typically assumed.

Researchers have also suggested that if sexuality is still to be perceived as a categorical system, there is a need for more subgroups or units that fall in between heterosexuality, bisexuality, and homosexuality (Savin-Williams & Vrangalova, 2012). For example, some studies have used the scale “exclusively straight, mostly straight, bisexual, mostly gay, and gay” to better categorically represent sexuality (Savin-Williams & Vrangalova, 2013; Steif et al., 2014; Ross et al., 2012; Preciado & Thompson, 2012). The category “mostly straight” has specifically been given a lot of limelight, which may be due to the fact that “mostly heterosexual” has been found to be the second largest group after heterosexuals, larger than all other sexual minorities combined (Savin-Williams et al., 2012). Nevertheless, many have pushed for the inclusion of “mostly heterosexuals” because when assessing sexual orientation, there were a substantial number of individuals who chose or fell within this category (Savin-Williams, 2013).

When interpreting results from these studies, we can conclude that although not a sizable majority, a “sizeable minority” of women are experiencing sexual fluidity (Richters et al., 2014). The implications behind this finding are important because they have the ability to change society’s perceptions about same-sex attractions and interactions. Understanding that it is not necessarily abnormal to experience same-sex attractions and/or desires or that it may even be a common experience can not only clinically help individuals struggling with their sexuality or identity, but more broadly could help to reduce the stigma of homosexuality (Dworkin, 2001).

Besides establishing that a “sizeable minority” of women report experiencing fluidity (Richters et al., 2014), studies have also tried to connect certain factors or influences to the

likelihood of women embracing sexual fluidity. To be clear, no causal links between influences and women's expression of sexual fluidity were found. Rather, potential associations were found between certain demographic and personal factors—including psychological, biological, and social/societal factors—and degree of experienced sexual fluidity.

Personality and temperament also seem to influence women's expression of sexual fluidity (Steif et al., 2014; Guerim et. al, 2015). For example, bisexuality has been found to be associated with certain personality traits, specifically high levels of sexual sensation-seeking, sexual excitability, and sexual curiosity (Steif et al., 2014). However, whether the personality traits preceded the orientation label or the label preceded the sexual ambition remains unknown. Nevertheless, other personality traits, including the Big Five's personality trait of Extraversion, have been found to be associated with particular levels of fluidity (Steif et al., 2014). Some studies have also looked at and compared sexual orientation identities with personality's element of temperament, and doing so has revealed that type of temperament is also associated with one's expression or degree of sexual fluidity (Guerim et. al, 2015).

Age and generation are other factors that have been found to be associated with degree of experienced sexual fluidity. For example, levels of fluidity are found to be highest during young adulthood (Avertt et al, 2012; Morgan, 2012). However, this finding may be attributed to other developmental processes (like identity formation) that typically occur during this same time period (Morgan, 2012). Furthermore, this finding does not imply that women do not experience fluidity when older. For example, Avertt et al. (2012) found that almost 7% of their sample reported that they did not recognize same-sex attractions until after the age of 41. In addition, the generation one was born in also was found to influence the expression of sexual fluidity (Twenge et al., 2015). Over time same-sex sexual experiences and attitudes have been found to fluctuate

and are higher today than in the past (Twenge et al., 2015). This may be a result of shifting attitudes over time towards homosexuality and the LGBT community. Nevertheless, this finding implies that the period or decade one is born in can influence how much sexual fluidity one experiences or chooses to acknowledge and/or experience.

Although only a few select studies were reviewed, these studies seemed to support that psychological influences do play a role in the expression of sexual fluidity, albeit a small one (Steif et al., 2014). Biological factors including genetics and specific mutations in alleles have also been hypothesized to influence one's deviations from one's biological sexual orientation (Burri et al., 2015; Apostolou, 2016). However, research in this area was limited or hard to come across. If this particular association was focused on, most of the research included speculative, evolutionary theories. More research needs to be done in order to better expose the relationship between biological factors and their influence on individuals' experienced sexual fluidity.

Many different social influences have also been found to be associated with a woman's expression or experienced sexual fluidity. This makes sense since the concept of sexual fluidity itself has been defined as situation-dependent (Diamond, 2008). Nevertheless, many social factors, including where the woman lives or the type of community in which she lives, religious and political affiliations, level of education, personal perceptions or others' perceptions about same-sex sexuality, participation or membership in certain groups or engagement in activities, and other outside pressures have all been hypothesized to influence women's likelihood of experienced sexual fluidity (Swank et al., 2013; Kuyper & Vanwesenbeeck, 2009; Walker, 2014; Wilkinson & Pearson, 2013; Davis-Delano 2014a; Davis-Delano, 2014b). However, it is important to understand that these factors are not casual and are just potential associations, and that it could be a combination of two or even all of them that truly affects a woman's expression

of fluidity.

Where women live (along with the public stance on homosexuality or same-sex attractions) seems to influence a woman's expression of sexual fluidity (Swank et al., 2013; Kuyper & Vanwesenbeeck, 2009; Walker, 2014). For example, living in large cities was associated with a higher likelihood of experiencing sexual fluidity (Ross et. al, 2012; Swank et al., 2012; Swank et. al, 2013). Specific findings including that sexual minority individuals living in Southern states experience more discrimination support the idea that living in certain locations is associated with more (or less) experiences of sexual fluidity (Swank et. al, 2012). Since involvement in a religion has also been found to be associated with the amount of sexual fluidity an individual experiences (Wilkinson & Pearson, 2013), location and religious affiliation may together influence expressions of sexual fluidity, since, for example, smaller towns are potentially more religious than bigger cities. However, there have been studies that have found religious affiliation to play only a small role in expression of same-sex sexuality (Wilkinson & Pearson, 2013).

