

A Global Survey of Sexual Behaviours

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Abstract

Objective: To identify the variety of sexual behaviours undertaken by adults across the world.

Materials and methods: A global survey was undertaken using the internet to access 26,032 participants across 26 countries that completed a set of questions on line.

Results: Three in five people agreed that sex was important to them with nearly one in three strongly agreeing with the statement. Sex was important for both men and women and remains important as people grow older. Sixty nine percent of respondents agreed that sex is fun and that they enjoyed sex. Two thirds agreed that “a good sex life is a vital part of life” of which a third strongly agreed. In addition 56% of non-sexually active individuals agreed with the statement. Two thirds agreed that “sex is beneficial for your health and well being” of which a third strongly agree. Fifty three percent of non-sexually active people agreed as well.

Conclusion: Sex is important for people and contributes to their overall global well being.

Key words: Global survey, Sexual behaviour, Well being

Introduction

Sex is important to people. Whether this happens in the bedroom or elsewhere, sexual activity is as important to many people as having a good night's sleep, a healthy diet, a good recreational life and a fulfilling vocation. Despite this many people express dissatisfaction with their relationship and 40% of men and 20% of women admit to having an extramarital or extra partnership affair sometime in their lifetime (1). In the United States between 20 and 25% admit to having one or more affairs during their lifetime (2) and this has remained consistent over a decade (3). There are differences between men and

women and between individuals between countries. Whether this is due to differences in genetic loading, differences in androgen levels, neuropsychological changes or the effect of religion or culture, it has been recognised that there are considerable differences across countries although the reasons for these are not clear.

The basic definitions of sex were revisited by an expert group (PAHO 2000) with sex, sexuality and sexual health defined. Sexual health can be identified through the free and responsible expressions of sexual capabilities that foster harmonious personal and social wellness, enriching life within an ethical framework. This has the potential to allow a more directed focus in promoting sexual health in general (4).

Several studies have attempted to assess sexual satisfaction. 4000 adults registered with general practices in the North of England were reported in the study by Dunn et al (5). A quarter of the respondents said that they were dissatisfied with their sex life

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particularly more so for men around the frequency of intercourse. The respondents were more likely to be dissatisfied with their sex lives if they perceived that their partner also had a sexual problem. The respondents who were dissatisfied were much more likely to report that their partner was also dissatisfied with their sex life. The benefits of treating sexual problems therefore have the benefit for both partners.

One in four women in a study by Bancroft et al (6) involving 987 women aged 20-65 years of age reported marked distress about their sexual relationship or their own sexuality. A stronger relationship existed between sexual distress and emotional wellbeing.

The Global Study of Sexual Attitudes and Behaviours surveyed 27,500 men and women aged 40-80 years of age in 29 countries (7). This survey reported relationship between subjective sexual wellbeing and various predictors and outcomes of sexual behaviour including overall happiness. Sexual wellbeing was assessed in term of satisfaction judgements across different domains including physical and emotional aspects of relationships, sexual functioning, and the relative importance that sexuality played in the individual's lives. The four aspects of sexual wellbeing were physical pleasure, emotional pleasure, satisfaction with sexual function and importance of sex. Three clusters of countries were grouped as one – Western Europe, Canada and Australia with high satisfaction and four in five women reporting satisfaction with their level of sexual function. In this group half of the men and a third of the women reported sex as extremely or very important for their overall life satisfaction. Cluster two including Egypt, Morocco, Italy, Korea and Malaysia reported moderate levels of satisfaction with significantly lower levels of emotional, physical and sexual function satisfaction. The third cluster included China, Indonesia, Japan and Thailand with the lowest levels of emotional and physical satisfaction. This group also attributed the least importance to sex in their overall lives. The overall conclusions across all of the groups was that sexual wellbeing was positively related to both physical and mental health, sexual activity levels and the context of the relationship. Men had consistently higher scores than women on all measures of sexual satisfaction in all of the countries with differences between men and women greater in the more male centred clusters two and three. Physical and emotional satisfactions were strong predictors of

overall happiness in men and women in all three clusters with the effects strongest for women.

