

THE MEANINGS OF MASTURBATION

by

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For my mom

I get my just reward in this life, not the next.

Abstract

The purpose of this study was to investigate the varied meanings that masturbation has to individuals. We used answers from a qualitative pilot study to create a quantitative and qualitative questionnaire tapping respondents' reasons for wanting to (or being tempted to) masturbate, reasons for avoiding (or trying to avoid) masturbation, and emotions (or expected emotions) during masturbation. A sample of college students, 243 women and 275 men, completed this questionnaire anonymously. Using factor analysis, we created subscales, which were used in a cluster analysis that generated four distinct approaches to masturbation: enthusiastic, lukewarm, immoral, and ambivalent. Understanding these approaches and the attitudes, beliefs, and emotions related to masturbation may help improve clinical treatments for sexual dysfunction that involve masturbation training.

The Meanings of Masturbation

Introduction

Few forms of sexual activity have been as discussed, condemned, misunderstood, and yet universally practiced as masturbation (Patton, 1985). Masturbation remains a somewhat taboo topic, and research in this area is limited. Different attitudes, beliefs, and emotions that people associate with masturbation are surely powerful but have not yet been studied or documented in a comprehensive way. In an effort to understand what we do know about masturbation, the present paper will review historical and current attitudes toward masturbation, the benefits of masturbation, and some of its most common clinical applications. It will then discuss the importance of the meanings of masturbation and how the present study will investigate these meanings.

Historical and Current Attitudes Toward Masturbation

It is only by examining historical attitudes toward masturbation that we can realize how much they were based on erroneous ideas and why the serious discussion of masturbation should remain a central part of our studies of sexuality (Bullough, 2002). Most notable of these past views is the negative attitude toward masturbation that was pervasive across nations and ages. It was historically considered unnatural, immoral, sinful, and harmful. Physicians and lay people alike subscribed to the widespread belief that masturbation caused a variety of mental and physical illnesses (Tiefer, 1998). Social and religious norms, especially those of the past, prohibited masturbation for a variety of reasons. It was often seen as a selfish act that served the

fulfillment of lust, rather than leading to procreation (Patton, 1985). Masturbation was linked with coitus interruptus and thus condemned (Kay, 1992). Some cultures saw it as a waste of sexual resources that should be used for procreation. Still other cultures linked masturbation with health risks, ranging from simple “uncleanliness” to the spread of numerous diseases, development of various malfunctions, and even death (Chakrabarti, Chopra, & Sinha, 2002). Indeed, masturbation was thought to be associated with psychological illnesses, such as neurosis and brain disease (Kay, 1992).

No scientific evidence supports the claim that masturbation is harmful in any way (Renshaw, 1981). It is now acknowledged that the supposed health detriments and moral disadvantages of masturbation were a result of mythology, religious doctrine, and societal standards. Attitudes toward masturbation (and sex in general) have been slow to change, but the last century has yielded much transformation. Rather than accepting the belief that masturbation is wrong, researchers have turned to scientific research. In 1915, Exner conducted a survey of sexual behavior with about 700 college-aged men and found that masturbation was a common non-procreative sexual activity (Bullough, 2002). The development of psychoanalysis was a catalyst for social change in attitudes toward sex and masturbation, not only because masturbation was finally addressed and discussed, but because it was concluded to be harmless. In 1912 and again in 1928, the Vienna Psychoanalytic Society permitted the first extensive discussions of masturbation and declared that it was not the cause of any medical or psychological disorders (Kay, 1992). Finally, Kinsey and his

colleagues (1948, 1953) gathered the first data to document that masturbation is not only extremely common—92% of males and 58% of females surveyed had masturbated to orgasm—but that it is the second most frequent sex act (after heterosexual intercourse).

Nevertheless, negative views toward masturbation linger and abound. Though it may be accepted that masturbation is medically benign, that is not equivalent to proving it is positive or beneficial (Kay, 1992). Masturbation remains one of the most stigmatized sexual behaviors (Pinkerton et al., 2002). Yet the ill effects of masturbation come from the attitudes and beliefs associated with the behavior, not the behavior itself (Coleman, 2002). Abramson and Mosher (1975) developed a measure of negative attitudes toward masturbation. Items on the scale measuring false beliefs about the harmful nature of masturbation included, “Masturbation is an escape mechanism which prevents a person from developing a mature sexual outlet.” One of the items on the scale that reflected negative views about personal experience with masturbation was, “When I masturbate, I am disgusted with myself.” Masturbation still has the power to create intense guilt, shame, relationship conflict, spiritual alienation, and so forth because of the persistent cultural and religious stigma with which many people associate it. Because it is self-focused and performed primarily for self-pleasure, masturbation is often perceived as overly selfish. It is even perceived to be associated with pathological behavior, such as paraphilias and compulsive sex, even though these behaviors are extremely rare (Coleman, 2002), and masturbation is not always involved.

Although masturbation is accepted as healthy by researchers and clinicians alike, the social cloud of mystery, shame, fear, and negativity surrounding masturbation remains. For example, surgeon general Jocelyn Elders was forced to resign during the Clinton administration for suggesting masturbation as an alternative, low-risk sexual behavior. Tiefer (1998) pointed out that masturbation is still handled with supreme awkwardness and caution even within the field of sex research. The study of masturbation is often avoided in part because it is one of the most sensitive behaviors for survey assessment, even with the use of confidential reporting techniques (Halpern et al., 2000). Research that *has* been conducted on masturbation, however, indicates that it is important in a number of ways, which are discussed in detail below. First, it is clearly a part of common human behavior. Second, it has been shown to be beneficial for general mental, physical, and sexual health. Third, it seems to be a useful tool in sex therapy for treating common arousal and orgasmic disorders. At the same time, people associate masturbation with strong attitudes, beliefs, and feelings, many of which are negative. Thus, the challenge facing today's sex researchers is to investigate these attitudes and take them into account when designing treatments and interventions.

As has been documented in the past, women continue to masturbate much less frequently than men. In a study conducted by Leitenberg et al. (1993), twice as many men as women had ever masturbated, and the men who masturbated did so three times more frequently than the women. In a more recent study by Pinkerton et al. (2002), 36% of their female participants reported never masturbating, compared with

only 2% of the males. Some researchers believe these differences are consequences of the contrasting sexual scripts conveyed to men and women in our culture. More restrictions have been placed on the expression of sexuality in women, and because masturbation is purely for one's own sexual enjoyment, it is not surprising that women masturbate less than men (Leitenberg et al., 1993). Hyde (2005) conducted a meta-analysis of various psychological variables related to sexuality and found very few significant gender differences; however, among the exceptions was the incidence of masturbation, where striking gender differences were found. For this reason, the present study will examine differences between women and men on the meanings they attach to masturbation.

Benefits of Masturbation

The benefits of masturbation are countless and relate to many aspects of well-being. It can begin early in development, even in infancy, and may be an important part of sexual development (Bancroft, 2002). For children, masturbation may be an essential phase in the development of mature sexual response and also a way to develop confidence and acceptance of their bodies and sexual feelings (Brecher, 1969). As individuals mature, masturbation can serve many roles. It can provide a source of physical and psychological pleasure that requires no external resource. In the midst of a hurried and stressful lifestyle, masturbation can be a simple and harmless way to relax and experience enjoyment. Masturbation may provide a valuable source of sexual release when none other is available, such as when there is

no partner or when a partner is inaccessible. It may provide a chance to form a positive body image and increase overall self-esteem.

Masturbation relates to sexual health because it is linked with orgasmic capacity and other aspects of healthy functioning (Coleman, 2002). In addition, masturbation improves sexual satisfaction between partners by providing an activity they can do either alone or together, relieving pressure to be sexual only together, and allowing for an outlet when partners are uninterested in sex (Coleman, 1992). Hurlbert and Whittaker (1991) found that masturbators have both higher self-esteem and greater marital satisfaction than non-masturbators. In this study, masturbators not only had a wider sexual behavior repertoire than non-masturbators, but were more orgasmically responsive. They had more orgasms, reported greater desire, and required less time to sexual arousal. Masturbation is a safe alternative to higher-risk sexual behaviors, as it eliminates any chance of pregnancy and sexually transmitted diseases. Kay (1992) suggested that masturbatory fantasies are also healthy because they provide opportunities to learn control over sexual situations that would be anxiety-provoking in real life.

Sex therapists advocate the use of masturbation so that clients may reap all of the above benefits. The most common way masturbation is used in sex therapy is in the treatment of anorgasmic women. Female orgasmic disorder (FOD) is one of the most common sexual dysfunctions, and directed masturbation training (DMT) is the preferred treatment. The details of FOD and DMT are discussed below.

Female Orgasmic Disorder

Female Orgasmic Disorder (FOD) is considered the most common form of sexual dysfunction in women. This disorder is characterized by the inability to achieve or difficulty in achieving orgasm in some or all types of sexual situations. Although women vary greatly in the type and intensity of stimulation needed to trigger an orgasm, the Diagnostic and Statistical Manual of Mental Disorders (APA, 2000) states that the core aspect of FOD is the persistent delay in, or absence of, orgasm following a normal sexual excitement phase. FOD is frequent in both clinical and nonclinical populations. It is important to consider women who may not meet diagnostic criteria but who still have difficulty orgasming. Only 50% of married women in the U.S. experience orgasm with any consistency (Hunt, 1974; Kinsey, 1953), and up to 15% of women have never experienced an orgasm (Andersen, 1981).

An important distinction must be made within the overall category of FOD. The disorder can be either of the generalized or situational type (APA, 2000). A client with generalized FOD finds that her difficulty with orgasm is not limited to certain types of stimulation, situations, or partners. Orgasm cannot be achieved under any circumstances, and the woman may have never orgasmed in her life. This type is also referred to as *primary anorgasmia*. In contrast, an individual with Situational FOD cannot achieve orgasm except under certain types of stimulation, situations, or partners, and orgasm may be rare or challenging to achieve. For example, a woman may have the ability to orgasm during self-stimulation, but not in the presence of a partner or during intercourse. Or, a woman may have been orgasmic at a certain time

or with a certain partner, but now has a lessened orgasmic response (McCabe & Delaney, 1992). This type is also referred to as *secondary anorgasmia*. In the present study we asked several questions to differentiate between these two types among participants who reported difficulty reaching orgasm.

Directed Masturbation Training

Directed masturbation training (DMT) is one of the most frequently used and successful treatments for FOD. This type of treatment usually combines relaxation, masturbation exercises (homework assignments), sex education and counseling that specifically regards masturbation techniques and benefits. General goals include increasing body awareness, desensitizing the client to masturbation, and increasing the ability to focus on internal sensations (Nairne & Hemsley, 1983).

Women can attain orgasm more easily through masturbation than through intercourse or any other activity (Kinsey, 1953). Particularly for women with FOD of the primary type, it makes sense to begin treatment with the technique most likely to produce an orgasm (LoPiccolo & Lobitz, 1972). In fact, masturbation is often the only way in which women with secondary FOD can reach orgasm. In addition, orgasms tend to be more intense during masturbation (Masters & Johnson, 1966). Frequent orgasms cause an increase in both vascularity and psychological anticipation of pleasure, enhancing the potential for future orgasms (Bardwick, 1971); it again makes sense to begin treatment with masturbation. Women are much less likely than men to masturbate regularly and much more likely to develop an orgasmic disorder. This is not necessarily a cause-and-effect relationship, but could indeed be indicative

of an overall negative cognitive set regarding sexuality. It is not surprising that using masturbation to treat sexual dysfunction in women is effective.

Masturbation appears to have good potential as a treatment procedure for FOD for a number of reasons. Not only is an orgasm more likely and more intense for women during masturbation than during coitus or other activities, but masturbation permits an awareness of the feelings that lead to orgasm without the additional concern of a partner; this awareness can be used as a basis for communication with a partner later on (Kohlenberg, 1974). Because the woman has complete control over a masturbatory experience, any other concerns or fears related to performance, pleasing her partner, losing control, or self-consciousness are alleviated.

Additionally, using DMT sends a message to the female client that she is responsible for her own sexuality and sexual pleasure, including orgasm (Kuriansky & Sharpe, 1981). This focus on assertiveness is designed to ask women what their sexual goals are and then to ask them to accomplish those goals on their own (without a partner). This message of assertiveness may apply to other aspects of women's sexuality or life in general. Another important and helpful aspect of DMT is a focus on arousal rather than solely on orgasm. This perspective reduces anxiety and pressure, gives women permission to experience pleasure, and avoids the notion of success or failure.

