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Vaginal Squirting: Experiences, Discoveries, and Strategies in a U.S. Probability Sample of Women Ages 18-93

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ABSTRACT



Vaginal squirting is a phenomenon in which women expel fluid during the sexual response process, but it remains poorly understood in the extant literature. The study purpose was to use nationally representative data to investigate adult women's experiences with vaginal squirting. We assessed the prevalence of women who have ever squirted in their lifetime, the level of pleasure and concurrency of orgasm women reported during squirting, the ways in which women discovered squirting, and the challenges and/or concerns women experience with squirting. Forty percent of U.S. adult women ($M = 47.6$ years, $SD = 16.8$; $Md = 24$ years) had ever squirted in their lifetime (Md frequency = three to five times). Two thirds of women reported unintentional discovery of squirting, and most (75%) used specific techniques to promote build up and release of squirting versus squirting spontaneously. About 60% of participants reported squirting to be very or somewhat pleasurable, but only 20% "always" experienced squirting and orgasm together. Women reported different challenges with squirting, such as the time required to reach squirting or the experience being too emotionally intense. Our findings contribute to the growth of much needed, detailed literature on the ways in which women discover and enjoy squirting as part of their sexual lives. Knowledge of these techniques can enable women to better identify their own preferences, communicate about them with their partners, and advocate for their sexual pleasure.

Introduction

The purpose of this study was to use nationally representative data to describe adult women's experiences with vaginal squirting. Women can expel four different types of fluid – vaginal lubrication, female ejaculation, vaginal squirting, and coital incontinence – as part of a normal response to sexual stimulation, sexual arousal, and orgasm (Schuiling & Likis, 2020). Squirting is the least well understood and most debated of all these fluids. Scientific conversation about squirting is characterized by two millennia of disagreement – including, but not limited to, debate about whether squirting is a “real” phenomenon, whether it is the same thing as female ejaculation, what the fluid “is” (or is not), where the fluid originates, when does it occur, how (un)common emission is in women, the best scientific methodology for gathering data, and the most accurate terminology to describe the fluid process (Korda et al., 2010; Pastor, 2013; Pastor & Chmel, 2018, 2022; Rodriguez et al., 2021).¹ As a result, much of the extant literature is poorly positioned – both in terms of *measurement* (e.g., specific questions about squirting) and in terms of *sampling* (e.g., a sample of women chosen in such a way to make more generalizable conclusions) – to describe how women themselves experience vaginal squirting. With a few notable exceptions specific to female ejaculation or vaginal squirting (Påfs, 2021; Wimpissinger et al., 2013) and to general vaginal lubrication and

wetness (Fahs, 2017), women's voices about negotiating squirting are largely absent from the extant literature.

Thus, our primary goal in this study was to provide specific information about different experiences of vaginal squirting – including frequency, pleasure and orgasm, discovery, techniques, and challenges – by eliciting data from a wide array of women themselves. Doing so is consistent with a larger, multidisciplinary call to study women's sexual experiences through a *positive sexuality* lens. This framework positions exploration of sexual desire as normative (Williams et al., 2013) and broadly endorses the lifelong contributions that the lived experience of healthy sexuality provides to women's physical, social, and emotional wellbeing (Cruz et al., 2017; Diamond & Huebner, 2012; Hensel & Fortenberry, 2013; Hensel et al., 2016; World Association for Sexual Health, 2008). Sex-positive approaches, then, seek to both validate the personal ways in which women express their sexual selves (Burnes et al., 2017; Donaghue, 2015; Ivanski & Kohut, 2017) and to hold space for the woman-to-woman diversity in sexual decision making (Kimmes et al., 2015). Research can support positive sexuality approaches to vaginal squirting by specifically assessing the granularity of individual women's experiences (for example, how often women squirt, how pleasurable they find it, or how they discovered they could squirt), rather than assuming that all women's encounters with squirting are similar (Arcos-Romero & Sierra, 2020; Cherkasskaya & Rosario, 2019; Pascoal et al., 2014).

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¹Excellent reviews of this history can be found in Korda et al. (2010), Rodriguez et al. (2021) and Younis et al. (2015).

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Background

Terminological Imprecision – “Vaginal Squirting” vs. “Female Ejaculation”

One challenge in undertaking a study on squirting is that, until recently, researchers assumed all fluids associated with sexual activity were “female ejaculation.” Research from the past decade now clearly differentiates ejaculation and vaginal squirting as two completely different phenomena (Pastor & Chmel, 2018, 2022). The two do share similarities in terms of occurring in response to various stimulation (e.g., penile-vaginal, manual genital, sex toy), timing (e.g., often at the end of a sexual episode), occasional concurrence with orgasm, and the possibility of providing women a sense of sexual satisfaction and/or sexual pleasure (Addiego et al., 1981; Inoue et al., 2022; Ladas et al., 2005; Pastor & Chmel, 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015; Whipple, 2014; Wimpissinger et al., 2009). The two differ substantially in terms of fluid output volume (Addiego et al., 1981; Belzer, 1984; Bullough et al., 1984; De La Hoz, 2019; Goldberg et al., 1983; Pastor, 2013; Pastor & Chmel, 2018; Rubio-Casillas & Jannini, 2011; Salama et al., 2015; Schubach, 2001; Wimpissinger et al., 2013; Zaviačič, 1999), fluid color (De La Hoz, 2019; Pastor, 2013; Pastor & Chmel, 2018, 2022; Salama et al., 2015; Sancho et al., 2022; Schubach, 2001; Wimpissinger et al., 2013), fluid consistency (Pastor & Chmel, 2022; Sancho et al., 2022; Schubach, 2001) and fluid taste or smell (Goldberg et al., 1983; Whipple, 2014).