Six in ten of 1700 respondents in the American Association of Retired Persons (AARP) survey reported a belief that sexual activity was an essential element in satisfactory relationships. This survey involved adults aged 45 and older. For many women in the survey, the use of ED medications by their partner had brought about an enhancement of their own sexual satisfaction (8, 9).

In a group of older men and women in the US aged 57-74 (10) more than half of the respondents continually to be sexual active and rated sexual activity important in their lives. Overall older women reported more frequent problems and lower rates of sexual satisfaction overall than men which confirmed similar studies to the study by Laumann et al (11).

Materials and methods

The Sexual Well Being Global Survey (SWGS) involved 26,032 respondents world wide from 26

Table1: Countries involved and number of participants

Country	Number of participants
Australia	1036
Austria	542
Brazil	1123
Canada	1005
China	1132
France	1137
Germany	1037
Greece	1017
Holland	1039
Hong Kong	1129
India	1000
Italy	1013
Japan	1090
Malaysia	1026
Mexico	1122
New Zealand	1143
Nigeria	500
Poland	1050
Russia	1042
Singapore	1021
Spain	1008
Switzerland	557
UK	1017
USA	1005

countries. The survey was conducted electronically (on the internet) over a seven week period between August and September 2006 and carried out by Harris international, a large market research agency. The exception was in Nigeria where the survey was done by face-to-face interview. A number of questions were asked of respondents and all questions had to be completed for the data set to be accepted into the database. The countries involved and number of participants is shown in table one.

Results

In total 26,032 respondents participated in the study world wide. The minimal age was 16. 12966 (49.8%) were women. With regards to sexual orientation 90%

Table 2: Agreeing or strongly agreeing that “sex is beneficial for your general health and well being”

Country	Agreeing or strongly agreeing that “sex is beneficial for your general health and well being” (%)
Brazil	91
Greece	86
Poland	84
Mexico	84
Spain	81
Russia	78
Malaysia	72
Switzerland	71
Austria	70
India	69
South Africa	67
Canada	66
Germany	66
Netherlands	66
China	66
France	65
USA	63
Australia	61
Italy	60
New Zealand	59
Nigeria	56
Singapore	51
Hong Kong	50
UK	48
Japan	30
Thailand	28

Table 3: Fully Satisfied percentage and frequency of sex

Age (year)	Fully Satisfied (%)	Having sex weekly (%)
16-19	53	55
20-24	49	70
25-34	49	71
35-49	42	65
50-64	50	39
65+	42	40

reported being heterosexual, 2% gay, 1% lesbian and 3% bisexual with a further 4% declining to answer.

The respondents from the majority of countries agreed or strongly agreed to the statement that “sex is beneficial for your general health and well being”. These are represented in table 2.

Sexual satisfaction

Just 44% of all participants were very or extremely satisfied with their sexual life. It was similar for both men and women. Up to the age of 25, levels of full satisfaction were greater for men than for women. As people aged beyond 34 years more women than men continued to be fully satisfied with their sex lives. A decline in the frequency of sex with age was noted in the percentage having sex weekly (table 3).

For both men and women full satisfaction is achieved when in a relationship regardless of whether they were cohabiting, but were not married. Full satisfaction levels in men were more likely than women to decrease as the commitment increases. The full satisfaction being higher for men when not cohabiting (54% versus 47%) than for women when married (45% versus 40%). The highest levels of full satisfaction were seen in Nigeria, Mexico, India and Poland with the lowest levels of full satisfaction being described in Japan, France and Hong Kong (table 4).

A range of activities “in the bedroom”

Participants were asked to respond about intercourse, foreplay, oral sex, anal sex, vaginal sex, solo or mutual masturbation, other activities and products used whether alone or together (vibrators, lubricants and various delay sprays). Having sex included masturbation alone for 21% of participants, with their partner for 30% of participants, oral sex for 38% of participants and for 9% of participants it did

not include penetrative sex. There was a high prevalence of oral sex across groups. Anal sex was high amongst groups other than homosexual males. The range of sexual activities for heterosexual men and women, gay men, lesbian women and bisexual men and woman is shown in table 5.