Treatment Specifics

DMT for women with FOD of both the primary and secondary types consists of a variety of methods that fall into the following categories: sex education,

communication skills, sexual skills, systematic desensitization, and actual masturbation training itself. Actual masturbation training is the only treatment method that unifies all present research on DMT, but the studies have utilized various combinations of other methods as well, which are explained in this section. As these combinations of treatment methods vary widely, the task of classifying the studies is difficult but crucial. There is still no standard DMT protocol that merges all the methods or that has shown to be most effective.

Sex education includes general information on anatomy (particularly internal and external genitals), physiology, desire, response, orgasm, classification and causes of dysfunction, sexual myths, various sexual activities, and so on. It has been a popular component of DMT and other sex therapies since the work of Masters and Johnson (1970). This treatment alone seems to support moderate to major changes in sexual functioning for some, but not all, women (Jankovich & Miller, 1978; Kilmann et al., 1981). It may be an inadequate treatment when used unaccompanied, but a useful tool when combined with other treatments. For instance, Spence (1985) employed an effective behavioral therapy program with anorgasmic women that included an important educational component. Specifically regarding DMT as used to treat FOD, many studies used sex education as a part of treatment and found it to be useful (de Bruijn, 1982; Jones & Park, 1972; Kilmann et al., 1986; Lobitz & LoPiccolo, 1972). The most important aspects in sex education may be working with the ignorance of the best techniques for orgasm, the reluctance to use them, and an inability to communicate preferences to a partner (McCabe & Delaney, 1992).

Sex education commonly overlaps with a second type of treatment for anorgasmia: communication skills. Communication skills are often used along with masturbation training and other methods in treating women with FOD (Kilmann et al., 1986; McGovern et al., 1975; Masters & Johnson, 1970). This treatment is based on the notion that a lack of communication between sexual partners encourage sexual dysfunction. The inability to communicate with a partner about what feels good can clearly interfere with pleasure and orgasm. Both members of couples in which the woman is anorgasmic report more problematic communication regarding issues of sexuality, particularly sexual activities associated with direct clitoral stimulation (Kelly et al., 2004). Typical communication-focused programs concentrate on listening skills, verbalization of feelings, sensate focus exercises, conflict management, initiation and refusal, and identifying “turn ons” and “turn offs.” The partners usually participate in this type of treatment, and oftentimes the program utilizes therapy sessions similar to standard marriage counseling. Couples learn to discuss conflicts, state requests of partners in specific, operational terms, give and accept feedback with verbal and nonverbal messages, fight “fair,” and deal with past emotional hurts (Kilmann et al., 1986). Communication skills are an integral part of DMT. Without them, prescribed masturbation may inadvertently serve to further damage the openness and trust necessary for truly rewarding sexual expression; relationship difficulties should be addressed before any sexual activity is prescribed (Christensen, 1995). Another way researchers have targeted communication is through assertiveness training (Kuriansky et al., 1982; Munjack et al., 1976; Obler,

1973). This idea is based on a social learning model and is based on the concept that women's lack of assertiveness and inhibitions are learned, and can thus be corrected by continual positive reinforcement of self-expression and determination in all pursuits. In assertiveness training, women are taught to take control of their pleasure, ask for what they want, and foster more liberal sexual attitudes.

Basic sexual skills can also be included in DMT programs (Barbach, 1974; Kilmann et al., 1986; Leiblum & Ersner-Hershfield, 1977; LoPiccolo & Lobitz, 1972). These skills may be taught to either the woman alone or to both partners and are designed to enhance the understanding and execution of the woman's sexual functioning and pleasure. Some examples of sexual skills are sensate focus exercises, body imagery, body exploration, and muscle training (i.e., Kegel's exercises), and often overlap with actual masturbation training.

A key concept in DMT is systematic desensitization (Husted, 1975; Kuriansky et al., 1982; Masters & Johnson, 1970; McGovern et al., 1975). There are many different therapeutic ways in which women are systematically desensitized to the ideas of masturbation, pleasure, orgasm, and communication. One way systematic desensitization is used in treating FOD is through *successive approximations*. In most treatment programs, women are instructed to take small, successive steps toward each goal. A common way to introduce masturbation is to have the woman explore her genitals for increasing amounts of time and with increasing intensity. For example, Kohlenberg (1974) encouraged participants to follow small incremental steps with masturbation. First, they were asked to examine themselves in a mirror for five

minutes. Second, they were told to touch themselves for five minutes. Third, they were asked to use various methods of stroking and pressure for five minutes. Fourth, they were to repeat these various methods for at least 20 minutes. Finally, they were instructed to incorporate these methods into an interaction with their partner.

McGovern et al. (1975) also suggested the use of successive approximations in a method that is especially useful when intercourse with a partner is a goal. One program had women gradually shift their self-stimulation from the clitoris to the vulva, and then to the vaginal opening itself. Simultaneously, the women were to gradually shift their body position during masturbation to more closely approximate intercourse. Many small steps toward sexual goals are more effective and less intimidating than fewer, more substantial changes; systematic desensitization is a crucial aspect of DMT. However, it should be noted that systematic desensitization techniques are not a sufficient treatment for FOD on their own. Andersen (1981) compared systematic desensitization to masturbation alone with a full directed masturbation program and found that DMT was superior in enabling clients to become orgasmic.

After implementing sex education, communication skills, and sexual skills most treatments for FOD move on to actual directed masturbation using systematic desensitization. This protocol is based on a program originally developed by LoPiccolo and Lobitz (1972). The program consists of nine steps in the form of homework assignments that will be described; clients typically progress at the rate of one step per week. *Step 1*: Examine genitals with a hand mirror and identify various

areas. Also, begin Kegel's exercises. *Step 2:* Explore genitals tactually as well as visually, without the expectation of becoming aroused. *Step 3:* Continue exploration with an emphasis of locating sensitive areas that produce feelings of pleasure. *Step 4:* Concentrate on manual stimulation of these areas. At this time, clients are taught masturbation techniques, including variations of stroking and pressure and the use of a lubricant jelly. *Step 5:* Masturbate until orgasm, with 30-45 minutes as a reasonable limit. The use of pornographic reading materials, pictures, and fantasy is encouraged. *Step 6:* If orgasm does not occur, utilize a vibrator. Clients linger at this step, using various techniques and pornographic materials, until orgasm is achieved. *Step 7:* Masturbate in the presence of the partner. *Step 8:* The partner stimulates the woman as she has been stimulating herself (manually or with vibrator). *Step 9:* Engage in sexual intercourse while the partner concurrently stimulates the woman's genitals, either manually or with a vibrator. Recommended positions include rear entry, lateral, or female superior (sitting), as these allow the partner access to the woman's genitals.

The Meanings of Sexuality

Understandably, sex researchers have eagerly designed and refined the use of masturbation to treat sexual dysfunction; specifically, they have focused on the DMT protocol to treat FOD. However, although DMT appears to be the most effective treatment program for FOD to date, there are various problems that minimize the success rate. These problems may be the result of a fundamental lack of understanding regarding what the meanings of masturbation are in the first place. Researchers do not yet have a complete picture of why FOD develops but have

generated numerous promising theories. A leading hypothesis is that the *meaning* people attach to their own sexuality and sexual behavior may be central. Despite some earlier approaches that focused on childhood history, including sexual abuse, it is clear that not all clients with such histories develop FOD or other sexual disorders (Sarwer & Durlak, 1996). Rather, these experiences may combine with other factors in the formation of a negative sexual response. Current research has begun to focus more on the “here and now” aspect of FOD (Birnbaum et al., 2001), such as the thought processes during the actual sexual encounter. In general, women express more negative perceptions of their sexuality than do men in all sexual realms. For example, women think more negatively than men about their genitals (Reinholtz & Muehlenhard, 1995). Birnbaum (2003) proposed that the way women with FOD subjectively perceive sexual situations may generate an antierotic atmosphere that interferes with their ability to enjoy those situations. This perspective corresponds to a cognitive approach, in which internal interpretations and evaluations influence one’s experience.

Cognitive distortions are vital in understanding sexual dysfunction (Walen, 1980). Examples of such distortions include associating pleasure with guilt, revulsion, or anxiety, or focusing on a sexual goal (e.g., orgasm) above all else. Negative thinking can render someone disgusted, inhibit pleasure, and actually prevent orgasm. Fear of failure, preoccupation with pleasing the partner, and judgmental self-monitoring impair sexual functioning (Kaplan, 1974). It seems that clients, especially women, who engage in negative thought processes during sexual encounters are more

likely to have difficulty feeling pleasure and struggle to achieve orgasm. A prime example of a psychological construct believed to promote anorgasmia is sex guilt (Mosher, 1979). Kelly et al. (1990) conducted a study in which orgasmic and anorgasmic women completed various surveys regarding sexual attitudes. Anorgasmic women seemed to possess a more negative cognitive set. That is, they responded with more negative attitudes than orgasmic women on such topics as clitoral stimulation, masturbation attitudes, and sex guilt. These results were consistent with the argument that negative thoughts towards sex contribute to poor sexual responsiveness.

Yet another way researchers have conceptualized the meanings we attach to sexuality is in terms of our *sexual self-schema*. Andersen and Cyranowski (1994) described the sexual self-schema as a cognitive generalization about sexual aspects of oneself that are derived from past experience, manifest in current experience, influential in the processing of sexually relevant information, and guide sexual behavior. Researchers distinguish between positive and negative self-schemas. People holding negative sexual self-schemas are self-describe themselves as emotionally cold and behaviorally inhibited in sexual and romantic relationships. Due to more negative attitudes towards sexuality, self-consciousness, and embarrassment, women with negative sexual self-schemas not only are more susceptible to sexual disorders like FOD, but may also hold more negative overall self-views than women with positive sexual self-schemas.

The Meanings of Masturbation

It is clear that the meanings behind sexuality are central to the development of a sexual disorder such as FOD. It can be assumed that meanings are also important to the success rate of a protocol such as DMT, which uses masturbation as the basis of treatment. Coleman (2002) discusses the power of the meanings of masturbation. He states that these meanings can be powerfully negative or positive and that they are influenced both by societal attitudes and individual outlook. Wincze and Carey (2001) stated that negative attitudes toward masturbation must be explored before launching into masturbation training. Moreover, to adequately assess changes in sexual functioning, it is necessary to measure changes in attitudes as well as behavior (Nairne & Hemsley, 1983). Treatment success should be determined by multidimensional assessments that evaluate not only behavior but also attitudes, beliefs, emotions, and subjective satisfaction of the client—in short, the meanings behind masturbation, orgasm, and pleasure.

There are several aspects of DMT that could be better understood and improved upon through exploring the meanings of masturbation. The first of these is the issue of dropout rates, which can be significant. A second is that the treatment seems to “wear off” in some cases. Some participants in the reviewed studies showed less frequent orgasm at follow-up assessments; in fact, at times there was even a regression to the pre-study level (Kuriansky et al., 1982). It is important to understand the women who regress after the treatment protocol has ended; additional support and maintenance may be necessary. Understanding what masturbation means to the

woman may be useful in determining how to keep them enrolled in treatment. A third issue is homework assignments; there is a strong relationship between amount of time spent on DMT assignments and orgasmic or nonorgasmic outcome (Van Wyk, 1982). It would be useful to look at how women feel about masturbation and, consequently, what masturbatory assignments mean to them.

A fourth important issue is *bridging the gap*, or transferring masturbatory orgasm to partner-based activity. In a study by de Bruijn (1982) of 972 women with masturbatory experience, about half of them did not orgasm during sexual relations with any regularity. Women in several studies (Leiblum & Ersner-Hershfield, 1977; McMullen & Rosen, 1979) experienced considerable difficulty or failure in transferring orgasm from masturbation to sex with a partner. The underlying meanings that women attach to masturbation, especially in contrast with the meanings they attach to sexual contact with a partner, may enhance our understanding of this phenomenon.

A fifth problem is the difference in outcome between women with primary and secondary FOD. There is no clear answer as to which treatment formats are most effective for each type. Because there is a crucial difference between women with primary and secondary FOD (secondary anorgasmic women have experienced orgasm at some point, whereas primary anorgasmic women have *never* experienced orgasm), it seems that different treatments would be appropriate. There is some evidence that sexual skills training and systematic desensitization are more effective for primary FOD (Jones & Park, 1972; McGovern et al., 1975) communication skills

training and anxiety reduction are more effective for secondary FOD (McGovern et al., 1975; Sotile & Kilmann, 1978). Distinguishing between the different meanings that primary and secondary FOD women associate with masturbation will help tailor treatment to their different needs.

The Present Study

The purpose of the present study is to explore the meanings that college-aged women and men associate with masturbation. Such information may be useful in many ways. It may result in a questionnaire or other findings that could ultimately be useful in clarifying why psychological treatments involving masturbation (e.g., DMT) are not always effective. This could lead to improved treatment strategies and better success rates. For the purposes of this study, “meanings” are defined as motivations or reasons for wanting to masturbate or avoiding masturbation and emotions associated with masturbation.

