

## The Health Benefits of Sexual Expression

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In 1994, the 14<sup>th</sup> World Congress of Sexology adopted the *Declaration of Sexual Rights*. This document of “fundamental and universal human rights” included the right to sexual pleasure. This international gathering of sexuality scientists declared, “Sexual pleasure, including autoeroticism, is a source of physical, psychological, intellectual and spiritual well-being” (WAS, 1994).

Despite this scientific view, the belief that sex has a *negative* effect upon the individual has been more common in many historical and most contemporary cultures. In fact, Western civilization has a millennia-long tradition of sex-negative attitudes and biases. In the United States, this heritage was relieved briefly by the “joy-of-sex” revolution of the ‘60s and ‘70s, but alarmist sexual viewpoints retrenched and solidified with the advent of the HIV pandemic. Today’s public discourse about sexuality is almost exclusively about risks and dangers: abuse, addiction, dysfunction, infection, pedophilia, teen pregnancy, and the struggle of sexual minorities for their civil rights. Public discourse about the physiological and psychosocial health *benefits* of sexual expression has been almost entirely absent (Reiss, 1990; Davey Smith, *et al.*, 1997).

However, pioneering researchers have demonstrated many of the various health benefits of sexual expression, including its positive physical, intellectual, emotional, and social dimensions (Ogden, 2001). Although this body of research is limited and often only suggestive when compared with the vast sexological literature on dysfunction,

disease, and unwanted pregnancy, we are accumulating data to begin to answer many questions about the potential benefits of sexual expression, including:

- What are the ways in which sexual expression benefits us physically?
- How do various forms of sexual expression benefit us emotionally?
- Are there connections between sexual activity and spirituality?
- Are there positive ways that early sex play affects personal growth?
- How does sexual expression positively affect the lives of the disabled?
- How does sexual expression positively affect the lives of older women and men?
- Do non-procreative sexual activities have benefits for society?
- Is recreational sex good for people?
- Can having sex be therapeutic?
- Are there psychosocial benefits in sexual abstinence until marriage?
- Are there differences in the health of the sexually active and the sexually abstinent?

The studies cited in this paper provide suggestive insights to these and other important questions about the various potential health benefits of sexual expression. This paper is neither a meta-analysis nor a critique of the research — it presents some of the published findings that suggest the positive benefits that sexual expression may have for physical and emotional health. The following studies, while often not definitive, are suggestive, intriguing, and point to the need for more rigorous research in this important area.

## Physical Health

Many studies have been conducted to examine the relationship between sexual activity and physical health. The potential negative impacts of sexual activity on physical health — including sexually transmitted infections and unplanned pregnancy — have been widely reported. Less publicized studies suggest that both masturbation and partnered sexual activity may enhance our well-being in many ways: fostering happiness, immunity, longevity, pain management, and sexual and reproductive health. Some studies even suggest that sexual activity may be associated with reducing the risk of the two leading causes of death in the U.S. — heart disease and cancer (Ebrahim, *et al.*, 2002; Petridou, *et al.*, 2000).

### Longevity

- A study with a 10-year follow-up was conducted in Caerphilly, South Wales, to examine the relationship between frequency of orgasm and mortality. From 1979 to 1983, 918 men aged 45–59 were recruited to the study. The men were given a physical examination, including a medical history, and blood pressure, electrocardiogram, and cholesterol screenings. They were also asked about their frequency of orgasm. At the 10-year follow-up, it was found that the mortality risk was 50 percent lower among men who had frequent orgasms (defined in this study as two or more per week) than among men who had orgasms less than once a month. Even when controlling for other factors such as age, social class, and smoking status, a strong and statistically significant inverse relationship was found between orgasm frequency and risk of death. The authors of this study conclude that “[s]exual activity seems to have a protective effect on men’s health” (Davey Smith, *et al.*, 1997).
- A longitudinal study followed 252 racially diverse people in North Carolina over the course of 25 years to determine what factors were important in determining lifespan. Three of the factors studied were frequency of intercourse, past enjoyment of intercourse, and present enjoyment of intercourse. For men, frequency of intercourse was a significant predictor of longevity. While frequency of intercourse was not predictive of longevity for women, women who reported past enjoyment of intercourse had greater longevity. Current enjoyment of intercourse was not correlated with longevity for either women or men. Even though causation cannot be determined from this study, it suggests a positive association between sexual

intercourse and pleasure and longevity (Palmore, 1982).