Table 4: Satisfaction of the participants

Country	16% dissatisfied (somewhat/very/ extremely dissatisfied)	37% middle of the ground/neutral (neither/ nor/ somewhat satisfied)	44% full satisfied (very/ extremely satisfied)
Nigeria		31	67
Mexico	10	26	63
India	11	27	61
Poland	11	32	54
Greece	10	39	51
Netherlands	18	29	50
South Africa	20	30	50
Spain	19	31	49
USA	22	26	48
Canada	18	32	48
NewZealand	20	34	43
Austria	20	36	43
Australia	22	33	42
Brazil	19	36	42
China	7	50	42
Switzerland	19	38	42
Russia	17	40	42
UK	25	33	40
Malaysia	14	45	38
Germany	20	39	38
Italy	13	48	36
Singapore	14	46	35
Thailand	7	57	35
Hong Kong	13	56	29
France	12	61	25
Japan	35	42	15

Table 5: Range of sexual activities

	Heterosexual Male	Heterosexual Female	Homosexual Male	Homosexual Female	Bisexual Male	Bisexual Female
Vaginal sex	85%	84%	-	77%	86%	94%
Giving anal sex	19%	8%	72%	10%	57%	23%
Receiving anal sex	11%	18%	67%	26%	44%	39%
Giving oral sex	58%	56%	83%	77%	71%	71%
Receiving oral sex	56%	55%	81%	74%	69%	75%
Giving/ receiving a massage	62%	58%	67%	76%	62%	72%
Sexual fantasies	54%	45%	76%	57%	77%	81%
Looking at erotic materials	56%	34%	74%	34%	74%	70%
Wearing sexy underwear	26%	52%	25%	46%	34%	62%
Role play	19%	15%	32%	47%	37%	42%
Bondage/ S & M	8%	5%	12%	28%	24%	23%
Telephone sex	11%	9%	16%	48%	16%	24%

Table 6: Average number of activities in different countries

Country	Average number of activities
Greece	6
Austria	5.6
Brazil	5.5
Switzerland	5.4
South Africa	5.4
Poland	5.2
Canada	5.1
Italy	5.1
Russia	5
Mexico	5
Spain	4.8
Germany	4.8
France	4.8
Netherlands	4.8
Australia	4.8
New Zealand	4.6
Malaysia	4.5
UK	4.4
China	4.4
Hong Kong	4.4
Thailand	4.3
USA	4.2
Singapore	4.2
India	3.7
Japan	2.6
Nigeria	1.8

The range of activities varied significantly by country and this is shown in table 6.

Table 7: Countries with the highest incidence of sexual activities

Highest incidence of
Giving/receiving a massage – Greece/South Africa (77%)
Giving oral sex – Austria (80%)
Receiving oral sex – Greece (81%)
Sexual fantasies – Switzerland (77%)
Wearing sexy underwear – Poland (53%)
Role play – Malaysia (49%)
Receiving anal sex – Japan (33%)
Giving anal sex – Greece (34%)
Telephone sex – Greece (23%)
Bondage/S&M – Austria (17%)

The countries with the highest incidence of sexual activities are shown in table 7.

The younger the age and the earlier years within a relationship led to more adventurous and the highest incidence of range of activities.

Number of sexual partners

The average number of men and women that participants reported sexual relationships with in their lifetime is shown in table 8.

Frequency of sexual activity

Two thirds (67%) of participants described having sex once a week with people in Greece (89%) and Brazil (85%) having sex most often. Sex happened the least for participants in Japan (38%) and Nigeria and America (57%). 29% of participants were having sex three or four times a week regardless of whether

Table 8: The average number of men and women that participants reported to have sexual relationships

Country	Men	Women
Austria	17	29
Russia	17	28
Greece	10	28
Brazil	11	27
Australia	10	25
Switzerland	14	24
Canada	10	23
Spain	8	21
Italy	7	19
South Africa	7	18
New Zealand	20	17
Germany	9	17
France	7	17
UK	10	16
Netherlands	8	14
Japan	8	14
Mexico	6	14
Hong Kong	4	14
USA	9	13
Poland	5	12
Thailand	2	12
Nigeria	3	9
Malaysia	2	9
Singapore	3	8
India	2	6
China	2	4

they had children or not. 55% stated they were having sex as frequently as they would like. The agreement was highest when in a relationship but not living with their partner (59%) and for people with children (57%).