This only recent differentiation of female ejaculation and vaginal squirting created terminological precision challenges for the current study. In summarizing past literature, it is likely that at least some of the studies describing what was then called female ejaculation may have actually been describing vaginal squirting (Rodriguez et al., 2021; Smothers, 2016). And even recent studies still combine the terms (Påfs, 2021), perhaps as a nod to the idea that some women may not know enough about the two events to be able to differentiate them in their own sex lives. Because it is impossible to decide which studies did (vs. did not) inaccurately label a phenomena, while we maintain primary focus on vaginal squirting, we do summarize available studies on ejaculation as well. Additionally, acknowledging when each term is used is important because “ejaculation” typically conditionally links fluid expulsion to orgasm in ways that “squirting” does not.

Prevalence of Squirting

Nearly all of the available quantitative studies that provide a prevalence estimate of women’s experiences with vaginal fluid emission use varied terminology. Focusing on fluid emission described as *ejaculation*, most work agrees somewhere between one-third and one-half of women report ever having experienced female ejaculation. Another study found that slightly over half (54.0%) of a convenience sample of heterosexual and lesbian women reported ever experiencing female ejaculation (Bullough et al., 1984). Approximately 40% of a convenience sample of heterosexual women in nursing, sex education, sex therapy, and counseling professions noted lifetime ejaculation (Darling et al., 1990). This estimate is echoed

in samples of North American (Davidson et al., 1989) and Egyptian women (Younis et al., 2015). Other work suggests that one in five Czech women reported lifetime female ejaculation (Kratochvíl, 1994). Three small clinical studies – with ten or fewer participants – specifically examined *vaginal squirting* but cannot be used for prevalence data since all recruited women with previous experience with squirting (Inoue et al., 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015). The larger scale, more representative studies needed to generate these data were a primary motivator for the current work.

Self-Discovery of Squirting

Little is known both about the age at which women first discover fluid emission and what types of sexual activities during which discovery happened. Focusing on fluid emission described as *ejaculation*, 13 participants in a qualitative study recalled their first squirting experience occurred either in their late teens/early twenties or much later into middle age (Gilliland, 2009). Data from an international study echo these findings: participants reported an average age of 25 years for first ejaculation, with a range between 7 years and 68 years (Wimpissinger et al., 2013). In this same study, about a quarter (23.4%) of women cited a new sexual partner as a trigger for first ejaculation, while about a fifth could not remember a cause (22.5%). Less than 10% of participants spontaneously experienced first ejaculation. Focusing on fluid emission described as *squirting*, a clinical study’s participants all recalled their first experience to be during their teens (Salama et al., 2015). Additional studies are needed to document both the range of ages reported at first squirting experience, as well as the context in which it occurred.

Techniques Women Use to Squirt

Nearly all of the studies investigating the means by which women and/or their partners achieve fluid emission – described either as “female ejaculation” or “vaginal squirting” – assessed specific types of stimulation or penetration to the clitoral-urethro-vaginal complex (Inoue et al., 2022; Pastor & Chmel, 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015; Whipple, 2014; Wimpissinger et al., 2009; Younis et al., 2019). Focusing on emission described as *ejaculation*, a female participant in a clinical case study was able to achieve ejaculation within five to 10 min after stimulating the anterior wall of the vagina with self-digital stimulation (Rubio-Casillas & Jannini, 2011). Among an international sample of women, about half reported ejaculation with masturbation (53.4%) and penile-vaginal sex (48.1%) and about 20% experienced ejaculation during anal stimulation (Wimpissinger et al., 2013). A qualitative study suggested that combined vaginal and clitoral stimulation was the most common means to ejaculate (Gilliland, 2009). Focusing on emission described as *squirting*, one clinical study reported that seven women achieved squirting within 25 to 60 min through self- or partner digital stimulation (Salama et al., 2015). Another clinical study observed successful squirting among all five female participants recruited – three with only self-provided digital stimulation

and two with penile-vaginal penetration (Inoue et al., 2022). Qualitative work documents that women used stimulation inside the vagina, to the clitoris, or other parts of the vulva or body, to achieve squirting (Påfs, 2021). Next to nothing is known about what specific approaches or strategies – or ways of using her/their body – that women and/or their partners use that could make squirting more likely for her/ them during a sexual episode. Such personalization is established to be an important component of vaginal and anal stimulation for women (Hensel et al., 2021, 2022).