- A Swedish study also found an association between sexual intercourse and longevity. One hundred and sixty-six 70-year-old men and 226 women were surveyed. Five years later records were checked to see which participants had died before their 75th birthday. Mortality was higher among men who had ceased having sexual intercourse at earlier ages. No association was found between sexual intercourse and mortality for women (Persson, 1981).

### Heart Disease and Stroke

- Further analysis of the Caerphilly study (see “Longevity” above) examined the relationship between engaging in sexual intercourse and experiencing heart disease and stroke. Researchers found that even when adjusting for age and other risk factors, frequent sexual intercourse — twice or more a week — was correlated with lower incidence of fatal coronary events. Upon a 10-year follow-up, those who reported an intermediate or low frequency of sexual intercourse — less than once a month — had rates of fatal coronary incidences twice that of those who had reported high frequency of sexual intercourse. Using similar methods, researchers found that frequent sexual intercourse did *not* result in an increased risk of stroke. This finding is particularly important, given a prevailing belief that frequent sexual intercourse may cause strokes (Ebrahim, *et al.*, 2002).
- Additional research with middle-aged men suggests a relationship between the levels of the hormone dehydroepiandrosterone (DHEA), which is released with orgasm, and a reduction in the risk of heart disease (Feldman, *et al.*, 1998). Testosterone, the hormone important to the sex drive in women and men, has also been shown to help reduce the risk of heart attack and to reduce harm to the coronary muscles when heart attack does occur (Booth, *et al.*, 1999; Fogari, *et al.*, 2002).
- An earlier study, conducted from 1972 to 1975, examined the sex lives of 100 Israeli women hospitalized with myocardial infarction in comparison to a control group of 100 women who were hospitalized for other reasons. The control group was matched for age. Patients were given a 57-item interview about their sex lives, including the incidence of “frigidity” and the onset of menopause. “Frigidity” was indicated by a lack of enjoyment of sexual intercourse, an

inability to achieve orgasm during coitus that led to emotional distress, and/or a lack of orgasm, sexual enjoyment, and/or sexual intercourse due to a partner's illness or impotence. The study found a statistically significant positive correlation between sexual "frigidity," sexual dissatisfaction, and a history of heart attack (Abramov, 1976).

### **Breast Cancer**

Researchers have suggested that sexual expression may lead to a decreased risk of cancer because of the increase in levels of oxytocin and DHEA, which are associated with arousal and orgasm in women and men. A 1995 article reviewed clinical, biochemical, and epidemiological evidence to theorize the preventative role of oxytocin in the development of breast cancer (Murrell, 1995).

- A 1989 case-control study found increased frequency of sexual activity was correlated with a reduced incidence of breast cancer among women who had never had a child. The study examined 51 French women who were diagnosed with breast cancer less than three months prior to the interview. They were matched with 95 controls. A higher risk of breast cancer was correlated with a lack of a sex partner and rare sexual intercourse — defined as less than once a month (Lê, *et al.*, 1989).
- A recent case-control study of the endocrine correlates of breast cancer examined the incidence of male breast cancer among 23 men in Greece. The study found an inverse relationship between frequency of orgasm during adulthood and the incidence of breast cancer (Petridou, *et al.*, 2000).

### **Immunity**

Research has shown that sexual activity and orgasm may bolster the immune system in women and men:

- A 1999 study of 112 U.S. college students examined immunoglobulin A (IgA) levels, which are essential to the immune system's response to viral infection. The study found that those students who had sexual intercourse once or twice a week had IgA levels 30 percent higher than those who were abstinent. Interestingly, students who had sex more often than once or twice a week had IgA levels similar to those of abstinent students (Charnetski & Brennan, 2001).

### **GENERAL PHYSICAL WELL-BEING**

- **Sleep** — Sexual release can help people go to sleep. Orgasm causes a surge in oxytocin and endorphins that may act as sedation (Odent, 1999). One study found that 32 percent of 1,866 U.S. women who reported masturbating in the previous three months did so to help go to sleep (Ellison, 2000).
- **Youthfulness** — A study conducted over 10 years and involving more than 3,500 European and American women and men examined various factors associated with youthful appearance. A panel of judges viewed the participants through a one-way mirror and then guessed the age of each subject. Those women and men whose age was regularly underestimated by seven to 12 years were labeled "superyoung." Among these "superyoung" people, one of the strongest correlates of youthful appearance was an active sex life. On average, "superyoung" participants reported engaging in sexual intercourse three times a week in comparison with the control group's average of twice a week. The "superyoung" were also found to be comfortable and confident regarding their sexual identity (Weeks & James, 1998).
- **Fitness** — Sexual activity does burn calories and fat, and it has been suggested that people with active sex lives tend to exercise more frequently and have better dietary habits than those who are less sexually active (Ellison, 2000).