Reasons for not engaging in activities

42% of participants stated that they did not agree that they were comfortable telling their partner what they did in bed. Those who used sex toys were more comfortable telling their partner what they liked (64% versus 57%) as well as those who engaged in a greater number of sexual activities (52% for one activity versus 72% for seven or more activities). The older people get the less comfortable they are. Women are less comfortable discussing their preferences than men. Despite being the most fully satisfied with their sex life, lesbians are the least likely to discuss what they enjoy. The longer a relationship continues the less comfortable they get and the more committed (such as marriage or cohabiting) the less comfortable people were. Only a third of respondents discussed sex with friends it was greater with the younger age group (50% of the 16-24 year old group versus 21% of the 55 plus) and singles (56% versus 28% married or cohabiting). Relatively few steps have been taken by people to improve their sex lives but the most important factors that would improve satisfaction were more time, more romance and more fun (table 9).

Participants expressed interest in engaging in sexual activities they did not currently participate in across the various sexual activities asked about.

Discussion

This is the most comprehensive world wide study of sexual behaviours published to date. The survey was a development of previous annual surveys by a multinational manufacturer of condoms and related products to understand the sexual behaviours and needs of the general population and potential customers. By use of a structured questionnaire and by employment of an independent third party agency Harris International, more robust data was obtained than in previous internet surveys.

Whilst people recognised the importance of sexual well being, substantial satisfaction within relationships was lacking and there was a large variance across countries. Many modifiable life style changes particularly around reduction in stress, better communication skills, more time together and feeling less tired were cited as universal factors which were seen as likely to improve sexual satisfaction. These suggest that good education and lifestyle changes can bring about changes in overall sexual satisfaction and sexual well being. The acceptability and use of additional products to enable this change is an area where further research should be undertaken.

Previous attempts to understand well being have been clouded by a number of problems with definition. A study by Blanchflower and Oswald (12) identified that greater income did not buy more sex nor more sexual partners but sexual activity entered strongly positively in happiness equations rather than income. Married people had more sex than those who were single divorced widowed or separated. The survey of 1600 US men and women between 1998

Table 9: Steps to improve sex

	Percentage of respondents
Used books/videos	38
Used lubricants	29
Looked for information online	29
Looked for information in magazines	29
Used sex toys	24
Used games/role play	13
Talked to GP/nurse about sexual issues	10
Taken pharmaceutical products to help with erection	5
Seen a therapist/relationship counsellor	4
Used herbal libido enhancers	4
Used delay sprays/creams to prolong erection	4
Used medical libido enhancers	3
None of these	31

and 2002, found that frequency of sexual relationships was highly related to general happiness. For the average American an increase in sexual activity from once monthly to once a week was the equivalent to the amount of happiness generated by an additional annual income of 50,000 US dollars. Sexual activity had a stronger effect on happiness ratings for more highly educated people compared to those with lower educational levels. A clear association between sexual frequency and satisfaction and overall quality of life was evident across the age group with a stronger trend observed in the younger respondents. The happiness maximising number of sexual partners in the previous year was calculated to be one. Being gay or lesbian had no statistical influence on happiness.

Vilarinho & Nobre (13) report that women who scored higher on sexual satisfaction also scored significantly higher on sexual self esteem, pleasure, functioning and positive emotions during sexual activity particularly self-assurance, joviality and serenity. These findings concur with some of those observed in the SWGS and this strengthens the argument of the observed link between sexual satisfaction and overall wellbeing although how attributable this actually is remains area that merits further investigation.

Considering dissatisfaction along a spectrum of sexual concerns, difficulties, disorders and dysfunctions (SCDDD) (14) it is suggested that a positive health approach and maximising sexual satisfaction will prevent progression along the spectrum to more disabling dysfunctions. The combined effect on the interpersonal relationship allows a paradigm that can be developed as depicted in this diagram:

Sexual well being – what is it?

