Sexual health in older women

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World demographics 2010

- The world’s population nearly 7 billion
- The total number of older people (aged 60 and above) 763 million
  350 million men
  413 million women

Women make up around 55 per cent of the total older population in the world.

The World's Women 2010: Trends and Statistics
Issues

- Desire,
- Arousal
- Lubrication
- Dryness and pain
- Orgasm
- STIs


- **RESULTS:** From 1971 to 2000 the proportion of 70 year olds reporting sexual intercourse increased among all groups: married men from 52% to 68%, married women from 38% to 56%, unmarried men from 30% to 54%, and unmarried women from 0.8% to 12%.

- A larger proportion of men (57% v 40%) and women (52% v 35%) reported very happy relationships in 2000-1 compared with those in 1971-2.

- **CONCLUSION:** Self reported quantity and quality of sexual experiences among Swedish 70 year olds has improved over a 30 year period.
Summary of results from the 3rd National Survey of Sexual Attitudes and Lifestyles

- 15,162 people aged 16–74 resident in Britain interviewed during 2010–12.
- >50% people aged 65–74 years reporting having had at least one opposite sex sexual partner in the previous year, although the range and frequency of sex reduced with age.
- Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal) The Lancet - 30 November 2013; 382:1781-1794.
Female sexual dysfunction: Consensus Classification System (adapted from Basson et al 2000)

**Sexual Desire Disorders**
- Hypoactive sexual desire disorder (HSDD)
- Sexual aversion disorder (SAD)

**Sexual Arousal Disorders**
The persistent or recurrent inability to attain or maintain sufficient sexual excitement, causing personal distress

**Orgasmic Disorder**
The persistent or recurrent difficulty, delay in, or absence of attaining orgasm after sufficient sexual stimulation and arousal, which causes personal distress.

**Sexual Pain Disorders**
- Dyspareunia
- Vaginismus
- Noncoital sexual pain disorders –

Each of the categories is subtyped, as:
- Lifelong vs acquired.
- Generalised vs situational.
- Aetiology (organic, psychogenic, mixed, unknown)

FSD affects 43% women aged 57-85 years.
PRESIDE study

- 31,581 women with a mean age of 49 years (range 18–102) found that the most common sexual problem was low desire (38.7%), followed by low arousal (26.1%) and orgasm difficulties (20.5%).
- The prevalence of any sexual problem was 44.2%.
- Age stratification revealed a sharp increase in the prevalence of all three of these sexual problems by age group: only 27.2% of women aged 18–44 years reported any of the three problems, compared with 44.6% of middle-aged women (45–64 years) and 80.1% of elderly women (>65 years).
- Sexually related personal distress was observed in 22.2% of respondents. This was lowest in elderly women (12.6%), and present in 25.5% and 24.4% of middle-aged and younger women, respectively.
- The age-stratified prevalence of any distressing sexual problem was highest in women aged 45–64 years (14.8%), lowest in women 65 years or older (8.9%), and intermediate in women aged 18–44 years (10.8%).
- A similar age pattern was seen for distressing low desire and low arousal, but not for orgasm problems, in which the prevalence was similar in middle-aged and in older women.
Vaginal dryness
Women's voices in the menopause: Results from an international survey on vaginal atrophy
Nappi and Kokot-Kierapa Maturitas 2010; 67: 233-238

- Structured questionnaire, interviews were performed on 4246 women aged 55–65 years living in Sweden, Finland, the United Kingdom, the United States and Canada.
- 98% of survey respondents were postmenopausal.
- 39% of the postmenopausal women had experienced vaginal atrophy, with the prevalence varying between countries, from 34% in Canada to 43% in Finland and the United States.
- Symptoms were described as moderate or severe by less than half of women from Finland and Sweden, compared with nearly two-thirds of women from the United States. However, vaginal atrophy was deemed to impact on quality of life by a higher proportion of women in Finland and Sweden (≥60%) than in the United Kingdom, the United States and Canada (≤50%).
- 77% of respondents believed women were uncomfortable discussing vaginal atrophy and 42% did not know that local treatment was available. The proportions of women unaware of the availability of local treatment were higher in the United States, the United Kingdom and Canada (51%, 50% and 48%, respectively), and very low in Finland (10%).
The CLOSER survey: Impact of postmenopausal vaginal discomfort on relationships between women and their partners in Northern and Southern Europe

- 1600 women and 1600 men from Northern Europe and 1000 women and 1000 men from Southern Europe.
- Worry that vaginal discomfort would never go away was expressed by 28% and 38% of women in Northern and Southern Europe, respectively, while 21% and 27% worried that vaginal discomfort would ruin their future sex life.
- Half of women who avoided intimacy worried about painful sex.
- Among men, 86% wanted their partner to talk about symptoms.
- Men with partners who avoided intimacy recognised that worry about painful sex was the main reason.
- Vaginal discomfort impaired self-esteem and emotional wellbeing among women, while local oestrogen treatment improved relationships, particularly in Southern Europe.
Non hormonal risk factors

• Non-hormonal factors include conflict between partners, insomnia, inadequate stimulation, life stress and depression; these are important contributors to a woman's level of interest in sexual activity.