Orgasm and Pleasure from Squirting

Estimating the prevalence of orgasm that occurs in association with fluid emission is challenging because many studies have assumed ejaculation and/or squirting to be dependent upon orgasm (Korda et al., 2010). As a result, many of the overall prevalence estimates presented earlier in this paper are the same for orgasm prevalence. Focusing on emission described as *ejaculation*, a convenience sample of heterosexual and lesbian women reported that half experienced fluid emission at orgasm (Bullough et al., 1984). Two studies – one among North American (Davidson et al., 1989) and one among Egyptian women (Younis et al., 2015) – suggested that closer to 40% of women report having ever experienced ejaculation at the moment of orgasm. A study using an international sample of female participants noted that ejaculation occurred roughly the same proportion of times in self-described “clitoral” (52.2%) vs. “vaginal” (52.5%) orgasms (Wimpissinger et al., 2013). Finally, Masters et al. (1988) suggested that only a “handful” of a sample of women enrolled in a sex therapy program reported orgasm with ejaculation. More recent research acknowledges that fluid emission can occur in association with sexual arousal, which may or may not include orgasm (Gilliland, 2009; Pastor & Chmel, 2022; Zaviačič et al., 1988). More research is needed to understand the frequency with which squirting may result in, or co-occur with, orgasm during sexual activity.

Women experience a wide variety of affective and physical responses in association with fluid emission. Two qualitative studies – one focusing on ejaculation (Gilliland, 2009) and one on squirting (Påfs, 2021) – both documented diverging evaluations of how women perceived emitted fluids. Many women described positive feelings – such as pride or amazement – as well as increased sexual satisfaction or pleasure, while others noted more ambivalent or negative sentiments – such as shame and humiliation – and decreased pleasure as compared to orgasms without fluid emission. A study assessing ejaculation among a small international convenience sample of women established that the majority believed both that ejaculating enriched their sexual lives (78.8%) and that their partners viewed ejaculation positively (90.0%; Wimpissinger et al., 2013). Other work supports the idea that both ejaculation and squirting can result in sexual satisfaction and sexual pleasure for some women (Inoue et al., 2022; Pastor & Chmel, 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015; Whipple, 2014; Wimpissinger et al., 2009). An older study found no difference in physiological or psychological satisfaction with sex in women who ejaculated as compared to those

who did not (Davidson et al., 1989). More data are needed to understand the prevalence of these affective responses to fluid emission, and the extent to which fluid emission co-occurs with pleasure and/or orgasm.

Concerns and Challenges with Squirting

No studies assessed women’s concerns and/or challenges with fluid emission in the context of *squirting*. Four studies – examining only *ejaculation* or a combined term of *squirting/ejaculation* – noted different problematic aspects. A recurrent worry for women is their and/or their partner’s belief that the fluid emission was urine (Darling et al., 1990; Gilliland, 2009). These beliefs often led to sentiments of shame or embarrassment (Påfs, 2021). Women also voiced displeasure with, or worry about, the mess created with ejaculating (Gilliland, 2009), while others were caught off guard the first time they ejaculated, not understanding what was happening (Darling et al., 1990; Gilliland, 2009). Finally, depending on the circumstances, some women found the experience of ejaculation itself physically uncomfortable (Påfs, 2021). It is unclear the extent to which these challenges may also be reported in the context of squirting.

The Current Study

We used data from the *second OMGYES Pleasure Report* to address sampling and measurement gaps in the extant squirting literature. From a sampling perspective, no study in the existing literature has used a sampling method or a sample size that permitted generalization of results to a larger population of adult women. The *second OMGYES Pleasure Report* employed a probability-based sampling approach with a large number of participants. These characteristics are important because they allowed us to establish population-level conclusions about squirting that are unavailable using convenience or clinically recruited samples, and/or with small-sized samples. The lack of available studies that are able to answer basic questions about squirting – like how frequently it occurs among women – contribute to many of the misunderstandings about it (Påfs, 2021). Thus, our first research question (RQ) was:

RQ 1: *What is the prevalence of adult women who report ever having squirted?*

From a measurement perspective, the available clinical literature has intensely focused on the nature and content of the emission itself, rather than on what the day-to-day experience of squirting itself is like for women. The *second OMGYES Pleasure Report* included detailed and specific items regarding the context of squirting. Asking these questions within a probability-based sample framework allows us to generalize those findings to a wider array of women. Such presentation allowed individuals to be able to see their own squirting experiences normalized within a range of other experiences, as well as to see the extent to which their experiences were shared by their peer group. Using these detailed measures, we addressed our second through fifth research questions:

RQ 2: *What pleasure level do women report with squirting, and does it occur concurrently with, or separately from, orgasm?*

RQ 3: *How do women report that they discovered squirting?*

RQ 4: *What techniques do women use to build up to and to release the squirt?*

RQ 4-: *What are the challenges and/or concerns women report with squirting?*

Method

Survey Development

The instrumentation process for the *second OMGYES Pleasure Report* began with two large scale, inductive qualitative studies whose purpose was to generate broad patterns about the ways in which women experience sexual pleasure. In the first study, a social media-recruited convenience sample of 4270 adult women from around the world self-completed an online questionnaire that asked several open-ended questions like “Does squirting happen spontaneously, or do you have to do specific things to make it happen?” and “Is there any particular kind of stimulation that leads to squirting for you?” and “How did you discover you could squirt?” and “Have your feelings about squirting changed over time?” Next, semi-structured follow up interviews were conducted with a subset of participants (N = 1000) from the first study via video chat. The purpose of these 15–60 minute secondary interviews was to gain additional insight about key survey domains, including the ways in which women discovered squirting, the techniques they used with squirting, and the challenges they experienced with squirting. Patterns that emerged through thematic analysis of these data were used to construct the quantitative survey items used in the current study. Additional methodological details – for both this survey as well as the development of the larger survey – are available in prior published work (Hensel et al., 2021, 2022). All data used in this study are available from the first author.