Attempts to describe sexual well being have been

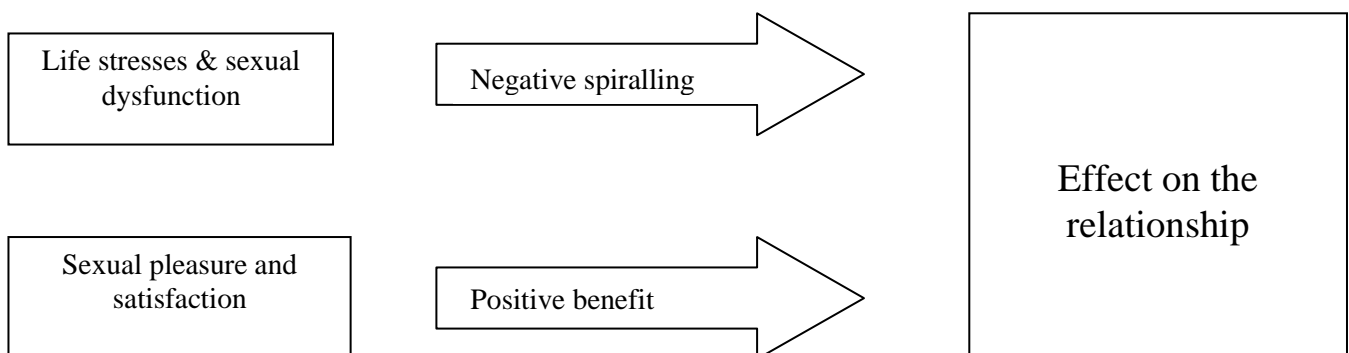
equally limited by the scope of definition. Recent attempts by the Department of Health in the UK have focused entirely on health indicators such as teenage pregnancies and sexually transmitted infections. We consider sexual well being further by considering several factors.

Sexual Satisfaction

In a recent survey of the most common problems presenting to sexologists in the UK (15) the third most common problem presenting in women was sexual dissatisfaction (46%) behind loss or absence of sexual desire (63%) or emotional or relationship problems (58%) and more common than difficulties achieving or absence of orgasm (45%). Sexual dissatisfaction is hard to define and not a diagnostic entity.

Sexual satisfaction is also hard to define with a multitude of factors and meanings being described for this concept. It is influenced by cultural and religious factors. There is an expectation of an ability of sexual function. Sexual satisfaction has been linked with sexual well being by influencing self-esteem, self-confidence and quality of life. "It is seen that sexual satisfaction is not just physical pleasure nor is it the absence of dissatisfaction or problems. Rather sexual satisfaction involves the overall feeling we are left with after considering the positive and negative aspects or sexual rewards and costs of our sexual relationships." (16)

Sexual satisfaction, defined by Santtila et al (17) as no discrepancy between desired frequency and actual frequency of sexual behaviours was associated with relationship satisfaction and sexual satisfaction with vaginal intercourse. Kissing and petting was positively associated with relationship satisfaction whereas higher desire and actual frequency of masturbation were negatively associated with relationship satisfaction.



The GBSS (18) reports the sexual needs and desires of men and women worldwide. Erectile function and the effect of ED on aspects of the sexual experience emerged as the most pressing concerns among male participants.

The concept of a sex life panorama was first described by Hurlbert and Apt (19) and helps to understand sexual satisfaction. They describe a number of factors including the need to dichotomise between physiological and psychological etiological factors to understand a problem (20). There are traits which contribute to sexual satisfaction including attitudes towards sex, sexual assertiveness and the degree of emotional involvement with a partner. The importance of sexual ideology (21) as well as ensuring subjective self fulfilment are crucial factors to consider.

There are further factors which are important when considering sexual satisfaction. The concept of shame is a tendency to feel worthless or like a bad person in response to perceived failure to live up to specific cultural ideas. Chronic shame over perceived physical shortcomings as well as anxiety that others will negatively evaluate their body may lead to particular distress. Women report appearance concerns more than men across both sexual and non sexual contacts although appearance concerns were positively related to both men and women's sexual problems in a recent study reported by Sanchez and Kiefer (22). Being in a relationship was associated with less sexual self consciousness and less difficulty achieving orgasm for both men and women. Body concerns negatively affect sexual pleasure and promote sexual problems for both men and women.