• Concomitant medical disease such as hypothyroidism or diabetes may also be involved
Hormonal risk factors

• Postmenopausal estrogen deficiency causes atrophic changes. The vaginal mucosa becomes thinner, and the vulva and the vaginal walls also become pale and thin and lose their elasticity. Vaginal secretions also decrease, leading to reduced lubrication. Reduced levels of estrogen can also impair peripheral sensory perception, and women may experience discomfort from contact with the skin by clothes or their partner.

• Debate in the literature on the effect of hysterectomy and oophorectomy on sexual function. The effect depends on several factors, such as age, preoperative mental health and preoperative sexual function, the indications for surgery, whether the woman chose to have an oophorectomy, the specific procedure performed and whether or not estrogen was used postoperatively. The majority of research on the effects of surgical menopause shows improved psychological well-being and sexual function after hysterectomy for benign disease. However, women with depression or sexual problems preoperatively are at increased risk of experiencing a worsening of mood and libido postoperatively.
Androgens and female sexuality

- Not clearly understood
- Testosterone and precursor sex hormones are produced by both the ovaries and adrenals. Before the menopause, testosterone and its precursors dehydroepiandrosterone (DHEA) and androstenedione are produced by the ovaries and adrenals. The adrenals also produce the precursors dehydroepiandrosterone sulfate (DHEAS), androstenediol. These precursor sex hormones can be converted to estrogen and/or testosterone in peripheral cells eg brain, breast, bone and genitalia.
- Between a woman's mid-30s and early 60s, adrenal androgen production reduces by about two-thirds. After a natural menopause, ovarian production continues, albeit to a variable degree. After bilateral oophorectomy, ovarian production of androgens and precursor sex hormones is lost.
Androgens and female sexual dysfunction

• Although surgical menopause represents an androgen-depleted state, the prevalence of subsequent sexual dysfunction is unknown.
• BUT women choosing (as opposed to just consenting to) bilateral oophorectomy with a simple hysterectomy required for benign reasons do not develop sexual dysfunction over the next one to three years
• AND women with depression or sexual problems preoperatively are at increased risk of experiencing a worsening of mood and libido postoperatively
  • Shifren and Avis. Menopause. 2007;14:586–591
Androgens and FSD

  Women with complaints of sexual dysfunction had significantly lower levels of adrenal androgen precursors and testosterone than the control women.

- Davis et al. JAMA. 2005;294:91–96
  No single androgen level was predictive of low female sexual function, and the majority of women with low DHEAS levels did not have low sexual function.

  Androgen levels were related weakly to physical functioning and sexual desire, sexual arousal and well-being.

  In women with POF androgen levels had only a weak influence on sexual functioning
Management

- Psychosexual counselling
- Lubricants and moisturisers
- Topical estrogens
- Ospemifene
- Testosterone
- DHEA
- Tibolone
Psychosexual counselling

- Qualified practitioner
- Behavioural programme
- Regular assessment
Lubricants and moisturisers/oestrogens

- Lubricants and moisturisers
- Water based
- Bioadhesive moisturisers
- On prescription
Topical low dose estrogens

• Preparations include estradiol-containing tablets and rings; estriol pessaries, creams and ovules; promestriene and conjugated estrogens.
• They can be used alone or combined with systemic HT.
• As well as increasing the Vaginal Maturation Index, estrogen lowers vaginal pH, increases subepithelial capillary growth, thickens the epithelium, raises the level of vaginal secretions, increases the transvaginal potential difference and reduces autonomic and sensory vaginal innervation density.
• There is no need to add a progestogen for endometrial protection when topical estrogens are used in the recommended doses.
• With regard to duration of use, recommendations vary between preparations, but vaginal atrophy is a chronic condition and will recur on cessation of treatment.

Ospemifene (approved FDA 2013)

- Multicenter phase 3 RCT ospemifene 60 mg/day versus placebo n=605 for 12 weeks.
- One year safety data: no endometrial cancer or hyperplasia, no VTE or pelvic organ prolapse, most common side effect hot flushes (discontinuation rate 1.6%)
- Boxed warning re endometrial stimulation, stroke and VTE

- http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm341128.htm
Androgen treatments

- To be considered alongside psychosexual counselling or sex therapy
- Oral treatments: Testosterone, Dehydroepiandrosterone (DHEA), Tibolone
- Parenteral treatments: Testosterone implants, Intramuscular testosterone
- Transdermal treatments: Transdermal testosterone patches (TTP), Transdermal gels
Oral

• A Cochrane review of studies using either methyl-testosterone or testosterone undecanoate combined with oral estrogens versus estrogen-alone therapy. Two of these studies were undertaken with women who had hysterectomies/oophorectomies.