We hypothesized that a wide variety of meanings would emerge from our exploration of masturbation. Past research has indicated that people have diverse and complicated associations with masturbation, ranging from motivations, such as wanting to experience pleasure or wanting to avoid sex with a partner, to various emotions such as gratification or guilt. We did not specify any a priori expectations or set a limit on the number of factors in the factor analyses. We also used cluster analysis to identify subgroups of participants with similar patterns of meanings. We expected to find at least three distinct subgroups: a generally sex-positive group, a

generally sex-negative group, and a group that is somewhat ambivalent toward sexuality and masturbation.

Method

Pilot Study

We conducted a pilot study with 236 introductory psychology students at the University of Kansas, 81 women and 155 men. They were administered a qualitative, open-ended questionnaire designed to elicit different meanings they attach to masturbation. Items addressed a number of different aspects of meaning. Some items tapped motivations for masturbating or not masturbating: *When you masturbate, what are your reasons for doing so?; When you don't masturbate or decide not to, what are your reasons for not doing so?* Some items focused on emotions and feelings associated with masturbation: *How do you feel while you masturbate?; What, if anything, do you like and not like about masturbation?* Other items concentrated on beliefs about women and men who masturbate and do not masturbate: *What characteristics do you associate with a man who masturbates?* Finally, some items asked about specific topics that were hypothesized to be important to the meaning of masturbation based on past research. For example, participants were asked how such factors as religion/spirituality, parents/family, peers, and the media have affected their views on masturbation. The purpose of the pilot study was to generate items for the more quantitative questionnaire to be used in the main study.

Main Study Participants

Five hundred and eighteen introductory psychology students at the University of Kansas, 243 women and 275 men, were included in our main study. They received partial fulfillment of a course requirement for participating. Participants ranged in age from 18 to 26, with a mean age of 19. We removed all participants above age 26 because many of them are likely nontraditional college students, and our study aims to examine the meanings of masturbation for college students only. Sixteen participants identified themselves as African-American, 25 as Asian-American, 442 as Caucasian, 15 as Hispanic or Latino(a), 4 as Native American or American Indian, 14 as biracial or multiracial, and 2 as other. Nine participants who identified as international students were removed due to evidence that cultural factors may have a significant impact on views toward sexuality (e.g., Bullough, 2002). When asked about their romantic relationship status, 222 participants reported that they are currently not dating anyone, 104 reported that they are in one or more casual dating relationship(s), 189 reported that they are in an exclusive dating relationship, 1 reported that they are married, and 2 reported that they are in other kinds of relationships. Five hundred participants identified as heterosexual, 8 as homosexual, and 9 as bisexual. One participant did not choose a sexual orientation.

Questionnaire

The questionnaire consisted of both quantitative and qualitative items regarding the meaning of masturbation (see Appendix D). Most items were developed based on participants' direct responses from the pilot study. For example, the pilot

study asked participants, *What, if anything, do you like (or think you would like) about masturbation?* Several pilot study participants indicated that masturbation is a good substitute for sex with a partner. Therefore, for our main study, in our section on reasons for wanting to masturbate, we included the item: *Because it's a substitute for sex with a partner.* All relevant responses from the pilot study were included, unless they were endorsed by very few participants or did not seem central to the meaning of masturbation. We also added several items based on our research team's hypotheses about the meanings of masturbation. We duplicated several ideas that came up most frequently in the pilot study by rewording them in slightly different formats in order to get a more robust factor loading. The questionnaire was constructed so that participants could answer it whether or not they masturbated (e.g., in the section on feelings related to masturbation, participants who masturbated were asked how they felt when they masturbated; participants who did not masturbate were asked to how they thought they would if they did masturbate).

There were five main sections of the questionnaire: (1) demographics, (2) reasons for wanting to masturbate, (3) reasons for avoiding masturbation, (4) feelings related to masturbation, and (5) beliefs about women and men who masturbate and do not masturbate. Section 1, demographics, included demographic information such as age, ethnicity, relationship status, and sexual orientation. This section also included several questions related to participants' sexual activity and history. They were asked about their current and past levels of sexual activity and whether or not they considered themselves a virgin. They were asked about their masturbation

experiences, including: whether they had ever masturbated, how often they masturbate, how often they have a desire to masturbate but avoid doing so, and whether there has ever been a significant change in how often they masturbate. Participants were then asked about their experiences with orgasm, including: whether they had ever experienced orgasm during masturbation, how frequently they experience orgasm during masturbation, and whether they had ever experienced orgasm during other sexual activities. They were asked 3 items regarding possible orgasmic difficulties which were constructed according to the *DSM-IV-TR* criteria for female or male orgasmic disorder (APA, 2000): how frequently they have difficulty reaching orgasm, across which situations and contexts (to distinguish between the primary/generalized and secondary/situational types), and how much personal distress or relationship conflict this difficulty causes. Finally, in the demographics section, participants were asked several qualitative questions from the pilot study for two reasons: first, to generate independent thought before they answered the quantitative sections; second, to generate qualitative answers from our final data set for research purposes.

Section 2, reasons for wanting to masturbate, included reasons for wanting to masturbate or being tempted to masturbate. Participants rated how strong each of the reasons were for wanting to (or being tempted to) masturbate. These ratings were given based on a 7-point scale in which a score of 0 indicated it was not a reason and 6 indicated it was a very important reason. There were 92 Wanting items and 1 “check” item designed to test if participants were paying attention. If participants

missed 2 or more “check” items, they were removed from the data set. If they missed 1 “check” item, we removed that section from the data set and examined the other sections to make sure they answered consistently.

Section 3, reasons for avoiding masturbation, included reasons for avoiding or trying to avoid masturbating. Participants rated how strong each of the reasons were for avoiding (or trying to avoid) masturbating. These ratings were given based on the same 7-point scale as the prior section. There were 78 Avoiding items and 1 “check” item designed to test if participants were paying attention.

Section 4, feelings related to masturbation, included feelings people experience when they masturbate. Participants rated how strongly they experienced each of the feelings when they masturbate (or, if they did not masturbate, how they thought they would feel if they did). These ratings were given based on a similar 7-point scale in which 0 indicated they did not experience the feeling at all and 6 indicated they experienced the feeling very strongly. There were 53 Feelings items and 1 “check” item designed to test if participants were paying attention.

Section 5, beliefs about masturbation, included beliefs about women and men who masturbate and do not masturbate. Participants were asked: *If you knew that a woman/man your age masturbates/does not masturbate, how, if at all, would it influence your opinion of her/him?* Participants rated how much their opinion would be affected regarding various personal characteristics on a 5-point scale from -2 to +2, in which -2 indicated “it would make me absolutely certain that she/he is *not*...” and +2 indicated “it would make me absolutely certain that she/he *is*...”. There were 81

personal characteristics to rate (e.g., *normal*, *immoral*, *promiscuous*) and 1 “check” item designed to test if participants were paying attention. Each personal characteristic was counterbalanced with its opposite when possible; for example, both *liberal* and *conservative* were included.

Procedure

All participants gave informed consent (see Appendix E). For comfort and privacy purposes, they participated in same-sex groups and were seated at alternate desks. They were informed that they are free to skip questions or withdraw from the study without penalty. They were also informed that they would be able answer all questions on the questionnaire regardless of whether or not they masturbate (see Appendix F). Upon completing the questionnaire, participants were asked to place their questionnaire in envelopes for anonymity. They were given debriefing forms at the conclusion of the study (see Appendix G). These forms included information about the basis for our study and resources for counseling services. We had two research assistants at each experiment session so that, in case a participant became distressed, one research assistant could talk with the distressed student while the other research assistant finished the data collection session. However, this did not occur.

Results

Masturbation Experiences

We made an a priori decision to look at women and men separately in all of our data analyses because of research indicating that there may be significant gender

differences in regards to masturbation experiences and attitudes (Hyde, 2005). Thus, most analyses will be discussed separately for women and men.

When asked whether they have ever masturbated or not, 70.4% of the women and 98.9% of the men answered yes. When asked how frequently they masturbate, women showed a bimodal distribution. Most women answered either monthly or every few months (29.9%) or, just as frequently, never (29.3%). In contrast, most men reported masturbating fairly frequently: in the range of once a week to multiple times a day (72.4%). Only 0.8% of the women masturbate once a day or more, as opposed to 6.9% of men (see Table 1 for complete percentages).

We also found a significant gender difference in how often participants have a desire to masturbate but avoid masturbating, $\chi^2(3, N = 511) = 85.36, p < .05$. Most women answered either some of the time (46.6%) or none of the time (51.3%). Only 2.1% of women answered a lot of the time. The majority of men, however, answered that they have a desire to masturbate but do avoid doing so either some or a lot of the time (83.6%). Only 16.4% of the men avoided masturbating none of the time (see Table 2).

We noticed that although most participants reported either masturbating regularly or not masturbating at all, another group of participants emerged: those who used to masturbate but have since stopped. They stopped masturbating for a variety of reasons, which are reflected in the qualitative data that will be discussed later. Thus, three groups of participants emerged from our data: those who have never masturbated (we call these “never-masturbators”), those who currently masturbate

Table 1

Frequency of Masturbation Reported by Women and Men

Frequency	Women	Men
More than once a day	0.4% (1)	1.5% (4)
Once a day	0.4% (1)	5.5% (15)
4-6 times a week	4.5% (11)	5.5% (15)
2-3 times a week	9.1% (22)	31.4% (86)
Once a week	8.3 % (20)	16.4 % (45)
1-3 times a month	16.9% (41)	12.8% (35)
Once every few months	12.4% (30)	4.0% (11)
About once a year	0.8% (2)	0.7% (2)
Only a few times in my life	13.2% (32)	0.4% (1)
Only once in my life	3.7% (9)	1.1% (3)
I have never masturbated	29.3% (71)	1.1% (3)
Other	0.8% (2)	0.7% (2)

Note. Percentages and numbers (in parentheses) of the frequency of masturbation reported by women and men.

Table 2

Frequency of Avoiding Masturbation Reported by Women and Men

Frequency	Women	Men
A lot of the time	2.1% (5)	7.7% (21)
Some of the time	46.6% (111)	75.8% (207)
None of the time	51.3% (122)	16.5% (45)

Note. Percentages and numbers (in parentheses) of the frequency of desiring but avoiding masturbation reported by women and men.

(“current-masturbators”), and those who used to masturbate but no longer do so (“ex-masturbators”). The majority of both women (61.4%) and men (96.0%) were current-masturbators. As expected, many more women (30.0%) than men (1.5%) were never-masturbators. Interestingly, though, among men, there were more ex-masturbators (2.6%) than never-masturbators (1.2%; see Table 3).

Orgasm Experiences

In our sample, 47.5% of women and 95.3% of men reported that they had experienced orgasm during masturbation (see Table 4). When asked about the frequency with which they experience orgasm during masturbation, women again showed a bimodal distribution: 55.0% reported experiencing orgasm every or almost every time they masturbate, and 33.3% reporting seldom or never experiencing orgasm when they masturbate. The majority of men, however, reported experiencing orgasm every or almost every time they masturbate (87.5%). The majority of both women (66.3%) and men (84.7%) reported experiencing orgasm from sexual activities *other* than masturbation. Interestingly, a group of women (14.4%) reported having never masturbated but having experienced orgasm from other activities. No men reported having had this experience.

We asked participants about any difficulty they experience in reaching orgasm (see Table 5). These items were created based on the *DSM-IV-TR* criteria for an orgasmic disorder (APA, 2000). The majority of women reported experiencing difficulty reaching orgasm with some frequency (81.9% answered either “A lot of the time,” “Some of the time,” or “A little of the time”). In contrast, only 43.7% of men

Table 3

Frequency of Never-masturbators, Ex-masturbators, and Current-masturbators

Frequency	Women	Men
Never-masturbators	30.3% (73)	1.5% (4)
Ex-masturbators	8.3% (20)	2.6% (7)
Current-masturbators	61.4% (148)	96.0% (263)

Note. Percentages and numbers (in parentheses) of women and men who reported being never-masturbators, ex-masturbators, and current-masturbators.