Relationships, mental health and boredom

The importance of relationship distress is emphasised which can increase the probability of the onset and to prolong the course of mental health problems and there is a bidirectional and reciprocal effect of the presence of mental health problems contributing towards relationship distress (23). There may be distress in sex reflecting problems within the relationship (24). A further factor that needs consideration when looking at sexual satisfaction is the concept of sexual boredom. This can occur in both dating couples as well as established couple relationships.

Sexual Pleasure

In further understanding sexual wellbeing the concept of sexual pleasure needs consideration. Humans recognise pleasure and most would agree that it is associated with positive emotions and moods. However the concept is somewhat nebulous which is perhaps not surprising when considering it is less than clear when and how sexual and other pleasure fits into models of emotion. Individual responsibilities as well as age, culture and religion can contribute to this. A number of concepts require attention including sexual anhedonia where individuals are capable in engaging in sexual activity despite the lack of any positive emotion (or pleasure) and even in the presence of negative emotion. It has been argued that sexual activity is related to perceptions of benefits and gains and that inactivity is a consequence of losses and costs and not to the pursuit of pleasure itself. The concept of sexual exchanges is important since sexual behaviour is rarely without motive.

Similarly, it has been argued that lack of sexual pleasure may be anhedonic and social exchange theory may contribute towards understanding this. A goal response model has been proposed which has integrated a number of previous models in understanding how sex can bring about pleasure through goal congruent behaviour and as a consequence an increase in ego involvement (25). Positive emotions and pleasure can become supportive of self esteem with happiness, enhancement of self esteem with pride and reinforcement of self esteem with love. Preliminary findings from a study by Ryff et al (26) reported that 18 women with higher levels of eudemonic well being (the realisation of one's true potential) had lower levels of salivary cortisol, pro-inflammatory cytokines, cardiovascular risk and longer duration of REM sleep compared to those showing lower levels of eudemonic wellbeing. Anhedonic wellbeing (more within the realms of subjective well being with life satisfaction, presence of positive affect and the absence of negative affect) had minimal linkage to biomarker assessments. The authors anticipate that the protective affects of high levels of wellbeing could be reflected in longer active life expectancy and disability free life years, if sexual well being is seen to somehow connect these measures there is a significant potential for ensuring that sexual wellbeing and general wellbeing are maximised.

Love

The concept of love, pleasure and lust as a stress reducing and health promoting potential is a further concept which we believe important for consideration. Love and pleasure ensures the survival of individuals and the species and encompasses wellness and feeling of wellness across a number of spectrums.

Intimacy

A number of factors including shame, envy, self consciousness, trust, attachment, self esteem, culture and religion can all effect sexual intimacy. The intimacy based model of the female sexual response cycle as proposed by Basson (27) assumes a stance of initial sexual neutrality. Emotional and physical satisfaction occurs when there is expectation of emotional intimacy.

How we link this to sexual desire and sexual well being and sexual health is challenging. Importantly we must differentiate between low sexual interest (17-55% of all women according to a recent review by Lewis et al (28)) and low sexual desire. The concept of HSDD with actual distress and the recent refinement of the definition by Basson et al (29) with the AFUD consultation attempts to differentiate this group. Despite this a recent substantial survey by Schneidewind-Skibbe et al (30) found that of all the factors associated with the frequency of sexual activity in women, sexual desire (3) and satisfaction with sex life (2) were found to have a significant association with only a small number when compared to other factors such as pregnancy and the age of the women.

Conclusion

The findings of the sexual wellbeing global survey show a rich diversity and difference between groups, countries and cultures. A number of reasons to account for this have been considered. A number of factors can affect sexual satisfaction and sexual intimacy including shame, envy, self consciousness, trust, love, and attachment, motivation for pleasure and self esteem particularly within minority ethnic and culture groups.

One of the roles of sex therapists and sexual medicine physicians is to enhance the opportunity and experience of intimacy within both the individual with self satisfaction as well as within relationships. The interplay of sexual well being and sexual satisfaction and maintaining levels of sexual desire

that are favourable for both partners must be a stated and agreed goal. Clinical attention to issues that assure sexual satisfaction and sexual wellbeing can have considerable influence on overall sexual desire and so general well being.

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