### **SEXUAL AND REPRODUCTIVE HEALTH**

The sexual and reproductive health of women and men is directly influenced by their sexual experiences. It has been found that sexual activity can have positive effects on sexual and reproductive health in the following ways:

- **Endometriosis** — A 2002 retrospective case-control study of 2,012 U.S. women examined the relationship between sexual behavior and orgasm and the incidence of endometriosis. Researchers found that women who did not develop endometriosis were more likely to report having engaged, sometimes or often, in sexual behavior during menstruation than those women who developed endometriosis. They were also more likely to report having experienced orgasm during menstruation. The researchers concluded that sexual activity and orgasm

during menstruation has a potentially protective effect against endometriosis (Meaddough, *et al.*, 2002).

- **Fertility** — Frequent sexual activity may enhance fertility. Studies of menstrual cycle variability and frequency of intercourse have demonstrated that regular intimate sexual activity with a partner promotes fertility by regulating menstrual patterns (Cutler, 1991). Furthermore, timing of orgasm may affect the likelihood of conception. A 1998 study found that women who had orgasms during intercourse *after* their male partners' ejaculation retained more sperm than those who did not reach orgasm or who had orgasm *before* their partners ejaculated (Singh, *et al.*, 1998) — sperm retained for 10–15 minutes in the vagina is associated with increased rates of fertilization (Levin, 2002)

Research has found that men with certain conditions that cause infertility may, in some cases, increase their sperm count through repeated ejaculation within a range of four–24 hours — some by more than 200 percent (Tur-Kaspa, *et al.*, 1994).

- **Menstrual Cycle Regularity** — A series of studies performed from 1975 to 1986 investigated the relationship between the frequency of women's sexual activities and the timing of their menstrual cycles. These studies found that women who engaged in penile-vaginal intercourse at least once every non-menstruating week had cycle lengths that were more regular than women who had coitus sporadically or who were celibate (Cutler, 1991). A follow-up study that controlled for age supported Cutler's findings that women who had penile-vaginal intercourse one or two times a non-menstruating week had greater menstrual regularity than celibate women (Burlison, *et al.*, 1991). A 1987 study using similar methods examined the effect of regular same-sex sexual activities on the length of women's menstrual cycles. The research demonstrated stronger menstrual regularity among the women who engaged in sexual behavior with another woman at least three times a week than those who were abstinent or engaged in sporadic behavior (Cutler, 1991).
- **Relief of Menstrual Cramps** — In a recent study, nine percent of about 1,900 U.S. women who reported masturbating in the previous three months cited relief of menstrual cramps as a motivation (Ellison, 2000).

- **Pregnancy** — A 1998 meta-analysis of 59 studies examining sexual activity during pregnancy conducted from 1950 to 1996 concluded that sexual activity during pregnancy does not harm the fetus, as long as there are no risk factors such as sexually transmitted infection involved (von Sydow, 1998). Additional research has indicated that sexual activity may even have a protective effect against early delivery. A 2001 study interviewed 1,853 pregnant women who were at approximately 28 weeks gestation about their sex practices, including frequency of intercourse and experience of orgasm. Follow-up interviews were conducted before and after delivery. The researchers found that women interviewed during the 29<sup>th</sup> – 36<sup>th</sup> weeks of gestation who reported sexual activity within the past two weeks were somewhat less likely to experience preterm delivery than those who did not report sexual activity during that time — even when excluding women who could not have intercourse for medical reasons. Women who reported sexual intercourse with orgasm, sexual intercourse without orgasm, and orgasm without sexual intercourse were more likely to carry their pregnancy to full term than women who did not report engaging in sexual activity as late in their pregnancy. The researchers suggest that *continued* sexual activity late in pregnancy may provide some protection against preterm delivery (Sayle, *et al.*, 2001).
- **Prostate** — The prostate gland is responsible for producing some of the secretions in semen. It has been shown that frequent ejaculation may help prevent chronic non-bacterial prostatitis (Yavaşçaoğlu, *et al.*, 1999).

## PAIN MANAGEMENT

Women and men have long reported that sexual activity relieves chronic pain (Kaplan, 1984), including lower back pain (Shapiro, 1983). The first laboratory studies to demonstrate the alleviation of pain through genital stimulation were carried out in the middle 1980s (Komisaruk & Whipple 1995).