Public stance and the public's (or personal) perceptions about homosexuality also play roles in the amount of sexual fluidity a woman experiences. For example, women that are worried what their community or loved ones will think about their same-sex attractions or experiences, or those that feel guilty or ashamed, are less likely to experience fluidity or do so "undercover" (Walker, 2014; Perciado & Thompson, 2012). The opposite has also been found to be true, in that more "accepting" communities are associated with higher levels of experienced sexual fluidity within the population (Kuyper & Vanwesenbeeck, 2009). This dual result has also been found when examining women's participation in certain activities or memberships in certain groups. This means that the type of activity the participant is a part of (including the

gender distribution in the group, the number of LGBT individuals or acceptance of the LGBT community in the group, the amount of time spent partaking in the activity, etc.) has the ability to both nurture and hinder experiences of sexual fluidity (Davis-Delano 2014a; Davis-Delano, 2014b). Essentially, there are numerous societal factors that have been found to be associated with women's experience and degree of expressed sexual fluidity. Although my research is not near close to a full portrayal of all of the social factors that have the ability to influence sexuality, the studies I referred to allow us to see that there is a plethora of factors that can affect women's sexuality. More research should be conducted on this topic in order to further the literature in this field.

There are some limitations to the research reviewed here. All reviews of scientific literature are limited by the availability of published research. This means that this paper is not a commentary on an all-inclusive list of articles on sexual fluidity but instead reflects articles on women and sexual fluidity. One final limitation is that transgendered women were not included in the literature reviews. Further research should include or specifically focus on transgendered women in order to more fully understand all women's sexuality.

In conclusion, interpreting sexuality as a spectrum and accepting the existence of sexual fluidity is something we as a society need to embrace. The research shows that sexual orientation can fluctuate and change over time and that a "sizeable minority" of people are experiencing this, so fluidity in sexuality should be something we should all be aware of and educate others about. Doing so will help us better understand and accept that people are diverse. Doing so could also make a big impact on not only the acceptance of the LGBT community (by reducing previous stigma), but also help people in general feel more confident about who they are. Essentially, educating society and accepting sexual fluidity allows us to acknowledge the heterogeneity in

people's sexuality and has the power to eliminate assumptions or judgements that may be made when one observes variability in another's sexual attractions, behaviors, and/or sexual identity.

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**APPENDIX**

<b><u>SECTION I</u></b>	<b><u>SECTION II</u></b>	<b><u>SECTION III</u></b>
<p><u><i>History/Evolution of Women's Sexuality Paradigm:</i></u></p> <p>Andreadis, 2001            Diamond, 2003            Garnets &amp; Kimmel, 2003            Kinsey, 1948            Kinsey, 1953            Laqueur, 1990            Peplau &amp; Garnets, 2000</p> <p><u><i>Definition of Sexual Fluidity:</i></u></p> <p>Diamond, 2003            Diamond 2008            Diamond &amp; Savin-Williams, 2000            Dworkin, 2001</p> <p><u><i>Who Sexual Fluidity Best Applies to (Gender Differences):</i></u></p> <p>Baumeister, 2000            Chivers &amp; Bailey, 2004            Chivers et al., 2004            Chivers et al., 2005            Chivers et al., 2007            Diamond, 2008            Hamann et al., 2004            Katz-Wise &amp; Hyde, 2015            Lykins et al., 2008            Peplau &amp; Garnets, 2000            Radtke, 2013            Ross et al., 2012            Rupp &amp; Wallen, 2007            Sushinsky et al., 2009            Weinberg et al., 1994</p>	<p><u><i>Proportion of Women Experiencing Fluidity:</i></u></p> <p>Diamond, 2008            Dickson et al., 2013            Epstein et al., 2012            Katz-Wise &amp; Hyde, 2015            McCabe et al., 2011            Mock &amp; Eibach, 2011            Morgan, 2012            Nigel et al., 2013            Ritchers et al., 2014            Savin-Williams &amp; Vrangalova, 2012            Savin-Williams &amp; Vrangalova, 2013            Savin-Williams et al., 2012            Vrangalova &amp; Savin-Williams, 2010</p>	<p><u><i>Biological factors that Influence Expression of Sexual Fluidity:</i></u></p> <p>Apostolou, 2016            Burri, Spector, &amp; Rahman, 2015</p> <p><u><i>Psychological Factors that Influence Expression of Sexual Fluidity:</i></u></p> <p>Avertt, Yoon, &amp; Jenkins, 2012            Dickson et al., 2013            Guerim, Carvalho, &amp; Lara, 2015            Morgan 2012            Ott et al., 2011            Steif, Rieger, &amp; Savin-Williams, 2014            Twenge, Sherman, &amp; Wells, 2015</p> <p><u><i>Social Factors that Influence Expression of Sexual Fluidity:</i></u></p> <p>Diamond, 2008            Davis-Delano, 2014a            Davis-Delano, 2014b            Fahs, 2009            Knight &amp; Hope, 2012            Ross, Daneback, &amp; Mansson, 2012            Preciado &amp; Thompson, 2012            Swank, Fahs, &amp; Frost, 2013            Swank, Frost, Fahs, 2012            Kuyper &amp; Vanwesenbeeck, 2009            Walker, 2014            Ward, 2003            Wilkinson &amp; Pearson, 2013            Yost &amp; McCarthy, 2012</p>