Table 4

Orgasm Experiences as Reported by Women and Men

	Women	Men
Ever experienced orgasm during masturbation		
Never masturbated	28.8% (69)	1.1% (3)
Masturbated but never to orgasm	23.3% (56)	3.6% (10)
Masturbated to orgasm	47.5% (114)	95.3% (261)
Masturbated and uncertain about orgasm	0.4% (1)	0.0% (0)
Frequency of experiencing orgasm during masturbation (of those who masturbate)		
Every or almost every time	55.0% (94)	87.5% (237)
About half of the time	10.6% (18)	8.8% (24)
Seldom or never	33.3% (110)	3.7% (10)
Ever experienced orgasm from sexual activities other than masturbation		
Never masturbated and never experienced orgasm from other activities	15.2% (37)	0.0% (0)
Never masturbated and experienced orgasm from other activities	14.4% (35)	1.1% (3)

Table 4 (continued)

	Women	Men
Masturbated and never experienced		
orgasm from other activities	17.7% (43)	15.3% (42)
Masturbated and experienced		
orgasm from other activities	51.9% (126)	83.6% (229)
Masturbated and uncertain about		
orgasm from other activities	0.8% (2)	0.0% (0)

Note. Percentages (of total women or men) and numbers (in parentheses) of orgasm experiences reported by women and men.

Table 5

Difficulty Reaching Orgasm as Reported by Women and Men

	Women	Men
Frequency of difficulty reaching orgasm		
A lot of the time	18.9% (43)	3.0% (8)
Some of the time	63.0% (143)	40.9% (106)
None of the time	18.1% (41)	56.1% (148)
Personal distress or relationship conflict caused by difficulty reaching orgasm ^a		
A lot of distress or conflict	2.7% (5)	9.0% (17)
Some distress or conflict	39.3% (74)	31.8% (35)
No distress or conflict	58.0% (109)	68.2% (75)
Difficulty reaching orgasm across situations and contexts ^b		
All situations and contexts	34.6% (27)	12.5% (4)
Only certain situations or contexts	65.4% (51)	87.5% (28)

Note. Percentages and numbers (in parentheses) of experiences with difficulty reaching orgasm reported by women and men.

^a Percentages are based on those who experienced difficulty reaching orgasm at least some of the time ($n = 300$). ^b Percentages are based on those who experienced difficulty at least some of the time and who experienced at least some personal distress or relationship conflict ($n = 131$).

reported experiencing any difficulty at all. This is consistent with past research indicating that female orgasmic disorder is extremely common (e.g., Sotile & Kilmann, 1978). However, it is important to note that of the participants who experienced difficulty in reaching orgasm, the majority (58.0% of women and 68.2% of men) did not report any personal distress or relationship conflict as a result of their difficulty. This distress or conflict is required for the diagnosis of an orgasmic disorder (APA, 2000); thus, most participants would not qualify. Forty-two percent of women and 31.8% of men in our sample could possibly qualify for an orgasmic disorder; i.e., they reported experiencing difficulty reaching orgasm and at least some personal distress or conflict. Of these participants, 34.6% of women and 12.5% of men reported difficulty across all situations and contexts, and 65.4% of women and 87.5% of men reported difficulty only in certain situations or contexts. This would suggest that secondary/situational orgasmic disorders are more common than primary/generalized orgasmic disorders in both women and men.

Reasons for Wanting to Masturbate

We used factor analysis to reduce the data into factors that represent reasons for wanting to masturbate (or being tempted to masturbate). The dimensionality of the 92 items was analyzed using principal components factor analysis with a Varimax rotation. Two criteria were used to determine the number of factors to retain: if the factor had an eigenvalue greater than 1.00 and if the factor was theoretically interpretable within the factor solution. We used the 13-factor solution. Items on these factors and their factor loadings can be found in Appendix A.

The sets of items identified in the factor analysis were used to form subscales (see Table 6). In general, we considered items that had factor loadings of .5 or greater to have loaded on that factor, and we included those items in the corresponding subscale. However, we excluded some items with loadings of .5 or greater when they lowered the Cronbach's alpha for the subscale, when they were not conceptually appropriate, or when they crossloaded with another factor. Occasionally, we added items with factor loadings of less than .5 to subscales. We did this when the items were conceptually relevant to the subscale and when they either improved or did not substantially alter the Cronbach's alpha.

The subscale corresponding to the first factor was Pleasure. Items on this subscale reflected enjoying pleasurable aspects of masturbation, such as orgasm, fun, stimulation, and arousal (e.g., "I find it pleasurable," "If I want to have an orgasm," and "Because it's fun"). The subscale corresponding to the second factor, Self-Exploration and Improvement, was related to participants' desire to investigate, develop, and enhance their sexuality (sample items included "To explore my own sexuality," "To make myself a better sexual partner," and "To learn how to give myself pleasure"). The subscale related to the third factor, Mood Improvement, measured participants' use of masturbation to make their mood more positive and to improve negative mood states such as anger, laziness, or loneliness (sample items included "If I feel frustrated about something else," "It distracts me when I'm down," and "If I'm in a bad mood"). The other subscales measuring reasons for wanting to masturbate were Relaxation and Stress Relief, Avoidance of Partner Sex, Arousal

Table 6

Reasons for Wanting to Masturbate Subscales and Sample Items

Subscale and sample items	Cronbach's alpha
<i>Pleasure</i> (9 items)	.913
I find it pleasurable	
If I want to have an orgasm	
Because it's fun	
<i>Self-Exploration and Improvement</i> (10 items)	.908
To explore my own sexuality	
To make myself a better sexual partner	
To learn how to give myself pleasure	
<i>Mood Improvement</i> (4 items)	.889
If I feel frustrated about something else	
It distracts me when I'm feeling down	
If I'm in a bad mood	
<i>Relaxation and Stress Relief</i> (8 items)	.914
To relieve stress	
If I'm anxious	
If I want to relax	

Table 6 (continued)

Subscale and sample items	Cronbach's alpha
<i>Avoidance of Partner Sex</i> (6 items)	.876
Masturbating helps me remain a virgin	
Masturbating makes it easier to avoid sex with a partner, and I don't want to have sex with a partner for moral reasons	
Masturbating makes it easier to avoid sex with a partner, and I don't want to have sex with a partner for health reasons	
<i>Arousal Decrease</i> (6 items)	.870
If I'm so sexually aroused that it's interfering with other things I want or need to do	
If I want to decrease my sexual arousal so I can focus on something else So that I can focus my concentration on a task after masturbating	
<i>Compulsion</i> (5 items)	.834
Because—even though I try—I just can't stop myself It's a compulsive sexual behavior I feel an uncontrollable urge to do it	
<i>Pleasure of Partner</i> (3 items)	.896
My partner wants to watch me do it Because it arouses my partner when he/she knows that I masturbated	

Table 6 (continued)

Subscale and sample items	Cronbach's alpha
Because it arouses my partner when I masturbate in front of him/her	
<i>Adherence to Social Norms</i> (6 items)	.819
So that I could say I've done it (it's something to talk about)	
My friends have masturbated, and I want to be able to talk with them about it	
"Everyone" does it, and I want to feel "sexually normal"	
<i>Substitution for Partner Sex</i> (6 items)	.802
If I'm not getting as much sex as I want	
If I don't have a partner to have sex with	
Masturbating helps me keep my mind off sex with a partner	
<i>Importance of Fantasy</i> (4 items)	.813
I get aroused by sexual activities that are not socially acceptable,	
so I fantasize about them during masturbation	
If I want to exercise my imagination	
I enjoy my fantasies during masturbation	
<i>Feeling Unattractive</i> (3 items)	.801
Because I feel like no one is attracted to me	
Because I'm not comfortable enough with my body to be sexual with someone else	
If I'm feeling unattractive	

Table 6 (continued)

Subscale and sample items	Cronbach's alpha
<i>Boredom</i> (2 items)	.944
If there is nothing else to do	
If I'm bored	

Decrease, Compulsion, Pleasure of Partner, Adherence to Social Norms, Substitution for Partner Sex, Importance of Fantasy, Feeling Unattractive, and Boredom.

Reasons for Avoiding Masturbation

We used the same procedures to identify factors and subscales related to avoiding masturbation (or trying to avoid masturbation) and to determine which items to include and exclude for the subscales. We used the 10-factor solution (see Table 7 for the subscales and sample items and Appendix B for all the items and factor loadings).

The subscale corresponding to the first factor related to avoiding masturbation was Immorality. Items on this factor reflected participants' moral, religious, and emotional objections to masturbation (e.g., "It's against my religion," "I was raised to believe it's wrong," and "It makes me feel like I'm sinning against myself." The subscale related to the second factor, No Desire or Interest, was associated with participants' lack of desire to engage in masturbation (sample items included "I'm just not interested," "It seems weird to me," and "It's a waste of time"). The subscale linked with the third factor, Preference for Partner Sex, measured participants' preference for sex with a partner over masturbation (sample items included "Because I like intercourse better," "Orgasms are better with a partner," and "If I'm satisfied with the quantity of the sex I'm having"). The other subscales measuring reasons for wanting to masturbate were Fear of Negative Social Evaluation, Sex Negativity, Negative Mood State, Detraction from Partner Sex, In Committed Relationship, Bothered by Thoughts, and Self-Control.

Table 7

Reasons for Avoiding Masturbating Subscales and Sample Items

Subscale and sample items	Cronbach's alpha
<i>Immorality</i> (16 items)	.965
It's against my religion	
I was raised to believe it's wrong	
It makes me feel like I'm sinning against myself	
<i>No Desire or Interest</i> (11 items)	.934
I'm just not interested	
It seems weird to me	
It's a waste of time	
<i>Preference for Partner Sex</i> (8 items)	.901
Because I like intercourse better	
Orgasms are better with a partner	
If I'm satisfied with the quantity of sex I'm having	
<i>Fear of Negative Social Evaluation</i> (6 items)	.862
Society says it's wrong	
I'm afraid of someone knowing that I masturbate	
Other people might find me gross	

Table 7 (continued)

Subscale and sample items	Cronbach's alpha
<i>Sex Negativity</i> (6 items)	.856
I feel uncomfortable or embarrassed about my body	
It's bad for my health	
I am anxious about sexual behavior	
<i>Negative Mood State</i> (4 items)	.772
If I'm depressed	
If I'm worried about something else	
If I've had a bad day	
<i>Detraction from Partner Sex</i> (2 items)	.876
It makes me less able to orgasm during sex	
It makes me less horny during sex	
<i>In Committed Relationship</i> (4 items)	.827
If I'm in a committed relationship	
My partner doesn't want me to do it	
I feel like I'm cheating on my partner	
<i>Bothered by Thoughts</i> (2 items)	.880
My fantasies during masturbation bother me	
My sexual thoughts during masturbation bother me	

Table 7 (continued)

Subscale and sample items	Cronbach's alpha
<i>Self-Control</i> (3 items)	.853
I think I should have more self-control	
I like to feel in control of my urges	
I want to improve my self-discipline	

Emotions Related to Masturbation

We used the same procedures to identify factors and subscales related to feelings or emotions during masturbation and to determine which items to include and exclude for the subscales. We used the five-factor solution (see Table 8 for the subscales and sample items and Appendix C for all the items and factor loadings). The subscale associated with the first factor was Guilt. Items on this factor reflected participants' emotions of guilt and shame during masturbation (e.g., "Ashamed," "Regretful," and "Immoral"). The subscale corresponding to the second factor, Satisfaction, was related to participants' feelings of pleasure during masturbation (sample items included "Happy," "Pleased," and "Satisfied"). The subscale linked to the third factor, Anger, measured participants' emotions of aggravation during masturbation (sample items included "Frustrated," "Aggressive," and "Angry"). The subscale connected to the fourth factor, Anxiety, was related to feelings of nervousness (sample items included "Tense," "Nervous," and "Awkward"). The subscale related to the fifth factor, Indifference, reflected participants' ambivalence or "lack" of emotions during masturbation (sample items included "Nothing," "Unemotional," and "Detached").

Gender Differences Not Controlling for Masturbation Status

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of gender on all three sets of subscales. Significant differences were found between women and men on the subscales, Wilks's $\Lambda = .46$, $F(28, 462) = 19.46$, $p < .05$. As expected, follow-up ANOVAs revealed that gender differences

Table 8

Emotions Related to Masturbating Subscales and Sample Items

Subscales and sample items	Cronbach's alpha
<i>Guilt</i> (12 items) Ashamed, Regretful, Immoral	.970
<i>Satisfaction</i> (19 items) Happy, Pleased, Satisfied	.953
<i>Anger</i> (4 items) Frustrated, Aggressive, Angry	.740
<i>Anxiety</i> (4 items) Tense, Nervous, Awkward	.809
<i>Indifference</i> (6 items) Nothing, Unemotional, Detached	.708

were found in most of the subscales (see Table 9). Women had significantly higher mean ratings than men on three subscales related to wanting to masturbate: Self-Exploration and Improvement, Avoidance of Partner Sex, and Pleasure of Partner. Men had significantly higher mean ratings on the following: Pleasure, Relaxation and Stress Relief, Arousal Decrease, Compulsion, Substitute for Partner Sex, Importance of Fantasy, and Boredom. On the subscales related to avoiding masturbation, women had significantly higher mean ratings on all the subscales with a gender difference. These subscales were Immorality, No Desire or Interest, Fear of Negative Social Evaluation, Sex Negativity, and Bothered by Thoughts. On the subscales related to emotions associated with masturbation, women had significantly higher mean ratings on Guilt and Anxiety. Men had significantly higher ratings on Satisfaction.