Results conflicting


- seven randomised controlled trials, in which the dosages were highly variable (50mg up to 1600mg per day) and treatment lasted between 2 weeks and 12 months.
- All the studies were placebo controlled and the majority of participants were postmenopausal. Two studies included pre- and perimenopausal women.
- A positive effect on female sexual function was reported in only three studies.
- The reviewers commented that these trials were characterised by small sample size, inadequate study power and measurement of sexual functioning by non-validated instruments.
- BUT vaginal DHEA may improve vaginal atrophy

Systematic review.

Interpretation of the data was limited by inadequate sample size and short treatment duration of available studies with inconsistent results.

The more recent randomized controlled trials do not support a benefit of oral DHEA therapy for women.

A possible benefit is that vaginally administered DHEA may improve vaginal atrophy with concomitant improvements in sexual function in postmenopausal women.
Tibolone

- A multicentre, double-blind, RCT compared over 24 weeks the efficacy on sexual function of tibolone (2.5mg) and that of continuous combined transdermal estradiol (E2)/norethisterone acetate (NETA) (50μg/140μg) in 403 naturally postmenopausal women, mean age 56 with FSD.

- The Female Sexual Function Index (FSFI) and the Female Sexual Distress Scale (FSDS) and the frequency of satisfying sexual events (daily diaries) were assessed.

- Both therapies improved sexual function as assessed by the FSFI. In the per protocol analysis, but not in the intent-to-treat analysis, the increase in FSFI scores was significantly larger in the tibolone group than in the E2/NETA patch group at week 24. The frequency of satisfying sexual events increased from three to four times per 28 days at week 24, but with no difference between groups. The FSDS score decreased significantly (indicating clinical improvement) from baseline in the two treatment groups.
Testosterone implants

• Four blinded studies of testosterone plus estrogen versus estrogen-only implants, involving a total of 111 postmenopausal women. All women reported loss of or low libido before the study. In one study women specifically seeking therapy for low libido were excluded from randomisation as it was considered unethical for them to be randomised to the estradiol-only group and deprive such women of testosterone. In the three other studies there were significant improvements in sexual interest and responsiveness (two used analogue scales and the other a validated inventory to measure this).

• Davis et al. Maturitas. 1995;21:227–236
Testosterone implants now withdrawn
Intramuscular testosterone

- A placebo-controlled study of 53 oophorectomised women showed that an intramuscular testosterone/estrogen combination resulted in significantly greater sexual desire and arousal than estrogen alone or placebo over 3 months

Transdermal testosterone patches (TTP)

- Placebo controlled studies in oophorectomised and naturally menopausal women who were either taking concomitant oestrogen or not.
- May be effective
- Is an increase of one sexual act per month compared with placebo clinically meaningful
- Not approved by the FDA
- Now no longer available
• **Clinical Meaningfulness of the Efficacy Results.**

  • Although both of the two major Phase 3 double blind, placebo controlled trials supporting this application found TTS to be statistically significantly superior to placebo in the primary and two major secondary endpoints studied, it is not clear that the differences identified are clinically meaningful.

  • For example, for the primary endpoint of change in number of satisfying sexual events from baseline, the mean observed difference between the increase in the TTS arm and the increase in the placebo arm was an approximate difference of one more event per 4 weeks in the TTS arm.
Intrinsa patch

• Was authorized hysterectomised oophorectomised women taking estrogen.
• In August 2010 an application was made to the European Medicine’s Agency in order to extend the licence of Intrinsa to broaden the patient population in order to include menopausal women experiencing a low libido but the application was withdrawn.
• Withdrawn in 2012 for commercial reasons
Nathorst Boos et al Treatment with per cutaneous testosterone gel in post menopausal women with decreased libido-effects on sexuality and psychological well-being. *Maturitas*. 2006;53:11–18

- A placebo-controlled randomised crossover study tested 10mg testosterone gel per day in 53 postmenopausal women with low libido who were already taking estrogen–progestogen HRT.
- Addition of the gel increased a wide range of sexual functions, including desire
- BUT current gels are in male doses
Testosterone therapy in women: Myths and misconceptions.
Glaser and Dimitrakakis Maturitas 2013;74:230-234

- T is the most abundant biologically active female hormone,
- T is essential for physical and mental health in women,
- T is not masculinizing,
- T does not cause hoarseness,
- T increases scalp hair growth,
- T is cardiac protective,
- parenteral T does not adversely affect the liver or increase clotting factors,
- T is mood stabilizing and does not increase aggression,
- T is breast protective,
- and the safety of T therapy in women is under research and being established.
Sexually transmitted infections

• Never too old for a sexual infection, the menopause does not protect.
• STIs increasing in older people but numbers small
• Changing relationships/internet dating
• STI symptoms can mimic UGA eg pain, itching, PCB
Conclusions

• Sexual problems are common
• Consideration should be given to routinely asking women if they have any sexual concerns, especially those at high risk. These include women who have premature surgical menopause, urogenital atrophy, depression or a history of sexual abuse.
• Treatment should be based upon clinical symptoms and may be long term.
• Treatment of women with sexual desire and arousal problems should be individually tailored and may include psychosexual therapy, estrogen, testosterone or tibolone.
• Do not forget STIs