Data Collection

Data for the current study were drawn from the *second OMGYES Pleasure Report* (July 2018) – a cross-sectional, online, nationally representative survey of sexual behaviors, sexual attitudes, relationships, and experiences with genital touching among women aged 18 and over in the United States. The study was conducted by Ipsos Research using their KnowledgePanel® (Menlo Park, California). Ipsos maintains a research sampling frame by using an address-based sampling (ABS) frame from using the U.S. Postal Service’s Delivery Sequence File. This probability-based sampling frame supports both broader population coverage and recruitment of hard-to-reach individuals, such as young adults and minority communities. Study-specific participants were drawn from this sampling frame, and following data collection, probability-proportional to size (PPS) weights were developed.

Once applied, these weights permitted all study-specific data to be fully nationally representative. In the current study, this means that our sample – including an oversample of lesbian and bisexual women – was fully representative of all non-institutionalized adults who identify as women in the United States. Oversampling is a common approach to ensure under-represented groups, such as sexual minority women, have adequate representation in the data. The study-specific weights were developed to take this oversample into account and to subsequently generalize to all adult women. Additional details on the larger sampling and weighting mechanisms is available from Ipsos (Ipsos Knowledge Network, 2023).

The use of the Ipsos KnowledgePanel® affords several advantages, including access to already experienced survey participants, increased survey security (e.g., closed and panel-specific surveys, prevention of bot breach) and sending of participation reminders to potential respondents. Ipsos also controls the number of surveys sent to each member, minimizing the unit- and item-level missingness on any given survey (Hensel et al., 2021). Another methodological strength is online data collection, which facilitates survey completion in a setting of the participant’s choosing, thereby increasing data confidentiality and participant comfort with answering questions about potentially sensitive topics (Riggle et al., 2005), like vaginal squirting.

The 90-item online survey took a median of 29 min to complete, was available in English, and was open for participation from July 12 to July 31, 2018. Questions assessed demographics, sexual behavior background, as well as lifetime participation in vaginal squirting, discovery of squirting, pleasure with squirting, techniques used to build up to squirting, approaches to accomplish squirting, and concerns and/or challenges with squirting. All items were developed for this study.

Of those who opened the study link, 88.8% (3017/3398) completed the survey (49.7% [3017/6123] of the initial sampling frame) and represent the analytical sample in this study. This completion rate was similar to other Ipsos-conducted nationally representative studies of sexuality and sexual behavior (44%–51%; Hensel et al., 2015, 2020; Herbenick et al., 2017, 2019). Post-stratification, study-specific weights adjusted for over- or under-sampling as well as non-response. All study procedures were approved by the institutional review board at Indiana University School of Medicine (IRB # 1801846511). Additional methodological details – for both this survey as well as the development of this survey – are available in Hensel et al. (2021, 2022).

Measures

Demographics

We assessed several demographic items, including sexual orientation (heterosexual, bisexual, gay or lesbian, something else), gender identity (cisgender, transgender, something else), relationship status (single and not dating, single and dating or hanging out with someone, in a relationship but not living together, living together but not married, married, in more than one relationship), age (years, categorized for presentation), race/ethnicity (White, Black, Other, Hispanic, More than two races), education completion (less than high school, high school, some college, Bachelor’s degree or higher), household

income (< \$25,000, \$25,000–\$49,999, \$50,000–\$74,999, \$75,000–\$99,999, \$100,000–\$149,999 and ≥\$150,000) and geographic region (Northeast, Midwest, South, West).

Squirting Items

Questions about squirting were preceded by a statement in the survey that said: “Some women have experienced ‘squirting’ during sexual excitement or orgasm, whether during masturbation or partnered sex. We are not referring to a small amount of vaginal wetness or lubrication. Rather, we are asking about squirting as an actual gush of liquid.” This definition is supported by existing clinical literature differentiating vaginal squirting from female ejaculation (Pastor, 2013; Pastor & Chmel, 2018, 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015; Sancho et al., 2022; Schubach, 2001; Wimpissinger et al., 2013). All participants were asked about ever squirting. Women who indicated an affirmative answer were shown additional follow-up questions described below.

Prevalence of Squirting. Participants were first asked “Thinking about your entire life, how many times has this type of ‘squirting’ happened to you?” and selected: never; once or twice; 3–5 times; 6–10 times; more than 10 times.

Pleasure Associated with Squirting. Participants were asked: “How pleasurable does squirting typically feel for you?” (four-point Likert scale: not at all pleasurable to very pleasurable).