Gender Differences Controlling for Masturbation Status

A two-way MANOVA was conducted to again explore gender differences on the subscales, but this time, we controlled for participants' masturbation status—that is, whether or not they currently masturbate. We performed this analysis because significantly fewer women masturbate than men. We hypothesized that perhaps some of the differences in ratings on the subscales could be explained by differences in masturbatory behavior, rather than by gender per se. What gender differences remain once masturbation status is held constant? Although a significant overall main effect for gender was still found, Wilks's $\Lambda = .77$, $F(28, 458) = 4.89$, $p < .05$, follow-up ANOVAs (see Table 10) revealed far fewer gender differences. For reasons for wanting to masturbate, women had higher mean ratings on the same three subscales

Table 9

Women's and Men's Mean Subscale Scores Not Controlling for Masturbation Status

Subscale	Women	Men	F	η^2	<i>p</i>
Reasons for wanting to masturbate					
Pleasure	3.24 (1.74)	3.60 (1.34)	6.24*	.01	.01
Self-Exploration					
& Improvement	2.06 (1.49)	1.29 (1.23)	40.24*	.08	<.01
Mood Improvement	0.78 (1.34)	0.87 (1.23)	0.50	.00	.48
Relaxation & Stress Relief	1.51 (1.62)	2.07 (1.41)	15.33*	.03	<.01
Avoidance of Partner Sex	1.12 (1.50)	0.66 (1.00)	16.56*	.03	<.01
Arousal Decrease	1.32 (1.43)	2.21 (1.50)	45.09*	.08	<.01
Compulsion	1.10 (1.34)	1.73 (1.30)	26.49*	.05	<.01
Pleasure of Partner	1.40 (1.76)	0.75 (1.41)	22.44*	.04	<.01
Adherence to Social Norms	0.44 (0.71)	0.36 (0.71)	1.44	.00	.23
Substitute for Partner Sex	1.97 (1.44)	2.41 (1.35)	12.65*	.03	<.01
Importance of Fantasy	1.42 (1.58)	1.86 (1.54)	7.94*	.02	.01
Feeling Unattractive	0.62 (1.15)	0.48 (0.92)	2.29	.01	.13
Boredom	1.10 (1.51)	2.28 (1.81)	59.81*	.12	<.01
Reasons for avoiding masturbation					
Immorality	1.58 (1.83)	0.95 (1.29)	20.41*	.04	<.01
No Desire or Interest	1.99 (1.76)	0.64 (0.90)	120.20*	.20	<.01

Table 9 (continued)

Subscale	Women	Men	F	η^2	<i>p</i>
Preference for Partner Sex	3.15 (1.58)	3.23 (1.80)	0.09	.00	.81
Fear of Negative					
Social Evaluation	1.69 (1.58)	1.02 (1.20)	29.00*	.06	<.01
Sex Negativity	0.93 (1.24)	0.49 (0.88)	24.65*	.04	<.01
Negative Mood State	0.87 (1.21)	0.82 (1.09)	0.49	.00	.49
Detraction from Partner Sex	1.31 (2.00)	1.25 (1.68)	0.56	.00	.45
In Committed Relationship	1.20 (1.58)	0.96 (1.41)	3.69	.01	.06
Bothered by Thoughts	1.00 (1.70)	0.50 (1.16)	17.33*	.03	<.01
Self-Control	1.78 (1.90)	1.74 (1.82)	0.12	.00	.73
Emotions related to masturbation					
Guilt	1.84 (1.94)	0.96 (1.30)	34.16*	.07	<.01
Satisfaction	2.85 (1.56)	3.30 (1.21)	10.92*	.02	<.01
Anger	0.71 (1.08)	0.62 (0.83)	1.38	.00	.25
Anxiety	1.64 (1.58)	0.86 (1.07)	42.99*	.08	<.01
Indifference	1.17 (1.15)	1.07 (0.94)	1.16	.00	.28

Note. Mean ratings on subscales and standard deviations (in parentheses) reported by women and men. Results come from ANOVAs conducted after a significant MANOVA. For all these ANOVAs, the degrees of freedom are (1, 489).

**p* < .05.

Table 10

Women's and Men's Mean Subscale Scores, Controlling for Masturbation Status

Subscale	Women	Men	F	η^2	<i>p</i>
Reasons for Wanting to Masturbate					
Pleasure	3.24 (1.74)	3.60 (1.34)	3.14	.01	.08
Self-Exploration					
& Improvement	2.06 (1.49)	1.29 (1.23)	16.74*	.03	<.01
Mood Improvement	0.78 (1.34)	0.87 (1.23)	0.88	<.01	.35
Relaxation & Stress Relief	1.51 (1.62)	2.07 (1.41)	0.00	.01	.97
Avoidance of Partner Sex	1.12 (1.50)	0.66 (1.00)	7.35*	.02	.01
Arousal Decrease	1.32 (1.43)	2.21 (1.50)	0.92	<.01	.34
Compulsion	1.10 (1.34)	1.73 (1.30)	0.07	<.01	.79
Pleasure of Partner	1.40 (1.76)	0.75 (1.41)	5.25*	.01	.02
Adherence to Social Norms	0.44 (0.71)	0.36 (0.71)	0.67	<.01	.42
Substitute for Partner Sex	1.97 (1.44)	2.41 (1.35)	0.03	<.01	.88
Importance of Fantasy	1.42 (1.58)	1.86 (1.54)	0.04	<.01	.85
Feeling Unattractive	0.62 (1.15)	0.48 (0.92)	1.61	<.01	.21
Boredom	1.10 (1.51)	2.28 (1.81)	7.98*	.02	.01
Reasons for Avoiding Masturbation					
Immorality	1.58 (1.83)	0.95 (1.29)	2.65	.01	.10
No Desire or Interest	1.99 (1.76)	0.64 (0.90)	40.60*	.08	<.01

Table 10 (continued)

Subscale	Women	Men	F	η^2	<i>p</i>
Preference for Partner Sex	3.15 (1.58)	3.23 (1.80)	0.32	<.01	.57
Fear of Negative					
Social Evaluation	1.69 (1.58)	1.02 (1.20)	11.66*	.02	<.01
Sex Negativity	0.93 (1.24)	0.49 (0.88)	12.32*	.03	<.01
Negative Mood State	0.87 (1.21)	0.82 (1.09)	3.79	.01	.05
Detraction from Partner Sex	1.31 (2.00)	1.25 (1.68)	0.83	<.01	.36
In Committed Relationship	1.20 (1.58)	0.96 (1.41)	0.58	<.01	.45
Bothered by Thoughts	1.00 (1.70)	0.50 (1.16)	3.85	.01	.05
Self-Control	1.78 (1.90)	1.74 (1.82)	0.24	<.01	.62
Emotions Related to Masturbation					
Guilt	1.84 (1.94)	0.96 (1.30)	3.41	.01	.07
Satisfaction	2.85 (1.56)	3.30 (1.21)	1.13	<.01	.29
Anger	0.71 (1.08)	0.62 (0.83)	0.06	<.01	.81
Anxiety	1.64 (1.58)	0.86 (1.07)	18.27*	.04	<.01
Indifference	1.17 (1.15)	1.07 (0.94)	2.46	.01	.12

Note. Mean ratings on subscales and standard deviations (in parentheses) reported by women and men. Results come from ANOVAs conducted after a significant MANOVA. For all these ANOVAs, the degrees of freedom are (1, 485).

**p* < .05.

as before: Self-Exploration and Improvement, Avoidance of Partner Sex, and Pleasure of Partner. However, men had higher mean ratings on only one subscale: Boredom. Of the subscales related to avoiding masturbation, women had higher mean ratings on only three subscales: No Desire or Interest, Fear of Negative Social Evaluation, and Sex Negativity. For emotions associated with masturbation, only one was significant—Anxiety—which was higher for women.

Masturbation Status Differences Controlling for Gender

In a similar fashion, we evaluated the two-way MANOVA to determine the main effect of masturbation status on the subscales, controlling for the effects of gender. We examined two groups of participants: those who reported that they currently masturbate, and those who reported that they currently do not masturbate. Significant differences between masturbators and nonmasturbators were found, Wilks's $\Lambda = .34$, $F(28, 458) = 8.39$, $p < .05$; moreover, follow-up ANOVAs (see Table 11) indicated that these differences were pervasive across almost all the subscales, in all three areas. Of the subscales related to wanting to masturbate, 9 out of the 13 subscales had significant differences, and masturbators had higher mean ratings than nonmasturbators on all 9. Of the subscales related to avoiding masturbation, 5 out of 10 had significant differences, and nonmasturbators had higher mean ratings on all of these. For emotions, masturbators had higher mean ratings for Satisfaction, the only positively valenced emotion. Nonmasturbators had higher mean ratings for all four negatively valenced emotions: Guilt, Anger, Anxiety, and Indifference.

Table 11

Mean Subscale Scores as a Function of Masturbation Status, Controlling for Gender

Subscale	Masturbation Status		F	η^2	p
	Masturbators	Nonmasturbators			
	Reasons for wanting to masturbate				
Pleasure	3.80 (1.32)	1.94 (1.51)	79.63*	.01	<.01
Self-Exploration					
& Improvement	1.68 (1.42)	1.51 (1.38)	8.30*	.02	<.01
Mood Improvement	0.93 (1.34)	0.42 (0.88)	8.82*	.02	<.01
Relaxation & Stress Relief	2.08 (1.52)	0.76 (1.11)	28.92*	.06	<.01
Avoidance of Partner Sex	.076 (1.18)	1.37 (1.57)	0.78	<.01	.38
Arousal Decrease	2.02 (1.54)	0.87 (1.10)	20.78*	.04	<.01
Compulsion	1.61 (1.36)	0.75 (1.20)	16.28*	.03	<.01
Pleasure of Partner	1.07 (1.66)	0.96 (1.44)	1.85	<.01	.18
Adherence to Social Norms	0.36 (0.69)	0.55 (0.81)	0.65	<.01	.42
Substitute for Partner Sex	2.36 (1.35)	1.60 (1.51)	10.92*	.02	<.01
Importance of Fantasy	1.83 (1.59)	0.90 (1.24)	11.84*	.02	<.01
Feeling Unattractive	0.51 (0.99)	0.72 (1.21)	0.04	<.01	.85
Boredom	2.00 (1.80)	0.64 (1.17)	11.25*	.02	<.01
Immorality	0.91 (1.29)	2.57 (1.98)	27.99*	.06	<.01

Table 11 (continued)

Subscale	Masturbation Status		F	η^2	p
	Masturbators	Nonmasturbators			
No Desire or Interest	0.75 (1.06)	3.29 (1.43)	80.15*	.14	<.01
Preference for Partner Sex	3.15 (1.81)	3.32 (1.94)	0.99	<.01	.32
Reasons for avoiding masturbation					
Fear of Negative					
Social Evaluation	1.15 (1.31)	2.05 (1.66)	2.38	.01	.12
Sex Negativity	0.54 (0.92)	1.34 (1.43)	3.93*	.01	.05
Negative Mood State	0.85 (1.10)	0.83 (1.31)	2.31	.01	.13
Detraction from Partner Sex	1.32 (1.80)	1.13 (1.95)	0.98	<.01	.32
In Committed Relationship	0.82 (1.28)	2.06 (1.85)	17.57*	.04	<.01
Bothered by Thoughts	0.63 (1.35)	1.15 (1.76)	1.24	<.01	.27
Self-Control	0.63 (1.35)	1.15 (1.76)	12.36*	.03	<.01
Emotions related to masturbation					
Guilt	0.90 (1.23)	3.26 (1.95)	65.53*	.12	<.01
Satisfaction	3.43 (1.20)	1.72 (1.32)	71.78*	.13	<.01
Anger	0.58 (0.85)	1.00 (1.26)	5.55*	.01	.02
Anxiety	0.93 (1.17)	2.43 (1.57)	14.97*	.03	<.01
Indifference	0.96 (0.92)	1.76 (1.25)	10.03*	.02	<.01

Note. Mean ratings on subscales and standard deviations (in parentheses) reported by women and men. Results come from ANOVAs conducted after a significant MANOVA. For all these ANOVAs, the degrees of freedom are (1, 485).
*p < .05.