A 1985 laboratory study of 10 women found that vaginal stimulation resulted in an increased threshold of pain detection and tolerance (Whipple & Komisaruk, 1985). Additional research found that pressure stimulation of the anterior vaginal wall and pleasurable self-stimulation of the clitoris also had an analgesic effect (Whipple & Komisaruk, 1988). Both studies found that stimulation resulting in

orgasm produced the greatest increase in pain threshold.

Since then it has become clear that sexual arousal and orgasm can increase levels of endorphins and corticosteroids that raise pain thresholds, easing discomforts associated with menstrual cramps, arthritis, migraine, and other conditions (Ellison, 2000).

- **Migraine** — Two 2001 case studies of orgasm and migraine headache in a woman and a man found that orgasm resulted in at least some relief of pain. An earlier study of 83 women who suffered migraine showed that orgasm resulted in at least some relief for more than half of them. Although relief of migraine through orgasm is less reliable and less effective than relief through drug therapies, the effects of orgasm as an analgesic are more rapid (Evans & Couch, 2001).

#### PSYCHOLOGICAL, EMOTIONAL, SOCIAL, AND SPIRITUAL HEALTH

Much of the research that is publicized about the impact of sexual activity on emotional health focuses on the potential hazards of sex, such as abuse and sexual dysfunction. There is a growing body of research, however, demonstrating that sexual expression may have health benefits for improving quality of life and self-esteem and for reducing stress, depression, and suicide.

#### Quality of Life

Sexual experience and satisfaction are closely correlated with overall quality of life:

- A 2002 analysis of the sex practices of adults in mid-life found that sexual satisfaction was a strong predictor in reports of higher quality of life. Additionally, current sexual activity levels were associated with previous experience — those who had frequent and enjoyable sex during midlife reported more active and satisfying sex lives during later maturity. The analysis suggests that sexual activity may be an indicator of current and future quality of life (Weeks, 2002).
- A study of more than 4,000 U.S. women examined mood, sexuality, and the menstrual cycle. Strong associations between sexual interest and sense of well-being were found. Researchers found that sexual desire increased dramatically during

periods of increased well-being and that women who did not report changes in their sense of well-being reported little change in sexual desire (Warner & Bancroft, 1988).

- Regarding people with disabilities, a 1998 study of 77 adult amputees analyzed factors contributing to their quality of life, including marital status, amputation-related pain, and sexual satisfaction. Sexual satisfaction was directly associated with higher levels of quality of life regardless of marital status. The only examined factor that displayed stronger correlation with quality of life was pain associated with amputation. Researchers also found that the negative impact on sexual activity caused by an amputation was a stronger predictor of depression than the pain relating to the amputation (Walters & Williamson, 1998).
- Although a causal relationship has yet to be demonstrated, a U.S. survey of nearly 3,500 women and men showed that personal happiness is associated with the frequency of sexual activity and orgasm — especially among women (Laumann, *et al.*, 1994).

#### Depression and Suicide

Research has indicated sexual activity to be negatively associated with risk and incidence of depression and suicide:

- A Canadian study examined the correlation between sexuality and mental health. A computerized anonymous questionnaire was administered to 75 men aged 18–27. Information was gathered on sexual orientation and sex practices, and models were implemented to measure mental health, depression, and suicidal tendencies. Researchers found that celibacy was correlated with high scores on depression and suicidality indexes for self-identified homosexual, bisexual, and heterosexual men. The men most at risk for recent suicidal behavior and depression were celibate, self-identified homosexuals. The researchers suggest that the increased risk of suicidal and depressive behaviors for these men was related to societal and internalized homophobia as well as the stage in the coming-out process. Researchers suggest that sexual activity and acceptance of sexual identity may promote greater levels of mental health (Bagley & Tremblay, 1997).
- A 1982 study of 30 elderly heterosexual U.S. women and men found that masturbation was

associated with a decreased risk of depression (Catania & White, 1982).

### **Stress**

Sexual activity and orgasm have been shown to reduce stress (Charnetski & Brennan, 2001). This is likely due to the surge in oxytocin that accompanies orgasm. For example, low levels of oxytocin are correlated with higher incidence of anxiety disorders. Further, increased levels of oxytocin have been shown to reduce stress and alter an individual's response to stress (Weeks, 2002). Orgasm relieves tension as oxytocin stimulates feelings of warmth and relaxation (Weeks, 2002). To illustrate, one study of 2,632 U.S. women found that 39 percent of those who masturbated reported doing so to relax (Ellison, 2000).