Concurrency of Squirting with Orgasm. Participants were asked: “When you squirt, how often does it happen at the same time as an orgasm?” Response options included: “Never, orgasm and squirting are different things for me; squirting is not connected to my orgasm;” “Sometimes, I have orgasmed at the same time as squirting, but not often;” “I often have an orgasm at the same time that I squirt;” and “I always orgasm when I squirt.”

Patterns in Discovery of Squirting. Participants were asked “Did you always know you were able to squirt ever since you started masturbating or being sexually active with partners?” Response options were: “Yes – I’ve always known I could squirt;” or “No – I went for some time being sexually active with partners before realizing I could squirt.” Then, they were asked to enter into number boxes the approximate age in years at which they first squirted. If they did not recall their age, women entered “99;” all responses of “99” and women missing responses were excluded from the analyses of age at discovery.

Factors contributing to women’s discovery of squirting were assessed with a single response item: “How did you first discover you could squirt?” Response options included: “I was trying to make myself squirt while exploring alone;” “While exploring with a partner, I/we were trying to make me squirt;” “Accidentally while exploring alone;” “Accidentally while exploring with a partner;” or “Don’t remember.”

Challenges and Concerns around Squirting. Challenges and concerns around the practice of squirting were then assessed with a multiple response question. Participants were asked: “Many women have reported that squirting presented

challenges, especially at first. Which of the following were true for you, if any?” Response options included: “I was nervous about losing control;” “I worried I’d make a mess;” “It felt too emotionally intense;” “I had to get past some physical discomfort;” “It required lots of patience for me to stimulate myself for a long time;” “It required lots of patience from my partner who has to stimulate me for a long time;” “I was scared that I was peeing;” “I was worried that something was wrong with me;” “I thought my partner wouldn’t like it;” “Other” or “Not applicable; I didn’t experience any of these challenges.”

Stimulation Techniques Promoting the Building and Release of Squirting.

To assess what techniques helped them build to squirting, participants were asked, “Which of the following are true about the types of touch that lead to squirting for you, either with fingers, a toy, or a penis?” Response options included: “Squirting happens during sex or masturbation for me without any effort or special type of touching” (referred to as spontaneous squirting); “I need significant preparation and warm-up if I’m going to squirt” (technique referred to as prep and warm up to squirt); “I build toward squirting with pressure on the wall inside my vagina” (technique referred to as pressure inside the vaginal wall); “I build toward squirting with clitoral stimulation on its own” (technique referred to as clitoral stimulation alone); “It helps me build toward squirting, if I have pressure squeezing from the outside and inside at the same time (pushing right above my pubic hair on the outside and pushing from finger/toy/penis on the inside)” (technique referred to as concurrent outside/inside pressure); “The stimulation that leads to squirting for me is harder or more intense than the usual type of touch that I enjoy” (technique referred to as harder/more intense touch); or “None of these. For me it’s [text box].”

To assess which techniques help them release the squirt, participants were asked, “Which of the following are true about the moments just before you squirt and as you squirt?” Response options included: “Squirting happens as I or a partner put an extra burst of speed or pressure to the touch I/we are doing” (technique referred to as burst of speed/pressure); “Squirting happens after a long period of doing the same movement consistently for a while” (technique referred to as consistency of movement); “Squirting happens as I push or bear down as if I’m squeezing something out” (technique referred to as bearing/tensing down); “Squirting happens as I release tension after holding tensed/clenched muscles in my vagina” (technique referred to as releasing tensed/clenched muscles); “Squirting happens as fingers/toy or penis come out of my vagina” (technique referred to as pulling toys/penis/fingers out of vagina); “There doesn’t seem to be a pattern to the types of touch that are happening just before or as I squirt;” or “Other: [text box].”

Data Analysis

We used weighted descriptive statistics to understand: 1) the prevalence of squirting; 2) typical pleasure when squirting; 3) concurrency of squirting with orgasm; 4) assessment of patterns in discovery of squirting; and 5) stimulation techniques promoting the building to and release of

squirting. We excluded from analysis of each item any participant whose response to that item was missing. Exclusion is a common method of dealing with missing data, especially when the percentage represented by these data are small (here: 0.2% to 0.8%; Denman et al., 2018). SPSS (version 27.0) was used for all analyses.

We purposefully did not utilize any inferential statistical approaches because the primary intention was to *describe* specific population-level information about squirting that is currently missing in the extant literature. Our focus was to illustrate data in which all women can situate themselves, rather than to employ predictive models to make statements about “what types” of women were “more or less likely” to have specific squirting experiences – inferences which would have been inconsistent with the intent of the larger study. Descriptive analyses are supported as a simpler and clearer means of addressing research questions (Murphy, 2021).

Results

Respondent Characteristics

Weighted respondent demographic characteristics – including age, gender, race/ethnicity, education, household income, geographic region of residence in the US, sexual orientation, and relationship status – are presented in Table 1. Women ranged in age from 18 to 93 with a median age of 48 years. Most women self-described their sexual orientation as heterosexual (91.2%). Most women were in a married, committed, or dating relationship, with only 21.6% describing their relationship status as single and not dating at the time of the survey.