Interactions Between Gender and Masturbation Status

Five significant Gender X Masturbation Status interactions were found, Wilks's $\Lambda = .10$, $F(28, 458) = 1.76$, $p < .05$ (see Table 12). Three of these related to avoiding masturbation: No Desire or Interest, $F(1, 485) = 15.75$, $p < .05$, Sex Negativity, $F(1, 485) = 8.47$, $p < .05$, and In Committed Relationship, $F(1, 485) = 4.08$, $p < .05$. Two related to negative emotions: Anxiety, $F(1, 485) = 10.85$, $p < .05$, and Indifference, $F(1, 485) = 12.35$, $p < .05$. All five showed the same pattern: female nonmasturbators had higher mean ratings than the other three groups, who had similar ratings.

Cluster Analysis

The subscales for reasons for wanting to masturbate, reasons for avoiding masturbation, and emotions related to masturbation were used to divide participants into subgroups, or clusters, using a K-means cluster analysis. This analysis sorts cases into groups that have the least possible variability within each group and the maximum variability between groups. We tried several cluster solutions, ranging from two to five clusters, based on our hypothesis that at least three distinct groups would emerge from the dataset (masturbation-positive, masturbation-negative, and masturbation-ambivalent). We evaluated the conceptual interpretability of each solution and decided on the four-cluster solution as the most interpretable and meaningful. Each cluster had a different profile of mean subscale scores, Wilks's $\Lambda = .05$, $F(84, 1376.98) = 29.33$, $p < .05$. The mean subscale scores by cluster are presented in Table 13. To facilitate comparisons of the clusters, we also calculated the

Table 12

Subscales with Significant Interactions by Masturbation Status and Gender

Subscales	Masturbators		Nonmasturbators		<i>F</i>	<i>p</i>
	Women	Men	Women	Men		
Reasons for avoiding masturbation						
No Desire or Interest	1.04 _b	0.60 _c	3.47 _a	1.53 _b	15.75*	<.01
Sex Negativity	0.62 _b	0.49 _b	1.45 _a	0.33 _b	8.47*	.02
In Committed						
Relationship	0.62 _b	0.93 _b	2.12 _a	1.48 _{a,b}	4.08*	.04
Emotions related to masturbation						
Anxiety	1.05 _b	0.85 _b	2.58 _a	0.98 _b	10.85*	<.01
Indifference	0.76 _c	1.07 _b	1.84 _a	1.02 _{b,c}	12.35*	<.01

Note. Means in the same row that do not share subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.

* $p < .05$.

Table 13
Mean Subscale Scores for Each Cluster

Subscale	Cluster				F	η^2
	Enthusiastic	Lukewarm	Immoral	Ambivalent		
	Reasons for wanting to masturbate					
Pleasure	4.59 _a	2.75 _b	1.91 _c	4.53 _a	153.48*	.49
Self-Exploration & Improvement	2.18 _a	0.96 _b	1.04 _b	3.60 _c	91.02*	.34
Mood Improvement	1.40 _a	0.14 _b	0.20 _b	2.55 _c	106.75*	.40
Relaxation & Stress Relief	2.95 _a	0.91 _b	0.62 _b	3.30 _a	173.18*	.52
Avoidance of Partner Sex	0.77 _a	0.33 _b	1.11 _a	3.14 _c	101.14*	.38
Arousal Decrease	2.71 _a	0.91 _b	0.90 _b	3.42 _c	119.10*	.42
Compulsion	2.06 _a	0.72 _b	0.78 _b	3.01 _c	90.03*	.34
Pleasure of Partner	1.07 _a	0.82 _a	0.60 _a	2.73 _b	23.77*	.13
Adherence to Social Norms	0.41 _a	0.23 _a	0.32 _a	1.21 _b	28.17*	.15
Substitute for Partner Sex	2.68 _a	1.73 _b	1.22 _c	3.92 _b	73.91*	.31
Importance of Fantasy	2.53 _a	0.82 _b	0.66 _b	3.36 _c	108.25*	.40

Table 13 (continued)

Subscale	Cluster				F	η^2
	Enthusiastic	Lukewarm	Immoral	Ambivalent		
Feeling Unattractive	0.60 _a	0.17 _b	0.40 _{a,b}	2.16 _c	66.12*	.29
Boredom	3.07 _a	1.01 _b	0.54 _b	1.90 _c	82.82*	.34
WANT COMPOSITE	2.08	0.88	0.79	2.99		
Reasons for avoiding masturbation						
Immorality	0.55 _a	0.43 _a	3.39 _b	3.31 _b	271.36*	.63
No Desire or Interest	0.47 _a	0.79 _b	2.99 _c	2.93 _c	142.29*	.47
Preference for						
Partner Sex	3.10 _a	2.89 _a	3.33 _a	4.43 _b	10.13*	.06
Fear of Negative						
Social Evaluation	1.00 _a	0.67 _b	2.73 _c	2.93 _c	98.80*	.38
Sex Negativity	0.42 _a	0.17 _b	1.52 _c	2.42 _d	131.03*	.45
Negative						
Mood State	0.88 _a	0.43 _b	0.95 _a	2.13 _c	34.44*	.18
Detraction from						
Partner Sex	1.39 _a	0.44 _b	1.65 _a	2.60 _c	52.60*	.25
In Committed						
Relationship	0.59 _a	0.58 _a	2.42 _b	2.53 _b	71.32*	.31

Table 13 (continued)

Subscale	Cluster				F	η^2
	Enthusiastic	Lukewarm	Immoral	Ambivalent		
Bothered by Thoughts	0.40 _a	0.16 _a	1.59 _b	2.88 _c	84.80*	.34
Self-Control	1.45 _a	0.72 _b	3.70 _c	3.79 _c	118.67*	.42
AVOID COMPOSITE	1.03	0.73	2.43	3.10		
Emotions related to masturbation						
Guilt	0.71 _a	0.60 _a	4.04 _b	2.30 _c	225.64*	.58
Satisfaction	4.04 _a	2.62 _b	1.81 _c	2.84 _a	99.73*	.38
Anger	0.69 _a	0.25 _b	1.21 _c	1.32 _c	33.00*	.17
Anxiety	0.87 _a	0.59 _a	2.82 _b	2.32 _b	100.39*	.38
Indifference	0.93 _a	0.75 _a	1.94 _b	1.86 _b	43.75*	.21
NEGATIVE EMOTION						
COMPOSITE	0.80	0.55	2.50	1.95		

Note. Mean ratings on subscales reported by participants in each cluster. Results come from ANOVAs conducted after a significant MANOVA. For all these ANOVAs, the degrees of freedom are (3, 487). All ANOVAs were significant at $p < .01$. Means in the same row that do not share subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.

composite mean ratings for three groups of subscales: reasons for wanting to masturbate, reasons for avoiding masturbation, and negatively valenced emotions associated with masturbation.

The first cluster of participants ($n = 175$), which we dubbed “enthusiastic,” had a generally sex-positive and pro-masturbation profile. These participants had high scores on subscales reflecting pleasurable experiences with masturbation. For example, they rated highly on most of the wanting to masturbate subscales, ranging from masturbating for pleasure and arousal to masturbating out of boredom. Across all the wanting to masturbate subscales, they had a composite mean rating of 2.08. This subgroup had low mean ratings for most of the avoiding masturbation subscales, with an composite mean rating of 1.03. They had a very high mean rating on Satisfaction ($M = 4.04$) and a very low composite mean rating on the negatively valenced emotions (Negative Emotion Composite = 0.80).

The second cluster of participants ($n = 186$), which we dubbed “lukewarm,” also had a generally sex-positive and pro-masturbation profile. The key difference between this subgroup and the enthusiastic subgroup is that the lukewarm cluster rated lower across the board, on all types of subscales. This cluster had fairly low ratings on the subscales related to wanting to masturbate (Want Composite = 0.88) and the lowest mean ratings on subscales related to avoiding masturbation (Avoid Composite = 0.73). These participants also showed relatively low ratings on the emotion subscales, although they still felt more positively (Satisfaction $M = 2.62$) than negatively (Negative Emotion Composite = 0.55) during masturbation.

The third cluster ($n = 81$), which we dubbed “immoral,” was the most masturbation-negative group. Of all the clusters, the immoral group had the lowest mean ratings on subscales related to wanting to masturbate (Want Composite = 0.79). They had high mean ratings on subscales related to avoiding masturbation (Avoid Composite = 2.43). Also, this cluster showed by far the lowest mean rating on the Satisfaction subscale ($M = 1.81$) and by far the highest composite mean rating for the negatively valenced emotions (Negative Emotion Composite = 2.50).

The fourth group ($n = 49$), which we dubbed “ambivalent,” seemed to espouse both positive and negative meanings associated with masturbation. Another way of looking at this cluster of participants is that they had high mean ratings across all of the subscales. They had fairly high ratings on the subscales reflecting wanting to masturbate (Want Composite = 2.99) and also fairly high ratings on subscales reflecting avoiding masturbation (Avoid Composite = 3.10). Similarly, they appeared to have ambivalent or mixed emotions related to masturbation; they rated fairly high on Satisfaction ($M = 3.84$) but also somewhat high on the more negatively valenced emotions (Negative Emotion Composite = 1.95).

Upon further exploration, we found that these clusters were related to several variables (see Table 14). There were differences between the clusters on the following variables: gender, $\chi^2(3, n = 491) = 50.28, p < .05$, whether or not participants currently masturbate, $\chi^2(3, n = 489) = 129.33, p < .05$, and whether or not participants had ever engaged in penile-vaginal intercourse, $\chi^2(3, n = 491) = 32.36, p$

Table 14

Frequency of Gender, Masturbation Status, and Penile-Vaginal Intercourse for Each Cluster

	Cluster			
	Enthusiastic	Lukewarm	Immoral	Ambivalent
Gender				
Women	29.1% (51)	47.8% (89)	71.6% (58)	67.3% (33)
Men	70.9% (124)	52.2% (97)	28.4% (23)	32.7% (16)
Masturbation status				
Masturbators	97.7% (171)	83.2% (153)	37.0% (30)	75.5% (37)
Nonmasturbators	2.3% (4)	16.8% (31)	63.0% (51)	24.5% (12)
Penile-vaginal intercourse				
Yes	78.9% (138)	73.1% (136)	45.7% (37)	59.2% (29)
No	21.1% (37)	26.9% (50)	54.3% (44)	40.8% (20)

Note. Within-cluster percentages and numbers (in parentheses) of the frequency in each cluster.

< .05. Interestingly, clusters were not related to relationship status, $\chi^2(3, n = 475) = 10.81, p = .55$ or sexual orientation $\chi^2(6, n = 490) = 6.44, p = .38$.

In the group with the enthusiastic approach to masturbation, most participants (70.9%) were men, and almost all reported currently masturbating (97.7%). Most had previously engaged in penile-vaginal intercourse (78.9%). The enthusiastic group can be thought of as mostly male, experienced with masturbation, and experienced with penile-vaginal intercourse. However, it is also important to keep in mind that this group was 29.1% female. When asked about reasons for wanting to masturbate, one woman in the enthusiastic group said, “The way you feel, you can do it how you like it.” Another enthusiastic woman described women who masturbate as “sensual, self-assured, happy with body.”

In contrast, the group with the immoral approach to masturbation was predominantly female (71.6%). A majority reported that they did not masturbate (63.0%), and about half (54.3%) had not engaged in penile-vaginal intercourse. Thus, the immoral group can be thought of as mostly female and less likely to have masturbatory or other sexual experiences. However, it is significant that 28.4% of this group was male. When asked how he feels or would feel during masturbation, one participant told us, “I would feel like a loser.” Interestingly, men with the immoral approach often expressed conflicting feelings about masturbation. One participant with this approach who was asked how he feels during masturbation responded, “Dirty, pleased, satisfied.” Another participant explained his experience: “I feel a little dirty and guilty but very good at the same time.”

Participants in the lukewarm cluster consisted of approximately equal numbers of women and men. Most of them reported masturbating (83.2%) and having had penile-vaginal intercourse (73.1%). Many lukewarm participants described masturbation as acceptable or even positive, but perhaps not for them. One woman reported, "I usually don't, I don't feel it's necessary." Another woman described people who masturbate as "normal, average," but said, "I believe it is something that wouldn't excite me." Similarly, a male participant had no opinions of people who masturbate, but wondered, "What's the point of doing it?" When asked what she would think of a woman who masturbates, one woman said, "Some who is at one with herself," but when asked about her own behavior, she explained, "I feel as though I could be doing other useful things with my time."