### **Self-Esteem**

One study of young married women found that positive sexual experiences with a partner may increase self-esteem. Additionally, accepting and embracing one's sexuality and desires may also enhance self-esteem. A correlation was also found between masturbation and self-esteem — women who reported masturbating scored higher on the self-esteem index than women who did not report masturbating. These findings were supported by earlier research that suggested that women who masturbate have a more positive body image and less sexual anxiety (Hurlbert & Whittaker, 1991).

### **Intimacy**

The surge in oxytocin at orgasm stimulates feelings of affection, intimacy, and closeness with a sex partner (Odent, 1999; Weeks, 2002). Consistent mutual sexual pleasure increases bonding within a relationship (Weeks, 2002). Masturbation has also been correlated with greater relational and sexual satisfaction — a 1991 study of young married women found that those who reported masturbating also reported greater marital satisfaction (Hurlbert & Whittaker, 1991).

### **Social Health**

The social health benefits of sexual expression have been long acknowledged. Recent studies have shown that the expression of sexual desire is the basic ingredient in pair-bonding, which is an essential social unit of all kinship structures, cultures, and societies (Fisher, 1982; Fisher, *et al.*, 2002). It has also been demonstrated that coupled partners have increased relationship satisfaction when they fulfill one another's sexual desire (Davies, *et al.*, 1999). Sexual satisfaction is also associated with the stability of relationships (Sprecher, 2002). In fact, one study suggests that early — under age 15 — pre-coital sex play may be associated with the

rapid development of long-term relationships (Davis, 1999). Masturbation cannot only improve individual sexual satisfaction; it may be associated with improved relationship satisfaction as well (Coleman, 2002; Zamboni & Crawford, 2002). In these many interwoven ways, satisfying sexual expression has demonstrated benefits essential to social health.

### **Spirituality**

Margaret Sanger and other pioneers of sexual and reproductive rights believed that sex was a way in which women and men could gain spiritual insight (Gardella, 1985). In fact, most religious traditions include positive messages about sexuality and eroticism in their writings (Keesling, 2000). And many cultures and religions view sexual expression as a potentially powerful form of spiritual enlightenment (Keesling, 2000; Odent, 1999; Ogden, 2001).

The integration of sexuality and spirituality has been reported to have a beneficial effect on quality of life and strength of relationships (Ogden, 2001). A study conducted from 1997 to 1998 surveyed 3,810 Americans, including women and men who identified as heterosexual, homosexual, and bisexual. They reported a broad range of relationship experiences, including long-term monogamy, serial monogamy, and non-monogamous committed relationships. Some reported no sexual relationships. People who indicated that they associated their sexual experiences with their spirituality were more likely to report a better quality of life and better relationships (Ogden, 2001).

## **CONCLUSION**

Currently, research in sexuality remains largely focused on the potential negative outcomes of sexual expression. The full scope of the health benefits of sexual expression can only be dimly understood if research continues to focus so exclusively on dysfunction, disease, and unwanted pregnancy (Davey Smith, *et al.*, 1997). But these are challenging times for human sexuality research because America's current climate of abstinence-until-marriage ideology and politics assures that funding for research exploring the potential *benefits* of sexual expression will be scarce. Exacerbating its funding limitations, the Bush administration also seems intent upon censorship of essential information about sexual and reproductive health, most recently exemplified in the revision and suppression of health information on government-funded Web sites (Clymer, 2002).

*The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior 2001*, published by the office of then U.S. Surgeon General David Satcher urged all Americans to begin a candid dialogue about sex, sexuality, sexual health, and sexual behavior. As Dr. Satcher concluded in his call to action,

Solutions are complex, but we do have evidence that we can promote sexual health and responsible sexual behavior. Given the diversity of attitudes, beliefs, values, and opinions, finding common ground might not be easy, but it is attainable. We are more likely to find this common ground through a national dialogue using honest and respectful communication. We need to appreciate and respect the diversity of our culture and be informed by the science that is available to us.

... These efforts will not only have an impact on the current health status of our nation, but lay the groundwork for a healthier society for future generations (Satcher, 2001).

Sexual scientists, educators, clinicians, and writers have a crucial role to play in the candid dialogue that Dr. Satcher has called for. But in order for that dialogue to be entirely candid, it must be as informed by the benefits of sexual expression as it is by the risks. We are well-schooled in the risks; it is the benefits that we are only beginning to understand.



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