Prevalence and Typical Pleasure of Squirting

As shown in Table 2, approximately four in ten participants had ever squirted, with a median frequency of 3–5 times. The median age of first squirting experience was 24 years (range: 1–72 years), typically (87.1%) at some point after they initiated sexual activity. About 60% of women found squirting pleasurable to some extent, while about a fifth reported orgasm and squirting never occurred at the same time.

Stimulation Techniques Promoting the Building and Release of Squirting

As shown in Table 3, about 75% of women reported engaging in a deliberate technique to promote the build up and release of squirting, as compared to being able to squirt spontaneously. Regarding *building up to squirt*: about the same proportion of women reported most commonly using harder or more intense touch (19.6%), prepping and warming up to squirt (16.9%) or some other method (16.9%) as techniques. The least common building technique was using concurrent inside and outside pressure (12.5%). Pertaining to *release of squirt*: participants most often recalled no specific technique used (40.1%); however, when they did use one, about one-fifth

Table 1. Weighted demographics of a nationally representative sample of U.S. women (N = 3,017).

Characteristic	n	%
Sexual Orientation		
Heterosexual	2,752	91.2
Bisexual	176	5.8
Gay or Lesbian	68	2.2
Something else	21	0.7
Gender identity		
Cisgender	2,973	98.5
Transgender	10	0.3
Something else	8	0.3
Missing	26	0.9
Relationship Status		
Single and not dating	652	21.6
Single and dating or hanging out with someone	166	5.5
In a relationship but not living together	215	7.1
Living together but not married	309	10.2
Married	1,653	54.8
In more than one relationship	16	0.5
Missing	6	0.2
Age		
18–29	590	19.6
30–44	792	26.2
45–59	789	26.2
60+	846	28.0
Race/Ethnicity		
White, non-Hispanic	1,925	63.8
Black, non-Hispanic	376	12.4
Other Race, non-Hispanic	207	6.8
Hispanic	468	15.5
>2 Races, non-Hispanic	42	1.4
Education		
Less than High School	301	10.0
High School	815	27.0
Some College	911	30.2
Bachelor's Degree or Higher	990	32.8
Household Income		
Under \$25,000	504	16.6
\$25,000–\$49,999	624	20.7
\$50,000–\$74,999	523	17.4
\$75,000–\$99,999	412	13.6
\$100,000–\$149,999	479	15.9
\$150,00 and over	475	15.7
Geographic Region		
Northeast	531	17.6
Midwest	634	21.0
South	1,150	38.1
West	701	23.2

Table 2. Weighted lifetime prevalence and frequency of squirting, pleasure with squirting and concurrence of squirting and orgasm among a sample of U.S. women (N = 3,017).

Characteristic	n	%
Ever squirted (n = 2,936)	1,216	41.4
Squirted once or twice	482	39.6
Squirted 3–5 times	238	19.5
Squirted 6–10 times	143	11.7
Squirted 11+ times	352	28.9
Pleasurableness of squirting among women who have ever squirted (n = 1,211)		
Very pleasurable	411	33.9
Somewhat pleasurable	303	25.0
A little pleasurable	326	26.9
Not pleasurable	171	14.1
Concurrency of squirting and orgasm among women who have ever squirted (n = 1,204)		
Always	239	19.8
Often	338	28.1
Sometimes	419	34.8
Never	207	17.2

Table 3. Weighted prevalence of stimulation techniques used for building and release of squirting among women ever reporting squirting (n = 1,216).

Characteristic	n	%
Ever used a specific technique to squirt (vs. reporting spontaneous squirting)	920	75.6
Techniques used to build toward squirting:		
Harder/more intense touch	238	19.6
Prep and warm up to squirt	206	16.9
Other/don't know or don't remember	205	16.9
Pressure inside vaginal wall	200	16.5
Clitoral stimulation alone	189	15.6
Concurrent outside/inside pressure	152	12.5
Techniques used to release a squirt:		
No specific pattern	489	40.2
Releasing tensed/clenched muscles	260	21.4
Burst of speed/pressure	208	17.1
Consistency of movement	181	14.9
Bearing/tensing down	152	12.5
Pulling toys/penis/fingers out of vagina	122	10.0
Other	63	5.2

reported either releasing tensed/clenched muscles (21.4%) or using a burst of speed or pressure (17.1%). Very few reported pulling toys, a penis or finger out of the vagina to facilitate release (10.0%).

Patterns in First Discovery of Squirting

Table 4 displays the ways in which women reported first discovering they could squirt. About 65% reported unintentional discovery while exploring with a partner (51.6%) or exploring by themselves (13.8%), while one-quarter of participants could not remember. Eleven percent of women were purposefully trying to squirt – either with a partner (8.5%) or by themselves (2.8%) – when it happened.

Concerns and Challenges in the Practice of Squirting

As shown in Table 5, women endorsed diverse types of concerns and challenges around squirting. Participants most commonly noted concerns about hygiene, such as being scared they were peeing (41.8%) or that they would make a mess (28.3%). Others reported concerns around loss of bodily control (16.6%) or incorrect body function (13.0%). Some women stated barriers to squirting around the patience required for long stimulation time from their partner (10.3%) or from themselves (7.3%). The fewest participants were concerned about the emotional intensity (6.4%), or physical discomfort (5.3%) associated with squirting.