Most of the participants in the ambivalent cluster were women (67.3%), most reported having masturbated, (75.5%), and most reported having engaged in penile-vaginal intercourse (59.2%). Ambivalence was reflected in some of these participants' qualitative answers. When asked how he feels during masturbation, one participant said, "Satisfying at first, but sometimes guilty afterwards." Another man wrote, "Good or guilty...it depends on the stimulus. If porn is involved I feel guilty. If I think about my lady, it's not bad." One female participant explained, "I think it would feel good but not as good as having something done to you by someone else." Another ambivalent woman said, "Sometimes I think to masturbate is weird and kinky." One man reported that he feels "good/satisfied" during masturbation, but then described people who masturbate as "not attractive, weak."

Ex-Masturbators

A small but intriguing group of participants were ex-masturbators, who reported having masturbated at some point in their lives but having stopped. Of the entire dataset, 8.3% of women ($n = 20$) and 2.6% ($n = 7$) of men were ex-masturbators. Because there were so few participants in this group, we chose to examine women and men together. A slight majority of the ex-masturbators (59.3%) reported having engaged in penile-vaginal intercourse, as compared with 74.7% of the current-masturbators and 43.4% of the never-masturbators. Most (70.4%) reported wanting to masturbate but avoiding doing so a lot of the time. This would suggest that most of the ex-masturbators did not simply lose the desire to masturbate. Rather, they still have the urge to do so, but do not act on it. Not surprisingly, very few ex-masturbators (7.4%) were in the enthusiastic cluster. Most were in either the lukewarm (40.7%) and immoral (40.7%) clusters. Only 11.1% were in the ambivalent group. This may suggest that ex-masturbators are not undecided on their attitudes toward masturbation. Rather, they may have clear and powerful motivations for stopping masturbating.

In their qualitative answers, ex-masturbators mentioned several reasons for having stopped masturbating. First, for a number of participants, religious or moral concerns emerged over time that influenced masturbatory behavior. For example, when asked about the frequency of her masturbation, an ex-masturbator said, “Then, twice a week. Now, zero times . . . I now avoid masturbating.” She went on to explain, “Against my religion so I don’t anymore.” Another participant cited her

“personal moral beliefs” as responsible for a decrease in masturbation. One woman wrote, “Sometimes I am ashamed. I don’t always think masturbation is a good thing.” Another woman reported, “I don’t want to because I think it’s weird. I feel ashamed for having ever did it [sic].” A male ex-masturbator wrote, “I realized masturbating is sinful, so I stopped.”

A second important reason seemed to be a strong preference for sex with a partner or a belief that partnered sex was more appropriate. A female participant explained, “[Masturbation isn’t] intimate with another person.” One female ex-masturbator said, “It is un-lady like...It seems strange. You should get pleasure from the opposite sex.” When asked what reasons she had for not wanting to masturbate, another woman wrote, “Because someone is one call away.” One woman explained, “Satisfied with sexual partner—no need to.” A male participant said, “Why should I do it when in the future a girl will do it for me.” One woman declared, “Have someone else do it.”

Only a small portion of the ex-masturbators reported stopped because of lack of interest. One female participant wrote, “No reason for it. I like to do sports instead of masturbating for fun.” Another woman said, “Because I don’t feel like it.” Another woman said, “There’s nothing wrong with it . . . there really for me is no need to masturbate.”

Discussion

In our sample, 70.4% of the women and 98.9% of the men had masturbated. These gender differences are consistent with prior research (e.g., Pinkerton et al.,

2002). It is noteworthy that such a gender difference still exists, despite recent social changes in the appreciation of women's sexuality and psychological shifts in our understanding of the value of masturbation in sexual and mental health (e.g., Coleman, 2002). This difference is also important because directed masturbation training is most commonly prescribed in sex therapy with women, who not only masturbate less frequently, but who seem to have more negative attitudes toward masturbation in general.

An observation worthy of note is that, across several measures, women seemed to have more behavioral variation than men. Often, women were distributed bimodally, whereas men tended to collect mostly under one category. For instance, when asked about the frequency of masturbation, women were distributed mostly into two very different groups: monthly or every few months, or never. On the other hand, men were mostly in one group: weekly. Similarly, when asked about the frequency of orgasm during masturbation, women again fell mostly into two very different groups: experiencing orgasm every or almost every time they masturbate, or seldom or never. Men fell mostly into one group: every or almost every time. The possibility that women's masturbation and orgasm behaviors have greater variation than men's behaviors may relate to the idea of women's erotic plasticity. Baumeister (2000) argued that women's sexuality is more malleable and variable, in part because women exhibit more behavioral variation across time.

Meanings of Masturbation

The main purpose of the present study was to investigate the meanings people attach to masturbation. Specifically, we explored reasons for wanting to masturbate, reasons for avoiding masturbation, and emotions related to masturbation. The factor analysis revealed a diverse and varied set of meanings. There are multiple reasons for people wanting to masturbate, but almost just as many reasons for wanting to avoid masturbation. Masturbation is not a neutral activity for most people; it is rich with multiple reasons to engage in it and equally varied reasons to prevent it from happening. This reflects the complexity and significant breadth of meanings associated with masturbation.

Approaches to Masturbation

Cluster analysis suggested that individuals can be grouped into several meaningful categories that vary in the extent to which they reflect positive versus negative attitudes toward masturbation. Significant differences were found between these clusters in gender, masturbation experience, and other sexual experience.

Individuals who approach masturbation with an immoral attitude may be especially resistant to DMT or to other forms of sex therapy. It may be especially important for clinicians to address the initial feelings of these clients prior to launching into an intervention. Men who approach masturbation from an immoral standpoint are not as rare as one might imagine, and it could be hypothesized that these men and women are more likely to present with sexual dysfunction than men

and women with different approaches. Future exploration of this group is recommended.

In contrast, individuals who approach masturbation with an enthusiastic approach may experience success with DMT. In particular, women who approach masturbation with the enthusiastic approach constitute a group worthy of future study. It is hypothesized that these women may be more responsive all forms of sex therapy due to their masturbation-positive attitude and sexual experience. It is also possible, of course, that these enthusiastic women may be far less likely to experience clinically significant sexual problems.

There also exist two approaches to masturbation that are not as clear-cut. Participants with a lukewarm approach had more positive than negative attitudes and emotions related to masturbation, but did not endorse any items strongly. It may be that they did not have intense opinions or feelings about masturbation. For this reason, they may be willing to consider treatments such as DMT but may lack a strong investment in treatment. The final approach to masturbation is the ambivalent approach, represented by high endorsement of items across the board, both masturbation-positive and masturbation-negative. Each of these four approaches deserves further research.

Limitations of the Present Study and Future Directions

Our sample was limited to college students enrolled in introductory psychology. Most of our participants were between the ages of 18 and 20, and almost all (96.7%) were heterosexual. Moreover, it is likely the case that many of the

individuals comprising our sample were from the Midwestern United States, so their attitudes, motivations, and emotions associated with masturbation may differ from those of individuals from other parts of the country or other cultures. Therefore, our results may not generalize to individuals not different from our participants (e.g., older individuals, non-heterosexuals, non-Americans, married individuals).

Our study was also limited in its methodology. Self-report questionnaires, most of all those which deal with topics that are perceived to be personal or morally questionable, can be problematic. Surveys related to sexuality may not yield entirely accurate results. In particular, masturbation is one of the most difficult behaviors to examine in this manner, even when participants are assured that their information will be kept confidential (Halpern et al., 2000). It seems that masturbation is a sensitive behavior that participants may be particularly reluctant to report, perhaps due to the lingering taboo nature of the behavior and out of fear that someone will find out. This is reflected in our subscale Fear of Negative Social Evaluation. It is a great challenge in the area of sex research to use methodologies besides self-report techniques, especially even more so for a behavior as private and personal as masturbation.

One area that may yield particularly interesting information is religion and how religious beliefs relate to masturbation. We did not ask our sample about their specific religious orientation. However, many participants indicated that their religious background was a crucial factor in determining their attitudes toward masturbation, which can differ from attitudes toward sex or sexuality in general. For example, one woman explained, “I am Catholic and that is against my religion. If I

need to be pleased in that way, I do not do it myself, meaning my boyfriend does.” Similarly, a male participant wrote, “I used to do it more than once a day, then I got a girlfriend, became more religious, and realized it was kinda gross [sic] to do it that much.” One young man was extremely adamant about his religious views: “I no longer partake in masturbation . . . God has called Christians to a standard of purity and Jesus told us that to look at a woman lustfully is on par spiritually to committing adultery with her.” For some, religious beliefs have a powerful impact on opinions and feelings about masturbation. Further exploration of this area may help us better understand the importance of religion.

In a clinical sense, these subscales could prove useful in the treatment of individuals with sexual disorders, particularly when DMT is part of the intervention. Clinicians may want to administer a shortened version of our subscales to assess the client’s presenting attitudes, beliefs, and emotions related to masturbation, which are likely worthy of exploration prior to asking the client to engage in masturbatory activity. Because it also seems that people have several approaches toward masturbation, it could be useful to identify which type the client most endorses. Future research in this area might focus on creating and validating a questionnaire to be used in clinical settings, further exploring different approaches to masturbation, or expanding our understanding of the meanings of masturbation to diverse populations.

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Appendix A

Items and Factor Loadings for Reasons for Wanting to Masturbate Factors

Factor 1: Pleasure

If I'm feeling horny	.734
I find it pleasurable	.715
If I want to have an orgasm	.647
Because it's fun	.652
Because I know exactly how to stimulate myself and maximize my pleasure	.618
If I am already sexually aroused (e.g., from watching a movie, reading a magazine)	.707
If I see someone or something that is arousing	.650
If I have an urge to do something sexual	.650
Because I deserve to experience pleasure ^{a, b}	.453

Factor 2: Self-Exploration and Improvement

I hope that masturbating will help me reach orgasm with a partner	.555
To explore my own sexuality	.698
I'm curious about it	.624
To make myself a better sexual partner (e.g., to figure out how to achieve orgasm or to become more comfortable having orgasms with my partner)	.662
Masturbating improves my sexual health	.492

To learn how to give myself pleasure	.772
To gain more sexual confidence	.786
To learn how to have better orgasms	.776
To try a new method (e.g., sex toys, pornography) ^a	.416
Because it's good exercise ^{a, b}	.436

Factor 3: Mood Improvement

If I'm angry	.663
If I feel frustrated about something else	.614
It distracts me when I'm feeling down	.674
If I'm in a bad mood	.716
If I'm feeling lazy ^{c, d}	.617

Factor 4: Relaxation and Stress Relief

To relieve stress	.748
If I'm anxious	.707
If I want to relax	.718
To calm myself down	.634
It makes me feel peaceful	.595
It's a good way to take a break (e.g., a break from studying, etc.) ^{a, b}	.494
To help me fall asleep ^{a, b}	.475
It's an escape ^{a, b}	.440

If I'm busy ^d	.506
<i><u>Factor 5: Avoidance of Partner Sex</u></i>	
Masturbating helps me remain a virgin	.693
Masturbating makes it easier to avoid sex with a partner, and I don't want to have sex with a partner for moral reasons	.880
Masturbating makes it easier to avoid sex with a partner, and I don't want to have sex with a partner for health reasons	.801
Masturbating makes it easier to avoid sex with a partner, and I don't want to have sex with a partner for self-esteem reasons	.700
It's more moral to masturbate than to have sex with a partner	.647
To avoid using another person for sex	.620
<i><u>Factor 6: Arousal Decrease</u></i>	
If I want to avoid unwanted arousal later	.620
If I'm so sexually aroused that it's interfering with other things I want or need to do	.588
If I want to decrease my sexual arousal so I can focus on something else	.755
So that I can focus my concentration on a task after masturbating	.649
So that I can stop thinking about masturbating	.638
If I'm already sexually aroused, and I want to decrease my level of sexual arousal	.611

Factor 7: Compulsion

Because—even though I try—I just can’t stop myself	.671
It’s a compulsive sexual behavior	.619
I just do it without really thinking about it	.557
I feel an uncontrollable urge to do it	.746
It’s a habit	.605

Factor 8: Pleasure of partner

My partner wants to watch me do it	.819
Because it arouses my partner when he/she knows that I masturbated	.808
Because it arouses my partner when I masturbate in front of him/her	.872
Someone else thinks I should ^{d, e}	.501

Factor 9: Adherence to Social Norms

So that I could say I’ve done it (it’s something to talk about)	.718
My friends have masturbated, and I want to be able to talk with them about it	.743
“Everyone” does it, and I want to feel “sexually normal”	.710
Because my friends masturbate	.743
Someone else thinks I should ^{a, b}	.428
Because I hear about it from TV, movies, magazines, etc. ^{a, b}	.448

Factor 10: Substitution for Partner Sex

If I'm not getting as much sex as I want	.636
Because it's a substitute for sex with a partner	.677
Out of sexual frustration	.685
If I don't have a partner to have sex with	.692
Masturbating helps me keep my mind off sex with a partner	.692
If I have a partner, but my partner refuses to have sex ^{a, b}	.446

Factor 11: Importance of Fantasy

I get aroused by sexual activities that are not socially acceptable, so I fantasize about them during masturbation	.570
I get aroused by sexual activities that are not possible in real life, so I fantasize about them during masturbation	.655
I enjoy my fantasies during masturbation	.503
If I want to exercise my imagination ^{a, b}	.489

Feeling 12: Feeling Unattractive

Because I feel like no one is attracted to me	.796
Because I'm not comfortable enough with my body to be sexual with someone else	.625
If I'm feeling unattractive	.755

Factor 13: Boredom

If there is nothing else to do	.726
If I'm bored	.696

^a Item was added because it was conceptually appropriate.