Table 4. Weighted prevalence of patterns of first discovery of squirting among women ever reporting squirting (n = 1,212).

Discovery Pattern	n	%
Accidentally while exploring with a partner	625	51.6
Do not remember	283	23.3
Accidentally while exploring alone	167	13.8
While exploring with a partner, I/we were trying to make me squirt	103	8.5
I was trying to make myself squirt while exploring alone	34	2.8

Table 5. Weighted prevalence of patterns of squirting concerns and challenges among women who ever reporting squirting (n = 1,212).

Squirting Concerns and/or Challenges	n	%
I was scared that I was peeing	508	41.8
I worried I'd make a mess	345	28.3
I was nervous about losing control	202	16.6
I thought my partner wouldn't like it	181	14.9
I was worried that something was wrong with me	158	13.0
It required lots of patience from my partner who has to stimulate me for a long time	126	10.3
It required lots of patience for me to stimulate myself for a long time	88	7.3
It felt too emotionally intense	78	6.4
I had to get past some physical discomfort	64	5.3
Other	17	1.4
Not applicable	354	29.1

Discussion

The purpose of this study was to engage nationally representative data to describe women's experiences with vaginal squirting during solo and partnered sexual activity. Despite more than two millennia of published literature on sexual fluid emission (Korda et al., 2010; Pastor, 2013; Pastor & Chmel, 2018, 2022; Rodriguez et al., 2021), to our knowledge, this is the first study that addressed long standing questions about squirting – including prevalence, pleasure, and orgasm with squirting, squirting discovery, techniques used to squirt, and the challenges associated with squirting.

Our data suggest that four in every 10 adult women report ever squirting at some point in their lifetime, usually for the first time in their mid-twenties. It is difficult to compare these findings against the existing small sample and clinically based studies about squirting. However, our results do generally align with older studies suggesting that between 10% and 54% of women produce some kind of fluid emission during sexual activity, including squirting. (Pastor & Chmel, 2018) and with studies demonstrating that between 40% and 50% of women have ever experienced *female ejaculation* (Darling et al., 1990; Wimpissinger et al., 2013). As we noted earlier, it is possible that some of some of the work describing “ejaculation” in the more recent of these studies could in fact have been examining “squirting,” but it is impossible to know definitively. It will be important for future studies – particularly those using nationally representative approaches – to devise measurement approaches that permit specific assessment of squirting.

In addition, our data demonstrated that women use a variety of specific techniques both to *build up to* and to *release* a squirt. Two of the building up approaches we measured – internal self and/or partner stimulation or penetrative stimulation – are mentioned in clinical studies about squirting (Inoue et al., 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015), but these studies did not address the nuance that women use during their build up (e.g., speed, pressure, muscle engagement, etc.). Moreover, none of this work assessed release techniques, possibly because build up and release have been conceptualized as a single process. It will be important in future work both to broaden the list of techniques measured here, particularly to understand how frequently women use given techniques, and if the experience of squirting itself changes as the combination of building up and release techniques changes.

We also evaluated participant pleasure and orgasm during squirting, finding that far more participants found squirting “a little” or “somewhat” pleasurable (51.9%) than they did “very” pleasurable (33.9%) and about three times as many women “sometimes” or “often” concurrently experienced squirting and orgasm than those who “always” did so. Our findings largely contradict recent clinical literature on squirting (Inoue et al., 2022; Rubio-Casillas & Jannini, 2011; Salama et al., 2015) and older work on female ejaculation (Addiego et al., 1981; Ladas et al., 2005; Whipple, 2014) suggesting that nearly all women experience orgasm just before or during fluid emission. Future studies – particularly those using nationally representative sampling approaches – should continue to unpack these issues of pleasure and orgasm. Important questions remain about the extent to which the sexual context in which squirting happens impacts either the level of pleasure or occurrence of orgasm, and how these relationships change over a woman’s lifetime.

Finally, we contribute data to the literature regarding how women discovered squirting and what types of challenges or concerns they have with squirting. Most participants (65.4%) reported discovering squirting accidentally during solo or partnered sexual exploration, while about one in 10 participants was purposeful in trying to elicit squirting. The general “accident” vs. “purposeful” theme is echoed in qualitative literature that studied female ejaculation/squirting interchangeably (Påfs, 2021). Additionally, our data revealed specific concerns and/or challenges that women had with the squirting experience. Consistent with older work on female ejaculation (Wimpissinger et al., 2013), as well as with qualitative studies on both female ejaculation/squirting (Påfs, 2021) and general vaginal wetness (Fahs, 2017), our participants identified concerns about correct body function and control, hygiene or mess and partner reaction. Other challenges included the long amount of stimulation time required to induce squirting, and feeling too emotionally intense or being too physically uncomfortable. While these latter themes are not called out specifically in the literature, they are resonant with the variety of experiences women have had with squirting (Påfs, 2021). We did not assess the extent to which these concerns and challenges persisted, or impacted ongoing participation in squirting. Understanding these effects in greater detail will be important for supporting women who want to continue to include squirting as part of their sexual repertoire but need help working around issues that create barriers to comfort and pleasure.

Implications

These data have implications for squirting in the context of women’s day-to-day sexual lives. Print and electronic media (e.g., film, books, magazine articles, blog/website posts, etc.) reinforce specific myths both about how “easy” squirting is by using specific techniques (Lampen & Miller, 2021; Pulley, 2021; Wallace, 2022; Zane & White, 2022) or that squirting is always sexually pleasurable and happens with orgasm (Dawson et al., 2020; Lampen & Miller, 2021; Lebedíková, 2022; Tillman & Wells, 2022; Wright et al., 2022; Zane & White, 2022). In the

absence of other models, women or their partners may use myths as a reference for what their squirting experience “should be like” (Séguin et al., 2018; Wampold, 2014).

Our detailed measurement and nationally representative data highlight the variability of squirting experiences that women have in “real life.” From the perspective of measurement, we were able to capture a model of squirting in which not all women have experienced it, women and their partners use a diversity of techniques to accomplish squirting, women range in if and/or to what extent they find squirting sexually pleasurable or concurrent with orgasm, and women face challenges and concerns in association with squirting. Women and partners may be more comfortable with their own attitudes and preferences if they can situate those experiences within the diversity reported by others. From the perspective of sampling, existing literature is limited in the extent to which findings are generalizable to a greater array of women. Our use of nationally representative data allows women and their partners to assess the extent to which their experiences are shared by *people like themselves*. The ability to see one’s sexual outcomes reflected in a peer group may augment the confidence women have in navigating current or future squirting experiences. Comfort and confidence with sexual experiences, including squirting, has downstream implications for sexual health and well-being (Dawson et al., 2020; Frederick et al., 2018; Sancho et al., 2022), to greater sexual satisfaction (Higgins et al., 2011), including improved relationship sexual communication (Marks et al., 2022) and less relationship conflict (Couture et al., 2023).

Limitations

Several limitations associated with the current data should be considered. Our sample was limited to people in the Ipsos KnowledgePanel sampling frame who self-identified as women. This means that we excluded potentially other important populations, including self-identified men and people with vaginas or with female bodies who do not identify as women. All of these groups may have personal or partnered experiences with squirting that will be important to include in future research. Our sample also included women who reported to be transgender or “something else.” Because we were unable to verify their genital status, we opted to keep them in the analysis. Moreover, we did not include data from any partners of participants who could squirt, and we do not know how relationship factors may impact women’s participation in and/or their enjoyment of squirting. It will be important for future studies to understand how selection and enjoyment of specific squirting techniques are linked to partner experience with or attitudes about squirting, or with aspects of romantic/sexual partnerships such as satisfaction, happiness, and communication.

From a measurement perspective, some survey items assessed squirting build up and release technique participation in general, whereas others assessed general pleasure in association with squirting, which could challenge disentangling a participant’s reported use of a specific technique from their motivation for choosing that technique, as well

as disentangling their expectation of pleasure from their actual experience of pleasure. We also did not measure the extent to which squirting pleasure may be different during solo sex from during partnered sex. Although we included one item differentiating the discovery of squirting in a solo vs. partnered situation, future studies should assess how techniques, pleasure, orgasm, and other factors impact squirting in these two scenarios. Our data relied on participants' retrospective self-report of squirting experiences, which could have been affected by recall and/or reporting biases. Future work may seek to consider prospective measurement techniques as a means of increasing the ecological validity of sexual pleasure concept data (Shiffman et al., 2008).

Moreover, while we assessed the age of first squirting experience, we did not ask when this debut occurred relative to the age when a participant initiated solo masturbation or partnered sexual activity. We also do not know what – if any – differences there may be between Ipsos panel members who chose (or did not choose) to participate in the study. It is possible, for example that some women may not have felt comfortable completing a study about squirting. Future research should assess the extent to which different participants are willing to provide personal information on less than well understood, and potentially stigmatized, behaviors like squirting.

Some limitations are associated with survey length constraints. For example, while squirting is possible during solo and/or partnered sex, we were unable to measure all the possible permutations of stimulation type (e.g., solo stimulation with fingers, solo stimulation with toy, partner stimulation with fingers, partner stimulation with toy, partner stimulation with penis into vagina or anus) or dimension (e.g., clitoral and vaginal stimulation alone or together, vibration intensity or pattern in a toy, etc.) to which a participant may have had access. An important next step in the squirting research will be to assess if and/or what differences exist in frequency and context based on these possibilities. We were unable to assess in depth the barriers to squirting that participants may have faced in the past or they anticipated they could face in the future (e.g., changes in partner, age-related changes to sexuality, etc.). In addition, we did not query information from the participants who reported no lifetime squirting whether they had ever attempted to squirt or whether they had any interest in it. These are important relationship and behavioral factors that should be included as research advances in this field.

Conclusion

In this study, large scale, population-level empirical data about squirting provided more generalizable data than are currently available in the extant literature regarding the prevalence of women who have squirted in their lifetime, the level of pleasure and concurrency of orgasm women report during squirting, the ways in which women discovered squirting, and the challenges and/or concerns women experience with squirting. Although our measurement and

sampling approaches are not possible in every research study, we argue that our data provide an important framework on which future research about squirting can be built.

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Data Availability

Data are available upon request from the first author.

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