^b Item was added because it raised Cronbach's alpha.

^c Item was dropped because it was conceptually inappropriate.

^d Item was dropped because it lowered Cronbach's alpha.

^e Item was dropped because it crossloaded on another factor.

Appendix B

Items and Factor Loadings for Reasons for Avoiding Masturbation Factors

Factor 1: Immorality

It's against my religion	.855
It's against my morals or values	.804
It's against my parents' morals or values	.836
I would feel guilty about it	.560
I know I'd regret it	.603
I feel bad about myself afterwards	.538
My family is against it	.823
My friends are against it	.650
It makes me feel empty inside	.592
I was raised to believe it's wrong	.819
It makes me feel ashamed	.664
It's disrespectful to myself	.705
Masturbation in an adult is immature	.569
It makes me feel like I'm sinning against myself	.761
It does not fit with my religious views	.862
It would make me feel cheap ^{a, b}	.464
I want to improve my self-discipline ^{c, d}	.531
I think I should have more self control ^{c, e}	.516

Society says it's wrong^e .544

Factor 2: No desire or interest

I'm just not interested .748

It just doesn't appeal to me .790

I think it would be physically uncomfortable .716

It seems weird to me .781

I feel strange doing it .776

I'm not sure how to masturbate .633

I don't like how it feels .532

It's boring .617

It's a waste of time .584

It seems pointless .681

I don't find it sexually arousing .763

It feels dirty^c .541

It's embarrassing to me^e .564

Factor 3: Preference for partner sex

If I'm currently sexually satisfied .541

Because I like intercourse better .842

Because I like any sexual contact with a partner better .821

Orgasms are better with a partner .808

If I've recently had sex	.579
If I'm satisfied with the quantity of the sex I'm having	.733
If I'm satisfied with the quality of the sex I'm having	.744
It's not as good as sex	.800

Factor 4: Fear of negative social evaluation

Society says it's wrong	.528
I'm afraid of someone knowing that I masturbate	.773
If I'm afraid of being caught	.623
It's embarrassing to me	.503
Other people might find me gross	.698
I fear it will damage my reputation ^{a, b}	.466

Factor 5: Sex negativity

I feel uncomfortable or embarrassed about my body	.633
It makes me feel lonely	.575
It makes me feel sexually inadequate	.534
It's bad for my health	.561
I am uncomfortable with any sexual behavior ^{a, b}	.431
I am anxious about sexual behavior ^{a, b}	.491

Factor 6: Negative mood state

If I'm stressed	.740
If I'm depressed	.655
If I'm worried about something else	.608
If I've had a bad day	.734

Factor 7: Detraction from partner sex

It makes me less able to orgasm during sex	.798
It makes me less horny during sex	.781
If I expect to have sex in the near future ^d	.526

Factor 8: In committed relationship

If I am committed to someone	.664
If I'm in a committed relationship	.748
My partner doesn't want me to do it ^{a, b}	.423
I feel like I'm cheating on my partner ^{a, b}	.488

Factor 9: Bothered by thoughts

My fantasies during masturbation bother me	.703
My sexual thoughts during masturbation bother me	.715

Factor 10: Self-control

I think I should have more self-control	.502
I like to feel in control of my urges ^{a, b}	.495
I want to improve my self-discipline ^{a, b}	.422

^a Item was added because it was conceptually appropriate.

^b Item was added because it raised Cronbach's alpha.

^c Item was dropped because it was conceptually inappropriate.

^d Item was dropped because it lowered Cronbach's alpha.

^e Item was dropped because it crossloaded on another factor.

Appendix C

Items and Factor Loadings for Emotions Related to Masturbation Factors

Factor 1: Immorality

Guilty	.835
Pathetic	.844
Strange	.692
Embarrassed	.785
Ashamed	.871
Regretful	.888
Degraded	.861
Immoral	.864
Remorseful	.847
Disgusted	.798
Disappointed	.699
Sinful	.838
Unattractive ^{c, d}	.538
Confused ^{c, d}	.518
Sad ^{c, d}	.530
Alienated from myself ^{c, d}	.553
Awkward ^{c, d, e}	.644
Detached ^{c, d, e}	.558

Empty ^e	.779
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Factor 2: Satisfaction

Happy	.737
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Healthy	.693
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Horny	.606
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Focused	.614
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Good	.763
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Calm	.709
------	------

Relieved	.764
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In control	.723
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Pleased	.792
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Connected to myself	.700
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Refreshed	.802
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Content	.707
---------	------

Attractive	.619
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Thrilled	.769
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Aroused	.713
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Relaxed	.787
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Comfortable	.768
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Satisfied	.781
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Invigorated	.681
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Alert ^{c, d} .549

Factor 3: Anger

Frustrated .602

Aggressive .521

Angry .727

Stressed ^{a, b} .493

Sad ^c .591

Factor 4: Anxiety

Anxious .571

Tense .604

Nervous .552

Awkward ^{a, b} .449

Factor 5: Indifference

Indifferent .679

Nothing .743

Unemotional .563

Empty ^{a, b} .147

Detached ^{a, b} .253

Passive ^{a, b} .496

- ^a Item was added because it was conceptually appropriate.
- ^b Item was added because it raised Cronbach's alpha.
- ^c Item was dropped because it was conceptually inappropriate.
- ^d Item was dropped because it lowered Cronbach's alpha.
- ^e Item was dropped because it crossloaded on another factor.

Appendix D

Questionnaire

See Supplementary File

Appendix E

Information Sheet

INTRODUCTION: The Department of Psychology at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You are free to decide whether or not to participate in this study. Even if you agree to participate, you are free to withdraw at any time without penalty. If you do withdraw from this study, it will not affect the credit you received up to that point.

PURPOSE OF THE STUDY: The purpose of this study is to investigate students' beliefs, attitudes, and feelings related to masturbation.

PROCEDURES and INFORMATION TO BE COLLECTED: This study involves a questionnaire. The questionnaire will be anonymous and will take no more than one hour of your time. Some of the questions that you will be asked will be personal. For example, many of the questions ask about your own attitudes toward and experiences with masturbation.

ANONYMITY: All questionnaires are completely anonymous. Nowhere on the questionnaire do we ask for your name, and we have avoided asking questions that might identify you indirectly.

RISKS and BENEFITS: We do not anticipate that participating in this study will cause any risks. If you are uncomfortable with any of the questions, you may skip them. In exchange for your participation, you will receive one credit toward your PSYC 104 research requirement for every half hour or portion thereof that you participate.

USE OF THE DATA: The data collected in this study will be used by graduate student Chantal Young, Professor Charlene Muehlenhard, and Professor Muehlenhard's students to better understand the attitudes and behaviors of college students. The data collected in this study could be used at any time in the future.

PARTICIPANT CERTIFICATION: I have read this Information Sheet. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email dhann@ku.edu. Completion of the survey indicates your willingness to participate in this project and that you are at least 18 years old.

Appendix F

Meeting Script

Introducing the Study:

1. Intro. Of Research Assistants

Hello! My name is _____ and this is _____. We're members of the research team for this study. We'd like to thank you for being here and for participating in this study.

On your desk is a consent form, which explains what we'll be asking you to do for this study. Please read it over.

2. Basics of Study

We appreciate you being here and participating in our research. For this research project we will be giving you a questionnaire and asking you to answer some questions. Many of these questions will seem personal. However, we would ask that you answer as completely and honestly as you can.

In return for your honesty, we promise that all of your responses to this questionnaire will remain completely anonymous. We will give you more information about this study when you have completed the questionnaire. If you have any questions during or after the study, you may feel free to come up and ask us.

3. Consent Forms

Has everyone had a chance to read the consent form? *(Pause and wait for people who look like they're reading to finish.)* Are there any questions about it? *(Pause.)* Okay. If you've decided to participate in this study, remain in your seats. *(People can choose to withdraw and still get credit if they want. If anyone wants to leave, ask them to wait briefly while you finish introducing the study. Put a mark beside their name on the sign-up sheet so that we know to give them only one credit.)*

Getting Started:

1. Anonymity

Before we begin, we want to state again that we're taking every precaution to insure that your answers are completely anonymous. We're asking you not to put your name or KU ID number anywhere on the answer sheets. We haven't asked any questions that could identify you. We'll also have you place your questionnaire into an envelope at the end of the session. This way, there is no way to match up your

answers with your name or face. Your materials will remain in these envelopes until the researcher running this study removes them.

Does anyone have any questions?

We expect that the questionnaire will take you at least half an hour to complete. Please take your time filling it out. When you have completed the questionnaire, put it in the envelope and drop it off with us. Please pick up a debriefing form on your way out. You will have about 40 minutes to complete the questionnaire, until [5 minutes before the end of the session.]

Some of the questions in the questionnaire deal with masturbation. Regardless of whether or not you masturbate, everyone will be able to answer these questions. Please be sure to complete each part of the questionnaire, even if you do not masturbate.

2. Pass Out Questionnaires

We're passing out the questionnaires now. You may begin.

While Students Are Completing Questionnaires:

1. Try to keep busy (e.g., read a book or do homework) during the session so that participants do not feel self-conscious.
2. Hand participants debriefing forms on their way out.
3. If there is no clock in the room, maybe warn participants when there is 15 minutes and 10 minutes left to complete the questionnaire. With 5 minutes left (10 minutes until the session is officially over), tell any remaining students to finish up.
4. When the time is up, ask any remaining participants to place their questionnaires in the envelopes.

Appendix G

Debriefing Form

The purpose of this study is to investigate college students' beliefs, attitudes, and feelings related to masturbation. The questionnaire asked you to answer a set of questions concerning masturbation. We asked about various aspects of masturbation, such as your reasons for wanting and not wanting to masturbate, your feelings toward masturbation, your beliefs about women and men who do and do not masturbate, etc., in order to investigate the meanings you attach to masturbation.

This study is an example of a combination of *qualitative* and *quantitative* questions. That is, sometimes we asked open-ended questions and requested that you write your own answers, and other times we gave you set options to choose from. After we collect the data from this study, we will identify items that group together into themes. For example, when people feel both "stressed" and "tense" when they masturbate, these items could be grouped under a theme called "Masturbation Anxiety".

The results of this study could have implications for sex therapy. For example, suppose that a person sees a therapist to get help with an arousal or orgasmic disorder. The therapist might recommend that the person masturbate to explore what she or he finds arousing or to become more comfortable with orgasm. Sometimes these recommendations work, but sometimes they do not. Understanding the meaning people attach to masturbation may help improve treatment and enhance our knowledge about why this treatment does not always work for everyone.

Thank you for your participation in this study!

Because of the nature of this research and the personal questions that it involved answering, you may have questions or issues that you would like to discuss further. We have provided information about how to contact us in case you would like to talk about your feelings concerning your participation in this study. We have also listed the phone numbers of some organizations on campus and in Lawrence that provide counseling services in case your participation in this study has raised some issues that you want to talk about with someone.

The graduate student conducting this study:
Chantal Young, B.S.
Phone: (785) 864-9863 Email: tali@ku.edu

The faculty advisor for this study:
Charlene Muehlenhard, Ph.D.
Phone: (785) 864-9860 Email: charlene@ku.edu

Counseling services:

- 1) KU Psychological Clinic, 315 Fraser Hall, (785) 864-4121. Small fee per session.
- 2) Counseling and Psychological Services (CAPS), Watkins Health Center, (785) 864-2277. Small fee per session.
- 3) Headquarters Counseling Center, available 24/7, for any concern, (785) 841-2345. Free of charge.

To discuss your rights as a research participant:

Human Subjects Committee Lawrence, (785) 864-7429; David Hann, dhann@ku.edu